3R – 429

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-429, 2014 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed is the 2014 Annual Groundwater Monitoring Report for the Martin 34 No. 2 site. This report, prepared by Conestoga-Rovers & Associates (CRA), contains the results of groundwater monitoring from March, June, and September 2014.

Please let me know if you have any questions.

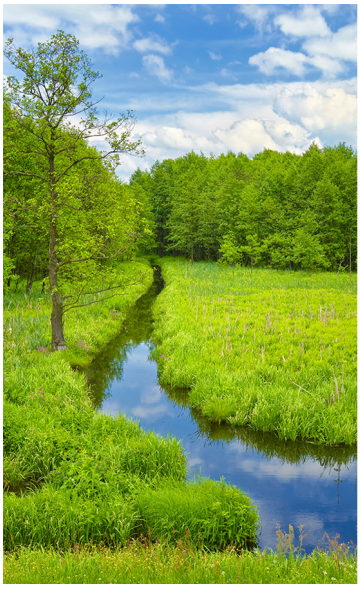
Sincerely,

Rick Greiner

Enc

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com



2014 Annual Groundwater Monitoring Report

ConocoPhillips Martin 34 No. 2
San Juan County, New Mexico
API# 30-045-08934
NMOCD# 3R-429

Prepared for: ConocoPhillips Company

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

March 2015 • 075035 • Report No. 5

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Section 1.0 Introduction

This report details the results of quarterly groundwater monitoring events conducted by Conestoga-Rovers & Associates, Inc. (CRA) on March 19, June 17, and September 17, 2014 at the ConocoPhillips Company (ConocoPhillips) Martin 34 No. 2 natural gas well site (Site). The Site is located in Section 34, Township 30N, Range 11W, San Juan County, New Mexico, near the intersection of US Highway 550 and Utah Road. A Site vicinity map is included as **Figure 1**.

1.1 Site Background

The properties in the vicinity of the Site are privately owned. The historical summary for the Site is detailed below, and is also included as **Table 1**.

Hydrocarbon impacts were discovered during production equipment upgrade and relocation activities at the Site during December 2010. During remedial excavation activities conducted in January 2011, Brandon Powell of the NMOCD requested that the excavation of the hydrocarbon impacted area be extended from 25 feet below ground surface (bgs) to 30 feet bgs in order to continue vertical delineation of soil impacts. Final excavation dimensions measured approximately 30 feet by 75 feet by 30 feet deep when the practical extent of excavation was reached. Analytical results from confirmation soil samples collected by Envirotech, Inc. (Envirotech) from the north wall and both the north and south bottoms of the excavation indicated hydrocarbon concentrations exceeding NMOCD Site soil action limits. The excavation was subsequently backfilled.

On March 1st and 2nd, 2011, Tetra Tech, Inc. (Tetra Tech) supervised the completion of three soil borings, B-1, B-2 and B-3 (see **Figure 2**), using a truck-mounted, direct-push Geoprobe® rig to conduct soil and groundwater sampling in and around the former excavation. Groundwater was encountered at approximately 40 feet bgs in boring B-2 located up-gradient and in B-3 located down-gradient of the former condensate tank location. The saturated interval in soil borings B-2 and B-3 corresponded with a slightly damp interval in boring B-1 located in the center of the former excavation. Because the interval was slightly damp, not wet in B-1, it was not considered water-bearing at the time of advancement. The Geoprobe® rig encountered refusal at a hard, dense, dry clay layer directly below the damp interval in this boring. Photo-ionization detector (PID) results decreased from 1,315 parts per million (ppm) in the interval above the dry clay to 20 ppm in the dry layer.

Analytical results for the groundwater samples collected from the water-bearing zones of B-2 and B-3 exceeded the New Mexico Water Quality Control Commission (NMWQCC) standards

for chloride, benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on these results, it was determined that further investigation was needed at the Site.

On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM.

To further investigate hydrocarbon impacts to soil and groundwater, CRA supervised the installation of four two-inch diameter groundwater monitoring wells (MW-1, MW-2, MW-3 and MW-4), between July 19th and 22nd, 2011. A baseline groundwater monitoring event was conducted by CRA on July 27th, 2011. On September 30th, 2011 CRA conducted the first quarterly groundwater monitoring event at the Site. Based on analytical results from the baseline and first quarterly groundwater monitoring events, it was concluded that further investigation was necessary. Total dissolved solids (TDS) concentrations in groundwater of wells MW-1, MW-2, MW-3 and MW-4 were in excess of 10,000 parts per million (ppm).

Between November 9th and 10th, 2011, JR Drilling, LLC (JR Drilling) of Edgewood, New Mexico advanced soil borings B-4, B-5, B-6, and B-7 at the Site under the supervision of CRA using a truck-mounted, direct push, Geoprobe® rig. Soil borings B-4 and B-5 were advanced on November 9th, 2011 to total depths of 47 feet below ground surface (bgs) and 56.5 feet bgs, respectively. The first observation of groundwater in boring B-4 was recorded at 44 feet bgs. In boring B-5, the first observation of groundwater was recorded at a depth of 52 feet bgs. Borings B-6 and B-7 were advanced on November 10th, 2011 to total depths of 30.5 feet bgs and 38 feet bgs, respectively. Direct push advancement was terminated due to refusal in borings B-6 and B-7 at the completion depth. Groundwater was not encountered in borings B-6 or B-7.

Soil samples were collected from all four soil borings either from the interval directly above groundwater or the deepest interval if groundwater was not encountered. Soil samples collected from B-4, B-5, B-6, and B-7 indicated concentrations below laboratory detection limits and below NMOCD recommended remedial action limits (RRALs) for BTEX, total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and TPH diesel range organics (DRO).

Groundwater samples from both B-4 and B-5 indicated concentrations below method detection limits and NMWQCC standards for BTEX, 1,1,2,2–tetrachlorethane, methylene chloride, and naphthalene. Concentrations of fluoride, sulfate, dissolved boron, and TDS were above NMWQCC standards in groundwater from B-4 and B-5. Groundwater from B-5 also contained concentrations of chloride and dissolved manganese above NMWQCC standards.

Between November 28th and December 1st of 2011, CRA supervised the installation of three additional groundwater monitoring wells at the Site, MW-5, MW-6 and MW-7. Soil samples

were collected for laboratory analysis from all three of the monitoring well soil borings. Results for all soil samples had concentrations of BTEX, TPH-GRO, and TPH-DRO at levels below NMOCD RRALs except for the sample collected from MW-6 from 55 to 57 feet bgs, which contained a concentration for total BTEX of 100.74 milligrams per kilogram (mg/kg) and a total TPH concentration of 2304 mg/kg. The NMOCD recommended site-specific soil action limits for total BTEX and total TPH are 50 mg/kg and 100 mg/kg, respectively.

During the drilling of MW-5 it was noted that the water-bearing zone was different than in other areas. It was located at approximately 47 feet bgs, was approximately two feet thick, and was underlain by dry, dense, brown shale. Following monitoring well installation, only 0.9 feet of water accumulated in the well overnight. TDS concentrations in groundwater of wells MW-5, MW-6, and MW-7 were in excess of 10,000 ppm.

On July 18, 2013, CRA supervised the installation of an additional up-gradient monitoring well (MW-8) in order to further assess background conditions at the Site. MW-8 was installed to a total depth of 55 feet bgs. Groundwater samples collected from MW-8 following installation were non-detect for all organic constituents of concern (COCs); however, inorganic COCs were detected at levels consistent with other Site monitoring wells. TDS concentrations in groundwater of up-gradient well MW-8 are in excess of 10,000 ppm.

A meeting was held with the New Mexico Oil Conservation Division (NMOCD) on October 30, 2014 to discuss Site conditions. Because all Site monitoring wells, including the most recently installed up-gradient well MW-8, have concentrations of TDS well in excess of 10,000 ppm, CRA requested Site closure be granted. The NMOCD representative, Jim Griswold, agreed Site closure was warranted and would look at formal request for closure. A groundwater monitoring event was not conducted during December of 2014 pending this Site closure request.

Boring logs from monitoring well installations were used to create generalized geologic cross sections for the Site which are presented as **Figures 3** and **4**.

Section 2.0 Groundwater Monitoring Summary, Sampling Methodology and Results

2.1 Groundwater Monitoring Summary

Quarterly groundwater quality monitoring events were conducted on March 19, June 17, and September 17, 2014. Prior to collection of groundwater samples from Site monitoring wells,

depth to groundwater in each well was determined using an oil/water interface probe. Potentiometric surface maps are presented as Figures 5, 6, and 7. These data show that the groundwater gradient at the site is to the south. A summary of groundwater elevation data is included in **Table 2**.

It should be noted that stratigraphic correlation is poor between MW-5 and other Site monitoring wells. For this reason, the groundwater elevation for MW-5 was not included in the groundwater potentiometric surface maps.

2.2 Groundwater Sampling Methodology

During the quarterly groundwater monitoring events, Site monitoring wells were either bailed dry and allowed to recharge, or purged of at least three casing volumes of groundwater using a 1.5-inch diameter, dedicated, polyethylene bailer.

While bailing each monitoring well, groundwater parameters, including temperature, pH, conductivity, oxidation/reduction potential, and total dissolved solids (TDS), were measured using a calibrated multi-parameter meter. Parameters were recorded along with general observations such as color, odor, and clarity. Field parameters are summarized in **Table 3**.

All groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain of custody documentation to Pace Analytical Services, Inc. of Lenexa, Kansas for analysis. Groundwater samples were analyzed for VOCs by EPA Method 5030B/8260; Chloride, Fluoride, and Sulfate by EPA Method 300.0; TDS by SM 2540C; and dissolved iron, dissolved boron, and dissolved manganese by EPA Method 6010.

2.3 2014 Groundwater Monitoring Results

The NMWQCC mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use. Exceedances of NMWQCC groundwater quality standards in Site monitoring wells during 2014 quarterly groundwater monitoring events are discussed below. The corresponding laboratory analytical reports for 2014 quarterly sampling events, including quality control documentation, are included in **Appendix A**. Groundwater benzene concentration maps for each sampling event are included as **Figures 8, 9,** and **10**. A summary of all groundwater analytical data is included as **Table 4** and discussed below.

Benzene

The groundwater quality standard for benzene is 0.010 milligrams per liter (mg/L). Groundwater samples collected from MW-1, MW-2, and MW-5 contained concentrations of benzene greater than the NMWQCC standard during all three 2014 monitoring events. Groundwater samples collected from Monitoring Well MW-7 exceeded the standard for benzene during the March and June 2014 event. The sample collected from MW-6 during June exceeded the standard for benzene during the June 2014 event.

Toluene

The groundwater quality standard for toluene is 0.750 mg/L. Groundwater samples collected from Monitoring Well MW-1 contained concentrations of toluene greater than the NMWQCC standard during all three 2014 quarterly monitoring events.

Xylenes

The groundwater quality standard for total xylenes is 0.620 mg/L. Groundwater samples collected from MW-1 and MW-6 contained total xylenes at concentrations greater than the NMWQCC standard during all three 2014 quarterly monitoring events.

Methylene Chloride

The groundwater quality standard for methylene chloride is 0.1 mg/L. Groundwater samples collected from MW-1 during the June 2014 monitoring event contained methylene chloride at a concentration greater than the NMWQCC standard.

Naphthalene

The groundwater quality standard for naphthalene is 0.030 mg/L. Groundwater samples collected from Monitoring Well MW-1 contained concentrations of naphthalene greater than the NMWQCC standard during all three 2014 quarterly monitoring events.

Dissolved Boron

The groundwater quality standard for dissolved boron is 0.75 mg/L. Groundwater samples collected from Monitoring Wells MW-1, MW-4, and MW-5 contained dissolved boron at concentration greater than the NMWQCC standard during all three quarterly 2014 events. Samples collected from wells MW-2, MW-3, MW-7, and MW-8 exceeded the standard for dissolved boron during both the March and September 2014 events. Groundwater collected from one well, MW-6 had a dissolved boron concentrations greater than the NMWQCC standard only during the March 2014 monitoring event.

Dissolved Manganese

The groundwater quality standard for dissolved manganese is 0.2 mg/L. Groundwater samples collected from Monitoring Wells MW-2, MW-4, MW-5, MW-6, MW-7, and MW-8 contained dissolved manganese in concentrations greater than the NMWQCC standard during all three 2014 quarterly monitoring events. Samples collected from MW-1 also had concentrations greater than the standard during both the March and June 2014 events. Groundwater collected from W-3 had a dissolved manganese concentration greater than the NMWQCC standard only during the September 2014 monitoring event.

Dissolved Iron

The groundwater quality standard for dissolved iron is 1.0 mg/L. Groundwater samples collected from Monitoring Well MW-2 contained dissolved iron at concentrations greater than the NMWQCC standard during all three 2014 monitoring events. Groundwater collected from MW-7 contained dissolved iron above standard during both the March and June 2014 events Groundwater collected from one well, MW-5 had a dissolved iron concentration greater than the NMWQCC standard only during the March 2014 monitoring event.

Fluoride

The groundwater quality standard for fluoride is 1.6 mg/L. Groundwater samples collected from Monitoring Wells MW-4 and MW-7 were found to contain fluoride in concentrations greater than the NMWQCC standard during the March 2014 monitoring event.

Chloride

The groundwater quality standard for chloride is 250 mg/L. Groundwater samples collected from Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-6, and MW-8 were found to contain chloride in concentrations greater than the NMWQCC standard during all three 2014 monitoring events. Groundwater samples collected from MW-7 contained chloride greater than the standard during both the March and June 2014 events.

Sulfate

The NMWQCC groundwater quality standard for sulfate is 600 mg/L. Groundwater samples collected from all Site monitoring wells contained sulfate in concentrations greater than the standard during all three 2014 monitoring events.

Total Dissolved Solids

The NMWQCC groundwater quality standard for TDS is 1,000 mg/L. Groundwater samples collected from all Site monitoring wells were found to contain TDS concentrations greater than the standard during all three 2014 monitoring events.

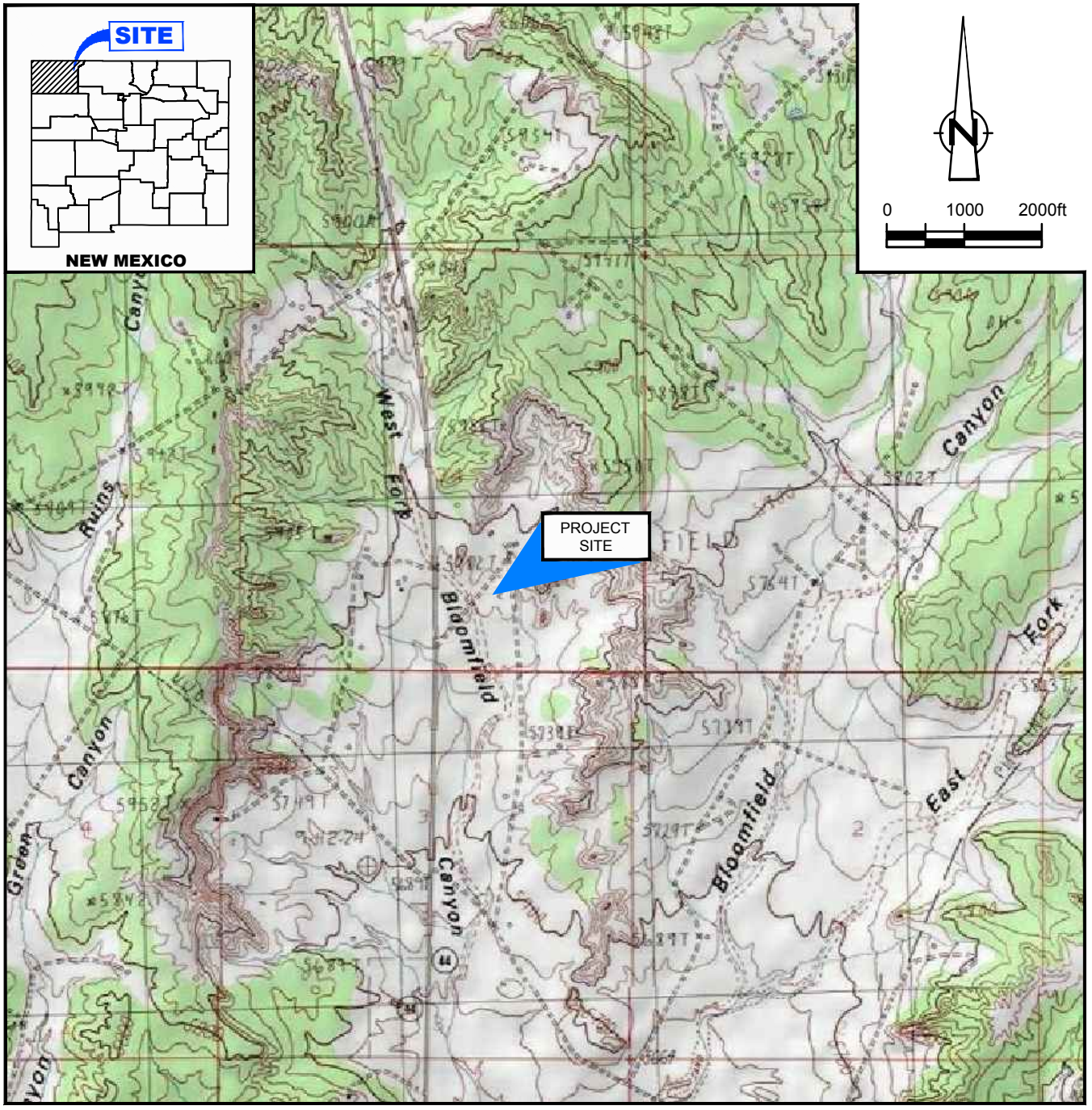
Section 3.0 Conclusions and Recommendations

CRA conducted quarterly groundwater monitoring events during March, June, and September, 2014 at the Martin 34 No. 2 site.

On July 18, 2013, CRA supervised the installation of an additional up-gradient monitoring well (MW-8) in order to further assess groundwater quality up-gradient from the Site. Groundwater samples collected from MW-8 since it's installation have been non-detect for all organic COCs; however, inorganic COCs have been reported at levels consistent with other Site monitoring wells, suggesting that the presence of inorganic COCs at the Site are background.

Furthermore, groundwater from all Site monitoring wells, including all three monitoring wells installed up-gradient of the release point, MW-4, MW-5 and MW-8, have consistently contained TDS at concentrations exceeding 10,000 mg/L since well installation, including all three sampling events during 2014. New Mexico Administrative Code 20.6.2.3101 defines protected groundwater as "groundwater of the state of New Mexico which has an existing concentration of 10,000 mg/L or less TDS." Based on this definition of protected groundwater, CRA proposes remediation site closure at the Martin 34 No. 2 natural gas well site.

Figures



SOURCE: USGS 7.5 MINUTE QUAD
"AZTEC AND BLOOMFIELD, NEW MEXICO"

LAT/LONG: 36.7638° NORTH, 107.9762° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO WEST

Figure 1

SITE VICINITY MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SEC 12, T27N, R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL001 OCT 10/2014

RE: NAIP Aerial Photograph

Figure 2

SITE DETAIL MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

CRA

075035-95(005)GN-DL002 OCT 10/2014

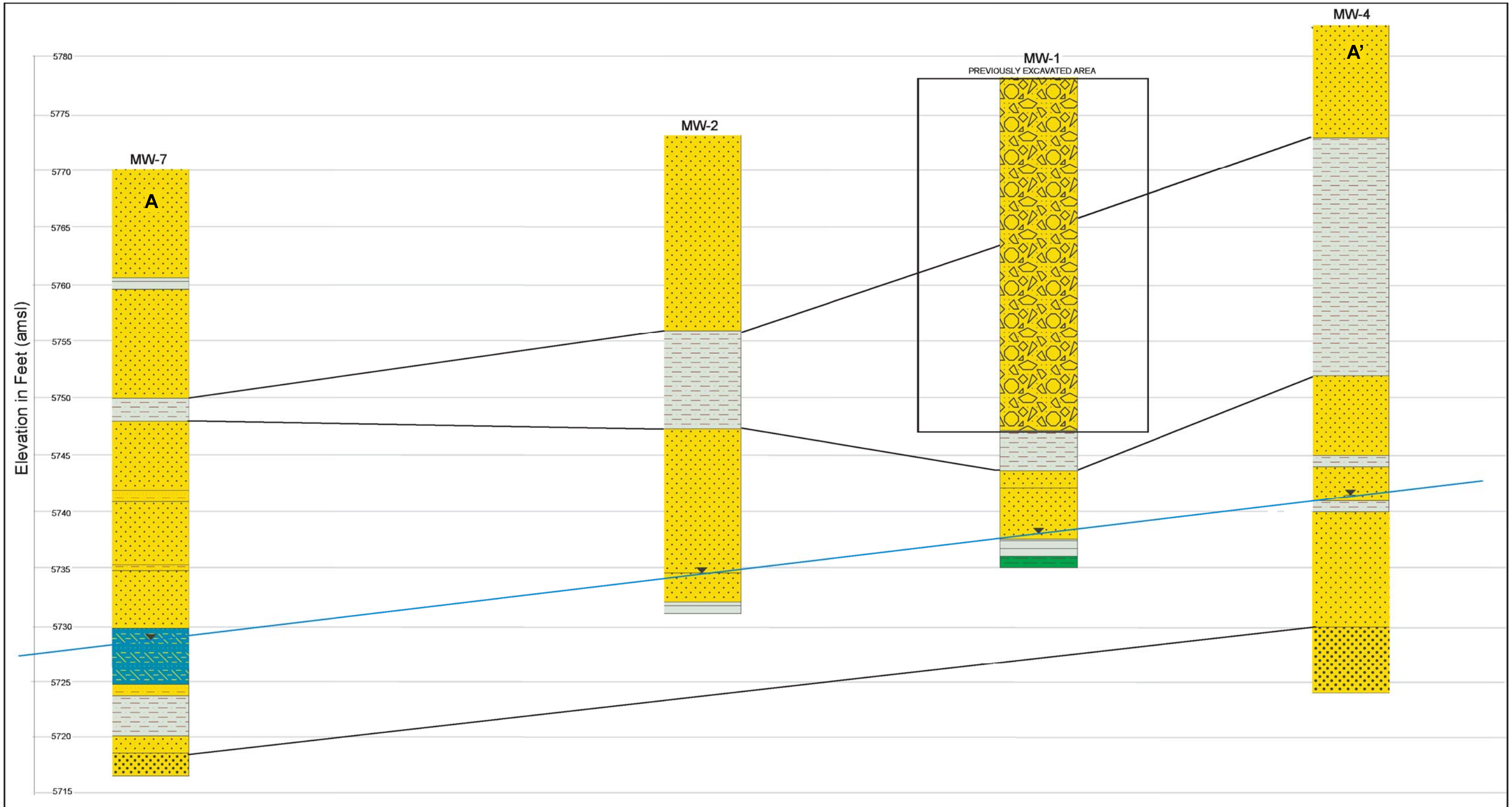


Figure 3
GENERALIZED GEOLOGIC CROSS SECTION A - A'
MARTIN 34 NO. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips company

LEGEND

- Clean Fill
- Sand
- Sand and Silt
- Silt
- Clay
- Clay and Sand
- Shale
- Sandstone
- Groundwater

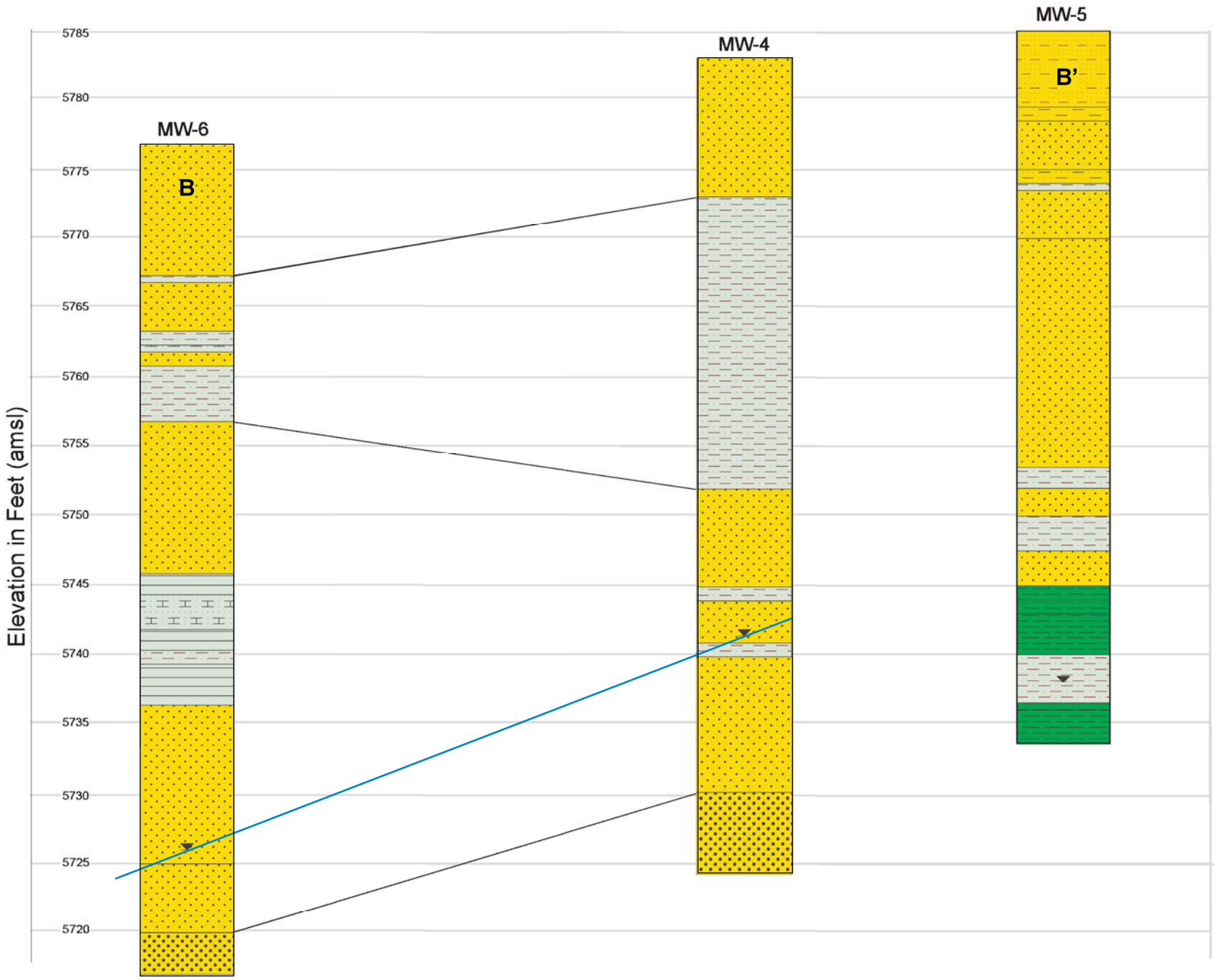


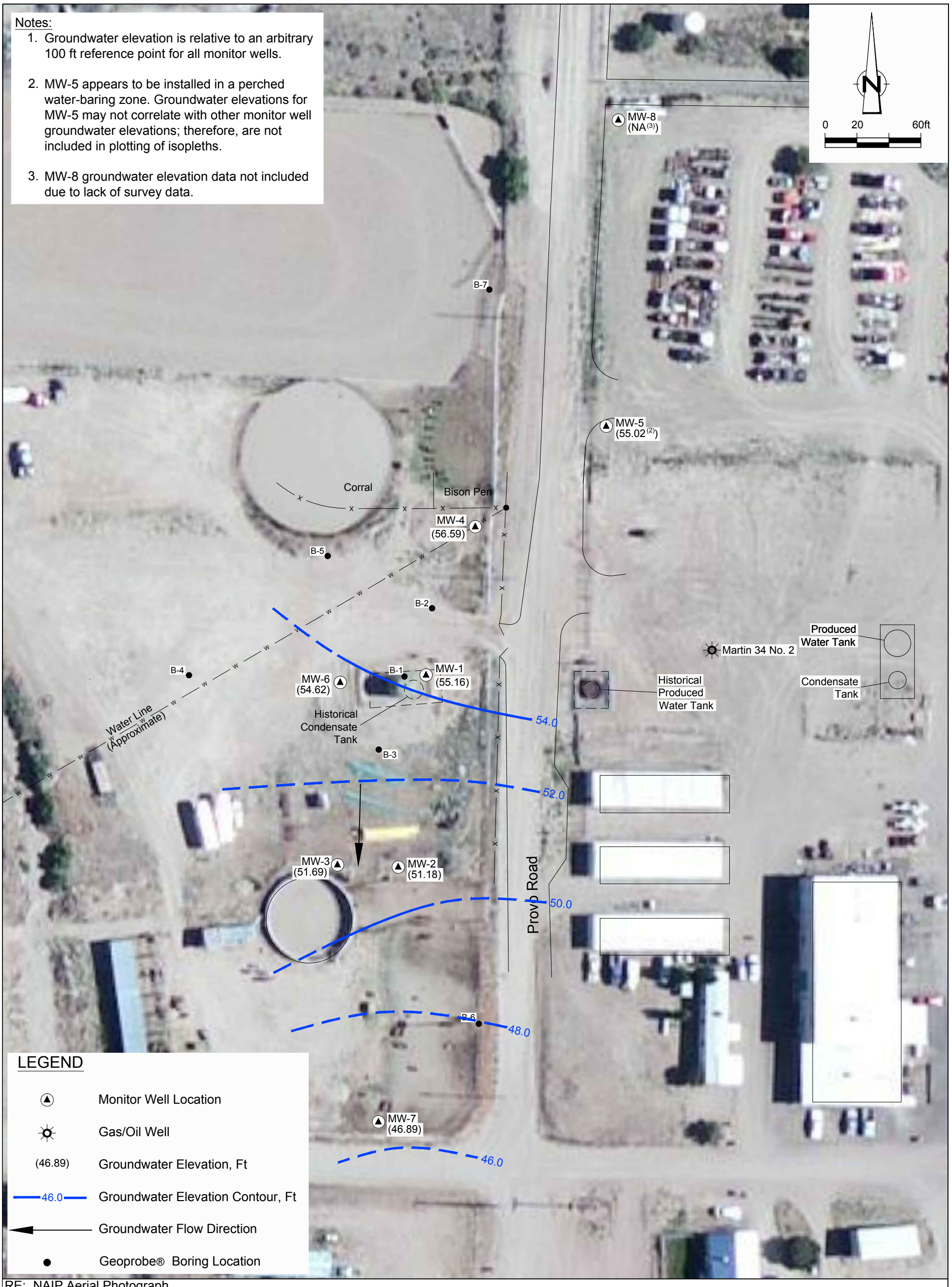
Figure 4
GENERALIZED GEOLOGIC CROSS SECTION B - B'
MARTIN 34 NO. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips company

LEGEND

- Sand and Silt
- Sand
- Silt
- Clay
- Shale
- Sandstone
- Groundwater

Notes:

1. Groundwater elevation is relative to an arbitrary 100 ft reference point for all monitor wells.
2. MW-5 appears to be installed in a perched water-baring zone. Groundwater elevations for MW-5 may not correlate with other monitor well groundwater elevations; therefore, are not included in plotting of isopleths.
3. MW-8 groundwater elevation data not included due to lack of survey data.



RE: NAIP Aerial Photograph

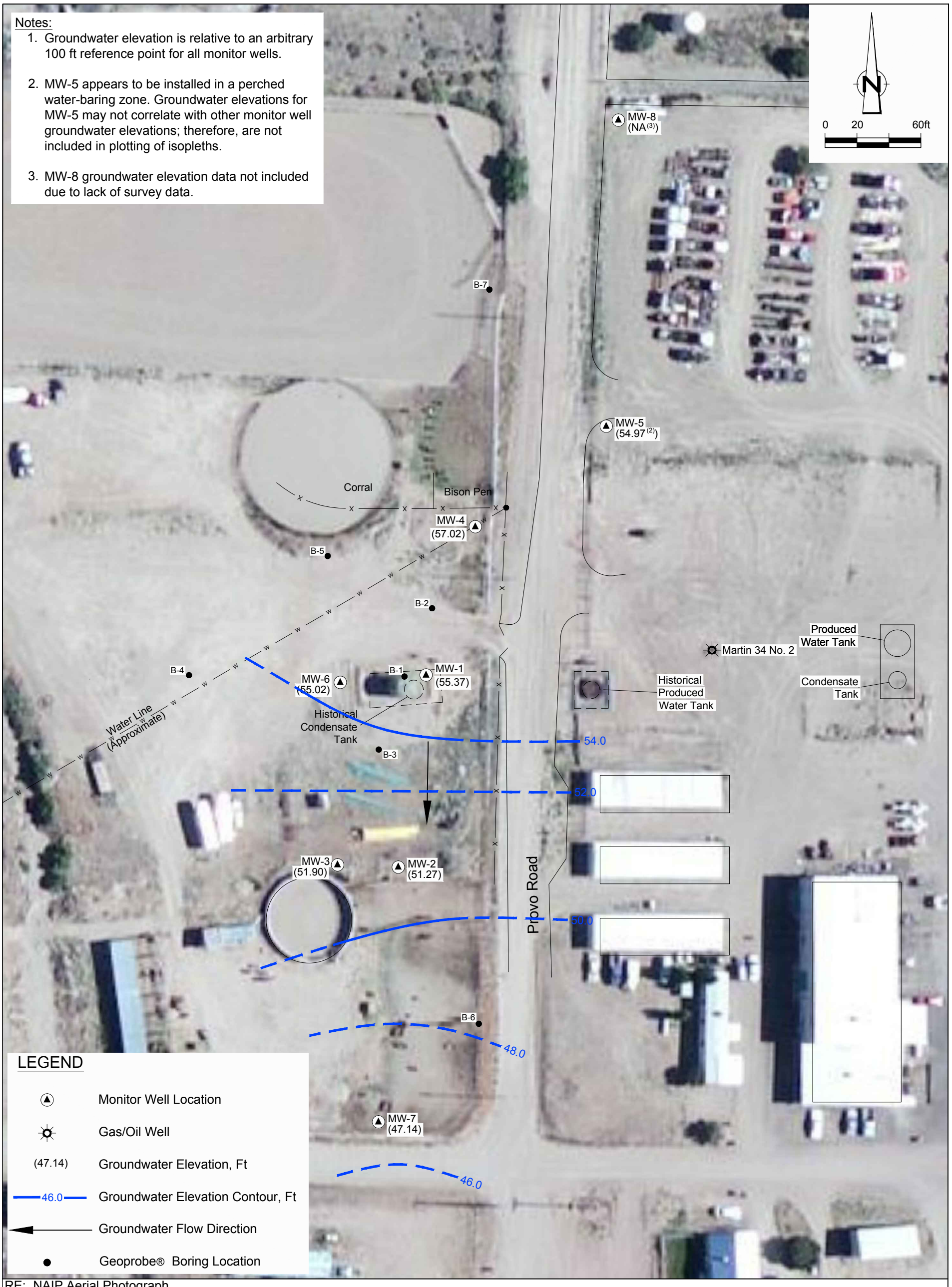
Figure 5

MARCH 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL003 OCT 28/2014

Notes:

1. Groundwater elevation is relative to an arbitrary 100 ft reference point for all monitor wells.
2. MW-5 appears to be installed in a perched water-baring zone. Groundwater elevations for MW-5 may not correlate with other monitor well groundwater elevations; therefore, are not included in plotting of isopleths.
3. MW-8 groundwater elevation data not included due to lack of survey data.



RE: NAIP Aerial Photograph

Figure 6

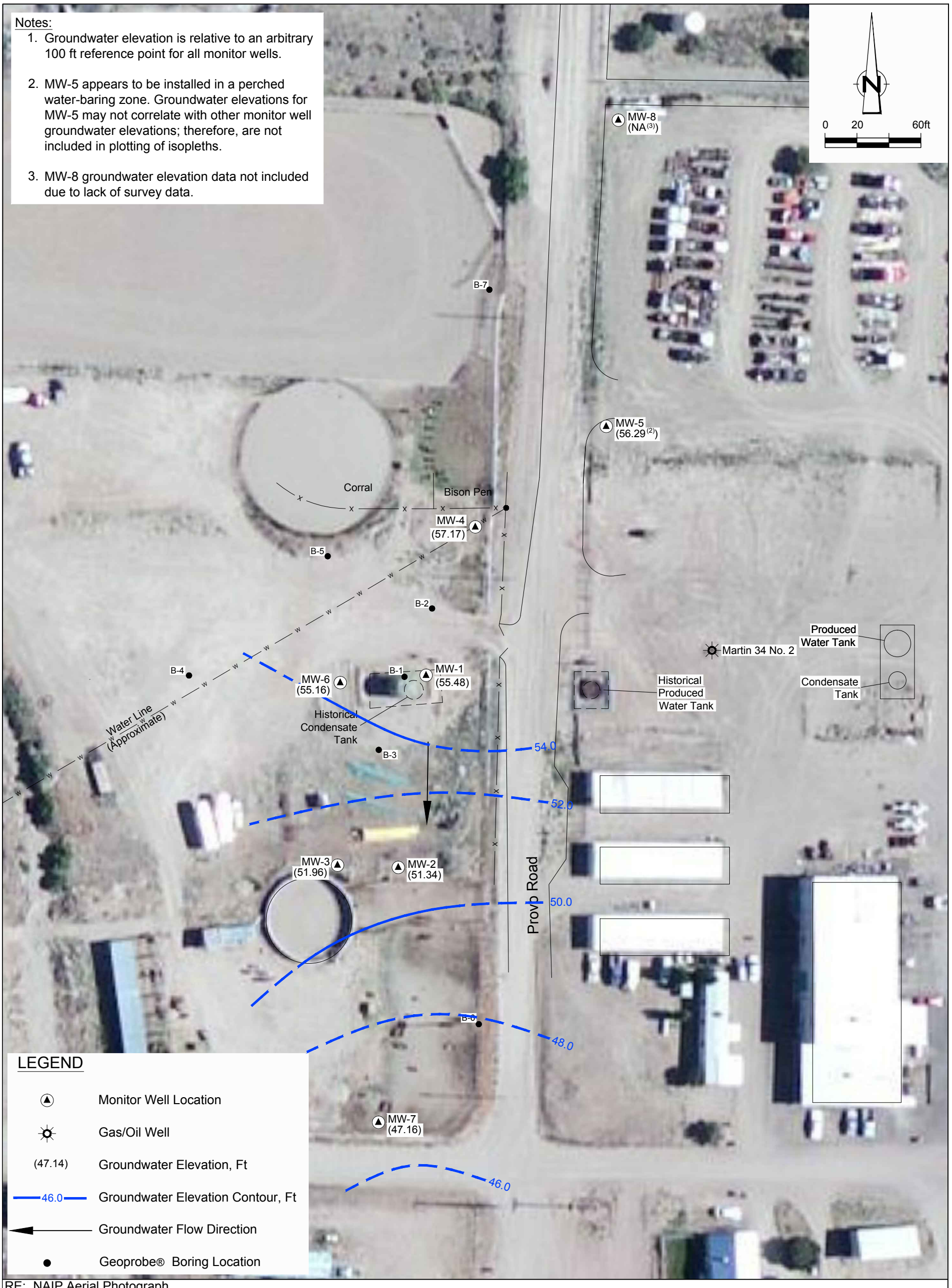
JUNE 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

CRA

075035-95(005)GN-DL003 OCT 28/2014

Notes:

1. Groundwater elevation is relative to an arbitrary 100 ft reference point for all monitor wells.
2. MW-5 appears to be installed in a perched water-baring zone. Groundwater elevations for MW-5 may not correlate with other monitor well groundwater elevations; therefore, are not included in plotting of isopleths.
3. MW-8 groundwater elevation data not included due to lack of survey data.

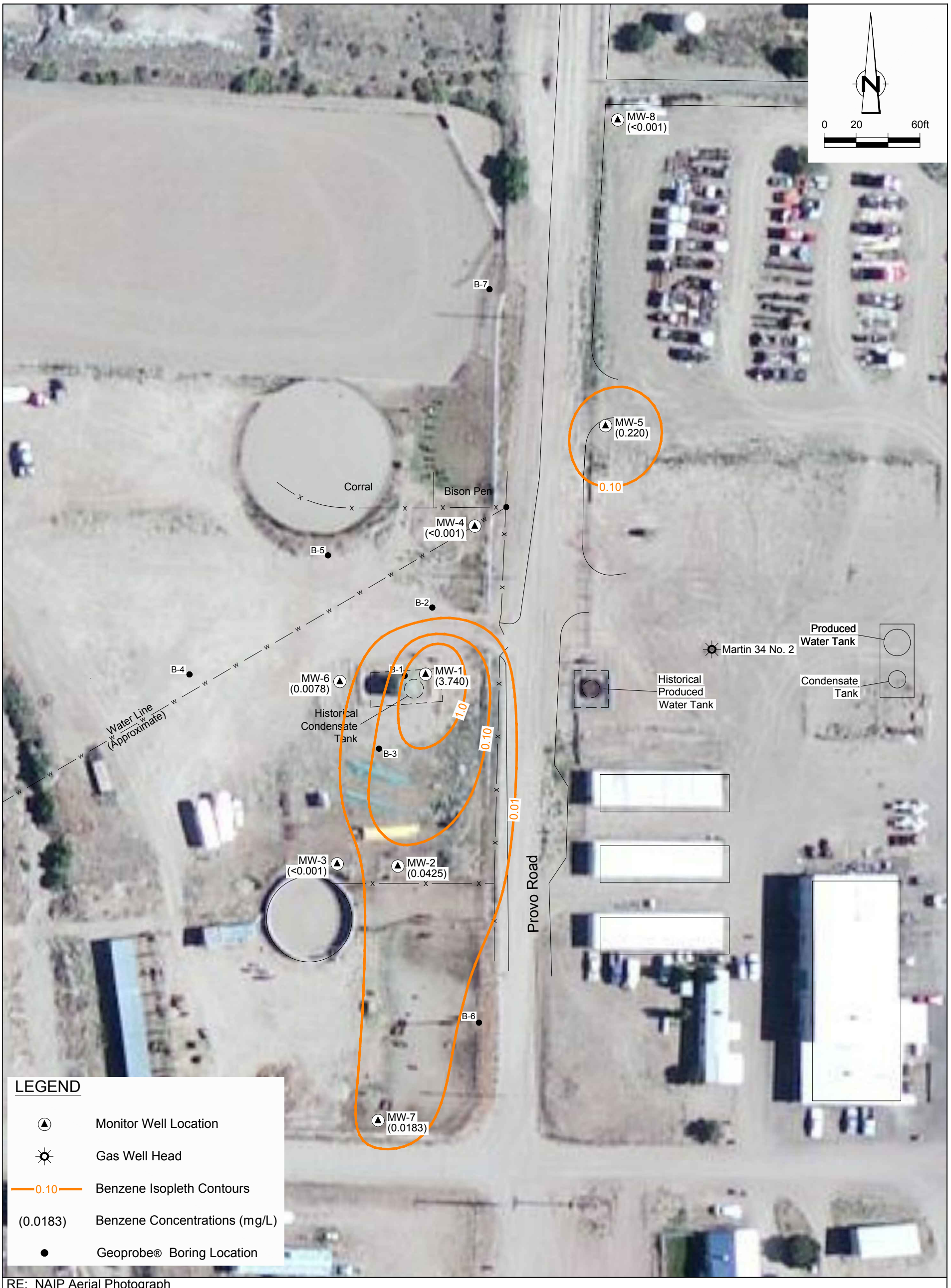


RE: NAIP Aerial Photograph

Figure 7

SEPTEMBER 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL003 OCT 28/2014

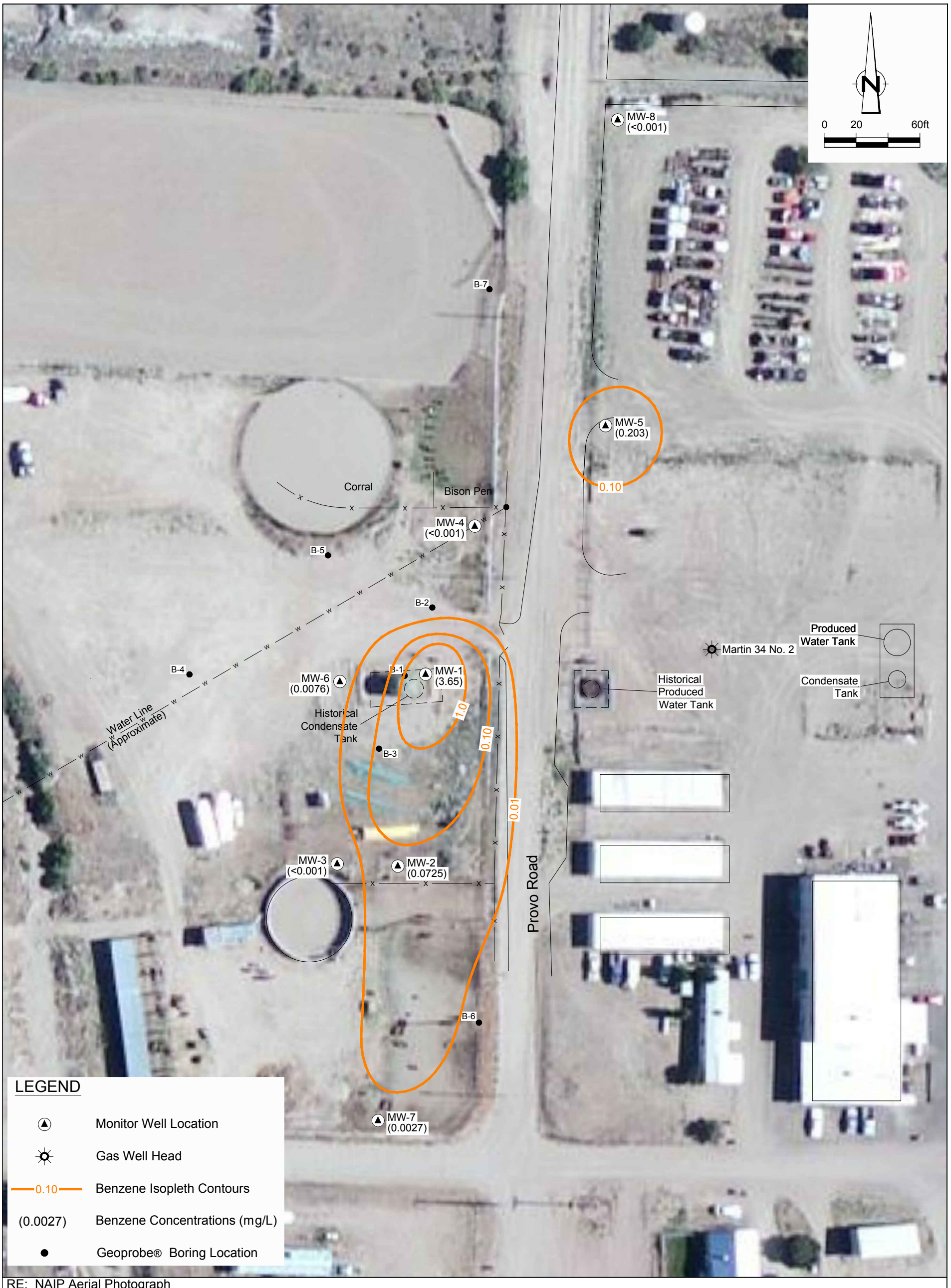


RE: NAIP Aerial Photograph

Figure 8

MARCH 2014 BENZENE CONCENTRATION MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL004 JAN 17/2015

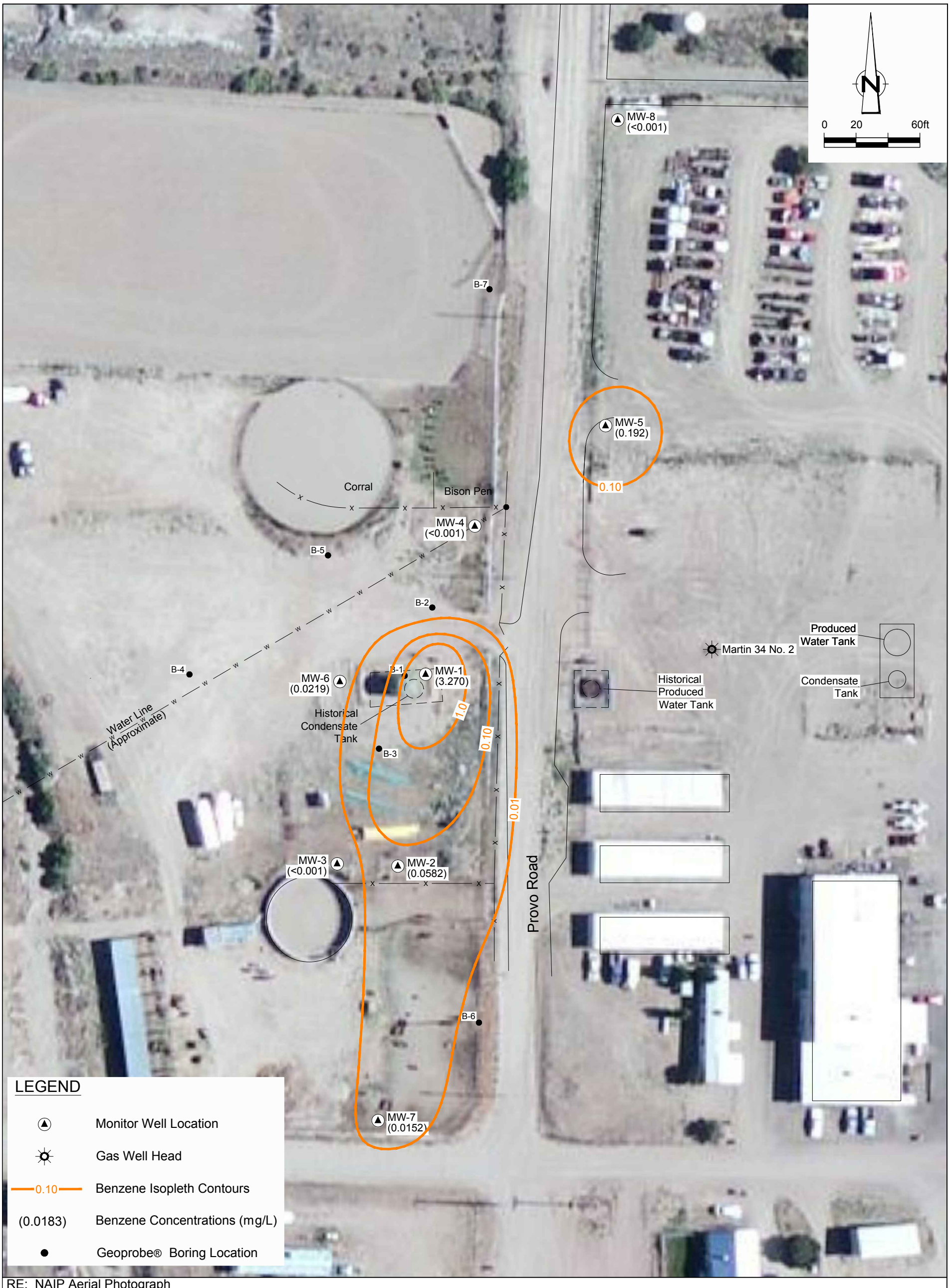


RE: NAIP Aerial Photograph

Figure 10

SEPTEMBER 2014 BENZENE CONCENTRATION MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL004 JAN 17/2015



RE: NAIP Aerial Photograph

Figure 9

JUNE 2014 BENZENE CONCENTRATION MAP
MARTIN 34 No. 2 GAS WELL REMEDIATION SITE
SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

075035-95(005)GN-DL004 JAN 17/2015

Tables

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	Event/Action	Description/Comments
December 3, 2010	Initial Site Assessment	ConocoPhillips removed the above ground production tank. The landowner subsequently discovered hydrocarbon-stained soil in the vicinity of the former tank while regrading the area. ConocoPhillips obtained samples of the soil following notification from the landowner.
December 6, 2010	Analytical Results	Laboratory analytical results from soil samples collected on December 3, 2010 revealed hydrocarbons in excess of regulatory standards.
January 12 through 24, 2011	Soil Excavation	Excavation of soil and confirmatory sampling was conducted in the location of the former production tank. Brandon Powell of the New Mexico Oil Conservation Division (NMOCD) requested on January 20th that the excavation be continued to a depth of 30 feet below ground surface (bgs) from a depth of 25 feet bgs. Final excavation dimensions were approximately 60 ft long by 75 feet wide by 30 feet deep. Analytical results from the final round of confirmation sampling of the excavated area indicated that the north wall and both north and south bottom areas of the excavation still contained hydrocarbons in excess of regulatory standards. The lateral extent of the excavation to the north was reached due to the proximity of a roadway. Continued lateral and vertical delineation by means other than excavation would be necessary.
January 31, 2011	Backfilling of Excavation	Backfilling of the excavation began in preparation for delineation by means of soil boring.
February 16, 2011	Meeting between ConocoPhillips and Tetra Tech, Inc.	Tetra Tech, Inc.(Tetra Tech) and ConocoPhillips made a site visit to discuss delineation plans and to meet with the property owner.
March 1 through 2, 2011	Deliniation of Impacts	Tetra Tech supervised the installation of three soil borings using a direct-push Geoprobe® rig. With the exception of the soil sample collected from 38-40 feet below ground surface (bgs) in the boring that was drilled in the area of the former tank, all laboratory soil samples collected were either below laboratory detection limits or below NMOCD recommended action levels. Groundwater was encountered in two borings, located upgradient and downgradient of the former tank, at approximately 40 feet bgs. The saturated interval in these two borings matched an interval that was damp, not wet, in the boring located in the area of the former tank. Groundwater samples collected from the two water-bearing borings exceeded the New Mexico Water Quality Control Commission (NMWQCC) standards for benzene and chloride.
July 18 through 22, 2011	Monitoring Well Installation	Conestoga Rovers and Associates (CRA) supervised the installation of four groundwater monitor wells at the Site. Hydrocarbon impacts to soil accompanied by a change in color from light tan/gray to dark gray were encountered at approximately 50 feet bgs in MW-4, the upgradient monitor well and at approximately 38 feet bgs in monitor well MW-2, the downgradient monitor well. Elevated photo-ionization detector (PID) readings were present in Monitor Well MW-1, located in the area of the former tank, from excavation bottom to a saturated seam at approximately 40 feet bgs. Laboratory analytical results on soil samples collected from MW-1, MW-2, and MW-4 were found to contain TPH and BTEX above NMOCD recommended action levels.
July 27, 2011	Baseline Groundwater Monitoring	CRA conducted a baseline groundwater monitoring event for Monitor Wells MW-1 through MW-4. Laboratory analytical results were found to contain BTEX, dissolved iron, dissolved managanese, dissolved boron, chloride, fluoride, sulfate, total dissolved solids (TDS), and naphthalene in exceedance of NMWQCC standards.
September 30, 2011	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
November 9 through November 10, 2011	Deliniation of Impacts	JR Drilling, under CRA supervision, advanced four soil borings using a direct-push Geoprobe® rig to further deliniate impacts.
November 28 through December 1, 2011	Monitoring Well Installation	CRA supervised the installation of three groundwater monitor wells at the Site. Hydrocarbon impacts to soil were noted during field screening of soil from both MW-5 and MW-6 borings. Laboratory analytical results on soil samples collected from MW-6 were found to contain TPH and BTEX above NMOCD recommended action levels.
December 13, 2011	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
March 8, 2012	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
June 6, 2012	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
September 25, 2012	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
December 19, 2012	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
March 20, 2013	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
June 13, 2013	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
July 18, 2013	Monitoring Well Installation	CRA supervised the installation of monitor well MW-8 at the Site.
September 12, 2013	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
December 19, 2013	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
March 19, 2014	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
June 17, 2014	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.
September 17, 2014	Quarterly Groundwater Monitoring	CRA conducted quarterly groundwater sampling.

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATION SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth 2" PVC Casing (ft bgs)*	*0.010" Slot Screen Interval (ft bgs)*	*TOC Elevation* (ft)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Groundwater Elevation*
MW-1	41	31 - 41	93.09	7/27/2011	40.45	52.64
				9/30/2011	40.23	52.86
			93.28	12/13/2011	39.23	54.05
				3/7/2012	39.09	54.19
				6/6/2012	39.12	54.16
				9/24/2012	39.30	53.98
				12/19/2012	39.11	54.17
				3/19/2013	39.18	54.10
				6/13/2013	39.06	54.22
				9/12/2013	38.87	54.41
				12/17/2013	38.50	54.78
				3/19/2014	38.12	55.16
				6/17/2014	37.91	55.37
				9/17/2014	37.80	55.48
MW-2	41.5	31.5 - 41.5	87.45	7/27/2011	37.68	49.77
				9/30/2011	37.68	49.77
			87.59	12/13/2011	37.51	50.08
				3/7/2012	37.36	50.23
				6/6/2012	35.46**	52.13**
				9/24/2012	37.60	49.99
				12/19/2012	37.28	50.31
				3/20/2013	37.36	50.23
				6/13/2013	37.24	50.35
				9/11/2013	37.12	50.47
				12/17/2013	36.55	51.04
				3/19/2014	36.41	51.18
				6/17/2014	36.32	51.27
				9/17/2014	36.25	51.34

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATION SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth 2" PVC Casing (ft bgs)*	*0.010" Slot Screen Interval (ft bgs)*	*TOC Elevation* (ft)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Groundwater Elevation*
MW-3	46	31 - 46	87.19	7/27/2011	36.95	50.24
				9/30/2011	36.98	50.21
			87.32	12/13/2011	36.70	50.62
				3/7/2012	36.57	50.75
				6/6/2012	36.67	50.65
				9/24/2012	36.80	50.52
				12/19/2012	36.48	50.84
				3/20/2013	36.60	50.72
				6/13/2013	36.43	50.89
				9/11/2013	36.30	51.02
				12/17/2013	35.70	51.62
				3/19/2014	35.63	51.69
				6/17/2014	35.42	51.90
				9/17/2014	35.36	51.96
MW-4	53	38 - 53	99.63	7/27/2011	44.37	55.26
				9/30/2011	44.40	55.23
			99.82	12/13/2011	44.18	55.64
				3/7/2012	44.09	55.73
				6/6/2012	44.09	55.73
				9/24/2012	44.25	55.57
				12/19/2012	44.16	55.66
				3/20/2013	44.32	55.50
				6/13/2013	44.14	55.68
				9/11/2013	43.97	55.85
				12/17/2013	43.55	56.27
				3/19/2014	43.23	56.59
				6/17/2014	42.80	57.02
				9/17/2014	42.65	57.17
MW-5	48.5	38.5 - 48.5	98.27	12/13/2011	47.61	50.66
				3/7/2012	45.61	52.66
				6/6/2012	44.60	53.67
				9/24/2012	44.60	53.67
				12/19/2012	45.43	52.84
				3/20/2013	43.76	54.51
				6/13/2013	44.13	54.14
				9/11/2013	45.02	53.25
				12/17/2013	44.45	53.82
				3/19/2014	43.25	55.02
				6/17/2014	43.30	54.97
				9/17/2014	41.98	56.29

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATION SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth 2" PVC Casing (ft bgs)*	*0.010" Slot Screen Interval (ft bgs)*	*TOC Elevation* (ft)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Groundwater Elevation*
MW-6	59.0	44-59	94.8	12/13/2011	41.01	53.79
				3/7/2012	40.91	53.89
				6/6/2012	41.00	53.80
				9/24/2012	41.07	53.73
				12/19/2012	40.87	53.93
				3/20/2013	41.00	53.80
				6/13/2013	40.91	53.89
				9/11/2013	40.81	53.99
				12/17/2013	40.20	54.60
				3/19/2014	40.18	54.62
				6/17/2014	39.78	55.02
				9/17/2014	39.64	55.16
MW-7	51.5	36.5-51.5	86.49	12/13/2011	40.49	46.00
				3/7/2012	40.33	46.16
				6/6/2012	40.37	46.12
				9/24/2012	40.45	46.04
				12/19/2012	40.14	46.35
				3/20/2013	40.33	46.16
				6/13/2013	40.20	46.29
				9/11/2013	40.12	46.37
				12/17/2013	39.70	46.79
				3/19/2014	39.60	46.89
				6/17/2014	39.35	47.14
				9/17/2014	39.33	47.16
MW-8	55.0	40-55	--	9/11/2013	42.39	--
				12/17/2013	41.80	--
				3/19/2014	41.25	--
				6/17/2014	40.90	--
				9/17/2014	40.95	--

ft = Feet
TOC = Top of casing
bgs = below ground surface
* Elevation relative to an arbitrary reference elevation of 100 feet
** Anomalous data point

TABLE 3

FIELD PARAMETERS SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 NO. 2
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	3/19/2014	16.62	7.14	17.12	26391	1.70	-396.0	0.50
	3/19/2014	16.91	6.79	17.92	27570	0.72	-403.3	1.00
	3/19/2014	17.21	6.73	18.32	28191	0.25	-402.8	1.50
	6/17/2014	18.54	9.40	16.95	26107	4.80	-363.3	0.75
	6/17/2014	18.35	8.88	16.99	26151	3.35	-384.7	1.00
	6/17/2014	17.64	8.30	17.05	26734	1.91	-382.7	1.50
	9/17/2014	19.10	7.29	19.00	29900	10.13	-355.0	1.25
	9/17/2014	18.40	7.29	19.00	30400	9.21	-367.0	1.50
	9/17/2014	18.10	7.27	19.00	30400	8.13	-387.0	1.75
MW-2	3/19/2014	15.67	7.93	21.11	32476	1.30	-314.9	1.25
	3/19/2014	15.72	7.95	21.06	32398	0.74	-321.2	1.75
	3/19/2014	15.77	7.95	20.98	32274	0.56	-314.4	2.25
	6/17/2014	16.08	8.63	18.79	28905	3.86	-316.8	1.25
	6/17/2014	15.95	8.59	18.74	28830	3.37	-315.7	1.75
	6/17/2014	15.86	8.52	18.64	28682	2.67	-320.5	2.25
	9/17/2014	16.60	7.83	20.00	31900	10.81	-294.0	2.00
	9/17/2014	16.40	7.76	19.00	31600	9.01	-299.0	2.50
	9/17/2014	16.40	7.75	19.00	31100	8.67	-299.0	2.75
MW-3	3/19/2014	14.94	8.06	17.15	26481	4.66	-148.8	3.75
	3/19/2014	15.28	8.06	19.26	29656	4.14	-142.8	4.25
	3/19/2014	15.17	8.14	19.48	29984	4.40	-136.7	4.75
	6/17/2014	15.91	8.51	17.79	27370	10.50	-110.4	3.75
	6/17/2014	15.76	8.51	17.85	27458	4.69	-110.8	4.25
	6/17/2014	15.69	8.50	17.96	27627	4.84	-110.5	4.75
	9/17/2014	16.20	7.77	19.00	30800	9.53	-87.0	3.50
	9/17/2014	16.10	7.61	19.00	30900	8.94	-83.0	4.00
	9/17/2014	16.20	7.61	19.00	30800	8.70	-78.0	4.25
MW-4	3/19/2014	15.46	7.27	21.77	33562	2.92	-112.2	5.00
	3/19/2014	15.71	7.67	22.30	34305	2.90	-119.8	5.50
	3/19/2014	15.69	7.66	22.37	34412	2.94	-117.2	6.00
	6/17/2014	16.43	8.69	19.94	30633	2.17	-207.6	4.50
	6/17/2014	16.36	8.64	20.00	30762	2.51	-192.6	5.00
	6/17/2014	16.09	8.56	19.99	30750	2.21	-192.7	5.25
	6/17/2014	16.43	8.65	19.98	30748	2.05	-190.9	5.30
	9/17/2014	16.80	7.94	21.00	33700	9.56	-265.0	3.25
	9/17/2014	16.40	7.88	21.00	34500	8.50	-269.0	3.50
	9/17/2014	16.30	7.89	21.00	34300	7.79	-270.0	4.00

	3/19/2014	15.67	7.28	10.20	15700	2.58	-148.4	1.50
	3/19/2014	15.61	7.26	10.14	15597	2.56	-172.1	2.00
	3/19/2014	14.92	7.16	10.16	15626	2.57	-190.3	2.50
	6/17/2014	16.81	7.99	9.506	14625	12.62	-138.9	1.50
MW-5	6/17/2014	16.92	7.91	9.412	14479	5.24	-145.3	2.00
	6/17/2014	17.04	7.93	9.382	14434	5.17	-156.3	2.50
	9/17/2014	16.70	7.67	11.00	17500	11.72	-4.0	2.50
	9/17/2014	16.50	7.49	11.00	18000	9.72	-48.0	2.75
	9/17/2014	16.50	7.44	11.00	18000	8.75	-66.0	3.00
	3/19/2014	15.91	8.29	22.11	34016	0.70	-378.4	7.50
	3/19/2014	15.73	8.27	22.11	34029	0.71	-373.2	8.00
	3/19/2014	15.58	8.29	22.09	33989	0.81	-371.0	8.50
	6/17/2014	16.33	9.02	19.65	30190	2.22	-366.9	7.50
MW-6	6/17/2014	15.97	8.75	19.54	30060	1.55	-367.2	8.00
	6/17/2014	15.93	8.67	19.53	30046	1.35	-359.4	8.50
	9/17/2014	16.80	8.13	21.00	33900	9.79	-366.0	3.25
	9/17/2014	16.80	8.03	21.00	33900	8.15	-364.0	3.75
	9/17/2014	16.80	7.98	21.00	34000	7.67	-362.0	4.25
	9/17/2014	16.60	7.98	21.00	33900	7.41	-362.0	4.50
	3/19/2014	14.92	7.97	18.20	27995	2.50	-140.0	5.00
	3/19/2014	15.05	7.96	17.42	26703	2.63	-140.5	5.50
	3/19/2014	15.18	7.99	18.72	28818	2.64	-136.5	6.00
	6/17/2014	16.32	8.11	13.04	20134	9.32	-149.9	4.00
MW-7	6/17/2014	15.94	8.02	14.77	22798	5.33	-161.7	4.25
	6/17/2014	15.71	7.98	14.92	22961	4.51	-159.5	4.50
	6/17/2014	15.72	7.96	14.96	23009	4.36	-158.6	4.75
	9/17/2014	16.30	7.67	11.00	18100	9.73	60.0	3.25
	9/17/2014	16.10	7.63	13.00	21100	9.41	12.0	3.75
	9/17/2014	16.00	7.60	14.00	22900	8.89	-33.0	4.25
	3/19/2014	15.02	8.02	15.36	23860	3.33	-127.6	5.75
	3/19/2014	15.06	7.75	15.36	24041	3.12	-128.8	6.25
	3/19/2014	15.06	7.65	15.96	24553	2.87	-128.1	6.75
	6/17/2014	15.22	8.18	14.27	21962	2.89	-163.9	5.75
MW-8	6/17/2014	15.12	8.15	14.42	22184	2.36	-171.9	6.25
	6/17/2014	15.09	8.13	14.53	22358	2.11	-175.5	6.75
	9/17/2014	15.60	7.82	15.00	24600	9.23	31.0	5.75
	9/17/2014	15.60	7.81	15.00	24900	8.67	36.0	6.25
	9/17/2014	15.60	7.81	16.00	25200	8.08	45.0	6.75

Notes:

TDS = total dissolved solids

DO = dissolved oxygen

ORP = oxidation-reduction potential

TABLE 4

GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	Methylene chloride (mg/L)	Naphthalene (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Boron (dissolved) (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)	Total Dissolved Solids (TDS) (mg/L)
	NMWQCC Groundwater Quality Standards			***0.01***	***0.75***	***0.75***	***0.62***	***0.01***	***0.1***	***0.03***	***250***	***1.6***	***600***	***0.75***	***1***	***0.2***	***1000***
B-4	GW-075035-110911-B4	11/9/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	12.1	**2.2**	**5610**	**0.96**	< 0.05	0.134	**7030**
B-5	GW-075035-110911-B5	11/9/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	0.0012	< 0.01	**509**	**2.2**	**20500**	**0.977**	< 0.05	**5.03**	**26000**
MW-1	GW-075035-072711-CFM-003	7/27/2011	(orig)	**4.46**	**0.782**	**13.3**	**7.85**	< 0.5	**0.667**	< 5	--	--	--	--	--	--	--
	GW-075035-093011-CM-009	9/30/2011	(orig)	**4.47**	**0.772**	**9.48**	**8.33**	< 0.02	< 0.02	< 0.2	**287**	< 2.0	**13300**	**--**	--	--	**21000**
	GW-075036-121311-CB-MW-1	12/13/2011	(orig)	**4.44**	**0.751**	**6.23**	**9.04**	< 0.1	< 0.1	< 1.0	**270**	**2.1**	**12300**	**1.12**	**8.94**	**4.17**	**20700**
	GW-075036-121311-CB-DUP	12/13/2011	(Duplicate)	**4.31**	**0.812**	**4.98**	**9.57**	--	--	--	--	--	--	--	--	--	--
	GW-075035-3812-CB-MW-1	3/8/2012	(orig)	**5.10**	0.669	**2.49**	**9.08**	< 0.1	< 0.1	< 1.0	--	--	--	**1.10**	**7.34**	**3.48**	--
	GW-075035-060712-CB-MW-1	6/7/2012	(orig)	**3.00**	0.300	**3.83**	**4.05**	< 0.1	< 0.1	< 1.0	**285**	< 0.20	**14100**	**1.00**	**5.98**	**2.09**	**25000**
	GW-075035-092512-CM-MW-1	9/25/2012	(orig)	**5.040**	0.626	**1.660**	**8.850**	< 0.1	< 0.1	**0.0456**	**268**	< 4.0	**13100**	--	--	--	**24100**
	GW-075035-122012-CM-MW-1	12/20/2012	(orig)	**3.960**	0.336	**2.570**	**6.450**	< 0.05	< 0.05	0.0012	**301**	< 0.20	**15300**	**1.230**	**1.250**	**0.886**	**23100**
	GW-075035-032013-CM-MW-1	3/20/2013	(orig)	**4.230**	0.411	**1.050**	**8.380**	< 0.10	< 0.10	**0.0438**	**285**	< 0.20	**13600**	**1.210**	0.345	**0.670**	**32200**
	075035-061313-JK-MW1	6/13/2013	(orig)	**4.410**	0.418	**1.640**	**7.220**	< 0.10	< 0.10	**0.0508**	**289**	< 0.20	**12400**	**1.190**	0.067	**0.507**	**22000**
	GW-075035-091213-CM-MW-1	9/12/2013	(orig)	**3.470**	0.428	**3.020**	**7.900**	< 0.10	< 0.10	**0.0365**	**296**	< 0.20	**12100**	**1.100**	0.46	**0.95**	**31300**
	GW-075035-121713-CM-MW-1	12/17/2013	(orig)	**3.180**	0.297	**5.230**	**6.120**	< 0.10	**0.156**	0.0258	**459**	< 4.0	**15100**	**1.160**	0.0910	**0.590**	**24300**
	GW-075035-031914-CK-MW-1	3/19/2014	(orig)	**3.740**	0.563	**7.380**	**8.920**	< 0.10	< 0.10	**0.04**	**551**	< 4.0	**16600**	**1.130**	< 0.250	**0.832**	**29100**
	GW-075035-061714-CK-MW-1	6/17/2014	(orig)	**3.270**	0.332	**6.320**	**5.750**	< 0.10	**0.112**	**0.0332**	**640**	< 4.0	**18900**	**1.190**	0.0766	**0.227**	**30100**
	GW-075035-061714-CK-DUP	6/17/2014	(Duplicate)	**3.670**	0.373	**7.090**	**6.340**	< 0.10	**0.129**	--	--	--	--	--	--	--	--
	GW-075035-091714-CB-MW-1	9/17/2014	(orig)	**3.650**	0.463	**7.980**	**7.300**	< 0.10	< 0.10	**0.0382**	**553**	< 0.20	**18200**	**1.340**	< 0.500	0.196	**29100**
	GW-075035-091714-CB-DUP	9/17/2014	(Duplicate)	**2.980**	0.197	**7.000**	**5.900**	< 0.001	< 0.001	--	--	--	--	--	--	--	--
MW-2	1	7/27/2011	(orig)	**0.244**	0.152	< 0.01	0.0814	**0.0191**	0.0165	< 0.112 / < 0.1	**330**	**2.9**	**17100**	**1.09**	**3.46**	**2.71**	**26600**
	GW-075035-072711-CFM-002	7/27/2011	(Duplicate)	**0.23**	0.143	< 0.005	0.0784	0.0092	0.0096	**0.0535**	--	--	--	--	--	--	--
	GW-075035-093011-CM-007	9/30/2011	(orig)	**0.197**	0.155	< 0.001	0.112	< 0.001	< 0.001	**0.0727**	**328**	< 2.0	**19100**	**1.08**	**3.59**	**2.54**	**26000**
	GW-075035-093011-CM-010	9/30/2011	(Duplicate)	**0.258**	0.189	< 0.005	0.113	< 0.005	0.0144	**0.0715**	--	--	--	--	--	--	--
	GW-075036-121311-CB-MW-2	12/13/2011	(orig)	**0.249**	0.199	0.0266	0.143	< 0.010	< 0.010	< 0.10	**348**	0.75	**16800**	**1.12**	**4.16**	**2.280**	**26600**
	GW-075035-3812-CB-MW-2	3/8/2012	(orig)	**0.295**	0.221	< 0.005	0.0647	< 0.005	< 0.005	**0.074**	**398**	< 0.010	**23200**	**0.922**	< 0.050	**3.76**	**30200**
	GW-075035-060712-CB-MW-2	6/6/2012	(orig)	**0.207**	0.219	< 0.005	0.0443	< 0.005	< 0.005	0.0238	**400**	< 0.2	**26100**	**0.847**	**4.79**	**3.88**	**28000**
	GW-075035-092512-CM-MW-2	9/25/2012	(orig)	**0.127**	0.161	< 0.005	0.0408	< 0.005	0.0076	**0.0583**	**382**	< 4.0	**19900**	**1.020**	0.913	**2.30**	**31100**
	GW-075035-092512-CM-DUP	9/25/2012	(Duplicate)	**0.142**	0.181	< 0.02	0.0356	--	--	--	--	--	--	--	--	--	--
	GW-075035-121912-CM-MW-2	12/19/2012	(orig)	**0.202**	0.281	< 0.005	0.0811	< 0.005	< 0.005	< 0.0005	**423**	< 0.2	**22300**	**1.040**	**1.200**	**1.980**	**33200**
	GW-075035-032013-CM-MW-2	3/20/2013	(orig)	**0.177**	0.334	< 0.005	0.084	< 0.005	< 0.005	0.00089	**408**	< 0.2	**19100**	**0.981**	**1.180**	**2.210**	**43200**
	075035-061313-JK-MW2	6/13/2013	(orig)	**0.128**	0.232	< 0.005	0.0508	< 0.005	< 0.005	0.0025	**416**	< 0.2	**19500**	**0.940**	**1.660**	**3.190**	**18500**
	075035-061313-JK-DUP	6/13/2013	(Duplicate)	**0.141**	0.273	< 0.005	0.0631	< 0.005	< 0.005	**0.0633**	--	--	--	--	--	--	--
	GW-075035-091113-CM-MW-2	9/11/2013	(orig)	**0.107**	0.318	< 0.005	0.0619	< 0.005	< 0.005	0.00097	**450**	< 0.2	**18900**	**0.85**	**1.6**	**2.0**	**88400**
	GW-075035-121713-CM-MW-2	12/17/2013	(orig)	**0.102**	0.247	< 0.005	0.0632	< 0.005	0.0103	**0.0336**	**453**	< 4.0	**22400**	**0.791**	**1.450**	**2.430**	**32800**
	GW-075035-031914-CK-MW-2	3/19/2014	(orig)	**0.0425**	0.183	< 0.005	0.0325	< 0.005	< 0.005	0.0103	**460**	< 4.0	**23000**	**0.854**	**1.850**	**3.330**	**36000**
	GW-075035-061714-CK-MW-2	6/17/2014	(orig)	**0.0582**	0.238	< 0.005	0.0744	< 0.005	0.0081	0.0153	**470**	< 4.0	**22100**	**0.772**	**3.090**	**3.680**	**33100**
	GW-075035-091714-CB-MW-2	9/17/2014	(orig)	**0.0725**	0.293	0.0087	0.0973	< 0.005	< 0.005	0.0096	**418**	< 0.20	**21800**	< 1.0	**3.580**	**4.260**	**31400**
MW-3	GW-075035-072711-CFM-005	7/27/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01 / < 0.0128	**437**	**2.7**	**17600**	**0.976**	0.495	**1.1**	**29200**
	GW-075035-093011-CM-006	9/30/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**399**	< 2.0	**19500**	**0.914**	< 0.05	**3.74**	**26800**
	GW-075036-121311-CB-MW-3	12/13/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**375**	< 0.20	**17100**	**0.997**	**1.02**	**0.776**	**27500**
	GW-075035-3812-CB-MW-3	3/8/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**456**	< 10	**21500**	**0.962**	**4.75**	**4.47**	**30500**
	GW-075035-060712-CB-MW-3	6/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**431**	< 0.20	**23300**	**0.889**	< 0.05	**2.02**	**34100**
	GW-075035-092512-CM-MW-3	9/25/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**468**	< 4.0	**18900**	**0.986**	< 0.05	**0.497**	**30000**
	GW-075035-121912-CM-MW-3	12/19/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**458**	< 0.2	**21400**	**1.030**	0.152	**0.547**	**30600**
	GW-075035-032013-CM-MW-3	3/20/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**373**	< 0.2	**20400**	**0.936**	0.217	**4.160**	**45600**
	075035-061313-JK-MW3	6/13/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**377**	< 0.2	**18900**	**0.991**	< 0.100	**1.250**	**30900**
	GW-075035-091113-CM-MW-3	9/11/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**403**	< 0.2	**18700**	**0.87**	< 0.25	**3.9**	**80500**
	GW-075035-121713-CM-MW-3	12/17/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**476**	< 4.0	**20300**	**0.899**	0.272	0.0836	**31600**
	GW-075035-031914-CK-MW-3	3/19/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**458**	< 4.0	**21400**	**1.00**	< 0.25	0.104	**32800**
	GW-075035-061714-CK-MW-3	6/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**441**	< 10.0	**21000**	**0.974**	0.0556	0.0475	**34100**
	GW-075035-091714-CB-MW-3	9/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**380**	< 0.20	**20800**	< 1.0	< 0.500	**0.278**	**32100**
MW-4	GW-075035-072711-CFM-004	7/27/2011	(orig)	0.0021	0.0055	0.0054	0.0705	0.0019	< 0.001	< 0.0111 / < 0.01	**435**	**4.3**	**25200**	0.638	0.677	**10.5**	**40200**
	GW-075035-093011-CM-008	9/30/2011	(orig)	0.0027	0.0037	0.0014	0.0815	< 0.001	< 0.001	< 0.01	**449**	**2.8**	**27400**	0.664	**1.13**	**10.8**	**37200**
	GW-075036-121311-CB-MW-4	12/13/2011	(orig)	0.0024	< 0.001	< 0.001	0.0099	< 0.001	< 0.001	< 0.01	**344**	< 0.20	**26900**	0.651	**1.43**	**8.50**	**40700**
	GW-075035-3812-CB-MW-4	3/8/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**377**	< 10	**30200**	0.554	**1.04**	**8.28**	**38400**
	GW-075035-060712-CB-MW-4	6/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**378**	1.4	**28400**	0.558	0.983	**5.25**	**40300**
	GW-075035-092512-CM-MW-4	9/25/2012	(orig)	0.0011	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.01	**347**	**5.8**	**25600**	0.704	**1.020**	**5.170**	**38900**
	GW-075035-121912-CM-MW-4	12/19/2012	(orig)	0.0011	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**397**	< 0.2	**28500**	**0.808**	0.782	**4.840**	**36400**
	GW-075035-032013-CM-MW-4	3/20/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0009	**377**	< 0.2	**23600**	0.748	0.836	**3.580**	**63000**
	075035-061313-JK-MW4	6/13/2013	(orig)	0.0012	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**378**	< 0.2	**23200**	**0.785**	0.506	**4.080**	**33700**
	GW-075035-091113-CM-MW-4	9/11/2013	(orig)	0.0010	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0027	**389**	< 0.2	**20800**	0.73	0.51	**2.9**	**90900**
	GW-075035-121713-CM-MW-4	12/17/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0021	**394**	**5.1**	**24300**	**0.789**	0.354	**2.720**	**36300**
	GW-075035-031914-CK-MW-4	3/19/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0011	**388**	**4.6**	**25300**	**1.0**	0.291	**2.220**	**37900**
	GW-075035-061714-CK-MW-4	6/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0013	**384**	< 10.0	**24500**	**0.962**	0.288	**1.780**	**37600**
	GW-075035-091714-CB-MW-4	9/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	0.0019	**337**	< 0.20	**24500**	**1.13**	< 0.5	**1.970**	**37200**

TABLE 4

GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
MARTIN 34 No. 2
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	Methylene chloride (mg/L)	Naphthalene (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Boron (dissolved) (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)	Total Dissolved Solids (TDS) (mg/L)
NMWQCC Groundwater Quality Standards				*0.01*	*0.75*	*0.75*	*0.62*	*0.01*	*0.1*	*0.03*	*250*	*1.6*	*600*	*0.75*	*1*	*0.2*	*1000*
MW-5	GW-075036-121311-CB-MW-5	12/13/2011	(orig)	**0.195**	0.0027	< 0.001	0.0081	< 0.001	< 0.001	< 0.01	--	--	--	--	--	--	--
	GW-075035-3812-CB-MW-5	3/8/2012	(orig)	**1.20**	0.0628	< 0.001	0.0613	< 0.001	< 0.001	< 0.01	187	< 4.0	**5810**	--	--	--	**8520**
	GW-075035-060712-CB-MW-5	6/7/2012	(orig)	**1.03**	< 0.02	< 0.02	< 0.06	< 0.02	< 0.02	< 0.2	219	0.69	**8010**	--	--	--	**13900**
	GW-075035-092512-CM-MW-5	9/25/2012	(orig)	**1.040**	.0772	< 0.02	< 0.06	< 0.02	0.0289	< 0.2	202	< 4.0	**6800**	--	--	--	**11600**
	GW-075035-121912-CM-MW-5	12/19/2012	(orig)	**0.861**	0.0436	< 0.02	< 0.06	< 0.02	< 0.02	< 0.0005	230	< 0.2	**7090**	**1.550**	**2.150**	**1.060**	**12000**
	GW-075035-032013-CMMW-5	3/20/2013	(orig)	**0.493**	0.0266	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	206	< 0.2	**6960**	**2.870**	**6.060**	**2.230**	**11000**
	075035-061313-JK-MW5	6/13/2013	(orig)	**0.278**	0.0146	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	203	< 0.2	**7110**	**1.460**	**2.200**	**0.806**	**15100**
	GW-075035-091113-CM-MW-5	9/11/2013	(orig)	**0.175**	0.0103	< 0.005	< 0.015	< 0.005	< 0.005	0.00061	228	< 0.2	**5400**	**1.4**	0.96	**0.69**	**15100**
	GW-075035-121713-CM-MW-5	12/17/2013	(orig)	**0.114**	0.0069	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	228	< 4.0	**7120**	**1.490**	**1.610**	**0.647**	**12000**
	GW-075035-031914-CK-MW-5	3/19/2014	(orig)	**0.220**	0.0102	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	234	< 2.0	**8490**	**1.640**	**1.630**	**1.060**	**13500**
	GW-075035-061714-CK-MW-5	6/17/2014	(orig)	**0.192**	0.0147	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	236	< 4.0	**8600**	**1.460**	0.714	**0.695**	**12100**
	GW-075035-091714-CB-MW-5	9/17/2014	(orig)	**0.203**	0.0107	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	219	< 0.2	**9590**	**1.330**	0.629	**0.752**	**16300**
MW-6	GW-075036-121311-CB-MW-6	12/13/2011	(orig)	**0.0247**	0.191	< 0.005	**2.650**	< 0.005	< 0.005	< 0.05	**288**	< 0.20	**24900**	0.681	**4.10**	**2.93**	**37800**
	GW-075035-3812-CB-MW-6	3/8/2012	(orig)	**0.0432**	0.190	< 0.01	**3.32**	< 0.01	< 0.01	< 0.10	**369**	< 10	**31600**	0.622	< 0.05	**2.53**	**37500**
	GW-075035-3812-CB-DUP	3/8/2012	(Duplicate)	**<0.050**	0.199	< 0.05	**3.61**	< 0.05	< 0.05	< 0.5	--	--	--	--	--	--	--
	GW-075035-060712-CB-MW-6	6/7/2012	(orig)	**0.0255**	0.181	< 0.01	**3.16**	< 0.01	< 0.01	**0.034**	**326**	0.84	**26800**	0.572	< 0.05	**2.01**	**40600**
	GW-075035-060712-CB-DUP	6/7/2012	(Duplicate)	**0.0247**	0.178	< 0.005	**3.22**	< 0.005	< 0.005	< 0.05	--	--	--	--	--	--	--
	GW-075035-092512-CM-MW-6	9/25/2012	(orig)	**0.0218**	0.166	< 0.01	**2.92**	< 0.01	< 0.01	0.0237	**345**	< 4.0	**25500**	0.656	< 0.05	**2.190**	**37800**
	GW-075035-121912-CM-MW-6	12/19/2012	(orig)	**0.0214**	0.180	<0.01	**3.30**	< 0.01	< 0.01	0.0023	**392**	< 0.2	**27300**	0.687	< 0.1	**2.340**	**34600**
	GW-075035-121912-CM-DUP	12/19/2012	(Duplicate)	**0.0219**	0.198	< 0.01	**3.53**	**--**	--	--	--	--	--	--	--	--	--
	GW-075035-032013-CM-MW-6	3/20/2013	(orig)	**0.0221**	0.196	< 0.01	**3.45**	< 0.01	< 0.01	**0.0336**	**380**	< 0.2	**23200**	0.642	< 0.05	**2.460**	**70000**
	GW-075035-032013-CM-DUP	3/20/2013	(Duplicate)	**0.0198**	0.200	< 0.002	**3.52**	< 0.002	< 0.002	**0.057**	--	--	**--**	--	--	--	--
	075035-061313-JK-MW6	6/13/2013	(orig)	**0.0154**	0.129	< 0.01	**2.03**	< 0.01	< 0.01	0.019	**396**	< 0.2	**23000**	0.666	< 0.1	**2.030**	**36000**
	GW-075035-091113-CM-MW-6	9/11/2013	(orig)	**0.0120**	0.125	< 0.01	**1.79**	< 0.01	< 0.01	0.0250	**492**	< 0.2	**19600**	0.63	< 0.25	**2.0**	**85400**
	GW-075035-091113-CM-DUP	9/11/2013	(Duplicate)	**0.0114**	0.133	< 0.001	**1.89**	--	--	--	--	--	--	--	--	--	--
	GW-075035-121713-CM-MW-6	12/17/2013	(orig)	**0.0141**	0.127	< 0.01	**1.81**	< 0.01	0.0222	**0.0302**	**755**	**4.5**	**23000**	0.653	0.121	**1.860**	**34600**
	GW-075035-121713-CM-DUP	12/17/2013	(Duplicate)	**0.0112**	0.133	< 0.01	**1.780**	< 0.01	0.0124	--	--	--	--	--	--	--	--
	GW-075035-031914-CK-MW-6	3/19/2014	(orig)	0.0078	0.123	< 0.005	**1.270**	< 0.005	< 0.005	0.0172	**600**	< 4.0	**24300**	**0.806**	< 0.250	**2.030**	**37100**
	GW-075035-031914-CK-DUP	3/19/2014	(Duplicate)	0.0079	0.122	< 0.005	**1.390**	< 0.005	< 0.005	--	--	--	--	--	--	--	--
	GW-075035-061714-CK-MW-6	6/17/2014	(orig)	**0.0219**	0.115	< 0.01	**1.400**	< 0.01	0.0175	0.0213	**668**	< 4.0	**24200**	0.724	< 0.250	**1.940**	**36100**
	GW-075035-091714-CB-MW-6	9/17/2014	(orig)	0.0076	0.112	< 0.005	**0.996**	< 0.005	0.0059	0.0198	**613**	< 0.20	**22100**	< 1.0	< 0.500	**1.770**	**34600**
MW-7	GW-075036-121311-CB-MW-7	12/13/2011	(orig)	**0.0196**	0.351	< 0.001	0.0405	< 0.001	< 0.001	**0.0329**	**269**	1.5	**17800**	**0.772**	0.076	**2.28**	**21400**
	GW-075035-3812-CB-MW-7	3/8/2012	(orig)	**0.0186**	0.357	< 0.005	< 0.015	< 0.005	< 0.005	< 0.05	**307**	< 4.0	**20600**	**0.840**	0.612	**4.05**	**28400**
	GW-075035-060712-CB-MW-7	6/7/2012	(orig)	**0.0122**	0.333	< 0.005	< 0.015	< 0.005	< 0.005	< 0.05	**300**	< 0.20	**25900**	**0.824**	0.866	**3.14**	**35700**
	GW-075035-092512-CM-MW-7	9/25/2012	(orig)	**0.0109**	0.426	< 0.005	< 0.015	< 0.005	< 0.005	0.0061	**266**	< 4.0	**19500**	**0.895**	**1.250**	**4.080**	**30500**
	GW-075035-121912-CM-MW-7	12/19/2012	(orig)	0.001	0.0397	< 0.001	<0.003	< 0.001	< 0.001	< 0.0005	124	0.84	**10300**	**0.803**	0.779	**2.420**	**13800**
	GW-075035-032013-CM-MW-7	3/20/2013	(orig)	0.0077	0.450	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	**283**	< 0.20	**21500**	**0.864**	**2.560**	**3.300**	**56000**
	075035-061313-JK-MW7	6/13/2013	(orig)	0.0051	0.188	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	**258**	< 0.20	**20400**	**0.752**	0.578	**2.460**	**35900**
	GW-075035-091113-CM-MW-7	9/11/2013	(orig)	0.0081	0.468	< 0.005	< 0.015	< 0.005	< 0.005	< 0.0005	**363**	< 0.20	**19300**	**0.80**	**2.6**	**3.2**	**91600**
	GW-075035-121713-CM-MW-7	12/17/2013	(orig)	0.0064	0.185	< 0.001	< 0.003	< 0.001	< 0.001	0.0079	**279**	< 4.0	**20500**	**0.767**	**3.130**	**2.640**	**28900**
	GW-075035-031914-CK-MW-7	3/19/2014	(orig)	**0.0183**	0.475	< 0.01	< 0.03	< 0.01	< 0.01	0.017	**265**	**2.2**	**19300**	**0.838**	**3.830**	**2.400**	**28800**
	GW-075035-061714-CK-MW-7	6/17/2014	(orig)	**0.0152**	0.385	< 0.005	< 0.015	< 0.005	0.0087	< 0.0005	**357**	< 10.0	**22200**	**0.780**	**3.810**	**2.360**	**34700**
	GW-075035-091714-CB-MW-7	9/17/2014	(orig)	0.0027	0.0358	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	135	< 0.20	**13900**	< 1.0	< 0.50	**1.920**	**20400**
MW-8	GW-075035-091113-CM-MW-8	9/11/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**309**	< 0.20	**10800**	**0.87**	< 0.25	**4.6**	**26700**
	GW-075035-121713-CM-MW-8	12/17/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**465**	< 4.0	**14400**	**0.876**	< 0.05	**3.440**	**21400**
	GW-075035-031914-CK-MW-8	3/19/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**655**	< 4.0	**16100**	**1.090**	< 0.25	**3.730**	**25200**
	GW-075035-061714-CK-MW-8	6/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**676**	< 4.0	**16300**	**0.947**	< 0.25	**3.170**	**25500**
	GW-075035-091714-CB-MW-8	9/17/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.0005	**612**	< 0.2	**16500**	< 1.0	< 0.50	**3.200**	**24900**

Notes:
NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
<0.001 = Below laboratory detection limit of 0.001 mg/L
Bold = concentrations that exceed the NMWQCC groundwater quality standard

Appendix A

Groundwater Laboratory Analytical Reports

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

April 04, 2014

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

RE: Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Dear Jeff Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on March 21, 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: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

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

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SAMPLE SUMMARY

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60165424001	**GW-075035-031914-CK-MW-1**	Water	03/19/14 13:15	03/21/14 08:30
60165424002	**GW-075035-031914-CK-MW-2**	Water	03/19/14 11:10	03/21/14 08:30
60165424003	**GW-075035-031914-CK-MW-3**	Water	03/19/14 12:20	03/21/14 08:30
60165424004	**GW-075035-031914-CK-MW-4**	Water	03/19/14 15:15	03/21/14 08:30
60165424005	**GW-075035-031914-CK-MW-5**	Water	03/19/14 14:30	03/21/14 08:30
60165424006	**GW-075035-031914-CK-MW-6**	Water	03/19/14 11:00	03/21/14 08:30
60165424007	**GW-075035-031914-CK-MW-7**	Water	03/19/14 12:35	03/21/14 08:30
60165424008	**GW-075035-031914-CK-MW-8**	Water	03/19/14 14:45	03/21/14 08:30
60165424009	**GW-075035-031914-CK-DUP**	Water	03/19/14 08:00	03/21/14 08:30
60165424010	**TB-075035-031914-CK-1**	Water	03/19/14 08:00	03/21/14 08:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60165424001	**GW-075035-031914-CK-MW-1**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424002	**GW-075035-031914-CK-MW-2**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424003	**GW-075035-031914-CK-MW-3**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424004	**GW-075035-031914-CK-MW-4**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424005	**GW-075035-031914-CK-MW-5**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424006	**GW-075035-031914-CK-MW-6**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424007	**GW-075035-031914-CK-MW-7**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424008	**GW-075035-031914-CK-MW-8**	EPA 6010	JGP	3
		EPA 8270C by SIM	NAW	3

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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 5030B/8260	JTS	11
		SM 2540C	JMC1	1
		EPA 300.0	OL	3
60165424009	**GW-075035-031914-CK-DUP**	EPA 5030B/8260	JTS	11
60165424010	**TB-075035-031914-CK-1**	EPA 5030B/8260	JTS	11

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 04, 2014

General Information:
8 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:

Analyte Comments:

QC Batch: MPRP/26638

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-031914-CK-MW-1 (Lab ID: 60165424001)
  - Iron, Dissolved
- GW-075035-031914-CK-MW-3 (Lab ID: 60165424003)
  - Iron, Dissolved
- GW-075035-031914-CK-MW-6 (Lab ID: 60165424006)
  - Iron, Dissolved
- GW-075035-031914-CK-MW-8 (Lab ID: 60165424008)
  - Iron, Dissolved

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 04, 2014

General Information:
8 samples were analyzed for EPA 8270C by SIM. 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 3510C 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: MSSV/13846

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 04, 2014

General Information:
10 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- GW-075035-031914-CK-MW-2 (Lab ID: 60165424002)

Hold Time:
The samples were analyzed within the method required hold times 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: MSV/60433
A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/60494
A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/60499
A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 04, 2014

General Information:
8 samples were analyzed for SM 2540C. 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 04, 2014

General Information:
8 samples were analyzed for EPA 300.0. 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.

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:

Analyte Comments:

QC Batch: WETA/28817

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-031914-CK-MW-1 (Lab ID: 60165424001)
  - Fluoride
- GW-075035-031914-CK-MW-2 (Lab ID: 60165424002)
  - Fluoride
- GW-075035-031914-CK-MW-3 (Lab ID: 60165424003)
  - Fluoride
- GW-075035-031914-CK-MW-4 (Lab ID: 60165424004)
  - Fluoride
- GW-075035-031914-CK-MW-5 (Lab ID: 60165424005)
  - Fluoride
- GW-075035-031914-CK-MW-6 (Lab ID: 60165424006)
  - Fluoride
- GW-075035-031914-CK-MW-7 (Lab ID: 60165424007)
  - Fluoride
- GW-075035-031914-CK-MW-8 (Lab ID: 60165424008)
  - Fluoride

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

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-1 **Lab ID: 60165424001** Collected: 03/19/14 13:15 Received: 03/21/14 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							
Boron, Dissolved	**1130**	ug/L	500	5	03/28/14 11:00	04/02/14 10:50	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	03/28/14 11:00	04/01/14 15:42	7439-89-6	D3
Manganese, Dissolved	**832**	ug/L	25.0	5	03/28/14 11:00	04/02/14 10:50	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**40.0**	ug/L	2.5	5	03/25/14 00:00	04/03/14 17:24	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	64	%	36-120	1	03/25/14 00:00	03/31/14 17:37	321-60-8	
Terphenyl-d14 (S)	74	%	29-134	1	03/25/14 00:00	03/31/14 17:37	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3740**	ug/L	100	100		03/31/14 10:02	71-43-2	
Ethylbenzene	**563**	ug/L	100	100		03/31/14 10:02	100-41-4	
Methylene chloride	ND	ug/L	100	100		03/31/14 10:02	75-09-2	
Naphthalene	ND	ug/L	1000	100		03/31/14 10:02	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	100		03/31/14 10:02	79-34-5	
Toluene	**7380**	ug/L	100	100		03/31/14 10:02	108-88-3	
Xylene (Total)	**8920**	ug/L	300	100		03/31/14 10:02	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	100	%	80-120	100		03/31/14 10:02	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	100		03/31/14 10:02	17060-07-0	
Toluene-d8 (S)	103	%	80-120	100		03/31/14 10:02	2037-26-5	
Preservation pH	**1.0**		0.10	100		03/31/14 10:02		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**29100**	mg/L	5.0	1		03/26/14 08:52		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**551**	mg/L	50.0	50		04/01/14 01:11	16887-00-6	
Fluoride	ND	mg/L	4.0	20		04/01/14 03:45	16984-48-8	D3
Sulfate	**16600**	mg/L	2000	2000		03/31/14 22:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-2 **Lab ID: 60165424002** Collected: 03/19/14 11:10 Received: 03/21/14 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							
Boron, Dissolved	**854**	ug/L	500	5	03/28/14 11:00	04/02/14 11:03	7440-42-8	
Iron, Dissolved	**1850**	ug/L	250	5	03/28/14 11:00	04/01/14 15:55	7439-89-6	
Manganese, Dissolved	**3330**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:03	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**10.3**	ug/L	0.50	1	03/25/14 00:00	03/31/14 17:58	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	67	%	36-120	1	03/25/14 00:00	03/31/14 17:58	321-60-8	
Terphenyl-d14 (S)	75	%	29-134	1	03/25/14 00:00	03/31/14 17:58	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**42.5**	ug/L	5.0	5		03/31/14 10:17	71-43-2	
Ethylbenzene	**183**	ug/L	5.0	5		03/31/14 10:17	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		03/31/14 10:17	75-09-2	
Naphthalene	ND	ug/L	50.0	5		03/31/14 10:17	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		03/31/14 10:17	79-34-5	
Toluene	ND	ug/L	5.0	5		03/31/14 10:17	108-88-3	
Xylene (Total)	**32.5**	ug/L	15.0	5		03/31/14 10:17	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	97	%	80-120	5		03/31/14 10:17	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	80-120	5		03/31/14 10:17	17060-07-0	
Toluene-d8 (S)	105	%	80-120	5		03/31/14 10:17	2037-26-5	
Preservation pH	**6.0**		0.10	5		03/31/14 10:17		pH
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**36000**	mg/L	5.0	1		03/26/14 08:52		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**460**	mg/L	50.0	50		04/01/14 01:27	16887-00-6	
Fluoride	ND	mg/L	4.0	20		04/01/14 04:01	16984-48-8	D3
Sulfate	**23000**	mg/L	2000	2000		03/31/14 22:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-3 **Lab ID: 60165424003** Collected: 03/19/14 12:20 Received: 03/21/14 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							
Boron, Dissolved	**1000**	ug/L	500	5	03/28/14 11:00	04/02/14 11:06	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	03/28/14 11:00	04/01/14 15:59	7439-89-6	D3
Manganese, Dissolved	**104**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:06	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	03/25/14 00:00	03/31/14 18:19	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	82	%	36-120	1	03/25/14 00:00	03/31/14 18:19	321-60-8	
Terphenyl-d14 (S)	84	%	29-134	1	03/25/14 00:00	03/31/14 18:19	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		03/31/14 10:32	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/31/14 10:32	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		03/31/14 10:32	75-09-2	
Naphthalene	ND	ug/L	10.0	1		03/31/14 10:32	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/31/14 10:32	79-34-5	
Toluene	ND	ug/L	1.0	1		03/31/14 10:32	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/31/14 10:32	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	111	%	80-120	1		03/31/14 10:32	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		03/31/14 10:32	17060-07-0	
Toluene-d8 (S)	97	%	80-120	1		03/31/14 10:32	2037-26-5	
Preservation pH	**1.0**		0.10	1		03/31/14 10:32		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**32800**	mg/L	5.0	1		03/26/14 08:52		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**458**	mg/L	50.0	50		04/01/14 01:42	16887-00-6	
Fluoride	ND	mg/L	4.0	20		04/01/14 04:16	16984-48-8	D3
Sulfate	**21400**	mg/L	2000	2000		03/31/14 23:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-4 **Lab ID: 60165424004** Collected: 03/19/14 15:15 Received: 03/21/14 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							
Boron, Dissolved	**1000**	ug/L	500	5	03/28/14 11:00	04/02/14 11:10	7440-42-8	
Iron, Dissolved	**291**	ug/L	250	5	03/28/14 11:00	04/01/14 16:02	7439-89-6	
Manganese, Dissolved	**2220**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:10	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**1.1**	ug/L	0.50	1	03/25/14 00:00	03/31/14 18:40	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	78	%	36-120	1	03/25/14 00:00	03/31/14 18:40	321-60-8	
Terphenyl-d14 (S)	72	%	29-134	1	03/25/14 00:00	03/31/14 18:40	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		03/31/14 10:47	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/31/14 10:47	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		03/31/14 10:47	75-09-2	
Naphthalene	ND	ug/L	10.0	1		03/31/14 10:47	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/31/14 10:47	79-34-5	
Toluene	ND	ug/L	1.0	1		03/31/14 10:47	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/31/14 10:47	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102	%	80-120	1		03/31/14 10:47	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	80-120	1		03/31/14 10:47	17060-07-0	
Toluene-d8 (S)	101	%	80-120	1		03/31/14 10:47	2037-26-5	
Preservation pH	**1.0**		0.10	1		03/31/14 10:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**37900**	mg/L	5.0	1		03/26/14 08:53		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**388**	mg/L	50.0	50		04/01/14 01:57	16887-00-6	
Fluoride	**4.6**	mg/L	4.0	20		04/01/14 04:31	16984-48-8	D3
Sulfate	**25300**	mg/L	2000	2000		03/31/14 23:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-5 **Lab ID: 60165424005** Collected: 03/19/14 14:30 Received: 03/21/14 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							
Boron, Dissolved	**1640**	ug/L	500	5	03/28/14 11:00	04/02/14 11:13	7440-42-8	
Iron, Dissolved	**1630**	ug/L	250	5	03/28/14 11:00	04/01/14 16:05	7439-89-6	
Manganese, Dissolved	**1060**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:13	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	03/25/14 00:00	03/31/14 19:01	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	78	%	36-120	1	03/25/14 00:00	03/31/14 19:01	321-60-8	
Terphenyl-d14 (S)	79	%	29-134	1	03/25/14 00:00	03/31/14 19:01	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**220**	ug/L	5.0	5		04/01/14 15:47	71-43-2	
Ethylbenzene	**10.2**	ug/L	5.0	5		04/01/14 15:47	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		04/01/14 15:47	75-09-2	
Naphthalene	ND	ug/L	50.0	5		04/01/14 15:47	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		04/01/14 15:47	79-34-5	
Toluene	ND	ug/L	5.0	5		04/01/14 15:47	108-88-3	
Xylene (Total)	ND	ug/L	15.0	5		04/01/14 15:47	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	5		04/01/14 15:47	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	80-120	5		04/01/14 15:47	17060-07-0	
Toluene-d8 (S)	97	%	80-120	5		04/01/14 15:47	2037-26-5	
Preservation pH	**1.0**		0.10	5		04/01/14 15:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**13500**	mg/L	5.0	1		03/26/14 08:53		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**234**	mg/L	20.0	20		04/01/14 02:13	16887-00-6	
Fluoride	ND	mg/L	2.0	10		04/01/14 04:47	16984-48-8	D3
Sulfate	**8490**	mg/L	1000	1000		03/31/14 23:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-6 **Lab ID: 60165424006** Collected: 03/19/14 11:00 Received: 03/21/14 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							
Boron, Dissolved	**806**	ug/L	500	5	03/28/14 11:00	04/02/14 11:27	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	03/28/14 11:00	04/01/14 16:15	7439-89-6	D3
Manganese, Dissolved	**2030**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:27	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**17.2**	ug/L	0.50	1	03/25/14 00:00	03/31/14 19:22	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	75	%	36-120	1	03/25/14 00:00	03/31/14 19:22	321-60-8	
Terphenyl-d14 (S)	81	%	29-134	1	03/25/14 00:00	03/31/14 19:22	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**7.8**	ug/L	5.0	5		03/31/14 11:18	71-43-2	
Ethylbenzene	**123**	ug/L	5.0	5		03/31/14 11:18	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		03/31/14 11:18	75-09-2	
Naphthalene	ND	ug/L	50.0	5		03/31/14 11:18	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		03/31/14 11:18	79-34-5	
Toluene	ND	ug/L	5.0	5		03/31/14 11:18	108-88-3	
Xylene (Total)	**1270**	ug/L	15.0	5		03/31/14 11:18	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96	%	80-120	5		03/31/14 11:18	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	80-120	5		03/31/14 11:18	17060-07-0	
Toluene-d8 (S)	99	%	80-120	5		03/31/14 11:18	2037-26-5	
Preservation pH	**1.0**		0.10	5		03/31/14 11:18		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**37100**	mg/L	5.0	1		03/26/14 08:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**600**	mg/L	50.0	50		04/01/14 02:28	16887-00-6	
Fluoride	ND	mg/L	4.0	20		04/01/14 05:02	16984-48-8	D3
Sulfate	**24300**	mg/L	2000	2000		03/31/14 23:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-7 **Lab ID: 60165424007** Collected: 03/19/14 12:35 Received: 03/21/14 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							
Boron, Dissolved	**838**	ug/L	500	5	03/28/14 11:00	04/02/14 11:30	7440-42-8	
Iron, Dissolved	**3830**	ug/L	250	5	03/28/14 11:00	04/01/14 16:19	7439-89-6	
Manganese, Dissolved	**2400**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:30	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**17.0**	ug/L	0.50	1	03/25/14 00:00	03/31/14 19:43	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	78	%	36-120	1	03/25/14 00:00	03/31/14 19:43	321-60-8	
Terphenyl-d14 (S)	90	%	29-134	1	03/25/14 00:00	03/31/14 19:43	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**18.3**	ug/L	10.0	10		03/31/14 11:33	71-43-2	
Ethylbenzene	**475**	ug/L	10.0	10		03/31/14 11:33	100-41-4	
Methylene chloride	ND	ug/L	10.0	10		03/31/14 11:33	75-09-2	
Naphthalene	ND	ug/L	100	10		03/31/14 11:33	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	10		03/31/14 11:33	79-34-5	
Toluene	ND	ug/L	10.0	10		03/31/14 11:33	108-88-3	
Xylene (Total)	ND	ug/L	30.0	10		03/31/14 11:33	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	80-120	10		03/31/14 11:33	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	80-120	10		03/31/14 11:33	17060-07-0	
Toluene-d8 (S)	107	%	80-120	10		03/31/14 11:33	2037-26-5	
Preservation pH	**1.0**		0.10	10		03/31/14 11:33		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**28800**	mg/L	5.0	1		03/26/14 08:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**265**	mg/L	20.0	20		04/01/14 02:44	16887-00-6	
Fluoride	**2.2**	mg/L	2.0	10		04/01/14 05:18	16984-48-8	D3
Sulfate	**19300**	mg/L	1000	1000		04/01/14 00:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-MW-8 **Lab ID: 60165424008** Collected: 03/19/14 14:45 Received: 03/21/14 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							
Boron, Dissolved	**1090**	ug/L	500	5	03/28/14 11:00	04/02/14 11:33	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	03/28/14 11:00	04/01/14 16:22	7439-89-6	D3
Manganese, Dissolved	**3730**	ug/L	25.0	5	03/28/14 11:00	04/02/14 11:33	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	03/25/14 00:00	03/31/14 20:05	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	80	%	36-120	1	03/25/14 00:00	03/31/14 20:05	321-60-8	
Terphenyl-d14 (S)	93	%	29-134	1	03/25/14 00:00	03/31/14 20:05	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		03/31/14 11:49	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/31/14 11:49	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		03/31/14 11:49	75-09-2	
Naphthalene	ND	ug/L	10.0	1		03/31/14 11:49	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/31/14 11:49	79-34-5	
Toluene	ND	ug/L	1.0	1		03/31/14 11:49	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/31/14 11:49	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102	%	80-120	1		03/31/14 11:49	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		03/31/14 11:49	17060-07-0	
Toluene-d8 (S)	107	%	80-120	1		03/31/14 11:49	2037-26-5	
Preservation pH	**1.0**		0.10	1		03/31/14 11:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**25200**	mg/L	5.0	1		03/26/14 08:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**655**	mg/L	50.0	50		04/01/14 02:59	16887-00-6	
Fluoride	ND	mg/L	4.0	20		04/01/14 05:33	16984-48-8	D3
Sulfate	**16100**	mg/L	2000	2000		04/01/14 00:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: GW-075035-031914-CK-DUP **Lab ID: 60165424009** Collected: 03/19/14 08:00 Received: 03/21/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**7.9**	ug/L	5.0	5		04/01/14 20:23	71-43-2	
Ethylbenzene	**122**	ug/L	5.0	5		04/01/14 20:23	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		04/01/14 20:23	75-09-2	
Naphthalene	ND	ug/L	50.0	5		04/01/14 20:23	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		04/01/14 20:23	79-34-5	
Toluene	ND	ug/L	5.0	5		04/01/14 20:23	108-88-3	
Xylene (Total)	**1390**	ug/L	15.0	5		04/01/14 20:23	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	103	%	80-120	5		04/01/14 20:23	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	5		04/01/14 20:23	17060-07-0	
Toluene-d8 (S)	97	%	80-120	5		04/01/14 20:23	2037-26-5	
Preservation pH	**1.0**		0.10	5		04/01/14 20:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Sample: TB-075035-031914-CK-1 **Lab ID: 60165424010** Collected: 03/19/14 08:00 Received: 03/21/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		03/31/14 09:46	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/31/14 09:46	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		03/31/14 09:46	75-09-2	
Naphthalene	ND	ug/L	10.0	1		03/31/14 09:46	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/31/14 09:46	79-34-5	
Toluene	ND	ug/L	1.0	1		03/31/14 09:46	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/31/14 09:46	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102	%	80-120	1		03/31/14 09:46	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	1		03/31/14 09:46	17060-07-0	
Toluene-d8 (S)	110	%	80-120	1		03/31/14 09:46	2037-26-5	
Preservation pH	**1.0**		0.10	1		03/31/14 09:46		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: MPRP/26638 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

METHOD BLANK: 1351484 Matrix: Water
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	04/02/14 10:43	
Iron, Dissolved	ug/L	ND	50.0	04/01/14 15:36	
Manganese, Dissolved	ug/L	ND	5.0	04/02/14 10:43	

LABORATORY CONTROL SAMPLE: 1351485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	1030	103	80-120	
Iron, Dissolved	ug/L	10000	10800	108	80-120	
Manganese, Dissolved	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1351486 1351487

Parameter	Units	60165424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1130	1000	1000	2180	2090	105	96	75-125	4	20	
Iron, Dissolved	ug/L	ND	10000	10000	9890	9740	98	96	75-125	2	20	
Manganese, Dissolved	ug/L	832	1000	1000	1860	1760	102	93	75-125	5	20	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: MSV/60433 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424006, 60165424007, 60165424008, 60165424010

METHOD BLANK: 1352732 Matrix: Water
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424006, 60165424007, 60165424008, 60165424010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	03/31/14 09:31	
Benzene	ug/L	ND	1.0	03/31/14 09:31	
Ethylbenzene	ug/L	ND	1.0	03/31/14 09:31	
Methylene chloride	ug/L	ND	1.0	03/31/14 09:31	
Naphthalene	ug/L	ND	10.0	03/31/14 09:31	
Toluene	ug/L	ND	1.0	03/31/14 09:31	
Xylene (Total)	ug/L	ND	3.0	03/31/14 09:31	
1,2-Dichloroethane-d4 (S)	%	94	80-120	03/31/14 09:31	
4-Bromofluorobenzene (S)	%	98	80-120	03/31/14 09:31	
Toluene-d8 (S)	%	101	80-120	03/31/14 09:31	

LABORATORY CONTROL SAMPLE: 1352733

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	22.2	111	73-124	
Benzene	ug/L	20	18.5	92	80-120	
Ethylbenzene	ug/L	20	21.1	105	80-121	
Methylene chloride	ug/L	20	22.1	110	73-126	
Naphthalene	ug/L	20	22.4	112	73-130	
Toluene	ug/L	20	22.8	114	80-122	
Xylene (Total)	ug/L	60	65.6	109	80-121	
1,2-Dichloroethane-d4 (S)	%			92	80-120	
4-Bromofluorobenzene (S)	%			92	80-120	
Toluene-d8 (S)	%			110	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: MSV/60494
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60165424005

METHOD BLANK: 1353650
Matrix: Water
Associated Lab Samples: 60165424005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/01/14 13:37	
Benzene	ug/L	ND	1.0	04/01/14 13:37	
Ethylbenzene	ug/L	ND	1.0	04/01/14 13:37	
Methylene chloride	ug/L	ND	1.0	04/01/14 13:37	
Naphthalene	ug/L	ND	10.0	04/01/14 13:37	
Toluene	ug/L	ND	1.0	04/01/14 13:37	
Xylene (Total)	ug/L	ND	3.0	04/01/14 13:37	
1,2-Dichloroethane-d4 (S)	%	97	80-120	04/01/14 13:37	
4-Bromofluorobenzene (S)	%	99	80-120	04/01/14 13:37	
Toluene-d8 (S)	%	96	80-120	04/01/14 13:37	

LABORATORY CONTROL SAMPLE: 1353651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	20.1	101	73-124	
Benzene	ug/L	20	19.4	97	80-120	
Ethylbenzene	ug/L	20	19.9	100	80-121	
Methylene chloride	ug/L	20	21.0	105	73-126	
Naphthalene	ug/L	20	21.4	107	73-130	
Toluene	ug/L	20	19.0	95	80-122	
Xylene (Total)	ug/L	60	60.2	100	80-121	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Toluene-d8 (S)	%			96	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: MSV/60499
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60165424009

METHOD BLANK: 1353718 Matrix: Water
Associated Lab Samples: 60165424009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/01/14 20:07	
Benzene	ug/L	ND	1.0	04/01/14 20:07	
Ethylbenzene	ug/L	ND	1.0	04/01/14 20:07	
Methylene chloride	ug/L	ND	1.0	04/01/14 20:07	
Naphthalene	ug/L	ND	10.0	04/01/14 20:07	
Toluene	ug/L	ND	1.0	04/01/14 20:07	
Xylene (Total)	ug/L	ND	3.0	04/01/14 20:07	
1,2-Dichloroethane-d4 (S)	%	96	80-120	04/01/14 20:07	
Toluene-d8 (S)	%	96	80-120	04/01/14 20:07	

LABORATORY CONTROL SAMPLE: 1353719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	21.2	106	73-124	
Benzene	ug/L	20	19.8	99	80-120	
Ethylbenzene	ug/L	20	20.5	103	80-121	
Methylene chloride	ug/L	20	19.5	98	73-126	
Naphthalene	ug/L	20	22.8	114	73-130	
Toluene	ug/L	20	19.9	99	80-122	
Xylene (Total)	ug/L	60	62.0	103	80-121	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			97	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: OEXT/43324 Analysis Method: EPA 8270C by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

METHOD BLANK: 1349566 Matrix: Water
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	03/31/14 16:55	
2-Fluorobiphenyl (S)	%	89	36-120	03/31/14 16:55	
Terphenyl-d14 (S)	%	98	29-134	03/31/14 16:55	

LABORATORY CONTROL SAMPLE: 1349567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	7.1	71	44-120	
2-Fluorobiphenyl (S)	%			78	36-120	
Terphenyl-d14 (S)	%			74	29-134	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: WET/46896 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

METHOD BLANK: 1349934 Matrix: Water
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	03/26/14 08:50	

LABORATORY CONTROL SAMPLE: 1349935

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	999	100	80-120	

SAMPLE DUPLICATE: 1349936

Parameter	Units	60165374003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	310	299	4	10	

SAMPLE DUPLICATE: 1349937

Parameter	Units	60165424005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	13500	14100	4	10	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

QC Batch: WETA/28817 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

METHOD BLANK: 1352576 Matrix: Water
Associated Lab Samples: 60165424001, 60165424002, 60165424003, 60165424004, 60165424005, 60165424006, 60165424007, 60165424008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	03/31/14 18:15	
Fluoride	mg/L	ND	0.20	03/31/14 18:15	
Sulfate	mg/L	ND	1.0	03/31/14 18:15	

LABORATORY CONTROL SAMPLE: 1352577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	5.3	105	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	5	5.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1352578 1352579

Parameter	Units	60165133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	500	500	558	524	93	86	80-120	6	15	
Fluoride	mg/L	ND	250	250	255	233	102	93	80-120	9	15	
Sulfate	mg/L	1170	500	500	1740	1740	113	113	80-120	0	15	

MATRIX SPIKE SAMPLE: 1352580

Parameter	Units	60165133002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	112	500	543	86	80-120	
Fluoride	mg/L	ND	250	236	95	80-120	
Sulfate	mg/L	1320	500	1870	110	80-120	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

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.

BATCH QUALIFIERS

Batch: OEXT/43324
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: MSV/60433
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: MSV/60494
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: MSV/60499
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60165424

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60165424001	GW-075035-031914-CK-MW-1	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424002	GW-075035-031914-CK-MW-2	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424003	GW-075035-031914-CK-MW-3	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424004	GW-075035-031914-CK-MW-4	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424005	GW-075035-031914-CK-MW-5	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424006	GW-075035-031914-CK-MW-6	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424007	GW-075035-031914-CK-MW-7	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424008	GW-075035-031914-CK-MW-8	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165424001	GW-075035-031914-CK-MW-1	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424002	GW-075035-031914-CK-MW-2	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424003	GW-075035-031914-CK-MW-3	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424004	GW-075035-031914-CK-MW-4	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424005	GW-075035-031914-CK-MW-5	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424006	GW-075035-031914-CK-MW-6	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424007	GW-075035-031914-CK-MW-7	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424008	GW-075035-031914-CK-MW-8	EPA 3510C	OEXT/43324	EPA 8270C by SIM	MSSV/13846
60165424001	GW-075035-031914-CK-MW-1	EPA 5030B/8260	MSV/60433		
60165424002	GW-075035-031914-CK-MW-2	EPA 5030B/8260	MSV/60433		
60165424003	GW-075035-031914-CK-MW-3	EPA 5030B/8260	MSV/60433		
60165424004	GW-075035-031914-CK-MW-4	EPA 5030B/8260	MSV/60433		
60165424005	GW-075035-031914-CK-MW-5	EPA 5030B/8260	MSV/60494		
60165424006	GW-075035-031914-CK-MW-6	EPA 5030B/8260	MSV/60433		
60165424007	GW-075035-031914-CK-MW-7	EPA 5030B/8260	MSV/60433		
60165424008	GW-075035-031914-CK-MW-8	EPA 5030B/8260	MSV/60433		
60165424009	GW-075035-031914-CK-DUP	EPA 5030B/8260	MSV/60499		
60165424010	TB-075035-031914-CK-1	EPA 5030B/8260	MSV/60433		
60165424001	GW-075035-031914-CK-MW-1	SM 2540C	WET/46896		
60165424002	GW-075035-031914-CK-MW-2	SM 2540C	WET/46896		
60165424003	GW-075035-031914-CK-MW-3	SM 2540C	WET/46896		
60165424004	GW-075035-031914-CK-MW-4	SM 2540C	WET/46896		
60165424005	GW-075035-031914-CK-MW-5	SM 2540C	WET/46896		
60165424006	GW-075035-031914-CK-MW-6	SM 2540C	WET/46896		
60165424007	GW-075035-031914-CK-MW-7	SM 2540C	WET/46896		
60165424008	GW-075035-031914-CK-MW-8	SM 2540C	WET/46896		
60165424001	GW-075035-031914-CK-MW-1	EPA 300.0	WETA/28817		
60165424002	GW-075035-031914-CK-MW-2	EPA 300.0	WETA/28817		
60165424003	GW-075035-031914-CK-MW-3	EPA 300.0	WETA/28817		
60165424004	GW-075035-031914-CK-MW-4	EPA 300.0	WETA/28817		
60165424005	GW-075035-031914-CK-MW-5	EPA 300.0	WETA/28817		
60165424006	GW-075035-031914-CK-MW-6	EPA 300.0	WETA/28817		
60165424007	GW-075035-031914-CK-MW-7	EPA 300.0	WETA/28817		
60165424008	GW-075035-031914-CK-MW-8	EPA 300.0	WETA/28817		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO#: 60165424

60165424

Client Name: COP CRA_NM

Optional
Proj Due Date:
Proj Name:

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

Tracking #: 5689 1281 4750 ; 4761 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 ☑ 2PLC

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

Cooler Temperature: 3.6, 2.4

Temperature should be above freezing to 6°C

Date and initials of person examining contents: 3/21/14 BA

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): 022414-38FD		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: 1540	Start:
End: 1550	End:
Temp:	Temp:

Project Manager Review: MAF Date: 3/21/14

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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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	COP CRA NM	Report To:	Christine Mathews	Attention:	ENFOS
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Jeff Walker, Angela Bown	Company Name:	
	Albequerque, NM 87110			Address:	
Email To:	cmathews@craworld.com	Purchase Order No.:		Pace Quote Reference:	
Phone: (505)884-0672	Fax: (505)884-4932	Project Name:	Martin 34 No. 2	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:	standard	Project Number:	075035	Pace Profile #:	5514,2

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	8260****	Dissolved Fe, Mn, B	TDS	300.0 **	8270 Naphthalene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. (Coc K05424)
1	GW-075035-031914-CK-MW-1	WT	G			3/19/14	1315		8	4		1	3						X	X	X	X	X		1BP3F1-5 2BP3U 3D64H 2AG4U 001
2	GW-075035-031914-CK-MW-2	WT	G			3/19/14	1110		8	4		1	3						X	X	X	X	X		[illegible]
3	GW-075035-031914-CK-MW-3	WT	G			3/19/14	1230		8	4		1	3						X	X	X	X	X		[illegible]
4	GW-075035-031914-CK-MW-4	WT	G			3/19/14	1515		8	4		1	3						X	X	X	X	X		[illegible]
5	GW-075035-031914-CK-MW-5	WT	G			3/19/14	1430		8	4		1	3						X	X	X	X	X		[illegible]
6	GW-075035-031914-CK-MW-6	WT	G			3/19/14	1100		8	4		1	3						X	X	X	X	X		[illegible]
7	GW-075035-031914-CK-MW-7	WT	G			3/19/14	1235		8	4		1	3						X	X	X	X	X		[illegible]
8	GW-075035-031914-CK-MW-8	WT	G			3/19/14	1445		8	4		1	3						X	X	X	X	X		[illegible]
9	GW-075035-031914-CK-DUP	WT	G			3/19/14	—		3				3						X						[illegible]
10	TB-075035-031914-CK-1	WT	G			3/19/14	—		3				3						X						[illegible]
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
****BTEX, Methylene Chloride, 1,1,2,2-Tetrachloroethane	[signature]	3/20/14	1030	[signature] /PASI KS	3/21/14	0830	3.6	Y	Y	Y
**Chloride, Sulfate, Fluoride							2.4	Y	Y	Y
☆ TWO COOLERS ☆										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KAVACH

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/20/14

*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

Pace Analytical Services, Inc.
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July 01, 2014

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

RE: Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

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,

Emily Webb for
Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

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

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CERTIFICATIONS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

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

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SAMPLE SUMMARY

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60171936001	**GW-075035-061714-CK-MW-1**	Water	06/17/14 13:00	06/19/14 08:30
60171936002	**GW-075035-061714-CK-MW-2**	Water	06/17/14 13:25	06/19/14 08:30
60171936003	**GW-075035-061714-CK-MW-3**	Water	06/17/14 14:10	06/19/14 08:30
60171936004	**GW-075035-061714-CK-MW-4**	Water	06/17/14 15:10	06/19/14 08:30
60171936005	**GW-075035-061714-CK-MW-5**	Water	06/17/14 17:10	06/19/14 08:30
60171936006	**GW-075035-061714-CK-MW-6**	Water	06/17/14 14:40	06/19/14 08:30
60171936007	**GW-075035-061714-CK-MW-7**	Water	06/17/14 16:30	06/19/14 08:30
60171936008	**GW-075035-061714-CK-MW-8**	Water	06/17/14 17:30	06/19/14 08:30
60171936009	**GW-075035-061714-CK-DUP**	Water	06/17/14 08:00	06/19/14 08:30
60171936010	**TRIP BLANK**	Water	06/17/14 18:00	06/19/14 08:30

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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60171936001	GW-075035-061714-CK-MW-1	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936002	GW-075035-061714-CK-MW-2	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936003	GW-075035-061714-CK-MW-3	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936004	GW-075035-061714-CK-MW-4	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936005	GW-075035-061714-CK-MW-5	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936006	GW-075035-061714-CK-MW-6	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936007	GW-075035-061714-CK-MW-7	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936008	GW-075035-061714-CK-MW-8	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3

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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 5030B/8260	PRG	10
		SM 2540C	ESM	1
		EPA 300.0	OL	3
60171936009	**GW-075035-061714-CK-DUP**	EPA 5030B/8260	PRG	10
60171936010	**TRIP BLANK**	EPA 5030B/8260	PRG	10

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

General Information:
8 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:

Analyte Comments:

QC Batch: MPRP/27815

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-061714-CK-MW-6 (Lab ID: 60171936006)
  - Iron, Dissolved
- GW-075035-061714-CK-MW-8 (Lab ID: 60171936008)
  - Iron, Dissolved

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

General Information:
8 samples were analyzed for EPA 8270C by SIM. 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 3510C 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: MSSV/14351

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

General Information:
10 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- GW-075035-061714-CK-DUP (Lab ID: 60171936009)
- GW-075035-061714-CK-MW-1 (Lab ID: 60171936001)

Hold Time:
The samples were analyzed within the method required hold times 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: MSV/62480

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/62481

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

General Information:
8 samples were analyzed for SM 2540C. 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

General Information:
8 samples were analyzed for EPA 300.0. 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.

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.

QC Batch: WETA/30023

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60171936001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1402018)
  - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: WETA/30023

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-061714-CK-MW-1 (Lab ID: 60171936001)
  - Fluoride
- GW-075035-061714-CK-MW-2 (Lab ID: 60171936002)
  - Fluoride
- GW-075035-061714-CK-MW-3 (Lab ID: 60171936003)
  - Fluoride
- GW-075035-061714-CK-MW-4 (Lab ID: 60171936004)
  - Fluoride
- GW-075035-061714-CK-MW-5 (Lab ID: 60171936005)
  - Fluoride
- GW-075035-061714-CK-MW-7 (Lab ID: 60171936007)
  - Fluoride

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: July 01, 2014

Analyte Comments:

QC Batch: WETA/30023

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-061714-CK-MW-8 (Lab ID: 60171936008)
  - Fluoride

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

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-1 **Lab ID: 60171936001** Collected: 06/17/14 13:00 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							
Boron, Dissolved	**1190**	ug/L	500	5	06/26/14 10:10	06/26/14 16:00	7440-42-8	
Iron, Dissolved	**76.6**	ug/L	50.0	1	06/26/14 10:10	06/26/14 15:05	7439-89-6	
Manganese, Dissolved	**227**	ug/L	50.0	10	06/26/14 10:10	06/27/14 13:45	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**33.2**	ug/L	2.5	5	06/24/14 00:00	06/26/14 13:30	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	64	%	36-120	1	06/24/14 00:00	06/25/14 17:53	321-60-8	
Terphenyl-d14 (S)	72	%	29-134	1	06/24/14 00:00	06/25/14 17:53	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3270**	ug/L	100	100		06/23/14 12:09	71-43-2	
Ethylbenzene	**332**	ug/L	100	100		06/23/14 12:09	100-41-4	
Methylene chloride	**122**	ug/L	100	100		06/23/14 12:09	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	100		06/23/14 12:09	79-34-5	
Toluene	**6320**	ug/L	100	100		06/23/14 12:09	108-88-3	
Xylene (Total)	**5750**	ug/L	300	100		06/23/14 12:09	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	100	%	80-120	100		06/23/14 12:09	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	100		06/23/14 12:09	17060-07-0	
Toluene-d8 (S)	97	%	80-120	100		06/23/14 12:09	2037-26-5	
Preservation pH	**3.0**		0.10	100		06/23/14 12:09		pH
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**30100**	mg/L	5.0	1		06/24/14 09:29		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**640**	mg/L	100	100		06/29/14 16:14	16887-00-6	
Fluoride	ND	mg/L	4.0	20		06/29/14 14:18	16984-48-8	D3
Sulfate	**18900**	mg/L	1000	1000		06/29/14 15:59	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-2 **Lab ID: 60171936002** Collected: 06/17/14 13:25 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							
Boron, Dissolved	**772**	ug/L	500	5	06/26/14 10:10	06/26/14 16:07	7440-42-8	
Iron, Dissolved	**3090**	ug/L	250	5	06/26/14 10:10	06/26/14 16:07	7439-89-6	
Manganese, Dissolved	**3680**	ug/L	50.0	10	06/26/14 10:10	06/27/14 13:48	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**15.3**	ug/L	0.50	1	06/24/14 00:00	06/25/14 18:14	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	72	%	36-120	1	06/24/14 00:00	06/25/14 18:14	321-60-8	
Terphenyl-d14 (S)	76	%	29-134	1	06/24/14 00:00	06/25/14 18:14	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**58.2**	ug/L	5.0	5		06/23/14 12:23	71-43-2	
Ethylbenzene	**238**	ug/L	5.0	5		06/23/14 12:23	100-41-4	
Methylene chloride	**8.1**	ug/L	5.0	5		06/23/14 12:23	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		06/23/14 12:23	79-34-5	
Toluene	ND	ug/L	5.0	5		06/23/14 12:23	108-88-3	
Xylene (Total)	**74.4**	ug/L	15.0	5		06/23/14 12:23	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	99	%	80-120	5		06/23/14 12:23	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	5		06/23/14 12:23	17060-07-0	
Toluene-d8 (S)	97	%	80-120	5		06/23/14 12:23	2037-26-5	
Preservation pH	**1.0**		0.10	5		06/23/14 12:23		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**33100**	mg/L	5.0	1		06/24/14 09:29		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**470**	mg/L	50.0	50		06/29/14 17:26	16887-00-6	
Fluoride	ND	mg/L	4.0	20		06/29/14 16:57	16984-48-8	D3
Sulfate	**22100**	mg/L	2000	2000		07/01/14 09:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-3 **Lab ID: 60171936003** Collected: 06/17/14 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							
Boron, Dissolved	**974**	ug/L	500	5	06/26/14 10:10	06/27/14 14:10	7440-42-8	
Iron, Dissolved	**55.6**	ug/L	50.0	1	06/26/14 10:10	06/26/14 15:19	7439-89-6	
Manganese, Dissolved	**47.5**	ug/L	25.0	5	06/26/14 10:10	06/27/14 14:10	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	06/24/14 00:00	06/25/14 18:34	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	91	%	36-120	1	06/24/14 00:00	06/25/14 18:34	321-60-8	
Terphenyl-d14 (S)	85	%	29-134	1	06/24/14 00:00	06/25/14 18:34	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		06/23/14 12:38	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/23/14 12:38	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		06/23/14 12:38	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/23/14 12:38	79-34-5	
Toluene	ND	ug/L	1.0	1		06/23/14 12:38	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/23/14 12:38	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	1		06/23/14 12:38	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	80-120	1		06/23/14 12:38	17060-07-0	
Toluene-d8 (S)	96	%	80-120	1		06/23/14 12:38	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/23/14 12:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**34100**	mg/L	5.0	1		06/24/14 09:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**441**	mg/L	50.0	50		06/29/14 18:52	16887-00-6	
Fluoride	ND	mg/L	10.0	50		06/29/14 18:52	16984-48-8	D3
Sulfate	**21000**	mg/L	2000	2000		07/01/14 10:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-4 **Lab ID: 60171936004** Collected: 06/17/14 15:10 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							
Boron, Dissolved	**962**	ug/L	500	5	06/26/14 10:10	06/26/14 16:16	7440-42-8	
Iron, Dissolved	**288**	ug/L	250	5	06/26/14 10:10	06/26/14 16:16	7439-89-6	
Manganese, Dissolved	**1780**	ug/L	50.0	10	06/26/14 10:10	06/27/14 13:52	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**1.3**	ug/L	0.50	1	06/24/14 00:00	06/25/14 18:54	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	90	%	36-120	1	06/24/14 00:00	06/25/14 18:54	321-60-8	
Terphenyl-d14 (S)	89	%	29-134	1	06/24/14 00:00	06/25/14 18:54	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		06/23/14 12:52	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/23/14 12:52	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		06/23/14 12:52	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/23/14 12:52	79-34-5	
Toluene	ND	ug/L	1.0	1		06/23/14 12:52	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/23/14 12:52	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96	%	80-120	1		06/23/14 12:52	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	80-120	1		06/23/14 12:52	17060-07-0	
Toluene-d8 (S)	95	%	80-120	1		06/23/14 12:52	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/23/14 12:52		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**37600**	mg/L	5.0	1		06/24/14 09:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**384**	mg/L	50.0	50		06/29/14 19:21	16887-00-6	
Fluoride	ND	mg/L	10.0	50		06/29/14 19:21	16984-48-8	D3
Sulfate	**24500**	mg/L	2000	2000		07/01/14 10:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-5 **Lab ID: 60171936005** Collected: 06/17/14 17:10 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							
Boron, Dissolved	**1460**	ug/L	500	5	06/26/14 10:10	06/26/14 16:18	7440-42-8	
Iron, Dissolved	**714**	ug/L	250	5	06/26/14 10:10	06/26/14 16:18	7439-89-6	
Manganese, Dissolved	**695**	ug/L	50.0	10	06/26/14 10:10	06/27/14 13:55	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	06/24/14 00:00	06/25/14 19:15	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	77	%	36-120	1	06/24/14 00:00	06/25/14 19:15	321-60-8	
Terphenyl-d14 (S)	84	%	29-134	1	06/24/14 00:00	06/25/14 19:15	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**192**	ug/L	1.0	1		06/23/14 13:06	71-43-2	
Ethylbenzene	**14.7**	ug/L	1.0	1		06/23/14 13:06	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		06/23/14 13:06	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/23/14 13:06	79-34-5	
Toluene	ND	ug/L	1.0	1		06/23/14 13:06	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/23/14 13:06	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	100	%	80-120	1		06/23/14 13:06	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		06/23/14 13:06	17060-07-0	
Toluene-d8 (S)	96	%	80-120	1		06/23/14 13:06	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/23/14 13:06		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**12100**	mg/L	5.0	1		06/24/14 09:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**236**	mg/L	20.0	20		06/29/14 19:50	16887-00-6	
Fluoride	ND	mg/L	4.0	20		06/29/14 19:50	16984-48-8	D3
Sulfate	**8600**	mg/L	1000	1000		06/29/14 20:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-6 **Lab ID: 60171936006** Collected: 06/17/14 14:40 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							
Boron, Dissolved	**724**	ug/L	500	5	06/26/14 10:10	06/26/14 16:20	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	06/26/14 10:10	06/26/14 16:20	7439-89-6	D3
Manganese, Dissolved	**1940**	ug/L	50.0	10	06/26/14 10:10	06/27/14 14:02	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**21.3**	ug/L	2.5	5	06/24/14 00:00	06/26/14 13:50	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	82	%	36-120	1	06/24/14 00:00	06/25/14 19:35	321-60-8	
Terphenyl-d14 (S)	84	%	29-134	1	06/24/14 00:00	06/25/14 19:35	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**21.9**	ug/L	10.0	10		06/23/14 13:21	71-43-2	
Ethylbenzene	**115**	ug/L	10.0	10		06/23/14 13:21	100-41-4	
Methylene chloride	**17.5**	ug/L	10.0	10		06/23/14 13:21	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	10		06/23/14 13:21	79-34-5	
Toluene	ND	ug/L	10.0	10		06/23/14 13:21	108-88-3	
Xylene (Total)	**1400**	ug/L	30.0	10		06/23/14 13:21	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	80-120	10		06/23/14 13:21	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	10		06/23/14 13:21	17060-07-0	
Toluene-d8 (S)	97	%	80-120	10		06/23/14 13:21	2037-26-5	
Preservation pH	**1.0**		0.10	10		06/23/14 13:21		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**36100**	mg/L	5.0	1		06/24/14 09:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**668**	mg/L	100	100		06/29/14 20:33	16887-00-6	
Fluoride	ND	mg/L	4.0	20		06/29/14 20:18	16984-48-8	
Sulfate	**24200**	mg/L	2000	2000		07/01/14 11:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-7 **Lab ID: 60171936007** Collected: 06/17/14 16:30 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							
Boron, Dissolved	**780**	ug/L	500	5	06/26/14 10:10	06/26/14 16:22	7440-42-8	
Iron, Dissolved	**3810**	ug/L	250	5	06/26/14 10:10	06/26/14 16:22	7439-89-6	
Manganese, Dissolved	**2360**	ug/L	50.0	10	06/26/14 10:10	06/27/14 14:04	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	06/24/14 00:00	06/25/14 19:56	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	83	%	36-120	1	06/24/14 00:00	06/25/14 19:56	321-60-8	
Terphenyl-d14 (S)	85	%	29-134	1	06/24/14 00:00	06/25/14 19:56	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**15.2**	ug/L	5.0	5		06/23/14 13:35	71-43-2	
Ethylbenzene	**385**	ug/L	5.0	5		06/23/14 13:35	100-41-4	
Methylene chloride	**8.7**	ug/L	5.0	5		06/23/14 13:35	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		06/23/14 13:35	79-34-5	
Toluene	ND	ug/L	5.0	5		06/23/14 13:35	108-88-3	
Xylene (Total)	ND	ug/L	15.0	5		06/23/14 13:35	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	95	%	80-120	5		06/23/14 13:35	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-120	5		06/23/14 13:35	17060-07-0	
Toluene-d8 (S)	99	%	80-120	5		06/23/14 13:35	2037-26-5	
Preservation pH	**1.0**		0.10	5		06/23/14 13:35		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**34700**	mg/L	5.0	1		06/24/14 09:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**357**	mg/L	50.0	50		06/29/14 21:45	16887-00-6	
Fluoride	ND	mg/L	10.0	50		06/29/14 21:45	16984-48-8	D3
Sulfate	**22200**	mg/L	2000	2000		07/01/14 11:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-MW-8 **Lab ID: 60171936008** Collected: 06/17/14 17:30 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							
Boron, Dissolved	**947**	ug/L	500	5	06/26/14 10:10	06/26/14 16:25	7440-42-8	
Iron, Dissolved	ND	ug/L	250	5	06/26/14 10:10	06/26/14 16:25	7439-89-6	D3
Manganese, Dissolved	**3170**	ug/L	50.0	10	06/26/14 10:10	06/27/14 14:06	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	06/24/14 00:00	06/25/14 20:16	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	90	%	36-120	1	06/24/14 00:00	06/25/14 20:16	321-60-8	
Terphenyl-d14 (S)	83	%	29-134	1	06/24/14 00:00	06/25/14 20:16	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		06/23/14 13:49	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/23/14 13:49	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		06/23/14 13:49	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/23/14 13:49	79-34-5	
Toluene	ND	ug/L	1.0	1		06/23/14 13:49	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/23/14 13:49	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	80-120	1		06/23/14 13:49	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-120	1		06/23/14 13:49	17060-07-0	
Toluene-d8 (S)	96	%	80-120	1		06/23/14 13:49	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/23/14 13:49		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**25500**	mg/L	5.0	1		06/24/14 09:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**676**	mg/L	100	100		06/29/14 22:14	16887-00-6	
Fluoride	ND	mg/L	4.0	20		06/29/14 21:59	16984-48-8	D3
Sulfate	**16300**	mg/L	1000	1000		06/29/14 22:28	14808-79-8	

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: GW-075035-061714-CK-DUP **Lab ID: 60171936009** Collected: 06/17/14 08:00 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3670**	ug/L	100	100		06/24/14 01:14	71-43-2	
Ethylbenzene	**373**	ug/L	100	100		06/24/14 01:14	100-41-4	
Methylene chloride	**129**	ug/L	100	100		06/24/14 01:14	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	100		06/24/14 01:14	79-34-5	
Toluene	**7090**	ug/L	100	100		06/24/14 01:14	108-88-3	
Xylene (Total)	**6340**	ug/L	300	100		06/24/14 01:14	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	99	%	80-120	100		06/24/14 01:14	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	100		06/24/14 01:14	17060-07-0	
Toluene-d8 (S)	99	%	80-120	100		06/24/14 01:14	2037-26-5	
Preservation pH	**4.0**		0.10	100		06/24/14 01:14		pH

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Sample: TRIP BLANK **Lab ID: 60171936010** Collected: 06/17/14 18:00 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		06/23/14 21:40	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/23/14 21:40	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		06/23/14 21:40	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/23/14 21:40	79-34-5	
Toluene	ND	ug/L	1.0	1		06/23/14 21:40	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/23/14 21:40	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	99	%	80-120	1		06/23/14 21:40	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	1		06/23/14 21:40	17060-07-0	
Toluene-d8 (S)	98	%	80-120	1		06/23/14 21:40	2037-26-5	
Preservation pH	**1.0**		0.10	1		06/23/14 21:40		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: MPRP/27815 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

METHOD BLANK: 1401345 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	06/26/14 14:48	
Iron, Dissolved	ug/L	ND	50.0	06/26/14 14:48	
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
Boron, Dissolved	ug/L	1000	1010	101	80-120	
Iron, Dissolved	ug/L	10000	10600	106	80-120	
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
Boron, Dissolved	ug/L	1190	1000	1000	2220	2260	103	107	75-125	2	20	
Iron, Dissolved	ug/L	76.6	10000	10000	10200	10200	101	101	75-125	0	20	
Manganese, Dissolved	ug/L	227	1000	1000	1200	1210	98	98	75-125	0	20	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: MSV/62480 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

METHOD BLANK: 1399174 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/23/14 09:29	
Benzene	ug/L	ND	1.0	06/23/14 09:29	
Ethylbenzene	ug/L	ND	1.0	06/23/14 09:29	
Methylene chloride	ug/L	ND	1.0	06/23/14 09:29	
Toluene	ug/L	ND	1.0	06/23/14 09:29	
Xylene (Total)	ug/L	ND	3.0	06/23/14 09:29	
1,2-Dichloroethane-d4 (S)	%	96	80-120	06/23/14 09:29	
4-Bromofluorobenzene (S)	%	99	80-120	06/23/14 09:29	
Toluene-d8 (S)	%	97	80-120	06/23/14 09:29	

LABORATORY CONTROL SAMPLE: 1399175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	20.6	103	73-124	
Benzene	ug/L	20	20.4	102	80-120	
Ethylbenzene	ug/L	20	20.3	102	80-121	
Methylene chloride	ug/L	20	22.1	110	73-126	
Toluene	ug/L	20	20.1	100	80-122	
Xylene (Total)	ug/L	60	64.1	107	80-121	
1,2-Dichloroethane-d4 (S)	%			97	80-120	
4-Bromofluorobenzene (S)	%			97	80-120	
Toluene-d8 (S)	%			101	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: MSV/62481 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60171936009, 60171936010

METHOD BLANK: 1399192 Matrix: Water
Associated Lab Samples: 60171936009, 60171936010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/23/14 21:26	
Benzene	ug/L	ND	1.0	06/23/14 21:26	
Ethylbenzene	ug/L	ND	1.0	06/23/14 21:26	
Methylene chloride	ug/L	ND	1.0	06/23/14 21:26	
Toluene	ug/L	ND	1.0	06/23/14 21:26	
Xylene (Total)	ug/L	ND	3.0	06/23/14 21:26	
1,2-Dichloroethane-d4 (S)	%	94	80-120	06/23/14 21:26	
4-Bromofluorobenzene (S)	%	97	80-120	06/23/14 21:26	
Toluene-d8 (S)	%	99	80-120	06/23/14 21:26	

LABORATORY CONTROL SAMPLE: 1399193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	19.4	97	73-124	
Benzene	ug/L	20	20.4	102	80-120	
Ethylbenzene	ug/L	20	20.7	103	80-121	
Methylene chloride	ug/L	20	20.8	104	73-126	
Toluene	ug/L	20	20.0	100	80-122	
Xylene (Total)	ug/L	60	63.4	106	80-121	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			92	80-120	
Toluene-d8 (S)	%			98	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: OEXT/44800 Analysis Method: EPA 8270C by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

METHOD BLANK: 1399626 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	06/25/14 16:52	
2-Fluorobiphenyl (S)	%	87	36-120	06/25/14 16:52	
Terphenyl-d14 (S)	%	108	29-134	06/25/14 16:52	

LABORATORY CONTROL SAMPLE: 1399627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	8.6	86	44-120	
2-Fluorobiphenyl (S)	%			85	36-120	
Terphenyl-d14 (S)	%			82	29-134	

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

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

QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: WET/48644 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

METHOD BLANK: 1399705 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	06/24/14 09:26	

LABORATORY CONTROL SAMPLE: 1399706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	951	95	80-120	

SAMPLE DUPLICATE: 1399707

Parameter	Units	60171847001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1010	1000	0	10	

SAMPLE DUPLICATE: 1399708

Parameter	Units	60171936003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	34100	33600	1	10	

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

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

QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

QC Batch: WETA/30023 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

METHOD BLANK: 1402016 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	06/29/14 13:50	
Fluoride	mg/L	ND	0.20	06/29/14 13:50	
Sulfate	mg/L	ND	1.0	06/29/14 13:50	

METHOD BLANK: 1404324 Matrix: Water
Associated Lab Samples: 60171936001, 60171936002, 60171936003, 60171936004, 60171936005, 60171936006, 60171936007, 60171936008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	07/01/14 09:12	
Fluoride	mg/L	ND	0.20	07/01/14 09:12	
Sulfate	mg/L	ND	1.0	07/01/14 09:12	

LABORATORY CONTROL SAMPLE: 1402017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

LABORATORY CONTROL SAMPLE: 1404325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	97	90-110	
Fluoride	mg/L	2.5	2.3	94	90-110	
Sulfate	mg/L	5	5.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1402018 1402019

Parameter	Units	60171936001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	640	500	500	1100	1100	92	93	80-120	0	15	
Fluoride	mg/L	ND	50	50	48.1	47.2	96	94	80-120	2	15	
Sulfate	mg/L	18900	5000	5000	25200	24800	125	117	80-120	2	15	M1

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

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

QUALIFIERS

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

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.

BATCH QUALIFIERS

Batch: MSV/62480

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/62481

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: OEXT/44800

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 075035 MARTIN 34 NO 2
Pace Project No.: 60171936

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60171936001	**GW-075035-061714-CK-MW-1**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936002	**GW-075035-061714-CK-MW-2**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936003	**GW-075035-061714-CK-MW-3**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936004	**GW-075035-061714-CK-MW-4**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936005	**GW-075035-061714-CK-MW-5**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936006	**GW-075035-061714-CK-MW-6**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936007	**GW-075035-061714-CK-MW-7**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936008	**GW-075035-061714-CK-MW-8**	EPA 3010	MPRP/27815	EPA 6010	ICP/21033
60171936001	**GW-075035-061714-CK-MW-1**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936002	**GW-075035-061714-CK-MW-2**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936003	**GW-075035-061714-CK-MW-3**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936004	**GW-075035-061714-CK-MW-4**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936005	**GW-075035-061714-CK-MW-5**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936006	**GW-075035-061714-CK-MW-6**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936007	**GW-075035-061714-CK-MW-7**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936008	**GW-075035-061714-CK-MW-8**	EPA 3510C	OEXT/44800	EPA 8270C by SIM	MSSV/14351
60171936001	**GW-075035-061714-CK-MW-1**	EPA 5030B/8260	MSV/62480		
60171936002	**GW-075035-061714-CK-MW-2**	EPA 5030B/8260	MSV/62480		
60171936003	**GW-075035-061714-CK-MW-3**	EPA 5030B/8260	MSV/62480		
60171936004	**GW-075035-061714-CK-MW-4**	EPA 5030B/8260	MSV/62480		
60171936005	**GW-075035-061714-CK-MW-5**	EPA 5030B/8260	MSV/62480		
60171936006	**GW-075035-061714-CK-MW-6**	EPA 5030B/8260	MSV/62480		
60171936007	**GW-075035-061714-CK-MW-7**	EPA 5030B/8260	MSV/62480		
60171936008	**GW-075035-061714-CK-MW-8**	EPA 5030B/8260	MSV/62480		
60171936009	**GW-075035-061714-CK-DUP**	EPA 5030B/8260	MSV/62481		
60171936010	**TRIP BLANK**	EPA 5030B/8260	MSV/62481		
60171936001	**GW-075035-061714-CK-MW-1**	SM 2540C	WET/48644		
60171936002	**GW-075035-061714-CK-MW-2**	SM 2540C	WET/48644		
60171936003	**GW-075035-061714-CK-MW-3**	SM 2540C	WET/48644		
60171936004	**GW-075035-061714-CK-MW-4**	SM 2540C	WET/48644		
60171936005	**GW-075035-061714-CK-MW-5**	SM 2540C	WET/48644		
60171936006	**GW-075035-061714-CK-MW-6**	SM 2540C	WET/48644		
60171936007	**GW-075035-061714-CK-MW-7**	SM 2540C	WET/48644		
60171936008	**GW-075035-061714-CK-MW-8**	SM 2540C	WET/48644		
60171936001	**GW-075035-061714-CK-MW-1**	EPA 300.0	WETA/30023		
60171936002	**GW-075035-061714-CK-MW-2**	EPA 300.0	WETA/30023		
60171936003	**GW-075035-061714-CK-MW-3**	EPA 300.0	WETA/30023		
60171936004	**GW-075035-061714-CK-MW-4**	EPA 300.0	WETA/30023		
60171936005	**GW-075035-061714-CK-MW-5**	EPA 300.0	WETA/30023		
60171936006	**GW-075035-061714-CK-MW-6**	EPA 300.0	WETA/30023		
60171936007	**GW-075035-061714-CK-MW-7**	EPA 300.0	WETA/30023		
60171936008	**GW-075035-061714-CK-MW-8**	EPA 300.0	WETA/30023		

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60171936

60171936

Client Name: COP CBA NM

Optional
Proj Due Date:
Proj Name:

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

Tracking #: 8051 1755 9405 9416 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 ☐

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

Cooler Temperature: 2.0, 1.2

Date and initials of person examining contents: JM 6/19/14 1450

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: WG SO		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 JM / Lot # of added preservative
Trip Blank present:	☑Yes ☐No ☐N/A	
Pace Trip Blank lot # (if purchased): 051214-3		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: MMW for AAE Date: 6/20/14

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

Start: 1440	Start:
End: 1450	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.:	
Project Name:	Martin 34 No. 2
Project Number:	075035

Section C — Invoice Information:

Attention:	ENFOS
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514,2

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.: 6051749334

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	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	8260****	Dissolved Fe, Mn, B	TDS	300.0 **	8270 Naphthalene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-075035-061714-CK-MW-1	WT	G	—	—	6.17.14	1300		8	X		X	X						X	X	X	X	X		2(BBM)1(BBF)2(AZH)3(DEM) 001
2	GW-075035-061714-CK-MW-2	WT	G	—	—	6.17.14	1325		8	X		X	X						X	X	X	X	X		002
3	GW-075035-061714-CK-MW-3	WT	G	—	—	6.17.14	1410		8	X		X	X						X	X	X	X	X		003
4	GW-075035-061714-CK-MW-4	WT	G	—	—	6.17.14	1610		8	X		X	X						X	X	X	X	X		004
5	GW-075035-061714-CK-MW-5	WT	G	—	—	6.17.14	1710		8	X		X	X						X	X	X	X	X		005
6	GW-075035-061714-CK-MW-6	WT	G	—	—	6.17.14	1440		8	X		X	X						X	X	X	X	X		006
7	GW-075035-061714-CK-MW-7	WT	G	—	—	6.17.14	1030		8	X		X	X						X	X	X	X	X		007
8	GW-075035-061714-CK-MW-8	WT	G	—	—	6.17.14	1730		8	X		X	X						X	X	X	X	X		008
9	GW-075035-061714-CK-dup	WT	G	—	—	6.17.14			3				X						X						3(DEGH) 009
10	trip blank					6.17.14	1800		3				X						X						010
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
****BTEX, Methylene Chloride, 1,1,2,2-Tetrachloroethane	Cassie Brown / CRA	6/17/14	1330	[signature] / Pace	6/19/14	830	1.2	Y	Y	Y
**Chloride, Sulfate, Fluoride							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: Cassie Brown

DATE Signed (MM/DD/YY): 6/17/14

*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

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

October 06, 2014

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

RE: Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on September 18, 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

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60178343001	**GW-075035-091714-CB-MW-1**	Water	09/17/14 12:25	09/18/14 08:25
60178343002	**GW-075035-091714-CB-MW-2**	Water	09/17/14 14:15	09/18/14 08:25
60178343003	**GW-075035-091714-CB-MW-3**	Water	09/17/14 14:50	09/18/14 08:25
60178343004	**GW-075035-091714-CB-MW-4**	Water	09/17/14 12:45	09/18/14 08:25
60178343005	**GW-075035-091714-CB-MW-5**	Water	09/17/14 09:25	09/18/14 08:25
60178343006	**GW-075035-091714-CB-MW-6**	Water	09/17/14 13:30	09/18/14 08:25
60178343007	**GW-075035-091714-CB-MW-7**	Water	09/17/14 10:40	09/18/14 08:25
60178343008	**GW-075035-091714-CB-MW-8**	Water	09/17/14 09:45	09/18/14 08:25
60178343009	**GW-075035-091714-CB-DUP**	Water	09/17/14 08:00	09/18/14 08:25
60178343010	**TRIP BLANK**	Water	09/17/14 08:00	09/18/14 08:25

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60178343001	**GW-075035-091714-CB-MW-1**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343002	**GW-075035-091714-CB-MW-2**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343003	**GW-075035-091714-CB-MW-3**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343004	**GW-075035-091714-CB-MW-4**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343005	**GW-075035-091714-CB-MW-5**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343006	**GW-075035-091714-CB-MW-6**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343007	**GW-075035-091714-CB-MW-7**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343008	**GW-075035-091714-CB-MW-8**	EPA 6010	NDJ	3
		EPA 8270C by SIM	NAW	3

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SAMPLE ANALYTE COUNT

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 5030B/8260	PRG	11
		SM 2540C	MER	1
		EPA 300.0	OL	3
60178343009	**GW-075035-091714-CB-DUP**	EPA 5030B/8260	PRG	11
60178343010	**TRIP BLANK**	EPA 5030B/8260	PRG	11

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: CRA Conoco New Mexico
Date: October 06, 2014

General Information:
8 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.

QC Batch: MPRP/28997

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60178343001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1446138)
  - Iron, Dissolved

R1: RPD value was outside control limits.

- MSD (Lab ID: 1446138)
  - Iron, Dissolved

Additional Comments:

Analyte Comments:

QC Batch: MPRP/28997

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-091714-CB-MW-1 (Lab ID: 60178343001)
  - Iron, Dissolved
- GW-075035-091714-CB-MW-2 (Lab ID: 60178343002)
  - Boron, Dissolved

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: CRA Conoco New Mexico
Date: October 06, 2014

Analyte Comments:

QC Batch: MPRP/28997

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- GW-075035-091714-CB-MW-3 (Lab ID: 60178343003)
  - Boron, Dissolved
  - Iron, Dissolved
- GW-075035-091714-CB-MW-4 (Lab ID: 60178343004)
  - Iron, Dissolved
- GW-075035-091714-CB-MW-6 (Lab ID: 60178343006)
  - Boron, Dissolved
  - Iron, Dissolved
- GW-075035-091714-CB-MW-7 (Lab ID: 60178343007)
  - Boron, Dissolved
  - Iron, Dissolved
- GW-075035-091714-CB-MW-8 (Lab ID: 60178343008)
  - Boron, Dissolved
  - Iron, Dissolved

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: CRA Conoco New Mexico
Date: October 06, 2014

General Information:
8 samples were analyzed for EPA 8270C by SIM. 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 3510C 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: OEXT/46241

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **EPA 5030B/8260**
Description: 8260 MSV
Client: CRA Conoco New Mexico
Date: October 06, 2014

General Information:
10 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- GW-075035-091714-CB-MW-1 (Lab ID: 60178343001)

Hold Time:
The samples were analyzed within the method required hold times 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.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits 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.

QC Batch: MSV/64547

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/64579

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/64633

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: CRA Conoco New Mexico
Date: October 06, 2014

General Information:
8 samples were analyzed for SM 2540C. 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.

H1: Analysis conducted outside the EPA method holding time.
- GW-075035-091714-CB-MW-3 (Lab ID: 60178343003)
- GW-075035-091714-CB-MW-4 (Lab ID: 60178343004)
- GW-075035-091714-CB-MW-6 (Lab ID: 60178343006)
- GW-075035-091714-CB-MW-7 (Lab ID: 60178343007)
- GW-075035-091714-CB-MW-8 (Lab ID: 60178343008)

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WET/50590

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 1451456)
  - Total Dissolved Solids

Additional Comments:

Analyte Comments:

QC Batch: WET/50464

1e: Residue exceeded method limit of 0.2g
- GW-075035-091714-CB-MW-3 (Lab ID: 60178343003)
  - Total Dissolved Solids
- GW-075035-091714-CB-MW-4 (Lab ID: 60178343004)
  - Total Dissolved Solids
- GW-075035-091714-CB-MW-6 (Lab ID: 60178343006)
  - Total Dissolved Solids
- GW-075035-091714-CB-MW-7 (Lab ID: 60178343007)
  - Total Dissolved Solids
- GW-075035-091714-CB-MW-8 (Lab ID: 60178343008)
  - Total Dissolved Solids

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PROJECT NARRATIVE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: CRA Conoco New Mexico
Date: October 06, 2014

General Information:
8 samples were analyzed for EPA 300.0. 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.

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: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-1 **Lab ID: 60178343001** Collected: 09/17/14 12:25 Received: 09/18/14 08:25 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							
Boron, Dissolved	**1340**	ug/L	1000	10	09/20/14 11:50	10/01/14 14:30	7440-42-8	
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 14:30	7439-89-6	D3,M1, R1
Manganese, Dissolved	**196**	ug/L	50.0	10	09/20/14 11:50	10/01/14 14:30	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**38.2**	ug/L	2.5	5	09/23/14 00:00	09/26/14 22:11	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	64	%	36-120	1	09/23/14 00:00	09/25/14 20:59	321-60-8	
Terphenyl-d14 (S)	70	%	29-134	1	09/23/14 00:00	09/25/14 20:59	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3650**	ug/L	100	100		09/22/14 17:06	71-43-2	
Ethylbenzene	**463**	ug/L	100	100		09/22/14 17:06	100-41-4	
Methylene chloride	ND	ug/L	100	100		09/22/14 17:06	75-09-2	
Naphthalene	ND	ug/L	1000	100		09/22/14 17:06	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	100		09/22/14 17:06	79-34-5	
Toluene	**7980**	ug/L	100	100		09/22/14 17:06	108-88-3	
Xylene (Total)	**7300**	ug/L	300	100		09/22/14 17:06	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	80-120	100		09/22/14 17:06	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	80-120	100		09/22/14 17:06	17060-07-0	
Toluene-d8 (S)	98	%	80-120	100		09/22/14 17:06	2037-26-5	
Preservation pH	**3.0**		0.10	100		09/22/14 17:06		pH
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**29100**	mg/L	5.0	1		09/23/14 12:16		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**553**	mg/L	100	100		09/25/14 18:48	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 00:26	16984-48-8	
Sulfate	**18200**	mg/L	2000	2000		09/28/14 11:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-2 **Lab ID: 60178343002** Collected: 09/17/14 14:15 Received: 09/18/14 08:25 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							
Boron, Dissolved	ND	ug/L	1000	10	09/20/14 11:50	10/01/14 14:51	7440-42-8	D3
Iron, Dissolved	**3580**	ug/L	500	10	09/20/14 11:50	10/01/14 14:51	7439-89-6	
Manganese, Dissolved	**4260**	ug/L	50.0	10	09/20/14 11:50	10/01/14 14:51	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**9.6**	ug/L	0.50	1	09/23/14 00:00	09/25/14 21:20	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	76	%	36-120	1	09/23/14 00:00	09/25/14 21:20	321-60-8	
Terphenyl-d14 (S)	81	%	29-134	1	09/23/14 00:00	09/25/14 21:20	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**72.5**	ug/L	5.0	5		09/22/14 17:22	71-43-2	
Ethylbenzene	**293**	ug/L	5.0	5		09/22/14 17:22	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		09/22/14 17:22	75-09-2	
Naphthalene	ND	ug/L	50.0	5		09/22/14 17:22	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		09/22/14 17:22	79-34-5	
Toluene	**8.7**	ug/L	5.0	5		09/22/14 17:22	108-88-3	
Xylene (Total)	**97.3**	ug/L	15.0	5		09/22/14 17:22	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	5		09/22/14 17:22	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	5		09/22/14 17:22	17060-07-0	
Toluene-d8 (S)	98	%	80-120	5		09/22/14 17:22	2037-26-5	
Preservation pH	**1.0**		0.10	5		09/22/14 17:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**31400**	mg/L	5.0	1		09/23/14 12:16		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**418**	mg/L	50.0	50		09/25/14 19:03	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 00:41	16984-48-8	
Sulfate	**21800**	mg/L	2000	2000		09/28/14 11:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-3 **Lab ID: 60178343003** Collected: 09/17/14 14:50 Received: 09/18/14 08:25 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							
Boron, Dissolved	ND	ug/L	1000	10	09/20/14 11:50	10/01/14 15:53	7440-42-8	D3
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 15:53	7439-89-6	D3
Manganese, Dissolved	**278**	ug/L	50.0	10	09/20/14 11:50	10/01/14 15:53	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	09/23/14 00:00	09/25/14 21:40	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	77	%	36-120	1	09/23/14 00:00	09/25/14 21:40	321-60-8	
Terphenyl-d14 (S)	87	%	29-134	1	09/23/14 00:00	09/25/14 21:40	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		09/22/14 16:01	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/14 16:01	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/22/14 16:01	75-09-2	
Naphthalene	ND	ug/L	10.0	1		09/22/14 16:01	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/22/14 16:01	79-34-5	
Toluene	ND	ug/L	1.0	1		09/22/14 16:01	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/14 16:01	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	1		09/22/14 16:01	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-120	1		09/22/14 16:01	17060-07-0	
Toluene-d8 (S)	98	%	80-120	1		09/22/14 16:01	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/22/14 16:01		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**32100**	mg/L	5.0	1		09/24/14 15:34		1e
Total Dissolved Solids	**25800**	mg/L	5.0	1		09/30/14 15:00		D6,H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**380**	mg/L	50.0	50		09/25/14 19:18	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 00:56	16984-48-8	
Sulfate	**20800**	mg/L	2000	2000		09/28/14 11:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-4 **Lab ID: 60178343004** Collected: 09/17/14 12:45 Received: 09/18/14 08:25 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							
Boron, Dissolved	**1130**	ug/L	1000	10	09/20/14 11:50	10/01/14 14:58	7440-42-8	
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 14:58	7439-89-6	D3
Manganese, Dissolved	**1970**	ug/L	50.0	10	09/20/14 11:50	10/01/14 14:58	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**1.9**	ug/L	0.50	1	09/23/14 00:00	09/25/14 22:01	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	81	%	36-120	1	09/23/14 00:00	09/25/14 22:01	321-60-8	
Terphenyl-d14 (S)	75	%	29-134	1	09/23/14 00:00	09/25/14 22:01	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		09/22/14 16:17	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/14 16:17	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/22/14 16:17	75-09-2	
Naphthalene	ND	ug/L	10.0	1		09/22/14 16:17	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/22/14 16:17	79-34-5	
Toluene	ND	ug/L	1.0	1		09/22/14 16:17	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/14 16:17	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102	%	80-120	1		09/22/14 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-120	1		09/22/14 16:17	17060-07-0	
Toluene-d8 (S)	98	%	80-120	1		09/22/14 16:17	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/22/14 16:17		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**37200**	mg/L	5.0	1		09/24/14 15:34		1e
Total Dissolved Solids	**36600**	mg/L	5.0	1		09/30/14 15:00		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**337**	mg/L	50.0	50		09/25/14 19:33	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 01:12	16984-48-8	
Sulfate	**24500**	mg/L	2000	2000		09/28/14 11:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-5 **Lab ID: 60178343005** Collected: 09/17/14 09:25 Received: 09/18/14 08:25 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							
Boron, Dissolved	**1330**	ug/L	1000	10	09/20/14 11:50	10/01/14 15:02	7440-42-8	
Iron, Dissolved	**629**	ug/L	500	10	09/20/14 11:50	10/01/14 15:02	7439-89-6	
Manganese, Dissolved	**752**	ug/L	50.0	10	09/20/14 11:50	10/01/14 15:02	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	09/23/14 00:00	09/25/14 22:21	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	83	%	36-120	1	09/23/14 00:00	09/25/14 22:21	321-60-8	
Terphenyl-d14 (S)	82	%	29-134	1	09/23/14 00:00	09/25/14 22:21	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**203**	ug/L	5.0	5		09/22/14 17:38	71-43-2	
Ethylbenzene	**10.7**	ug/L	5.0	5		09/22/14 17:38	100-41-4	
Methylene chloride	ND	ug/L	5.0	5		09/22/14 17:38	75-09-2	
Naphthalene	ND	ug/L	50.0	5		09/22/14 17:38	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		09/22/14 17:38	79-34-5	
Toluene	ND	ug/L	5.0	5		09/22/14 17:38	108-88-3	
Xylene (Total)	ND	ug/L	15.0	5		09/22/14 17:38	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	100	%	80-120	5		09/22/14 17:38	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	5		09/22/14 17:38	17060-07-0	
Toluene-d8 (S)	99	%	80-120	5		09/22/14 17:38	2037-26-5	
Preservation pH	**1.0**		0.10	5		09/22/14 17:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**16300**	mg/L	5.0	1		09/24/14 15:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**219**	mg/L	20.0	20		09/25/14 19:48	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 01:27	16984-48-8	
Sulfate	**9590**	mg/L	2000	2000		09/30/14 09:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-6 **Lab ID: 60178343006** Collected: 09/17/14 13:30 Received: 09/18/14 08:25 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							
Boron, Dissolved	ND	ug/L	1000	10	09/20/14 11:50	10/01/14 15:05	7440-42-8	D3
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 15:05	7439-89-6	D3
Manganese, Dissolved	**1770**	ug/L	50.0	10	09/20/14 11:50	10/01/14 15:05	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**19.8**	ug/L	0.50	1	09/23/14 00:00	09/25/14 22:41	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	78	%	36-120	1	09/23/14 00:00	09/25/14 22:41	321-60-8	
Terphenyl-d14 (S)	75	%	29-134	1	09/23/14 00:00	09/25/14 22:41	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**7.6**	ug/L	5.0	5		09/22/14 17:54	71-43-2	
Ethylbenzene	**112**	ug/L	5.0	5		09/22/14 17:54	100-41-4	
Methylene chloride	**5.9**	ug/L	5.0	5		09/22/14 17:54	75-09-2	
Naphthalene	ND	ug/L	50.0	5		09/22/14 17:54	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		09/22/14 17:54	79-34-5	
Toluene	ND	ug/L	5.0	5		09/22/14 17:54	108-88-3	
Xylene (Total)	**996**	ug/L	15.0	5		09/22/14 17:54	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102	%	80-120	5		09/22/14 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	5		09/22/14 17:54	17060-07-0	
Toluene-d8 (S)	98	%	80-120	5		09/22/14 17:54	2037-26-5	
Preservation pH	**1.0**		0.10	5		09/22/14 17:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**34600**	mg/L	5.0	1		09/24/14 15:35		1e
Total Dissolved Solids	**30300**	mg/L	5.0	1		09/30/14 15:01		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**613**	mg/L	100	100		09/25/14 20:32	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 01:43	16984-48-8	
Sulfate	**22100**	mg/L	2000	2000		09/30/14 09:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-7 **Lab ID: 60178343007** Collected: 09/17/14 10:40 Received: 09/18/14 08:25 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							
Boron, Dissolved	ND	ug/L	1000	10	09/20/14 11:50	10/01/14 15:09	7440-42-8	D3
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 15:09	7439-89-6	D3
Manganese, Dissolved	**1920**	ug/L	50.0	10	09/20/14 11:50	10/01/14 15:09	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	09/23/14 00:00	09/26/14 22:31	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	78	%	36-120	1	09/23/14 00:00	09/26/14 22:31	321-60-8	
Terphenyl-d14 (S)	82	%	29-134	1	09/23/14 00:00	09/26/14 22:31	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**2.7**	ug/L	1.0	1		09/23/14 16:18	71-43-2	
Ethylbenzene	**35.8**	ug/L	1.0	1		09/23/14 16:18	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/23/14 16:18	75-09-2	
Naphthalene	ND	ug/L	10.0	1		09/23/14 16:18	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/23/14 16:18	79-34-5	
Toluene	ND	ug/L	1.0	1		09/23/14 16:18	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/14 16:18	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	1		09/23/14 16:18	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	80-120	1		09/23/14 16:18	17060-07-0	
Toluene-d8 (S)	100	%	80-120	1		09/23/14 16:18	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/23/14 16:18		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**20400**	mg/L	5.0	1		09/24/14 15:35		1e
Total Dissolved Solids	**19300**	mg/L	5.0	1		09/30/14 15:01		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**135**	mg/L	20.0	20		09/25/14 20:47	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 02:29	16984-48-8	
Sulfate	**13900**	mg/L	2000	2000		09/28/14 13:03	14808-79-8	

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-MW-8 **Lab ID: 60178343008** Collected: 09/17/14 09:45 Received: 09/18/14 08:25 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							
Boron, Dissolved	ND	ug/L	1000	10	09/20/14 11:50	10/01/14 15:12	7440-42-8	D3
Iron, Dissolved	ND	ug/L	500	10	09/20/14 11:50	10/01/14 15:12	7439-89-6	D3
Manganese, Dissolved	**3200**	ug/L	50.0	10	09/20/14 11:50	10/01/14 15:12	7439-96-5	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	09/23/14 00:00	09/26/14 22:52	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	77	%	36-120	1	09/23/14 00:00	09/26/14 22:52	321-60-8	
Terphenyl-d14 (S)	71	%	29-134	1	09/23/14 00:00	09/26/14 22:52	1718-51-0	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		09/22/14 16:34	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/14 16:34	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/22/14 16:34	75-09-2	
Naphthalene	ND	ug/L	10.0	1		09/22/14 16:34	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/22/14 16:34	79-34-5	
Toluene	ND	ug/L	1.0	1		09/22/14 16:34	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/14 16:34	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	100	%	80-120	1		09/22/14 16:34	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		09/22/14 16:34	17060-07-0	
Toluene-d8 (S)	98	%	80-120	1		09/22/14 16:34	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/22/14 16:34		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**24900**	mg/L	5.0	1		09/24/14 15:35		1e
Total Dissolved Solids	**23900**	mg/L	5.0	1		09/30/14 15:01		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Chloride	**612**	mg/L	100	100		09/25/14 21:02	16887-00-6	
Fluoride	ND	mg/L	0.20	1		09/25/14 02:44	16984-48-8	
Sulfate	**16500**	mg/L	2000	2000		09/28/14 13:17	14808-79-8	

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: GW-075035-091714-CB-DUP **Lab ID: 60178343009** Collected: 09/17/14 08:00 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**2980**	ug/L	20.0	20		09/23/14 16:34	71-43-2	
Ethylbenzene	**197**	ug/L	1.0	1		09/22/14 16:50	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/22/14 16:50	75-09-2	
Naphthalene	**37.6**	ug/L	10.0	1		09/22/14 16:50	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/22/14 16:50	79-34-5	
Toluene	**7000**	ug/L	100	100		09/25/14 13:37	108-88-3	
Xylene (Total)	**5900**	ug/L	60.0	20		09/23/14 16:34	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	106	%	80-120	1		09/22/14 16:50	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	80-120	1		09/22/14 16:50	17060-07-0	
Toluene-d8 (S)	105	%	80-120	1		09/22/14 16:50	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/22/14 16:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Sample: TRIP BLANK **Lab ID: 60178343010** Collected: 09/17/14 08:00 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	1.0	1		09/22/14 15:45	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/14 15:45	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		09/22/14 15:45	75-09-2	
Naphthalene	ND	ug/L	10.0	1		09/22/14 15:45	91-20-3	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		09/22/14 15:45	79-34-5	
Toluene	ND	ug/L	1.0	1		09/22/14 15:45	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/14 15:45	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	101	%	80-120	1		09/22/14 15:45	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-120	1		09/22/14 15:45	17060-07-0	
Toluene-d8 (S)	98	%	80-120	1		09/22/14 15:45	2037-26-5	
Preservation pH	**1.0**		0.10	1		09/22/14 15:45		

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: MPRP/28997 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

METHOD BLANK: 1446135 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	ND	100	10/01/14 14:15	
Iron, Dissolved	ug/L	ND	50.0	10/01/14 14:15	
Manganese, Dissolved	ug/L	ND	5.0	10/01/14 14:15	

LABORATORY CONTROL SAMPLE: 1446136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	1000	984	98	80-120	
Iron, Dissolved	ug/L	10000	10400	104	80-120	
Manganese, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1446137 1446138

Parameter	Units	60178343001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	1340	1000	1000	2580	2460	124	112	75-125	5	20	
Iron, Dissolved	ug/L	ND	10000	10000	9470	12800	95	128	75-125	30	20	M1,R1
Manganese, Dissolved	ug/L	196	1000	1000	1430	1370	123	117	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: MSV/64547 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343008, 60178343009, 60178343010

METHOD BLANK: 1447163 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343008, 60178343009, 60178343010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	09/22/14 15:29	
Benzene	ug/L	ND	1.0	09/22/14 15:29	
Ethylbenzene	ug/L	ND	1.0	09/22/14 15:29	
Methylene chloride	ug/L	ND	1.0	09/22/14 15:29	
Naphthalene	ug/L	ND	10.0	09/22/14 15:29	
Toluene	ug/L	ND	1.0	09/22/14 15:29	
Xylene (Total)	ug/L	ND	3.0	09/22/14 15:29	
1,2-Dichloroethane-d4 (S)	%	96	80-120	09/22/14 15:29	
4-Bromofluorobenzene (S)	%	101	80-120	09/22/14 15:29	
Toluene-d8 (S)	%	97	80-120	09/22/14 15:29	

LABORATORY CONTROL SAMPLE: 1447164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	19.6	98	73-124	
Benzene	ug/L	20	19.9	100	80-120	
Ethylbenzene	ug/L	20	20.6	103	80-121	
Methylene chloride	ug/L	20	19.2	96	73-126	
Naphthalene	ug/L	20	19.4	97	73-130	
Toluene	ug/L	20	19.9	99	80-122	
Xylene (Total)	ug/L	60	61.2	102	80-121	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			102	80-120	
Toluene-d8 (S)	%			99	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: MSV/64579
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60178343007, 60178343009

METHOD BLANK: 1447667
Matrix: Water
Associated Lab Samples: 60178343007, 60178343009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	09/23/14 12:49	
Benzene	ug/L	ND	1.0	09/23/14 12:49	
Ethylbenzene	ug/L	ND	1.0	09/23/14 12:49	
Methylene chloride	ug/L	ND	1.0	09/23/14 12:49	
Naphthalene	ug/L	ND	10.0	09/23/14 12:49	
Toluene	ug/L	ND	1.0	09/23/14 12:49	
Xylene (Total)	ug/L	ND	3.0	09/23/14 12:49	
1,2-Dichloroethane-d4 (S)	%	100	80-120	09/23/14 12:49	
4-Bromofluorobenzene (S)	%	100	80-120	09/23/14 12:49	
Toluene-d8 (S)	%	100	80-120	09/23/14 12:49	

LABORATORY CONTROL SAMPLE: 1447668

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	20	19.4	97	73-124	
Benzene	ug/L	20	19.4	97	80-120	
Ethylbenzene	ug/L	20	20.0	100	80-121	
Methylene chloride	ug/L	20	19.6	98	73-126	
Naphthalene	ug/L	20	19.1	96	73-130	
Toluene	ug/L	20	19.6	98	80-122	
Xylene (Total)	ug/L	60	62.2	104	80-121	
1,2-Dichloroethane-d4 (S)	%			101	80-120	
4-Bromofluorobenzene (S)	%			102	80-120	
Toluene-d8 (S)	%			98	80-120	

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: MSV/64633
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 60178343009

METHOD BLANK: 1448824
Matrix: Water
Associated Lab Samples: 60178343009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane-d4 (S)	%	100	80-120	09/25/14 10:07	
4-Bromofluorobenzene (S)	%	101	80-120	09/25/14 10:07	
Toluene-d8 (S)	%	100	80-120	09/25/14 10:07	

LABORATORY CONTROL SAMPLE: 1448825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Toluene-d8 (S)	%			100	80-120	

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REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: OEXT/46241 Analysis Method: EPA 8270C by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

METHOD BLANK: 1447354 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	09/25/14 20:18	
2-Fluorobiphenyl (S)	%	75	36-120	09/25/14 20:18	
Terphenyl-d14 (S)	%	68	29-134	09/25/14 20:18	

LABORATORY CONTROL SAMPLE: 1447355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	8.0	80	44-120	
2-Fluorobiphenyl (S)	%			74	36-120	
Terphenyl-d14 (S)	%			67	29-134	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: WET/50432 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60178343001, 60178343002

METHOD BLANK: 1447358 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	09/23/14 12:08	

LABORATORY CONTROL SAMPLE: 1447359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	981	98	80-120	

SAMPLE DUPLICATE: 1447360

Parameter	Units	60178288001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2850	2870	1	10	

SAMPLE DUPLICATE: 1447361

Parameter	Units	60178340010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1010	1040	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: WET/50464 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

METHOD BLANK: 1448068 Matrix: Water
Associated Lab Samples: 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	09/24/14 15:33	

LABORATORY CONTROL SAMPLE: 1448069

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	958	96	80-120	

SAMPLE DUPLICATE: 1448070

Parameter	Units	60178377012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	285	273	4	10	

SAMPLE DUPLICATE: 1448071

Parameter	Units	7518982001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3540	3490	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: WET/50590 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60178343003, 60178343004, 60178343006, 60178343007, 60178343008

METHOD BLANK: 1451454 Matrix: Water
Associated Lab Samples: 60178343003, 60178343004, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	09/30/14 15:00	

LABORATORY CONTROL SAMPLE: 1451455

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	965	97	80-120	

SAMPLE DUPLICATE: 1451456

Parameter	Units	60178343003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	25800	30100	16	10	D6,H1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

QC Batch: WETA/31126 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

METHOD BLANK: 1448214 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.20	09/24/14 21:05	

METHOD BLANK: 1448901 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343005, 60178343006, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/25/14 15:34	

METHOD BLANK: 1450562 Matrix: Water
Associated Lab Samples: 60178343001, 60178343002, 60178343003, 60178343004, 60178343007, 60178343008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	09/28/14 10:41	

METHOD BLANK: 1451094 Matrix: Water
Associated Lab Samples: 60178343005, 60178343006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	09/30/14 09:01	

LABORATORY CONTROL SAMPLE: 1448215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	96	90-110	

LABORATORY CONTROL SAMPLE: 1448902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	5.1	101	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

LABORATORY CONTROL SAMPLE: 1450563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.0	99	90-110	

LABORATORY CONTROL SAMPLE: 1451095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1448216 1448217

Parameter	Units	60178298001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	150	500	500	613	597	93	89	80-120	3	15	
Fluoride	mg/L	ND	250	250	247	242	99	97	80-120	2	15	
Sulfate	mg/L	700	500	500	1200	1170	100	94	80-120	3	15	

MATRIX SPIKE SAMPLE: 1448218

Parameter	Units	60178298002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	168	500	634	93	80-120	
Fluoride	mg/L	ND	250	246	98	80-120	
Sulfate	mg/L	802	500	1330	105	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

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.

BATCH QUALIFIERS

Batch: MSV/64547
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: OEXT/46241
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/64579
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/64633
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1e	Residue exceeded method limit of 0.2g
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60178343001	**GW-075035-091714-CB-MW-1**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343002	**GW-075035-091714-CB-MW-2**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343003	**GW-075035-091714-CB-MW-3**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343004	**GW-075035-091714-CB-MW-4**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343005	**GW-075035-091714-CB-MW-5**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343006	**GW-075035-091714-CB-MW-6**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343007	**GW-075035-091714-CB-MW-7**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343008	**GW-075035-091714-CB-MW-8**	EPA 3010	MPRP/28997	EPA 6010	ICP/21843
60178343001	**GW-075035-091714-CB-MW-1**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343002	**GW-075035-091714-CB-MW-2**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343003	**GW-075035-091714-CB-MW-3**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343004	**GW-075035-091714-CB-MW-4**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343005	**GW-075035-091714-CB-MW-5**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343006	**GW-075035-091714-CB-MW-6**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343007	**GW-075035-091714-CB-MW-7**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343008	**GW-075035-091714-CB-MW-8**	EPA 3510C	OEXT/46241	EPA 8270C by SIM	MSSV/14876
60178343001	**GW-075035-091714-CB-MW-1**	EPA 5030B/8260	MSV/64547		
60178343002	**GW-075035-091714-CB-MW-2**	EPA 5030B/8260	MSV/64547		
60178343003	**GW-075035-091714-CB-MW-3**	EPA 5030B/8260	MSV/64547		
60178343004	**GW-075035-091714-CB-MW-4**	EPA 5030B/8260	MSV/64547		
60178343005	**GW-075035-091714-CB-MW-5**	EPA 5030B/8260	MSV/64547		
60178343006	**GW-075035-091714-CB-MW-6**	EPA 5030B/8260	MSV/64547		
60178343007	**GW-075035-091714-CB-MW-7**	EPA 5030B/8260	MSV/64579		
60178343008	**GW-075035-091714-CB-MW-8**	EPA 5030B/8260	MSV/64547		
60178343009	**GW-075035-091714-CB-DUP**	EPA 5030B/8260	MSV/64547		
60178343009	**GW-075035-091714-CB-DUP**	EPA 5030B/8260	MSV/64579		
60178343009	**GW-075035-091714-CB-DUP**	EPA 5030B/8260	MSV/64633		
60178343010	**TRIP BLANK**	EPA 5030B/8260	MSV/64547		
60178343001	**GW-075035-091714-CB-MW-1**	SM 2540C	WET/50432		
60178343002	**GW-075035-091714-CB-MW-2**	SM 2540C	WET/50432		
60178343003	**GW-075035-091714-CB-MW-3**	SM 2540C	WET/50464		
60178343003	**GW-075035-091714-CB-MW-3**	SM 2540C	WET/50590		
60178343004	**GW-075035-091714-CB-MW-4**	SM 2540C	WET/50464		
60178343004	**GW-075035-091714-CB-MW-4**	SM 2540C	WET/50590		
60178343005	**GW-075035-091714-CB-MW-5**	SM 2540C	WET/50464		
60178343006	**GW-075035-091714-CB-MW-6**	SM 2540C	WET/50464		
60178343006	**GW-075035-091714-CB-MW-6**	SM 2540C	WET/50590		
60178343007	**GW-075035-091714-CB-MW-7**	SM 2540C	WET/50464		
60178343007	**GW-075035-091714-CB-MW-7**	SM 2540C	WET/50590		
60178343008	**GW-075035-091714-CB-MW-8**	SM 2540C	WET/50464		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 075035 MARTIN 34 NO. 2
Pace Project No.: 60178343

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60178343008	**GW-075035-091714-CB-MW-8**	SM 2540C	WET/50590		
60178343001	**GW-075035-091714-CB-MW-1**	EPA 300.0	WETA/31126		
60178343002	**GW-075035-091714-CB-MW-2**	EPA 300.0	WETA/31126		
60178343003	**GW-075035-091714-CB-MW-3**	EPA 300.0	WETA/31126		
60178343004	**GW-075035-091714-CB-MW-4**	EPA 300.0	WETA/31126		
60178343005	**GW-075035-091714-CB-MW-5**	EPA 300.0	WETA/31126		
60178343006	**GW-075035-091714-CB-MW-6**	EPA 300.0	WETA/31126		
60178343007	**GW-075035-091714-CB-MW-7**	EPA 300.0	WETA/31126		
60178343008	**GW-075035-091714-CB-MW-8**	EPA 300.0	WETA/31126		

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60178343

60178343

Client Name: COP CRK

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex [X] UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 6113 5274 8946 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes [X] No ☐ Seals intact: Yes [X] No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags [X] Foam [X] None ☐ Other ☐

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

Cooler Temperature: 2.2 2.4

Date and initials of person examining contents: JB 9/18

Temperature should be above freezing to 6°C

Chain of Custody present:	[X]Yes ☐No ☐N/A	1.	
Chain of Custody filled out:	[X]Yes ☐No ☐N/A	2.	
Chain of Custody relinquished:	[X]Yes ☐No ☐N/A	3.	
Sampler name & signature on COC:	[X]Yes ☐No ☐N/A	4.	
Samples arrived within holding time:	[X]Yes ☐No ☐N/A	5.	
Short Hold Time analyses (<72hr):	☐Yes [X]No ☐N/A	6.	
Rush Turn Around Time requested:	☐Yes [X]No ☐N/A	7.	
Sufficient volume:	[X]Yes ☐No ☐N/A	8.	
Correct containers used:	[X]Yes ☐No ☐N/A		
Pace containers used:	[X]Yes ☐No ☐N/A	9.	
Containers intact:	[X]Yes ☐No ☐N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No [X]N/A	11.	
Filtered volume received for dissolved tests?	☐Yes ☐No [X]N/A	12.	
Sample labels match COC:	[X]Yes ☐No ☐N/A		
Includes date/time/ID/analyses Matrix: UT		13.	
All containers needing preservation have been checked.	[X]Yes ☐No ☐N/A	BP3F MU1 initial pH 6.0 added 2.5 ml Final pH 2.0	
All containers needing preservation are found to be in compliance with EPA recommendation.	[X]Yes ☐No ☐N/A	14.	
Exceptions: (VOA) coliform, TOC, O&G, WI-DRO (water), Phenolics	[X]Yes ☐No	Initial when completed JB	Lot # of added preservative
Trip Blank present:	[X]Yes ☐No ☐N/A		
Pace Trip Blank lot # (if purchased): 9/10/14		15.	
Headspace in VOA vials (>6mm):	☐Yes [X]No ☐N/A	16.	
Project sampled in USDA Regulated Area:	☐Yes ☐No [X]N/A	17. List State:	AFT

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AMF Date: 9/10/14

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

Start: 1425	Start:
End: 1450	End:
Temp:	Temp:

CHAIN-OF-CUSTODY / Analytical Request Document

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

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Page: of

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.:	
Project Name:	Martin 34 No. 2
Project Number:	075035

Section C
Invoice Information:

Attention:	ENFOS
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514,2

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)	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	8260****	Dissolved Fe, Mn, B	TDS	300.0 **	8270 Naphthalene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60178343
1	GW-075035-091714-CB-MW-1	WT	G	—		9-17-14	1225		8	4		1	3						X	X	X	X	X		(3)A64U (2)BP3U BP3F (3)DG9H 001
2	GW-075035-091714-CB-MW-2	WT	G	—		9-17-14	1415		8	4		1	3						X	X	X	X	X		002
3	GW-075035-091714-CB-MW-3	WT	G	—		9-17-14	1450		8	4		1	3						X	X	X	X	X		003
4	GW-075035-091714-CB-MW-4	WT	G	—		9-17-14	1245		8	4		1	3						X	X	X	X	X		004
5	GW-075035-091714-CB-MW-5	WT	G	—		9-17-14	0925		8	4		1	3						X	X	X	X	X		005
6	GW-075035-091714-CB-MW-6	WT	G	—		9-17-14	1330		8	4		1	3						X	X	X	X	X		006
7	GW-075035-091714-CB-MW-7	WT	G	—		9-17-14	1040		8	4		1	3						X	X	X	X	X		007
8	GW-075035-091714-CB-MW-8	WT	G	—		9-17-14	0945		8	4		1	3						X	X	X	X	X		008
9	GW-075035-091714-CB-dup	WT	G	—		9-17-14			3				3						X						009
10	trip Blank	WT	—	—		9-17-14			3				3						X						(3)DG9H TB 010
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
****BTEX, Methylene Chloride, 1,1,2,2-Tetrachloroethane	Cassie Brown / CRA	9/17/14	1600	[signature] Pace	9/18	0825	2.2	Y	Y	Y
**Chloride, Sulfate, Fluoride							2.4	Y	Y	Y
Metals were field filtered										
							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): 9/17/14

*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