# 3R - 425

2013 AGWMR

08 / 22 / 2014



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

August 22, 2014

Re: NMOCD Case No. 3R-425, 2013 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed is the 2013 Annual Groundwater Monitoring Report for the San Juan 29-7 Unit 37 site. This report, prepared by Conestoga-Rovers & Associates (CRA), contains the results of groundwater monitoring from March, June, September, and December 2013.

Please let me know if you have any questions.

Sincerely,

David C. Hathaway, P.E.

Enc





**Final Report** 

# 2013 ANNUAL GROUNDWATER SAMPLING REPORT

ConocoPhillips San Juan 29-7 Unit 37 Rio Arriba County, New Mexico API# 30-039-07643 NMOCD# 3R-425

Prepared for: ConocoPhillips

# **Conestoga-Rovers & Associates**

6121 Indian School Road, NE Suite 200 Albuquerque, New Mexico 87110



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#### Section 1.0 Introduction

ConocoPhillips Company (ConocoPhillips) retained Conestoga-Rovers & Associates (CRA) to conduct site characterization and soil and groundwater remediation at the San Juan 29-7 Unit 37 natural gas well (Site). The Site is located within Unit Letter N, Section 12, Township 29N, Range 7W, Rio Arriba County, New Mexico (Latitude: 36.73552° N; Longitude: -107.52488° W) (**Figure 1**). This report summarizes the remediation status and groundwater data that were collected in 2013 and early 2014.

Site characterization activities were conducted at the Site in 2010 and 2011 to delineate soil and groundwater impacted by a release that occurred from an above-ground condensate tank. The site characterization indicated hydrocarbon impacts from the release that exceeded New Mexico Water Quality Control Commission (NMWQCC) standards, including benzene, toluene and total xylenes in groundwater and total benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH) in the vadose zone soil. Soil impacts were delineated in the area of the release to a maximum depth of approximately 110 feet-below ground surface (ft-bgs) or to the top of groundwater. Groundwater was impacted in the immediate area of the release and extended to approximately 60 feet down-gradient from the release. A total of 18 soil borings and eight (8) monitor wells have been utilized to characterize subsurface soil and groundwater conditions (Figure 2). Soil and groundwater impacts were treated in 2012 with a chemical oxidant at the Site.

#### 1.1 Site History

The Site is located on land owned by Mr. Richard Hodgson and the surface is leased by ConocoPhillips. The well is currently operated by Burlington Resources Oil and Gas Company LP, a wholly owned subsidiary of ConocoPhillips. A Site detail map is included as **Figure 2**.

ConocoPhillips discovered a leaking inspection plate gasket on the above-ground condensate tank on August 26, 2010. Approximately 23 barrels (bbls) of condensate were released and fully contained within the berm; however, no liquids were recovered. The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) with a C-141 Release Notification and Corrective Action form, filed by ConocoPhillips on September 16, 2010.

#### 1.2 Site Setting

The Site is located in Rio Arriba County, New Mexico, on privately owned ranch land. The elevation at the Site is approximately 6,292 feet above mean sea level (amsl). The Tertiary-aged San Jose Formation crops out as sandstone bluffs visible to the north and south of the Site and locally reaching an elevation of approximately 6,652 feet amsl.

Subsurface soils at the Site consist primarily of silts inter-bedded with fine sands and clays. Groundwater is located at approximately 110 ft-bgs and locally flows towards the south-southwest.

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Regional groundwater flow is unknown, but, likely according to the United States Geological Survey Delgadita Mesa, NM topographic map, if groundwater flow mimics topography, it trends south/southeast.

An Environmental Data Resources (EDR) report on the subject property identified the Gould Pass National Wetland Inventory within a one mile radius of the Site. According to the EDR radius map included in the report, the largest section of the Wetland Inventory is located upgradient of the Site.

#### 1.3 Summary of Previous Investigations

Following the discovery of the release of condensate from the above-ground tank at the site, approximately 5,100 cubic yards (yd³) of soil was excavated from the area below the former tank location between September 24, 2010 and January 3, 2011. The excavation measured approximately 70 ft by 120 ft by 30 ft deep (**Figure 2**). The horizontal and vertical extent of the hydrocarbon-impacted area was not determined at that time. For practical and safety reasons and due to limitations posed by surface structures, the southern extent of the excavation and the vertical extent of the excavation were halted at approximately 30 ft-bgs. At completion of the excavation approximately 3,444 yards of hydrocarbon impacted soil had been removed and transported to the Industrial Ecosystems, Incorporated landfarm located in Aztec, New Mexico. The excavation was subsequently back filled with clean soil.

To further delineate vertical impacts of the release, Tetra Tech Inc. sampled subsurface soils in the impacted area and in close proximity to the release point (soil boring B-1) between January 12 and 14, 2011 (Pre-treatment Soil Boring B-1, **Figure 2**). Impacts were noted in the soil above the NMOCD recommended field screening level for organic vapors (100 ppm) from 30 ft-bgs to the total depth of the soil boring at 129.5 ft-bgs All analytical results for soil samples collected from B-1 were below the recommended NMOCD remediation action levels with the exception of the sample collected from 30 to 32 ft-bgs that had a total BTEX concentration and total TPH concentration which exceed the NMOCD recommended action limits for total BTEX and TPH at 50 mg/kg, and 100 mg/kg, respectively.

Analytical results from the groundwater sample collected from the open borehole, B-1, indicated BTEX in groundwater above the NMWQCC standard. Between February 28 and March 4, 2011, Tetra Tech advanced two additional soil borings, B-2 and B-3, in or near the center of the previously excavated area (Pre-treatment Soil Boring B-2 and B-3, **Figure 2**) and installed four soil borings/monitor wells (MW-1 through MW-4) at the Site.

Field screening of B-2 soil samples indicated soil impacts above the NMOCD field screening action level of 100 ppm. The total BTEX concentration of 122.5 mg/kg also exceeded the NMOCD action level from 45 to 47 ft-bgs in boring B-2.



Field screening of soil samples collected from B-3 showed no signs of hydrocarbon impacts to a total depth of 57 ft-bgs No samples were collected for laboratory analysis from B-3 since no hydrocarbon impacts were observed during field screening activities and groundwater was not encountered.

Due to the elevated organic vapors encountered in B-2, Monitor Well MW-1 was installed approximately 20 ft south of B-2. The analytical results for this well from the March 2011 groundwater sampling event indicated that only benzene was detected above the NMWQCC standard at a concentration of 0.066 mg/L. Three additional monitor wells, MW-2, MW-3, and MW-4, were installed at the Site (**Figure 2**). One monitor well (MW-4) was installed up-gradient of the release and two monitor wells (MW-2 and MW-3) were installed down-gradient of the release. None of these monitor wells showed any detection of hydrocarbon constituents above the NMWQCC groundwater quality standards.

To further evaluate Site conditions and to delineate areas of remediation, 11 borings were advanced and four monitor wells were installed by CRA at the Site from September 2011 to October 2011 (**Figure 2**). Monitor wells were installed within the release area, MW-1 and MW-8, upgradient of the release area, MW-4 and MW-7, and MW-2, MW-3, MW-5 and MW-6 down gradient of the area..

Field screening of soil samples and laboratory results indicated impacts (organic vapors > 100 ppm) in the immediate area of the release to depths ranging from 40 ft-bgs to 110 ft-bgs. Soil analytical results indicated Total BTEX and TPH above the NMOCD recommended action levels in four of the borings, B-4, B-5/MW-8, and B-8, which are located within the excavation area and one boring, B-10, located approximately 10 feet south of the excavation. In addition, soil boring B-6/MW-6 located approximately 60 feet southeast of the excavation indicated the TPH concentration above the NMOCD recommended action limit.

During this portion of the Site characterization, groundwater was encountered at approximately 110 ft-bgs, which is consistent with groundwater levels encountered during previous phases of the site characterization. The groundwater flow direction was determined to be towards the south-southwest. The analytical results for groundwater indicated that the benzene concentrations exceeded the NMWQCC standard at three locations (MW-1, MW-6 and MW-8). Toluene and total xylenes concentrations exceeded the standards at one location (MW-8).

For in-situ site remediation activities, CRA retained DeepEarth Technologies, Inc. (DTI) to implement the  $Cool-Ox^{TM}$  Technology, a patented in-situ process that uses a solution of calcium peroxide that generates a slow release of hydrogen peroxide and facilitates the oxidation of petroleum hydrocarbons.

From December 2011 to February 2012, the *Cool-Ox*<sup>TM</sup> solution was injected in the area shown in **Figure 2**. DTI utilized a direct push technology (DPT) drill rig supported by DTI's mixing and injection trailer (the Deep-Shot-Rig<sup>TM</sup>) to advance temporary 1.5-inch diameter injection points.



Approximately 52,889 gallons were used to inject the solution into the subsurface soil and groundwater using 93 injection points on 8-foot spacings in an approximate area of 5,950 ft<sup>2</sup> (70 ft x 85 ft) to treat approximately 8,815 yd<sup>3</sup> of impacted soil. The solution was primarily injected into the subsurface from the bottom of the injection point to approximately 30 ft-bgs. In addition to groundwater treatment using the direct-push rig, the solution was directly injected into groundwater Monitor Wells MW-1, MW-6, MW-7 and MW-8 with approximately 8,000 gallons of solution.

To evaluate the effectiveness of the  $Cool-Ox^{TM}$  treatment, subsurface soil and groundwater conditions were analyzed at the Site after the treatment. Groundwater samples were collected and analyzed on a quarterly basis (February 2012, June 2012, September 2012 and January 2013). The subsurface soil was sampled in the area of the  $Cool-Ox^{TM}$  treatment by advancing five (5) soil borings in August 2012.

A more thorough discussion of the *Cool-Ox*™ treatment site activities can be found in the April 2013 CRA *Subsurface Remediation and Annual Groundwater Monitoring Report*.

#### Section 2.0 Monitoring Well Installation

During the September 2012 sampling event, the casing in Monitor Well MW-8 was noted to be deformed (likely due to subsidence of fill material), preventing sampling with a 1.5-inch polyethylene bailer. A 0.5-inch polyethylene bailer was utilized, but removal of three volumes of groundwater could not be achieved. Sampling was attempted again during the January 2013 sampling event with the same outcome. Due to this damage, likely caused by the settling of fill material in the former excavation area, CRA discontinued sampling of this well.

A Well Plugging Plan of Operations for MW-8 was submitted by CRA to the New Mexico Office of the State Engineer (NMOSE) on July 2, 2013 and approved on July 11, 2013. On July, 16, 2013, National Exploration, Wells, and Pumps (National EWP) plugged and abandoned MW-8. Monitor Well MW-8 was plugged and abandoned with a cement-bentonite grout via tremmie pipe, filling the well from the bottom to the top. Surface completion materials were removed and disposed of as non-hazardous solid waste.

A replacement well, MW-8R was subsequently installed by National EWP adjacent to the location of MW-8. A separate boring log therefore was not generated for replacement Monitor Well MW-8R. MW-8R was installed to a total depth of 120 feet bgs. The well was constructed of 2-inch diameter, schedule 40, flush-joint, PVC casing and screen. The monitoring well consists of a 0.5-foot long, threaded PVC bottom plug and 15 feet of flush-joint, threaded, factory-slotted (0.010-inch) well screen. The annular space around the well screen was filled with 10/20 gradation silica sand to approximately two feet above the well screen, followed by approximately three feet of 3/8-inch bentonite chips. A cement/bentonite grout was placed from the top of the bentonite chips to ground surface. The

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wellhead is protected with a flush-mount completion set within a 24-inch by 24-inch by 4-inch thick concrete pad.

Soil cuttings were field screened for volatile organic compounds (VOCs) using the heated headspace method. At approximately 32 ft-bgs, photoionization detector readings were greater than 100 parts per million (ppm). From this point on, cuttings generated during monitoring well installation were placed in properly labeled 55-gallon drums. A waste characterization sample was collected as required for waste disposal. Analytical results from the waste characterization soil sample are included in **Appendix A**.

Seven 55-gallon drums of hydrocarbon impacted soil cuttings were transported to the Envirotech, Inc. Soil Remediation Facility #2 on September 10, 2013. Waste disposal documentation is included as **Appendix B**.

#### 2.1 Soil Analytical Results

A confirmation soil sample was collected at a depth of approximately 107 feet bgs from MW-8R drill cuttings. The sample was placed in laboratory-supplied containers, labeled, placed on ice, and transported under chain of custody documentation to Pace Analytical (Pace) of Lenexa, Kansas. The sample was analyzed for total petroleum hydrocarbons (TPH) diesel and gasoline range organics (DRO/GRO) by EPA method 8015B, BTEX by EPA method 8260, and pH by EPA method 9045.

The sample returned TPH-GRO analytical results of 382 mg/kg, TPH-DRO of 124 mg/kg, a toluene concentration of 0.314 mg/kg, an ethylbenzene concentration of 0.453 mg/kg, and a concentration of 9.6 mg/kg for xylenes. The sample was below laboratory detection limits for benzene. Laboratory analytical reports for the confirmation soil sampling can be found in **Appendix A**.

#### Section 3.0 Groundwater Monitoring Summary

Groundwater sampling events were conducted at the Site on March 26, June 11, 2013, and September 10, 2013, and on January 7, 2014. Prior to collection of groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8R, depth to groundwater in each well was measured using an oil/water interface probe (Table 1). Groundwater potentiometric surface maps for these monitoring events are presented as **Figures 3**, **4**, **5**, and **6**, respectively. CRA groundwater sampling field forms are included as **Appendix C**. Groundwater elevation data collected from MW-1 are somewhat anomalous likely due to this well's location near the center of the formerly excavated and backfilled area. Some subsidence in this area may have therefore affected the previously surveyed casing elevation. Generally, groundwater was encountered across the Site at approximately 108 feet bgs. The groundwater potentiometric surface elevations have been consistent with little variability by season and throughout the history of monitoring the wells at the Site.



For all of these monitoring periods, the groundwater flow at the site was towards the south-southwest and the average groundwater gradient across the Site was 0.014 feet per foot, consistent with historical results.

#### 3.1 Groundwater Monitoring Methodology

During monitoring events, at least three well volumes were purged from Site Monitor Wells with a Monsoon™ submersible pump prior to sampling. Purge water generated during purging of Site monitor wells was placed in the on-Site produced water tank. Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Pace Analytical Services, Inc. of Lenexa, KS.

Groundwater samples were analyzed for the presence of BTEX by EPA method 8260, dissolved manganese and selenium by EPA method 6010, nitrate (as nitrogen) by EPA method 353.2, sulfate by EPA method 300.0, total dissolved solids (TDS) by method SM 2540C, and heterotrophic plate count (HPC) by method SM 9215B. A summary of analytical results is presented in **Table 1**. Completed groundwater laboratory analytical results are presented in **Appendix D**.

#### 3.2 Groundwater Monitoring Analytical 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.

A groundwater hydrocarbon concentration map and a groundwater inorganic concentration map are included as **Figures 7** and **8**, respectively. A groundwater field parameters map displaying pH, oxidation-reduction potential (ORP) and dissolved oxygen (DO) is included as **Figure 9**. Groundwater analytical results are discussed below.

#### **March 2013**

- BTEX: The NMWQCC domestic water supply groundwater quality standards for benzene, toluene, ethylbenzene, and xylene are 0.01 mg/L, 0.75 mg/L, 0.75 mg/L, and 0.62 mg/L, respectively. All groundwater sampling results from the March 2013 event were below NMWQCC standards for BTEX. MW-8 was not sampled during this event due to a deformed well casing.
- **Dissolved Manganese:** The NMWQCC domestic water supply groundwater quality standard for dissolved manganese is 0.2 mg/L. Monitoring Wells MW-1, MW-3, MW-5, and MW-6 exceeded this standard with analytical results of 0.49 mg/L, 1.83 mg/L, 0.356 mg/L, and 0.282 mg/L, respectively.



- **Dissolved Selenium:** The NMWQCC domestic water supply groundwater quality standard for dissolved selenium is 0.05 mg/L. Monitoring Wells MW-1, MW-2, and MW-6 exceeded this standard with analytical results of 0.079 mg/L, 0.0728 mg/L, and 0.0602 mg/L, respectively.
- **Nitrate (as Nitrogen):** The NMWQCC domestic water supply groundwater quality standard for nitrate is 10 mg/L. Monitoring Wells MW-1, MW-2, and MW-6 exceeded this standard with analytical results of 37.0 mg/L, 43.3 mg/L, and 30.9 mg/L, respectively.
- **Sulfate:** The NMWQCC domestic water supply groundwater quality standard for sulfate is 600 mg/L. Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7 exceeded this standard with analytical results of 1,000 mg/L, 1,200 mg/L, 1,080 mg/L, 1,200 mg/L, 1,700 mg/L, 945 mg/L, and 1,730 mg/L, respectively.
- TDS: The NMWQCC domestic water supply groundwater quality standard for TDS is 1,000 mg/L. Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7 exceeded this standard with analytical results of 1,980 mg/L, 1,930 mg/L, 2,030 mg/L, 1,950 mg/L, 2,370 mg/L, 1,740 mg/L, and 3,050 mg/L, respectively.

#### June 2013

- BTEX: All groundwater sample results were below NMWQCC standards for BTEX during the June 2013 sampling event. MW-8 was not sampled during this event due to a deformed well casing.
- **Dissolved Manganese:** Monitoring Wells MW-1, MW-3, MW-5, and MW-6 exceeded the standard with analytical results of 0.52 mg/L, 1.75 mg/L, 0.609 mg/L, and 0.328 mg/L, respectively.
- **Dissolved Selenium:** Monitoring Wells MW-1, MW-2, and MW-6 exceeded the standard with analytical results of 0.056 mg/L, 0.0666 mg/L, and 0.0621 mg/L, respectively.
- **Nitrate (as Nitrogen):** Monitoring Wells MW-1, MW-2, MW-6, and MW-7 exceeded the standard with analytical results of 31.1 mg/L, 40.6 mg/L, 27.6 mg/L, and 18.7 mg/L, respectively.
- **Sulfate:** Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7 exceeded the standard with analytical results of 1,050 mg/L, 1,230 mg/L, 1,110 mg/L, 1,260 mg/L, 1,630 mg/L, 946 mg/L, and 1,700 mg/L, respectively.

#### September 2013

- **BTEX:** Monitoring well MW-8R exceeded the NMWQCC standard for benzene with an analytical result of 0.01 mg/L.
- **Dissolved Manganese:** Monitoring Wells MW-3, MW-5, MW-6, and MW-8R exceeded the standard with analytical results of 1.70 mg/L, 0.368 mg/L, 0.299 mg/L and 0.395 mg/L, respectively.
- **Dissolved Selenium:** Monitoring Well MW-2 exceeded the standard with an analytical result of 0.0657 mg/L.



- Nitrate (as Nitrogen): Monitoring Wells MW-1, MW-2, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 18.7 mg/L, 35.6 mg/L, 22.7 mg/L, 31.4 mg/L, and 38.6 mg/L, respectively.
- **Sulfate:** Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 1,130 mg/L, 1,200 mg/L, 1,120 mg/L, 1,180 mg/L, 1,640 mg/L, 929 mg/L, 1,740 mg/L, and 1,230 mg/L, respectively.
- TDS: Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 2,090 mg/L, 2,210 mg/L, 1,910 mg/L, 2,090 mg/L, 2,540 mg/L, 1,710 mg/L, 3,080 mg/L, and 2,430 mg/L, respectively.

#### January 2014

- **BTEX:** Monitoring well MW-8R exceeded the NMWQCC standards for benzene and xylenes with analytical results of 0.179 mg/L, and 0.690, respectively.
- **Dissolved Manganese:** Monitoring Wells MW-3, MW-5, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 1.77 mg/L, 0.396 mg/L, 0.268 mg/L, 0.452 mg/L, and 0.255 mg/L, respectively.
- **Dissolved Selenium:** Monitoring Well MW-2 exceeded the standard with an analytical result of 0.0745 mg/L.
- Nitrate (as Nitrogen): Monitoring Wells MW-1, MW-2, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 22.5 mg/L, 33.5 mg/L, 19.5 mg/L, 28.5 mg/L, and 28.3 mg/L, respectively.
- **Sulfate:** Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 1,040 mg/L, 1,300 mg/L, 1,180 mg/L, 1,350 mg/L, 1,740 mg/L, 984 mg/L, 1,950 mg/L, and 1,360 mg/L, respectively.
- TDS: Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8R exceeded the standard with analytical results of 1,990 mg/L, 2,390 mg/L, 1,970 mg/L, 1,960 mg/L, 2,770 mg/L, 2,060 mg/L, 3,320 mg/L, and 2,900 mg/L, respectively.

#### Section 4.0 Conclusions and Recommendations

The groundwater samples collected prior to subsurface treatment with  $Cool-Ox^{TM}$  showed detections of benzene, toluene and xylenes above the NMWQCC standards at Monitor Wells MW-1, MW-6 and MW-8. The  $Cool-Ox^{TM}$  treatment has evidently attenuated the BTEX concentrations previously detected in groundwater of Monitor Wells MW-1 and MW-6.

Post-treatment groundwater sample results from MW-8, however, indicated concentrations of benzene, toluene and xylenes above the NMWQCC standards. Samples collected from replacement Monitor Well MW-8R show concentrations of benzene and xylenes again above NMWQCC standards for these constituents.

CRA recommends reinjection of Cool-Ox<sup>TM</sup>, or similar chemical oxidant, directly into Monitor Well MW-8R to further oxidize and biodegrade hydrocarbons in the vicinity of this monitor well. An injection of Cool-Ox<sup>TM</sup> directly into other Site monitor wells is also recommended to increase aerobic conditions and, in turn, precipitate manganese out of the groundwater. CRA will submit a separate work plan detailing proposed remediation activities for NMOCD approval.

Monitoring Well MW-4 is located upgradient of the hydrocarbon release area, therefore groundwater samples from this well can be considered to represent background conditions. Sulfate and TDS concentrations in groundwater samples collected from this well consistently exceed NMWQCC standards. Sulfate and TDS concentrations in downgradient monitoring wells are within the same order of magnitude as the background concentrations.

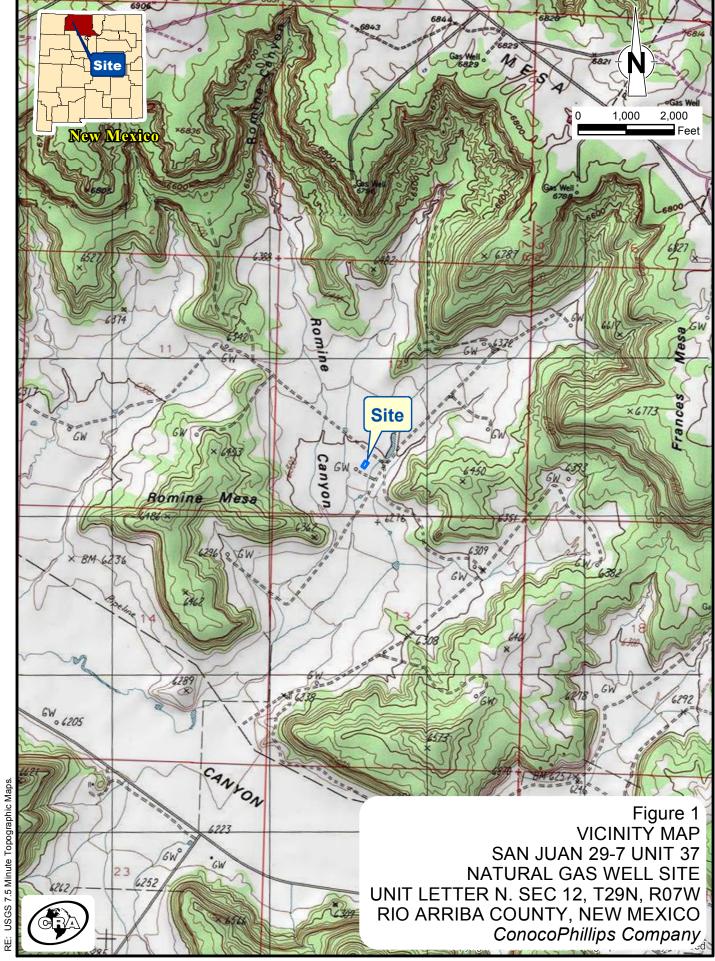
CRA will continue to monitor groundwater at the Site on a quarterly basis until BTEX and inorganic constituents are below NMWQCC standards for eight consecutive quarters or background concentrations have been reached.

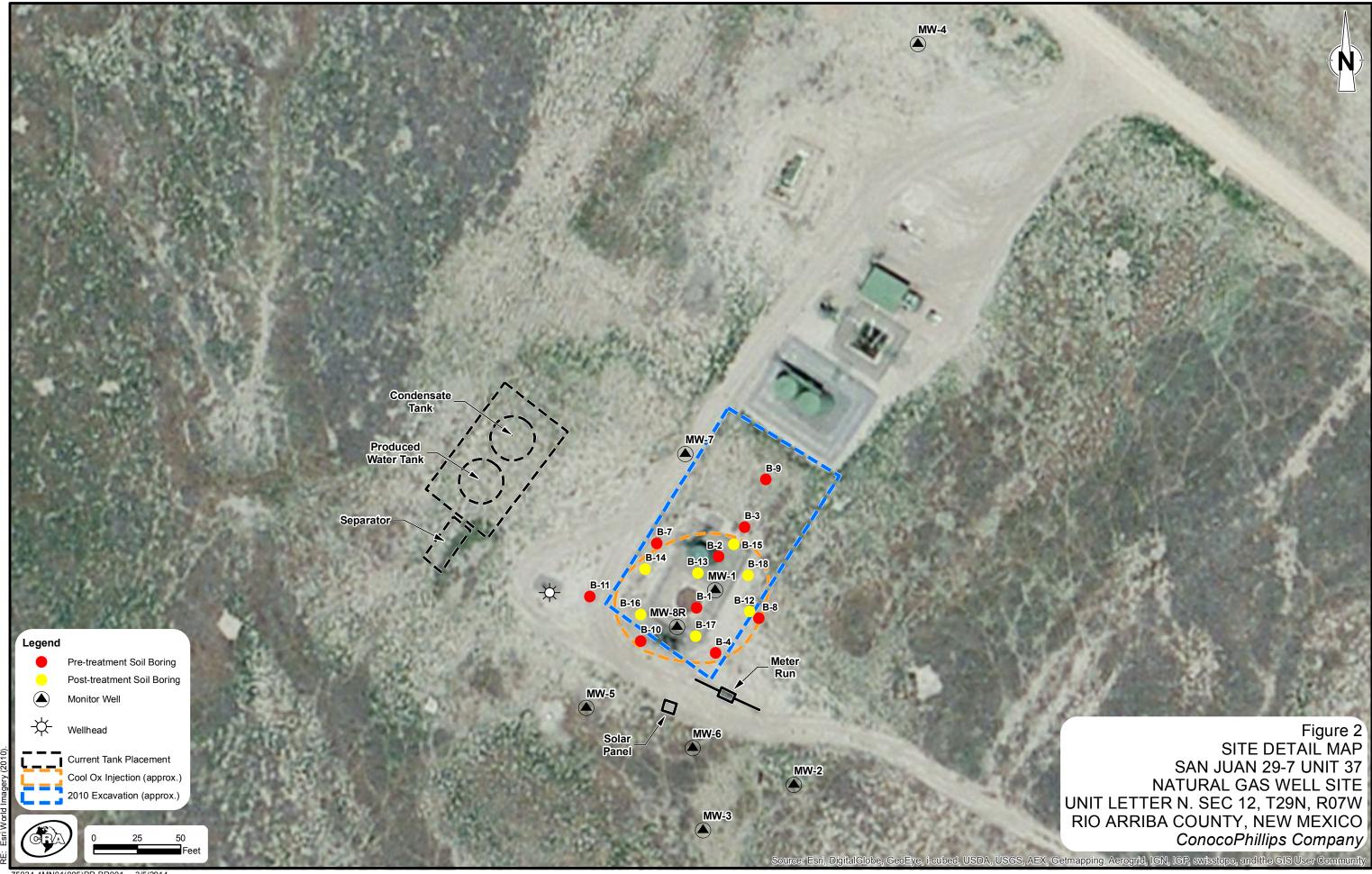
Monitor Wells MW-1, MW-4 and MW-7, upgradient from MW-8R, have displayed 8 consecutive quarters of BTEX concentrations below the NMWQCC standards and therefore these constituents will not continue to be analyzed in groundwater samples from these wells. Analysis of HPC will also be discontinued in all site wells. Groundwater samples will be collected from all Site monitor wells and analyzed for BTEX (except as noted), dissolved manganese and selenium, sulfate, nitrate, and TDS.

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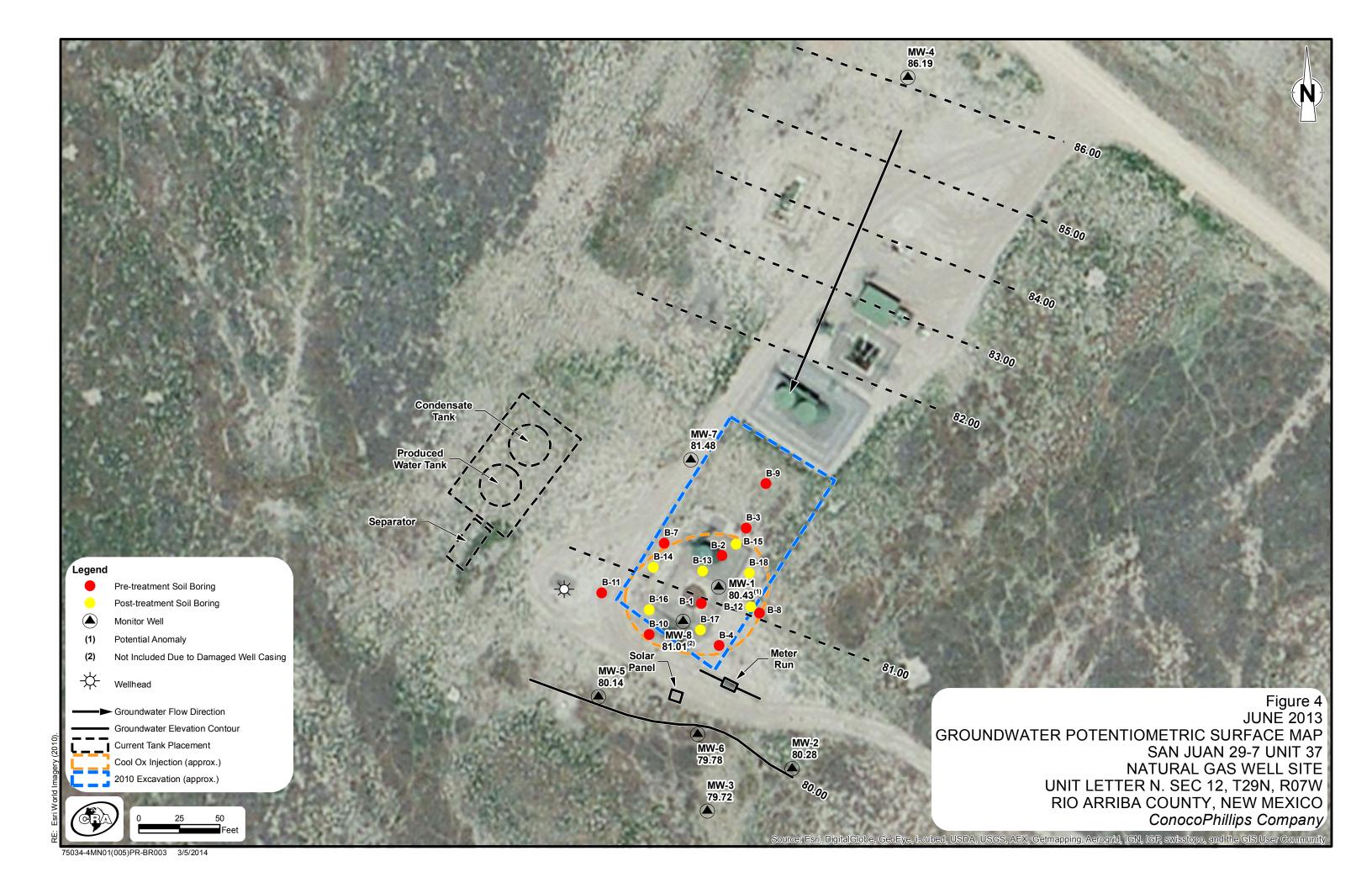


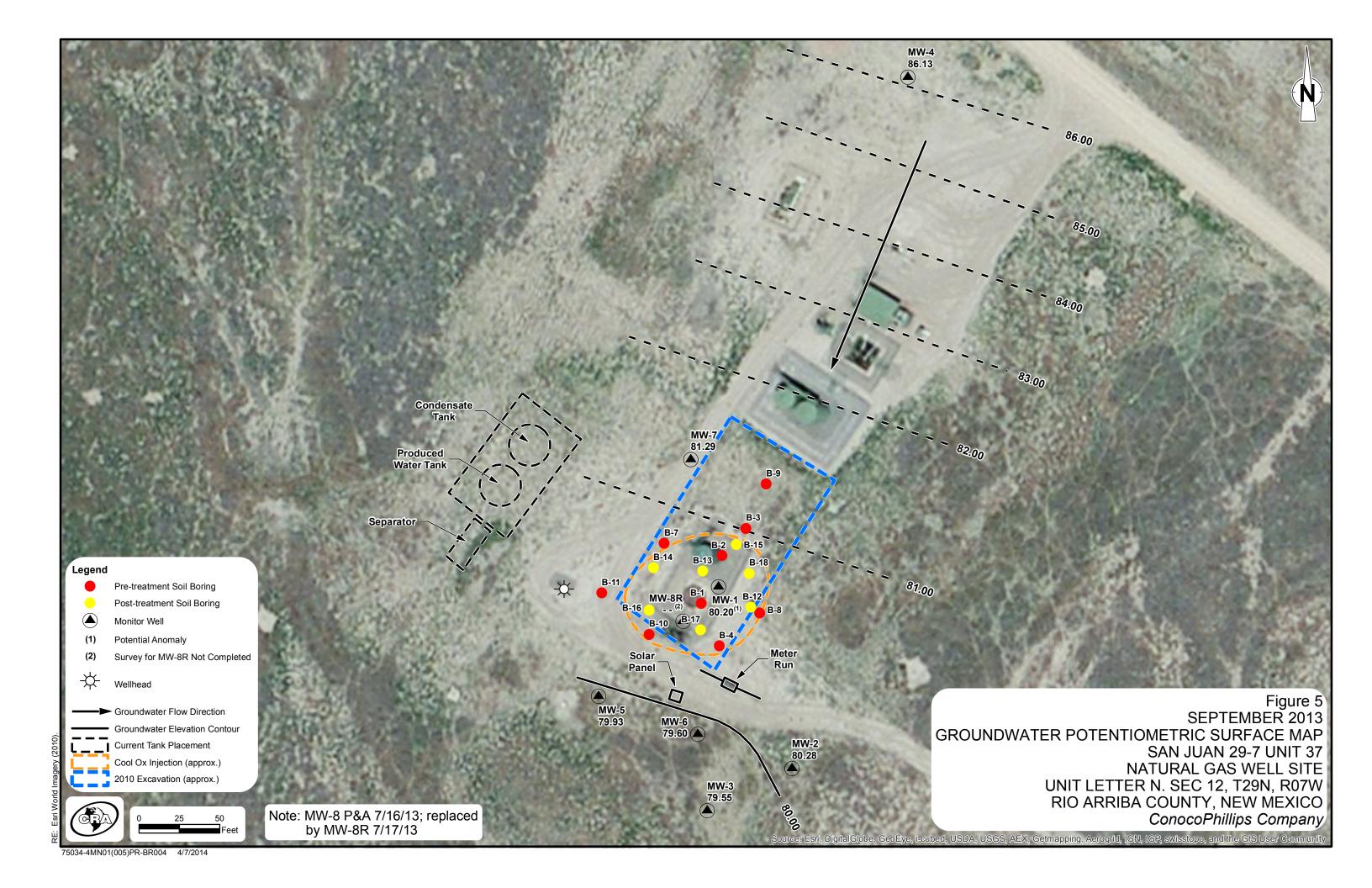
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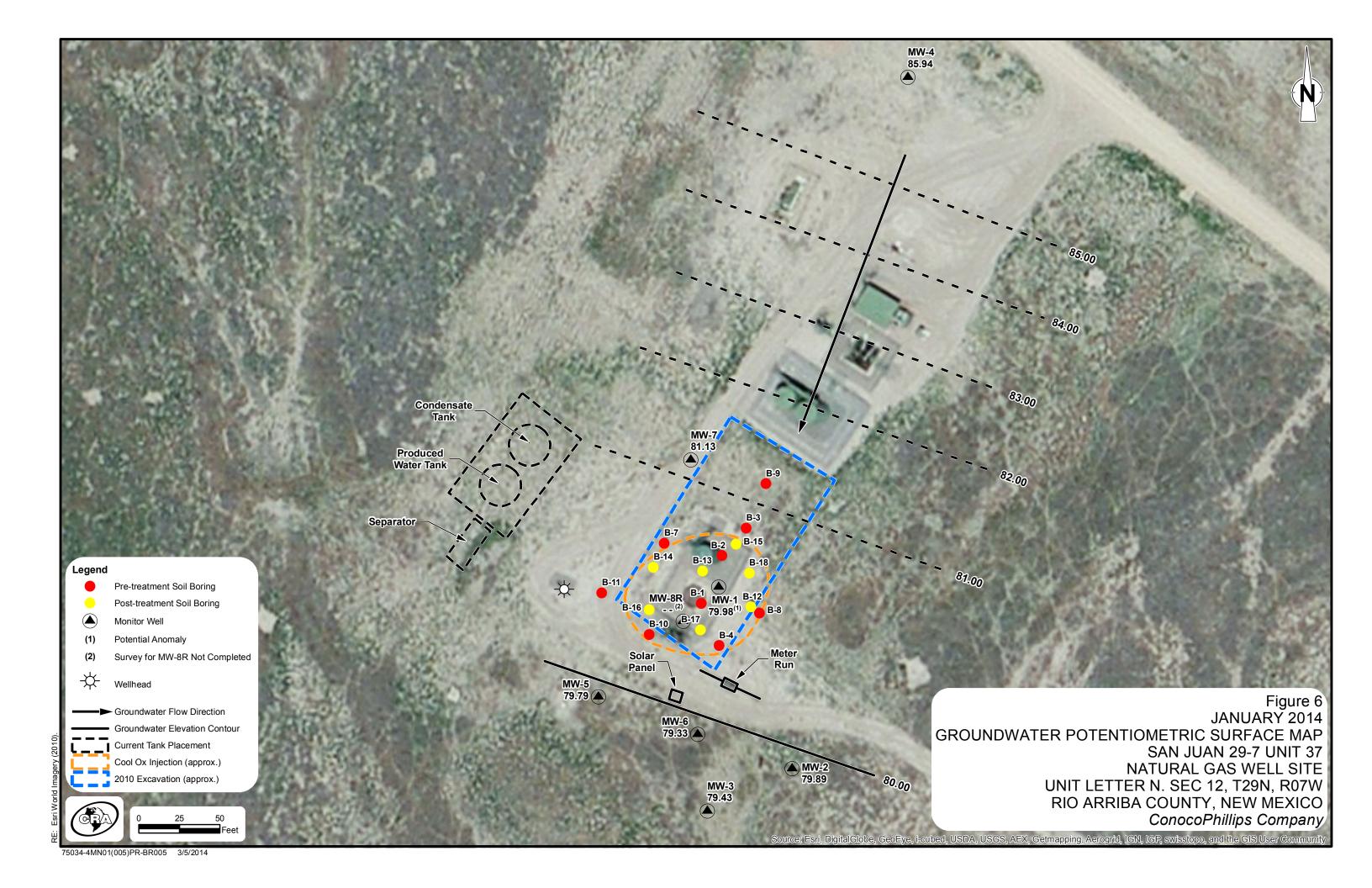


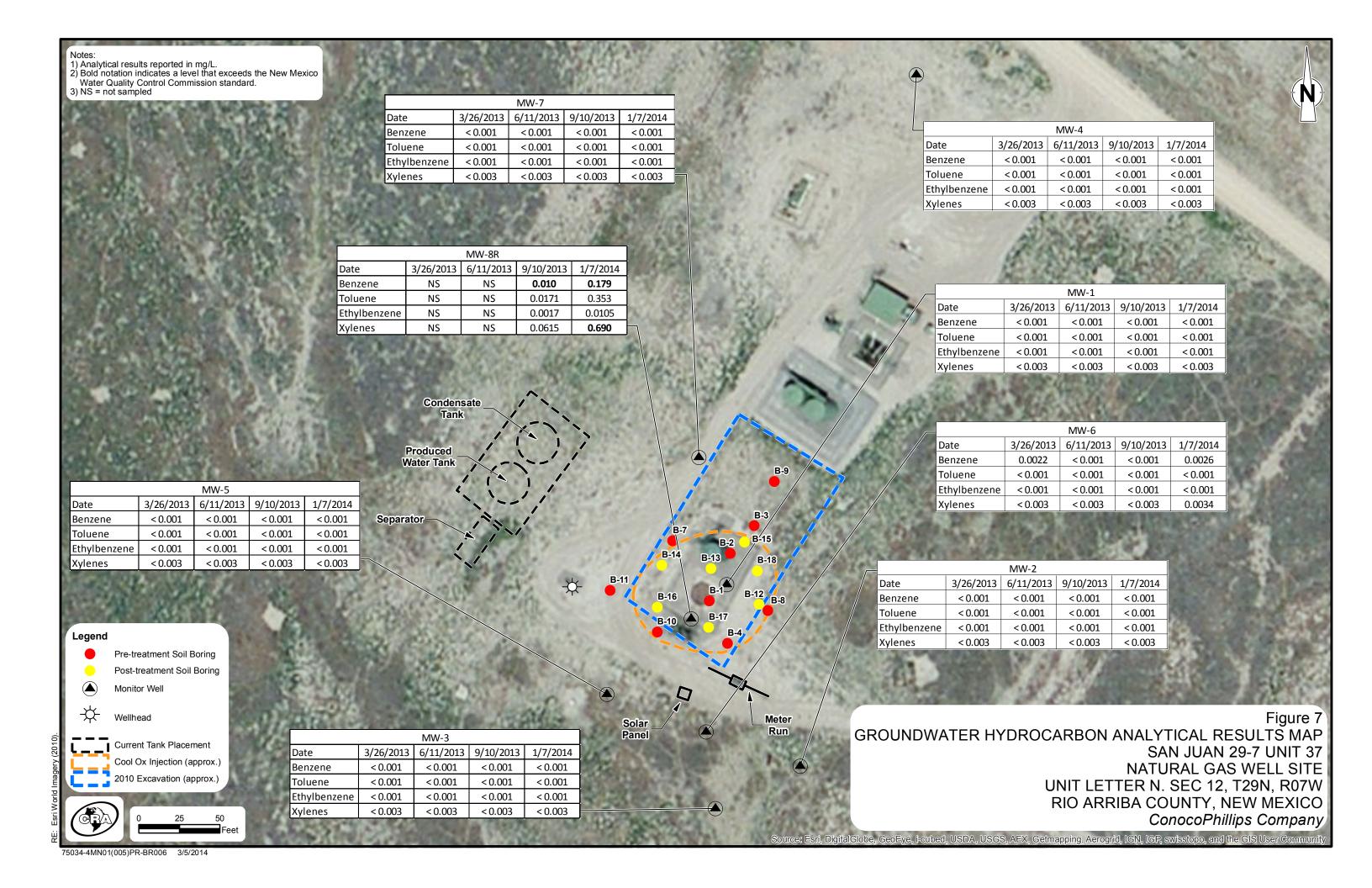


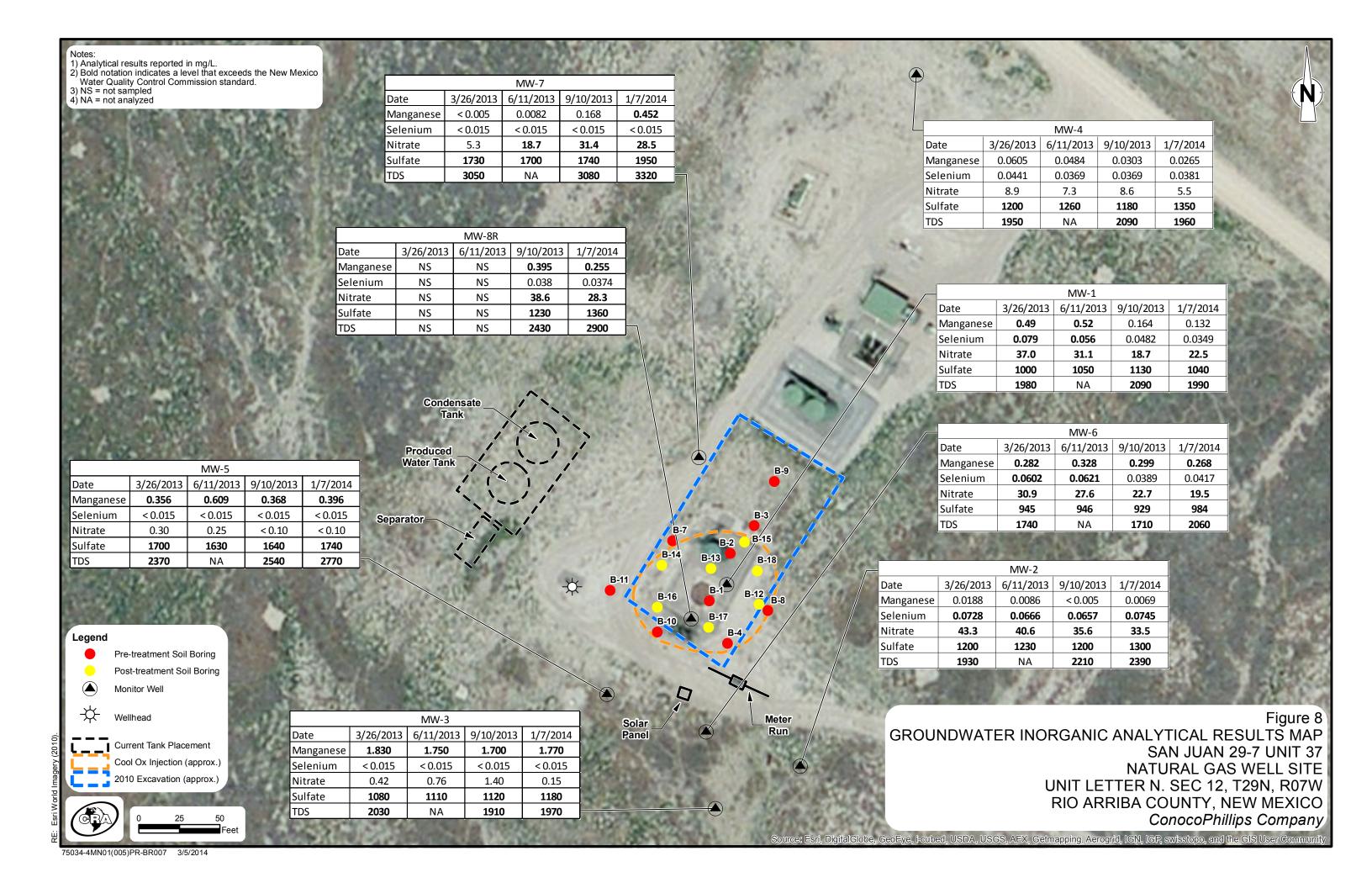


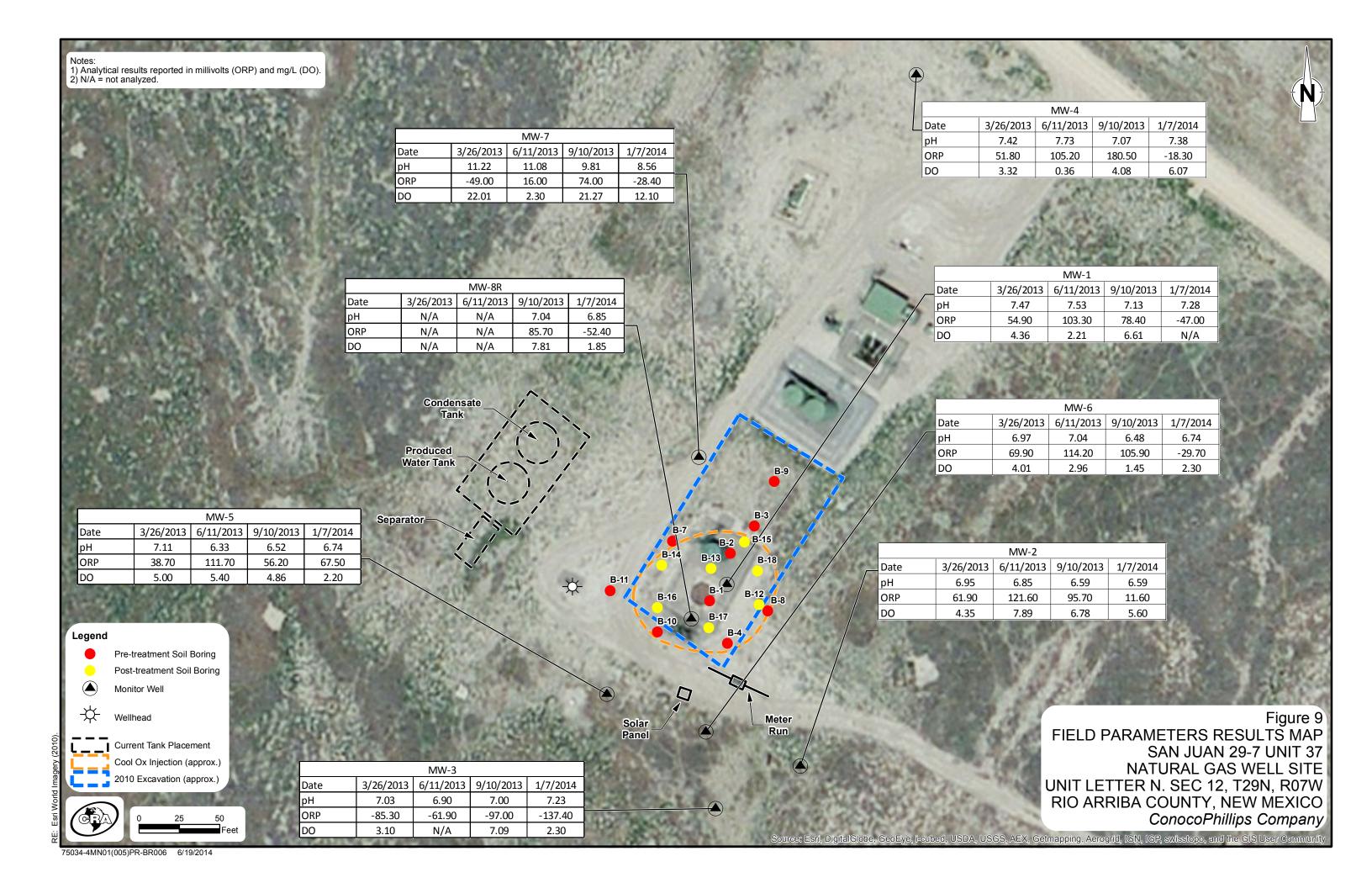












### **TABLES**

#### TABLE 1 GROUNDWATER ELEVATIONS AND ANALYTICAL SUMMARY CONOCOPHILLIPS SAN JUAN 29-7 UNIT 37

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Well ID	*TOC Elevation (ft)	Date	Depth to Groundwater (ft-below TOC)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)	Manganese (dissolved) (mg/L)	Selenium (dissolved) (mg/L)	Nitrate (as N) (mg/L)	Sulfate (mg/L)	Total dissolved solids (TDS) (mg/L)	Heterotrophic Plate Count (CFU/mL)
		3/17/2011	108.91	80.33	0.066	0.39	0.011	0.084	0.28	1.5	2.77	< 0.01	< 0.500	1,610	2730	NA
		8/17/2011	108.81	80.43	0.0189	0.0068	< 0.001	0.0044	< 0.50	< 0.50	0.318	< 0.015	0.25	1,500	2480	180,000
		10/18/2011	108.87	80.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	300,000
		2/23/2012	108.74	80.50	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	6.40	0.055	0.78	1,710	2,480	23,000
		6/5/2012	108.75	80.49	< 0.001	0.002	< 0.001	< 0.003	NA	NA	5.15	0.033	9.4	1,520	NA	93,000
		6/5/2012 (DUP)	108.75	80.49	< 0.001	0.002	< 0.001	< 0.003	NA	NA	NA	NA	NA	NA	NA	NA
		9/18/2012	108.68	80.56	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	2.60	0.044	27.5	1,070	2,140	>80000
MW-1	189.24	9/18/2012 (DUP)	108.68	80.56	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	NA	NA	NA	NA	NA	>80,000
		1/8/2013	108.62	80.62	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	1.10	0.568	25.3	1,150	2,180	76,000
		1/8/2013 (DUP)	108.62	80.62	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	NA	NA	NA	NA	NA	142,000
	ŀ	3/26/2013	108.69	80.55	<0.001	<0.001	<0.001	<0.003	NA	NA	0.49	0.079	37	1,000	1,980	280,000
	ŀ	6/11/2013	108.81	80.43	<0.001	<0.001	<0.001	<0.003	NA	NA	0.52	0.056	31.1	1,050	NA	81,500
	-	6/11/2013 (DUP)	108.81	80.43	<0.001	<0.001	<0.001	<0.003	NA	NA	NA	NA	NA NA	NA	NA	NA
		9/10/2013	109.04	80.2	<0.001	<0.001	<0.001	<0.003	NA	NA	0.164	0.0492	18.7	1,130	2,090	2,300
	F	1/7/2014	109.26	79.98	<0.001	<0.001	<0.001	<0.003	NA	NA NA	0.132	0.0349	22.50	1,040	1,990	335,000
		3/17/2011	109.20	80.40	<0.001	<0.001	<0.001	<0.001	< 0.11	< 0.1	0.334	0.0664	55.8	1,000	2950	NA NA
		8/17/2011	109.10	80.50	<0.001	<0.001	<0.001	<0.001	<0.11	<0.50	0.179	0.0004	71.9 E / 54.1	1,040	2110	61,000
		10/18/2011	109.10	80.47	NA	NA	NA	NA	NA	\\ NA	0.179 NA	0.0726 NA	NA NA	1,040 NA	NA	124,000
	-		109.13	80.55	<0.001		<0.001									·
	}	2/23/2012 6/5/2012	109.05	80.50	<0.001	<0.001 <0.001	<0.001	<0.003 <0.003	NA NA	NA NA	0.0360 0.0078	0.059 0.061	44.9	1,350 1,500	<b>2,220</b> NA	14,900 32,000
MW-2	189.6						+			+		†		-	†	· · · · · · · · · · · · · · · · · · ·
1V1 V V - Z	109.0	9/18/2012	109.28	80.32	<0.001	<0.001	<0.001	<0.003	NA	NA	0.0194	0.067	42.5	1,150	2,440	6,500
		1/8/2013	109.07	80.53	<0.001	<0.001	<0.001	<0.003	NA	NA	0.0057	0.0688	41.8	1,230	2,590	29,000
	-	3/26/2013	109.12	80.48	<0.001	<0.001	<0.001	<0.003	NA	NA	0.0188	0.0728	43.3	1,200	1,930	4,100
	-	6/11/2013	109.32	80.28	<0.001	<0.001	<0.001	<0.003	NA	NA	0.0086	0.0666	40.6	1,230	NA	18,000
	-	9/10/2013	109.32	80.28	<0.001	<0.001	<0.001	<0.003	NA	NA	<0.0050	0.0657	35.6	1,200	2,210	160
		1/7/2014	109.71	79.89	<0.001	<0.001	<0.001	<0.003	NA	NA	0.0069	0.0745	33.5	1,300	2,390	2,435
		3/17/2011	109.42	79.71	<0.001	0.013	<0.001	0.0042	< 0.1	< 0.1	1.79	0.0316	29.7	857	2360	NA
		8/17/2011	109.35	79.78	<0.001	<0.001	<0.001	<0.003	<0.50	<0.50	1.42	0.0524	33.0	972	1960	18,000
		10/18/2011	109.37	79.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230,000
		2/23/2012	109.26	79.87	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.600	0.038	22.0	1,140	2,050	11,900
		6/5/2012	109.28	79.85	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.430	0.048	15.0	1,380	NA	22,000
MW-3	189.13	9/18/2012	109.3	79.83	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.240	0.032	12.2	1,050	2,150	23,000
	-	1/8/2013	109.28	79.85	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.620	0.0673	24.6	1,140	2,240	51,000
	-	3/26/2013	109.33	79.80	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.830	< 0.015	0.42	1,080	2,030	70
	-	6/11/2013	109.41	79.72	<0.001	<0.001	<0.001	< 0.003	NA	NA	1.750	< 0.015	0.76	1,110	NA	830
	-	9/10/2013	109.58	79.55	<0.001	< 0.001	<0.001	< 0.003	NA	NA	1.700	< 0.015	1.4	1,120	1,910	110
	-	1/7/2014	109.7	79.43	< 0.001	< 0.001	<0.001	< 0.003	NA	NA	1.770	< 0.015	0.15	1,180	1,970	284
		1/7/2014 (DUP)	109.7	79.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	350
		3/17/2011	111.11	86.49	< 0.001	<0.001	<0.001	< 0.001	0.14	< 0.1	0.022	0.042	10.4	1,290	2650	NA
		8/17/2011	111.10	86.50	< 0.001	<0.001	< 0.001	< 0.003	< 0.50	< 0.50	0.0062	0.0402	9.4	1,240	2000	9800
		10/18/2011	111.16	86.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90,000
		2/23/2012	111.14	86.46	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0170	0.0350	8.6	1,380	2,070	40,000
		6/5/2012	111.20	86.40	< 0.001	<0.001	<0.001	< 0.003	NA	NA	0.0814	0.0369	7.5	1,540	NA	49,000
MW-4	197.6	9/18/2012	111.12	86.48	< 0.001	<0.001	<0.001	< 0.003	NA	NA	0.1030	0.0394	7.8	1,190	2,180	4,000
		1/8/2013	111.14	86.46	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0289	0.0386	9.3	1,240	2,230	202,000
		3/26/2013	111.23	86.37	< 0.001	< 0.001	<0.001	< 0.003	NA	NA	0.0605	0.0441	8.9	1,200	1,950	42,500
	Ī	6/11/2013	111.41	86.19	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0484	0.0369	7.3	1,260	NA	33,000
	ļ	9/10/2013	111.47	86.13	<0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0303	0.0369	8.6	1,180	2,090	910
	ļ	1/7/2014	111.66	85.94	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0265	0.0381	5.5	1,350	1,960	1,160

Conestoga-Rovers and Associates 075034

# TABLE 1 GROUNDWATER ELEVATIONS AND ANALYTICAL SUMMARY CONOCOPHILLIPS SAN JUAN 29-7 UNIT 37

_			ı	1		CO	NOCOPHILLIPS	SAN JUAN	29-7 UNII 37			1			T	
Well ID	*TOC Elevation (ft)	Date	Depth to Groundwater (ft-below TOC)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)	Manganese (dissolved) (mg/L)	Selenium (dissolved) (mg/L)	Nitrate (as N) (mg/L)	Sulfate (mg/L)	Total dissolved solids (TDS) (mg/L)	Heterotrophic Plate Count (CFU/mL)
		10/18/2011	118.05	70.65	< 0.001	< 0.001	<0.001	< 0.003	< 0.5	< 0.5	NA	NA	NA	NA	NA	970,000
		2/23/2012	108.44	80.26	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	1.10	< 0.015	0.12	3,500	2,760	252,000
		6/5/2012	108.38	80.32	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.868	< 0.015	< 0.10	2,040	NA	63,000
		9/18/2012	108.11	80.59	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.791	< 0.015	< 0.10	1,620	2,830	130,000
MW-5	188.7	1/8/2013	108.36	80.34	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.58	< 0.015	<0.10	1,710	2,950	102,000
		3/26/2013	108.72	79.98	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.356	< 0.015	0.3	1,700	2,370	16,950
		6/11/2013	108.56	80.14	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.609	< 0.015	0.25	1,630	NA	20,500
		9/10/2013	108.77	79.93	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.368	< 0.015	<0.10	1,640	2,540	660
		1/7/2014	108.91	79.79	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.396	< 0.015	< 0.10	1,740	2,770	5,450
		10/18/2011	109.55	78.48	0.033	< 0.001	< 0.001	0.012	< 0.5	< 0.5	NA	NA	NA	NA	NA	720,000
		2/23/2012	108.01	80.02	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	< 0.005	0.0590	25.8	950	1,760	8,900
		6/5/2012	108.05	79.98	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	1.600	0.0454	35.0	1,090	NA	35,000
		9/18/2012	108.06	79.97	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	1.110	0.0460	29.5	955	1,990	12,000
MW-6	188.03	1/8/2013	108.07	79.96	0.0012	< 0.001	< 0.001	< 0.003	NA	NA	0.158	0.0536	25.6	978	1,980	1,910,000
		3/26/2013	108.09	79.94	0.0022	< 0.001	< 0.001	< 0.003	NA	NA	0.282	0.0602	30.9	945	1,740	25,500
		6/11/2013	108.25	79.78	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.328	0.0621	27.6	946	NA	4,750
		9/10/2013	108.43	79.6	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.299	0.0389	22.7	929	1,710	65
		1/7/2014	108.7	79.33	0.0026	< 0.001	< 0.001	0.0034	NA	NA	0.268	0.0417	19.5	984	2,060	2,460
		10/18/2011	119.70	70.23	< 0.001	< 0.001	< 0.001	< 0.003	< 0.5	< 0.5	NA	NA	NA	NA	NA	2,000,000
		2/23/2012	106.58	83.35	< 0.001	0.001	< 0.001	0.003	NA	NA	< 0.005	0.022	4.6	3,320	4,660	<1
		6/5/2012	107.95	81.98	< 0.001	< 0.001	<0.001	< 0.003	NA	NA	0.019	0.030	1.1	1,820	NA	8
		9/18/2012	108.1	81.83	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.012	0.024	1.0	1,610	4,280	1,900
MW-7	189.93	1/8/2013	108.13	81.8	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0093	0.0164	1.3	1,770	3,400	145,000
		3/26/2013	108.24	81.69	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	< 0.005	< 0.015	5.3	1,730	3,050	79
		6/11/2013	108.45	81.48	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.0082	< 0.015	18.7	1,700	NA	18
		9/10/2013	108.64	81.29	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.168	< 0.015	31.4	1,740	3,080	110
		1/7/2014	108.8	81.13	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	0.452	< 0.015	28.5	1,950	3,320	8,300
		10/19/2011			0.15	1.24	0.070	1.43	< 0.5	7.1	NA	NA	NA	NA	NA	2,300,000
		2/23/2012	108.71	81.15	0.036	0.772	0.054	1.35	NA	NA	< 0.005	0.049	3.2	813	5,790	14
		2/23/2012 (DUP)	108.71	81.15	0.069	0.876	0.109	1.66	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	189.86	6/5/2012	108.65	81.21	0.013	0.120	0.025	0.447	NA	NA	0.022	0.045	18.1	793	NA	630
10100-0	109.00	9/20/2012	108.64	81.22	0.0098	0.002	0.006	0.342	NA	NA	NA	NA	21.8	1,130	2,960	NA
		1/8/2013	108.56	81.30	0.0369	0.0199	0.0018	0.0488	NA	NA	NA	NA	30.4	1,260	2,700	222,000
		3/26/2013	108.63	81.23						Not sample	d due to damaged	well casing.				
		6/11/2013	108.85	81.01						Not sample	d due to damaged	well casing.				
		9/10/2013	108.39		0.0100	0.0171	0.0017	0.0615	NA	NA	0.395	0.038	38.6	1,230	2,430	5,700
MW-8R	[	9/10/2013 (DUP)	108.39		0.0083	0.0125	0.0018	0.0443	NA	NA	NA	NA	NA	NA	NA	8,700
1V1 V V -OIX		1/7/2014	108.65		0.179	0.353	0.0105	0.69	NA	NA	0.255	0.0374	28.3	1,360	2,900	425,000
		1/7/2014 (DUP)	108.65		0.192	0.344	0.0107	0.715	NA	NA	NA	NA	NA	NA	NA	NA
		NMWQCC	Standards		0.01	0.75	0.75	0.62	NE	NE	0.2	0.05	10	600	1,000	NE

 $\frac{\text{Notes:}}{\text{MW} = \text{Monitoring Well}}$ 

NMWQCC = New Mexico Water Quality Control Commission BOLD = Exceeds NMWQCC Groundwater Quality Standard

mg/L = milligrams per liter (parts per million)

ft = Feet
TOC = Top of Casing
\* = Elevation relative to an arbitrary 200 feet
NE = Not Established

NA = Not analyzed

TPH DRO = total petroleum hydrocarbons diesel range organics
TPH GRO = total petroleum hydrocarbons gasoline range organics

-- = No data
Cells shaded in gray indicate groundwater samples collected prior to CoolOx™ treatment

<sup>&#</sup>x27;< ' = Analyte not detected above set laboratory detection limit

E = Analyte concentration exceeded the calibration range

# **APPENDIX A**

SOILS LABORATORY ANALYTICAL RESULTS



August 06, 2013

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

RE: Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

#### Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on July 25, 2013. 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

alice.flanagan@pacelabs.com Project Manager

**Enclosures** 

cc: Kelly Blanchard, COP Conestoga-Rovers & Associa Angela Bown, COP Conestoga-Rovers & Associa Cassie Brown, COP Conestoga-Rovers & Associa Jason Ploss, COP Conestoga-Rovers & Associa







9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

#### **CERTIFICATIONS**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

**Kansas Certification IDs** 

9608 Loiret Boulevard, Lenexa, KS 66219 WY STR Certification #: 2456.01 Arkansas Certification #: 13-012-0 Illinois Certification #: 003097 lowa 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





#### **SAMPLE SUMMARY**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
60149543001	SS-075034-071713-JC-MW8R-107	Solid	07/17/13 09:15	07/25/13 07:20	
60149543002	SS-075034-071713-JC-WASTE	Solid	07/19/13 12:15	07/25/13 07:20	
60149543003	TRIP BLANK	Solid	07/19/13 08:00	07/25/13 07:20	





#### **SAMPLE ANALYTE COUNT**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60149543001	SS-075034-071713-JC-MW8R-107	EPA 8015B	JDH	3
		EPA 8015B	SDR	2
		EPA 8260	RAB	8
		ASTM D2974	DWC	1
		EPA 9045	NDL	1
60149543002	SS-075034-071713-JC-WASTE	EPA 8015B	JDH	3
		EPA 8015B	SDR	2
		EPA 6010	JGP	7
		EPA 7470	NDJ	1
		EPA 8260	RAB	5
		EPA 8260	RAB	9
		ASTM D2974	DWC	1
		SW-846 7.3.4.2	AJM	1
		EPA 9045	NDL	1
		ASTM D92	DJR	1
		SW-846 7.3.3.2	AJM	1
0149543003	TRIP BLANK	EPA 8260	RAB	8
		ASTM D2974	DWC	1



**PROJECT NARRATIVE** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 8015B

Description: 8015B Diesel Range Organics

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

#### **General Information:**

2 samples were analyzed for EPA 8015B. 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 3546 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.

#### 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 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:**



#### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 8015B

**Description:** Gasoline Range Organics

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

#### **General Information:**

2 samples were analyzed for EPA 8015B. 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 5035A/5030B 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.

QC Batch: GCV/4388

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample reanalysis).

- MS (Lab ID: 1227358)
  - 4-Bromofluorobenzene (S)
- MSD (Lab ID: 1227359)
  - 4-Bromofluorobenzene (S)
- SS-075034-071713-JC-MW8R-107 (Lab ID: 60149543001)
  - 4-Bromofluorobenzene (S)

#### Method Blank:

All analytes were below the report limit in the method blank 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: GCV/4388

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60149543001

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

• MS (Lab ID: 1227358)





#### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 8015B

**Description:** Gasoline Range Organics

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

QC Batch: GCV/4388

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60149543001

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

• TPH-GRO

• MSD (Lab ID: 1227359)

• TPH-GRO

#### **Additional Comments:**





#### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 6010

Description: 6010 MET ICP, TCLP

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

#### **General Information:**

1 sample was 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 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:**



### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 7470

Description: 7470 Mercury, TCLP

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

1 sample was analyzed for EPA 7470. 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 7470 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 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.



### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 8260
Description: 8260 MSV TCLP

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

1 sample was analyzed for EPA 8260. 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.

### **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 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.



### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 8260

Description: 8260 MSV 5035A VOA

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

3 samples were analyzed for EPA 8260. 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.

### **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.

QC Batch: MSV/55198

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- SS-075034-071713-JC-MW8R-107 (Lab ID: 60149543001)
  - Toluene-d8 (S)

### Method Blank:

All analytes were below the report limit in the method blank 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.



### **PROJECT NARRATIVE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: SW-846 7.3.4.2

Description: Reactive Sulfide

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

1 sample was analyzed for SW-846 7.3.4.2. 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 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.



**PROJECT NARRATIVE** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: EPA 9045 Description: 9045 pH Soil

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

2 samples were analyzed for EPA 9045. 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.

H3: Sample was received or analysis requested beyond the recognized method holding time.

- SS-075034-071713-JC-MW8R-107 (Lab ID: 60149543001)
- SS-075034-071713-JC-WASTE (Lab ID: 60149543002)

### Method Blank:

All analytes were below the report limit in the method blank 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.



**PROJECT NARRATIVE** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: ASTM D92

Description: Flashpoint, Open Cup

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

1 sample was analyzed for ASTM D92. 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 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.



Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Method: SW-846 7.3.3.2

Description: 733C S Reactive Cyanide

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** August 06, 2013

### **General Information:**

1 sample was analyzed for SW-846 7.3.3.2. All samples were received in acceptable condition with any exceptions noted below.

**PROJECT NARRATIVE** 

### **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 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:**

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





### **ANALYTICAL RESULTS**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Sample: SS-075034-071713-JC- Lab ID: 60149543001 Collected: 07/17/13 09:15 Received: 07/25/13 07:20 Matrix: Solid

MW8R-107

Date: 08/06/2013 05:23 PM

Parameters	Results Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
8015B Diesel Range Organics	Analytical Method: EF		aration Met	hod: E	 PA 3546		-	
TPH-DRO	<b>124</b> mg/kg	11.0	1.8	1	07/26/13 00:00	08/05/13 12:00		
Surrogates								
n-Tetracosane (S)	59 %	20-159		1	07/26/13 00:00	08/05/13 12:00		
o-Terphenyl (S)	39 %	24-147		1	07/26/13 00:00	08/05/13 12:00	92-94-4	
Gasoline Range Organics	Analytical Method: EF	A 8015B Prep	aration Met	hod: E	PA 5035A/5030B			
TPH-GRO <b>Surrogates</b>	<b>382</b> mg/kg	10.8		1	07/29/13 00:00	07/30/13 17:32		M1
4-Bromofluorobenzene (S)	186 %	67-139		1	07/29/13 00:00	07/30/13 17:32	460-00-4	S2
3260 MSV 5035A VOA	Analytical Method: EF	PA 8260						
Benzene	ND ug/kg	5.5	2.7	1		07/26/13 16:08	71-43-2	
Ethylbenzene	<b>453</b> ug/kg	278	139	50		07/29/13 17:13	100-41-4	
Toluene	<b>314</b> ug/kg	278	139	50		07/29/13 17:13	108-88-3	
Xylene (Total)	<b>9600</b> ug/kg	278	139	50		07/29/13 17:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98 %	76-125		1		07/26/13 16:08		
Toluene-d8 (S)	492 %	80-120		1		07/26/13 16:08		S3
4-Bromofluorobenzene (S)	105 %	80-120		1		07/26/13 16:08		
1,2-Dichloroethane-d4 (S)	93 %	76-132		1		07/26/13 16:08	17060-07-0	
Percent Moisture	Analytical Method: AS	TM D2974						
Percent Moisture	9.3 %	0.50	0.50	1		07/26/13 00:00		
9045 pH Soil	Analytical Method: EF	A 9045						
pH at 25 Degrees C	8.4 Std. Units	0.10	0.10	1		07/29/13 15:46		НЗ



### **ANALYTICAL RESULTS**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Sample: SS-075034-071713-JC- Lab ID: 60149543002 Collected: 07/19/13 12:15 Received: 07/25/13 07:20 Matrix: Solid

WASTE

Date: 08/06/2013 05:23 PM

	Describe	1.1.20	Report	MDI	ъ-	Durananal	A l	040 N	0
Parameters	Results —	Units	Limit –	MDL	DF	Prepared	Analyzed	CAS No.	Qu
015B Diesel Range Organics	Analytical I	Method: EPA	8015B Prep	aration Met	hod: E	PA 3546			
PH-DRO	<b>140</b> mg	g/kg	11.7	1.9	1	07/26/13 00:00	08/05/13 13:06		
Surrogates	74.0/		20.450			07/00/40 00:00	00/05/42 42:00	040 04 4	
n-Tetracosane (S)	71 %		20-159		1	07/26/13 00:00	08/05/13 13:06		
p-Terphenyl (S)	47 %		24-147		1	07/26/13 00:00	08/05/13 13:06	92-94-4	
Basoline Range Organics	Analytical I	Method: EPA	A 8015B Prep	aration Met	hod: E	PA 5035A/5030B			
PH-GRO	<b>30.0</b> mg	g/kg	11.6		1	07/29/13 00:00	07/30/13 18:15		
Surrogates I-Bromofluorobenzene (S)	83 %		67-139		1	07/20/13 00:00	07/30/13 18:15	460-00-4	
,							07/30/13 16.13	400-00-4	
6010 MET ICP, TCLP	-		A 6010 Prepai			A 3010			
			: EPA 1311; 0	7/31/13 00:	00				
Arsenic	ND m	g/L	0.50		1	07/31/13 11:25	08/01/13 16:11	7440-38-2	
Barium	ND m	g/L	2.5		1	07/31/13 11:25	08/01/13 16:11	7440-39-3	
Cadmium	ND m	g/L	0.050		1	07/31/13 11:25	08/01/13 16:11	7440-43-9	
Chromium	ND m	g/L	0.10		1	07/31/13 11:25	08/01/13 16:11	7440-47-3	
.ead	ND m	g/L	0.50		1	07/31/13 11:25	08/01/13 16:11	7439-92-1	
Selenium	ND mg	g/L	0.50		1	07/31/13 11:25	08/01/13 16:11	7782-49-2	
Silver	ND m	g/L	0.10		1	07/31/13 11:25	08/01/13 16:11	7440-22-4	
470 Mercury, TCLP	Analytical I	Method: EPA	7470 Prepai	ration Meth	od: EP	A 7470			
	Leachate N	/lethod/Date	: EPA 1311; 0	7/31/13 00:	00				
Mercury	ND m	g/L	0.0020	0.0010	1	08/01/13 10:30	08/01/13 13:19	7439-97-6	
3260 MSV TCLP	Analytical I	Method: EPA	8260 Leach	ate Method	/Date:	EPA 1311; 07/31/1	13 00:00		
Benzene	ND ug	ı/L	50.0	25.0	1		08/02/13 03:56	71-43-2	
Surrogates	05.04		00.400				00/00/40 00 50	47000 07 0	
,2-Dichloroethane-d4 (S)	95 %		80-120		1		08/02/13 03:56		
Toluene-d8 (S)	105 %		80-120		1		08/02/13 03:56		
l-Bromofluorobenzene (S)	95 %		80-120		1		08/02/13 03:56		
Dibromofluoromethane (S)	99 %		80-120		1		08/02/13 03:56	1868-53-7	
260 MSV 5035A VOA	Analytical I	Method: EPA	A 8260						
Benzene	ND ug	•	6.0	3.0	1		07/29/13 12:50	71-43-2	
FOTAL BTEX	<b>22.4</b> ug	-	6.0	3.0	1		07/29/13 12:50		
Ethylbenzene	ND ug	-	6.0	3.0	1		07/29/13 12:50	100-41-4	
Toluene	ND ug	•	6.0	3.0	1		07/29/13 12:50		
(ylene (Total)	<b>22.4</b> ug	ı/kg	6.0	3.0	1		07/29/13 12:50	1330-20-7	
Surrogates	20.01		70.405				07/00/40 40 50	4000 50 7	
Dibromofluoromethane (S)	99 %		76-125		1		07/29/13 12:50		
Foluene-d8 (S)	103 %		80-120		1		07/29/13 12:50		
4-Bromofluorobenzene (S)	100 %		80-120		1		07/29/13 12:50		
1,2-Dichloroethane-d4 (S)	98 %		76-132		1		07/29/13 12:50	17060-07-0	





### **ANALYTICAL RESULTS**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Sample: SS-075034-071713-JC-Lab ID: 60149543002 Collected: 07/19/13 12:15 Received: 07/25/13 07:20 Matrix: Solid

WASTE

Date: 08/06/2013 05:23 PM

Results reported on a "dry-weig	ght" basis							
Parameters	Results Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: AS	STM D2974						
Percent Moisture	15.0 %	0.50	0.50	1	07/26/13 00:00			
Reactive Sulfide	Analytical Method: SV	V-846 7.3.4.2						
Sulfide, Reactive	ND mg/kg	100		1	07/26/13 10:15			
9045 pH Soil	Analytical Method: EF	PA 9045						
pH at 25 Degrees C	8.3 Std. Units	0.10	0.10	1		07/29/13 15:46		НЗ
Flashpoint, Open Cup	Analytical Method: AS	STM D92						
Flashpoint	>210 deg F			1		07/26/13 07:49		
733C S Reactive Cyanide	Analytical Method: SV	V-846 7.3.3.2						
Cyanide, Reactive	ND mg/kg	0.025	0.0052	1		07/26/13 11:26		





### **ANALYTICAL RESULTS**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

Sample: TRIP BLANK Lab ID: 60149543003 Collected: 07/19/13 08:00 Received: 07/25/13 07:20 Matrix: Solid

Results reported on a "dry-weight" basis

Results reported on a dry-weig	giit buoio		Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical	Method: EPA	A 8260						
Benzene	ND u	ıg/kg	5.0	2.5	1		07/26/13 15:07	71-43-2	
Ethylbenzene	ND u	ıg/kg	5.0	2.5	1		07/26/13 15:07	100-41-4	
Toluene	ND u	ıg/kg	5.0	2.5	1		07/26/13 15:07	108-88-3	
Xylene (Total)	ND u	ıg/kg	5.0	2.5	1		07/26/13 15:07	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99 9	%	76-125		1		07/26/13 15:07	1868-53-7	
Toluene-d8 (S)	101 9	%	80-120		1		07/26/13 15:07	2037-26-5	
4-Bromofluorobenzene (S)	99 9	%	80-120		1		07/26/13 15:07	460-00-4	
1,2-Dichloroethane-d4 (S)	96 %	%	76-132		1		07/26/13 15:07	17060-07-0	
Percent Moisture	Analytical	Method: AS	ΓM D2974						
Percent Moisture	ND %	%	0.50	0.50	1		07/26/13 00:00		





### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

QC Batch: GCV/4388 Analysis Method: EPA 8015B

QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics

Associated Lab Samples: 60149543001, 60149543002

METHOD BLANK: 1227356 Matrix: Solid

Associated Lab Samples: 60149543001, 60149543002

ParameterUnitsBlank ResultReporting LimitAnalyzedQualifiersTPH-GROmg/kgND10.007/30/13 13:39

4-Bromofluorobenzene (S) % 97 67-139 07/30/13 13:39

LABORATORY CONTROL SAMPLE: 1227357

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers TPH-GRO mg/kg 50 45.0 90 65-143 4-Bromofluorobenzene (S) % 93 67-139

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1227358 1227359

MSD MS 60149543001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual TPH-GRO mg/kg 382 53.8 53.8 385 309 5 -135 40-151 22 33 M1 4-Bromofluorobenzene (S) % 178 155 67-139 S2



### **QUALITY CONTROL DATA**

EPA 7470

Analysis Method:

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

QC Batch: MERP/7556

QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury TCLP

Associated Lab Samples: 60149543002

METHOD BLANK: 1228444 Matrix: Water

Associated Lab Samples: 60149543002

Blank Reporting
Parameter Units Result Limit

Parameter Units Result Limit Analyzed Qualifiers

Mercury mg/L ND 0.0020 08/01/13 13:15

LABORATORY CONTROL SAMPLE: 1228445

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers 82 Mercury mg/L .005 0.0041 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1228446 1228447

MS MSD 60149543002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual 0.014 0.016 75-125 8 20 Mercury mg/L ND .015 .015 96 104



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: MPRP/23684 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP

Associated Lab Samples: 60149543002

METHOD BLANK: 1228484 Matrix: Water

Associated Lab Samples: 60149543002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.50	08/01/13 16:08	
Barium	mg/L	ND	2.5	08/01/13 16:08	
Cadmium	mg/L	ND	0.050	08/01/13 16:08	
Chromium	mg/L	ND	0.10	08/01/13 16:08	
Lead	mg/L	ND	0.50	08/01/13 16:08	
Selenium	mg/L	ND	0.50	08/01/13 16:08	
Silver	mg/L	ND	0.10	08/01/13 16:08	

LABORATORY CONTROL SAMPLE: 1228485

Date: 08/06/2013 05:23 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L		0.95	95	80-120	
Barium	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	1	0.97	97	80-120	
Chromium	mg/L	1	0.97	97	80-120	
Lead	mg/L	1	0.97	97	80-120	
Selenium	mg/L	1	0.95	95	80-120	
Silver	mg/L	.5	0.48	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1228486 1228487 MS MSD 60149543002 MS MSD MS MSD Spike Spike % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Arsenic ND 10 9.7 9.9 97 98 75-125 2 20 mg/L 10 ND 75-125 Barium mg/L 10 10 11.8 12.0 104 107 2 20 Cadmium mg/L ND 10 10 9.8 10.0 98 100 75-125 2 20 Chromium ND 10 10 9.5 9.6 95 96 75-125 1 20 mg/L Lead mg/L ND 10 10 9.4 9.6 94 96 75-125 2 20 Selenium ND 10 10 9.9 10.1 99 101 75-125 2 20 mg/L Silver mg/L ND 5 5 4.8 4.9 96 98 75-125 2 20



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

QC Batch: MSV/55297 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV TCLP

Associated Lab Samples: 60149543002

METHOD BLANK: 1229216 Matrix: Water

Associated Lab Samples: 60149543002

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND ND	50.0	08/02/13 03:40	
1,2-Dichloroethane-d4 (S)	%	95	80-120	08/02/13 03:40	
4-Bromofluorobenzene (S)	%	94	80-120	08/02/13 03:40	
Toluene-d8 (S)	%	104	80-120	08/02/13 03:40	

LABORATORY CONTROL SAMPLE:	1229217					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	1000	986	99	73-122	
1,2-Dichloroethane-d4 (S)	%			100	80-120	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			105	80-120	

MATRIX SPIKE SAMPLE:	1229218						
		60149543002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	ND	1000	900	90	48-150	
1,2-Dichloroethane-d4 (S)	%				95	80-120	
4-Bromofluorobenzene (S)	%				95	80-120	
Toluene-d8 (S)	%				106	80-120	

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### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: MSV/55198 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 60149543001, 60149543003

METHOD BLANK: 1226569 Matrix: Solid

Associated Lab Samples: 60149543001, 60149543003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	07/26/13 14:05	
Ethylbenzene	ug/kg	ND	5.0	07/26/13 14:05	
Toluene	ug/kg	ND	5.0	07/26/13 14:05	
Xylene (Total)	ug/kg	ND	5.0	07/26/13 14:05	
1,2-Dichloroethane-d4 (S)	%	96	76-132	07/26/13 14:05	
4-Bromofluorobenzene (S)	%	98	80-120	07/26/13 14:05	
Toluene-d8 (S)	%	100	80-120	07/26/13 14:05	

LABORATORY CONTROL SAMPLE:	1226570

Date: 08/06/2013 05:23 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	109	109	77-120	
Ethylbenzene	ug/kg	100	116	116	76-120	
Toluene	ug/kg	100	111	111	74-120	
Xylene (Total)	ug/kg	300	348	116	75-120	
1,2-Dichloroethane-d4 (S)	%			96	76-132	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			102	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 12265	71		1226572							
			MS	MSD								
	60 <sup>-</sup>	148198006	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzene	ug/kg	ND	126	127	115	106	92	83	40-145	8	47	H1
Ethylbenzene	ug/kg	ND	126	127	121	110	96	87	40-151	9	48	H1
Toluene	ug/kg	ND	126	127	119	109	94	85	40-150	9	46	H1
Xylene (Total)	ug/kg	ND	377	382	351	322	93	84	40-153	9	47	
1,2-Dichloroethane-d4 (S)	%						100	101	76-132			
4-Bromofluorobenzene (S)	%						100	99	80-120			
Toluene-d8 (S)	%						101	101	80-120			



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: MSV/55218 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 60149543001, 60149543002

METHOD BLANK: 1227334 Matrix: Solid

Associated Lab Samples: 60149543001, 60149543002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	07/29/13 11:28	
Ethylbenzene	ug/kg	ND	5.0	07/29/13 11:28	
Toluene	ug/kg	ND	5.0	07/29/13 11:28	
TOTAL BTEX	ug/kg	ND	5.0	07/29/13 11:28	
Xylene (Total)	ug/kg	ND	5.0	07/29/13 11:28	
1,2-Dichloroethane-d4 (S)	%	94	76-132	07/29/13 11:28	
4-Bromofluorobenzene (S)	%	99	80-120	07/29/13 11:28	
Toluene-d8 (S)	%	99	80-120	07/29/13 11:28	

LABORATORY CONTROL SAMPLE: 1227335

Date: 08/06/2013 05:23 PM

		<b>.</b>				
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/kg	100	108	108	77-120	
Ethylbenzene	ug/kg	100	115	115	76-120	
Toluene	ug/kg	100	110	110	74-120	
TOTAL BTEX	ug/kg		671			
Xylene (Total)	ug/kg	300	338	113	75-120	
1,2-Dichloroethane-d4 (S)	%			93	76-132	
4-Bromofluorobenzene (S)	%			98	80-120	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 12273	36		1227337							
			MS	MSD								
	60	149543002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzene	ug/kg	ND	119	119	164	110	138	93	40-145	39	47	
Ethylbenzene	ug/kg	ND	119	119	120	111	100	92	40-151	8	48	
Toluene	ug/kg	ND	119	119	118	112	99	93	40-150	5	46	
TOTAL BTEX	ug/kg	22.4			784	690				13		
Xylene (Total)	ug/kg	22.4	355	357	382	357	101	93	40-153	7	47	
1,2-Dichloroethane-d4 (S)	%						96	98	76-132			
4-Bromofluorobenzene (S)	%						102	103	80-120			
Toluene-d8 (S)	%						101	103	80-120			





**QUALITY CONTROL DATA** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

QC Batch: OEXT/39491 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B

Associated Lab Samples: 60149543001, 60149543002

METHOD BLANK: 1226055 Matrix: Solid

Associated Lab Samples: 60149543001, 60149543002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	10	07/31/13 21:32	
n-Tetracosane (S)	%	72	20-159	07/31/13 21:32	
p-Terphenyl (S)	%	59	24-147	07/31/13 21:32	

LABORATORY CONTROL SAMPLE:	1226056					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
TPH-DRO	mg/kg	83.1	74.9	90	64-120	
n-Tetracosane (S)	%			78	20-159	
p-Terphenyl (S)	%			60	24-147	

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 12260	57		1226058							
			MS	MSD								
	60	149543001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
TPH-DRO	mg/kg	124	91.8	91.5	191	189	73	72	10-150	1	45	
n-Tetracosane (S)	%						68	69	20-159			
p-Terphenyl (S)	%						44	47	24-147			



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: PMST/8748 Analysis Method: ASTM D2974

QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 60149543001, 60149543002, 60149543003

METHOD BLANK: 1226107 Matrix: Solid

Associated Lab Samples: 60149543001, 60149543002, 60149543003

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersPercent Moisture%ND0.5007/26/13 00:00

SAMPLE DUPLICATE: 1226108

Date: 08/06/2013 05:23 PM

60149543001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers % 9.3 9.3 Percent Moisture 0 20



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: WET/42560 Analysis Method: SW-846 7.3.4.2 QC Batch Method: SW-846 7.3.4.2 Analysis Description: Reactive Sulfide

Associated Lab Samples: 60149543002

METHOD BLANK: 1226138 Matrix: Solid

Associated Lab Samples: 60149543002

> Blank Reporting Limit Parameter Units Result Analyzed Qualifiers ND 100 07/26/13 10:15

Sulfide, Reactive mg/kg

LABORATORY CONTROL SAMPLE: 1226139

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfide, Reactive mg/kg 200 198 99 77-110

MATRIX SPIKE SAMPLE: 1226140

60149543002 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers ND 505 101 67-116 Sulfide, Reactive 500 mg/kg

SAMPLE DUPLICATE: 1226141

Date: 08/06/2013 05:23 PM

60149322001 Dup Max RPD RPD Parameter Units Result Result Qualifiers ND Sulfide, Reactive mg/kg ND 30





**QUALITY CONTROL DATA** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: WET/42590 Analysis Method: EPA 9045
QC Batch Method: EPA 9045 Analysis Description: 9045 pH

Associated Lab Samples: 60149543001, 60149543002

SAMPLE DUPLICATE: 1227201

Date: 08/06/2013 05:23 PM

60149543001 Dup Max Parameter Units Result Result **RPD** RPD Qualifiers pH at 25 Degrees C Std. Units 8.4 3 8.4 0



### **QUALITY CONTROL DATA**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

QC Batch: WETA/25591

QC Batch Method: SW-846 7.3.3.2

Analysis Method: Analysis Description: SW-846 7.3.3.2

733C Reactive Cyanide

Associated Lab Samples: 60149543002

METHOD BLANK: 1226131 Matrix: Solid

Associated Lab Samples: 60149543002

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Cyanide, Reactive mg/kg ND 0.025 07/26/13 11:18

LABORATORY CONTROL SAMPLE: 1226132

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Cyanide, Reactive mg/kg .5 0.53 106 71-123

MATRIX SPIKE SAMPLE: 1226134

60149543002 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers ND .5 0.54 57-132 Cyanide, Reactive 106 mg/kg

SAMPLE DUPLICATE: 1226133

Date: 08/06/2013 05:23 PM

Parameter Units Result Result RPD ARPD Qualifiers

Cyanide, Reactive mg/kg <0.0052 .0055J 23



**QUALIFIERS** 

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

### **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.

### **ANALYTE QUALIFIERS**

Date: 08/06/2013 05:23 PM

H1 Analysis conducted outside the EPA method holding ti	ime.
---	------

- H3 Sample was received or analysis requested beyond the recognized method holding time.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
- S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.



### **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 075034San Juan 29-7 Unit37Conf

Pace Project No.: 60149543

Date: 08/06/2013 05:23 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60149543001 60149543002	SS-075034-071713-JC-MW8R-107 SS-075034-071713-JC-WASTE	EPA 3546 EPA 3546	OEXT/39491 OEXT/39491	EPA 8015B EPA 8015B	GCSV/15038 GCSV/15038
60149543001 60149543002	SS-075034-071713-JC-MW8R-107 SS-075034-071713-JC-WASTE	EPA 5035A/5030B EPA 5035A/5030B	GCV/4388 GCV/4388	EPA 8015B EPA 8015B	GCV/4390 GCV/4390
60149543002	SS-075034-071713-JC-WASTE	EPA 3010	MPRP/23684	EPA 6010	ICP/18578
60149543002	SS-075034-071713-JC-WASTE	EPA 7470	MERP/7556	EPA 7470	MERC/7514
60149543002	SS-075034-071713-JC-WASTE	EPA 8260	MSV/55297		
60149543001	SS-075034-071713-JC-MW8R-107	EPA 8260	MSV/55198		
60149543001 60149543002	SS-075034-071713-JC-MW8R-107 SS-075034-071713-JC-WASTE	EPA 8260 EPA 8260	MSV/55218 MSV/55218		
60149543003	TRIP BLANK	EPA 8260	MSV/55198		
60149543001 60149543002 60149543003	SS-075034-071713-JC-MW8R-107 SS-075034-071713-JC-WASTE TRIP BLANK	ASTM D2974 ASTM D2974 ASTM D2974	PMST/8748 PMST/8748 PMST/8748		
60149543002	SS-075034-071713-JC-WASTE	SW-846 7.3.4.2	WET/42560		
60149543001 60149543002	SS-075034-071713-JC-MW8R-107 SS-075034-071713-JC-WASTE	EPA 9045 EPA 9045	WET/42590 WET/42590		
60149543002	SS-075034-071713-JC-WASTE	ASTM D92	WET/42558		
60149543002	SS-075034-071713-JC-WASTE	SW-846 7.3.3.2	WETA/25591		



# Sample Condition Upon Receipt



Client Name: CRA_NM		Optional
Courier: Fed Ex V UPS USPS Client Commercial	Pace ☐ Other ☐	Proj Due Date:
Tracking #: 7963 0460 2719 Pace Shipping La	hel Used? Yes □ No 🗹	Proj Name:
Custody Seal on Cooler/Box Present: Yes 🗹 No 🗆 Seals intact		
Packing Material: Bubble Wrap □ Bubble Bags ☑ Fo	oam □ None □ Other ⊠	
Thermometer Used: (7-112 / T-194 Type of Ice: (Wet		on ice, cooling process has begun.
Cooler Temperature: 2.9	(circle one)  Date and initiation for the contents: 7	tials of person examining -25-13 BA
Temperature should be above freezing to 6°C	Contents. 2	*> D0:=
Chain of Custody present:	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:	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:	In/A 7.	
Sufficient volume:	IN/A 8.	
,	]n/A	
Pace containers used:   ☐Yes ☐No ☐	In/A 9	
	]N/A 10.	
	N/A 11	
	I <sub>N/A</sub> 12	
Filtered volume received for dissolved tests:		
Sample labels match coc.	13.	
Includes date/time/ID/analyses Matrix: \$\int \text{All containers needing preservation have been checked.} \text{\tinx}\text{\tex{\tex	ÍN/A	
900		
compliance with EPA recommendation.	14.	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	completed	ot # of added reservative
Trip Blank present:	25-13 ]N/A	
Pace Trip Blank lot # (if purchased):	15.	
Headspace in VOA vials ( >6mm):	ZNIA	
	16.	
Project sampled in USDA Regulated Area:	□N/A 47. List State <b>lM</b> •	
	Y / N Field Data Required?	Y / N
Person Contacted: Date/Time:	V	to the same of the
Comments/ Resolution:		
- A	1/2/12	
Project Manager Review:	Date:	

# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately.

Pace Analytical

Section	Section A	Section B					v) i	Section C											_	Page.	-	of		191
Company:	iny: CRA	Report To Christine Mathews	tine Math	lews			\ <u></u>	Attention:	ENFOS	SO					Г				J					
Address	ss 6121 Indian School Rd NE, Ste 200	Copy To Kelly	Blanchar	'd, Angela	Kelly Blanchard, Angela Bown, Cassie	assie Brown		Company Name:	ame:						뿔	REGULATORY AGENCY	TORY	AGE	ζς				-	
	Albequerque, NM 87110						⋖	Address:							L	NPDES	SE	, R	DNNO	GROUND WATER	l,.,	ORINKIN	DRINKING WATER	
Email To:	To: cmathews@craworld.com	Purchase Order No :	o: Pending	Jing			0.00	Pace Oyote Reference:							L	UST	les:	J. J.	RCRA		L.	OTHER		1
Phone:	: (505)884-0672 Fax (505)884-4932	Project Name	San Juan	129-7 Unit	t 37 Confli	San Juan 29-7 Unit 37 Confirmation Drilling	1	Pace Project Manager	Alice	Alice Flanagan	gan				Š	Site Location	ation							
Reque	Requested Due Date/TAT: standard	Project Number (	075034-95	15			Δ.	Pace Profile #					-			ST	STATE:		ž.					
												Н	Re	queste	d Ana	Requested Analysis Filtered (Y/N)	iltere	d (Y/IN						
	Section D Valid Matrix Codes Required Client Information MATRLX CO	odes CODE	(awc	00	COLLECTED	0			Presi	Preservatives	S	<b>↑</b> N/A				, 14								
		See valid codes	DD=D 8AЯÐ=	COMPOSITE	8@	COMPOSITE END/GRAB		S				<b>†</b> 15			Jans	3017/	E FXLID		8+EX	(N/Y) an	(00)	4	60149543	W
	SAMIPLE ID WIPE ARE (A-Z 0.94 - ) OTHER Sample IDs MUST BE UNIQUE INSSUE	ş ⊈ g % MATRIX CODE (	a) FIRMAS JIMMAS だい HIMMAS だい HIMMAS TO HIMM	TE TIME	한 PATE	TIME	SAMPLE TEMP AT	Linpreserved # OF CONTAINER	HNO <sup>3</sup>	N <sup>g</sup> S <sup>S</sup> O <sup>S</sup> HCI	Methanol	Other Desired Tes	8260 BTEX 8015 TPH GRC	9015 TPH DRC	PH CEACTIVE CH	REACEINE SL	לברף עמרודות ברף עמרודות	TLLP BENT	10101-4197	PERCENT Residual Chlorin	Pace	Project	Pace Project No./ Lab I.D.	l.D.
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	4 of 3				SIGNA	SIGNATURE of SAMPLER:	PLER:	d	Y		1	1	(NN	(MM/DD/YY):	· 1	7-24-13	~		-	)T			Sar	
	important Note. By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5	g Pace's NET 30 day p≀	ayment terms	s and agreeing	to late charg	as of 1 5% per r	nonth for a	% per montn for any invoines not paid within 30 days	not paid w	rithin 30 da	iys								ΙĹ	-ALL-Q-0	F-ALL-Q-020rev 08, 12-Oct-2007	i, 12-0a	-2007	

# **APPENDIX B**

**WASTE DISPOSAL DOCUMENTATION** 



Thomas R. Wynn Site Manager, RM&R

ConocoPhillips Company 1608-01 Phillips Building Bartlesville, OK 74004 918.661.0310 Tom.r.wynn@conocophillips.com

December 7, 2011

CRA Associates Attn: Mr. Phil Hurley, P.E. 2270 Springlake Road, Suite 800 Dallas, TX 75234

RE: Disposal of wastes on behalf of ConocoPhillips Risk Management and Remediation (RM&R) Group (updated with additional personnel)

Mr. Hurley:

Pursuant to the current Master Services Agreement between ConocoPhillips and Conestoga-Rovers and Associates (CRA), CRA is performing certain activities related to the possible management of wastes at RM&R project sites. These activities may result in the generation of hazardous and/or non-hazardous wastes that must be appropriately managed and transported offsite to a ConocoPhillips approved waste management facility for treatment, storage or disposal in compliance with applicable state and federal regulatory requirements.

ConocoPhillips Risk Management and Remediation Group delegates the limited authority to CRA for the purpose of preparing and signing waste manifests or shipping papers, subject to the terms and conditions of this agreement and the applicable Master Service Agreement (MSA). ConocoPhillips understands and acknowledges that CRA may delegate specified authority to authorized subcontractors; however, CRA's use of subcontractors shall be governed by the applicable provisions of the MSA. Only the following Company employees of CRA are authorized to sign said documents: See Exhibit A attached. Provided CRA fulfills the requirements of the MSA and RM&R Management System Section 6.2.4 requirements for waste management, ConocoPhillips will indemnify, defend and hold harmless CRA, its officers, directors and employees from and against any and all claims, damages, losses, expenses and other liabilities arising from the rights herein granted unless CRA is negligent or willfully wrong in its signing.

The designated Contractor employee(s) shall review RM&R's Management System Section on Waste Management and follow the procedures described therein. The Contractor certifies by signing under "Agreed to" section below, that the designated Contractor employee(s) shall have all necessary training to perform this work.

Please return a signed copy of this letter to me signifying agreement with this procedure to transport wastes from ConocoPhillips sites. In addition, please upload completed manifests to the Livelink project file and verify they have been uploaded.

If you have any questions, please contact me at (918) 661 - 0310.

Sincerely,

Thomas R. Wynn ConocoPhillips Site Manager

Agreed to:

Position: Via Prisident Date: 12/8/11

File: Waste Management Authorization Letters CRA TX, NM and KS (Livelink)

### Exhibit A:

# **List of Delegated Personnel**

### Kansas

Kirk Hoeffner Ryan Bailey Travis Kogl Adam Vediz Nicholas Laskares

### Tulsa/OKC

Kevin Howard
Greg Barton
Mark Cox
Heather Tittjung
Matt Kaiser
Dave Kendrick
Vernon Ashworth
Justin Coons
Matt Kaiser
Greg Scheffe
Leland Hamby
Glenn St. John

### **Dallas**

Moshghan Mansoori Trent Ripley Carey Neal Barry Bates Michael Terrell Mike Carter Brian Zoltowski Jennifer Clark Art Greeley Phillip Lewallen Christopher Neill Jason Rankin

### Houston

Keith Kilson
Eric Bassett
Layne Fuller
David Casida
Joe Christ
Joe Lewandowski
Nick Neill
Chris Vela

# Austin Daniel Hancock Amanda Gruesbeck Reese Miller Martin Mata

### Midland

Ken Horton Desiree Crenshaw James Ornelas Tom Larson Hoy Bryson

**Albuquerque/Colorado** Kelly Blanchard **Christine Mathews** Cassandre Brown Will Lambert Jason Ploss John (Brad) Stephenson
Paul (Matt) Burrows
Dennis McCormick Tom Habberfield Justin Covey David Bonga



# BilofLading

DATE 9-10-13 MANIFEST #

12 (1) (1) (1)

JOB#

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401.

				Ī			TRANSPORTING COMPANY	DATING (	OMPAN.	7
NO.		DESTINATION	MATERIAI	GRIID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
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Signati	COMPA
ıres required	NY CONTACT
Signatures required prior to distribution of the legal document.	Down Str
ıment.	PHONE
	2000

mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

NAME

TUC-FO

TRANSPORTER CO.

DATE

SIGNATURE

10079-0014

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources

Form C-138 Revised August 1, 2011 \*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

DECLIEST FOR ADDROVAL TO ACCEPT SOLID WASTE

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
<ol> <li>Generator Name and Address:         ConocoPhillips Company, 1380G Plaza Office Bldg., 315 Johnstone Ave., Bartlesville, OK 74004     </li> </ol>
2. Originating Site: San Juan 29-7 Unit 37(5293)
3. Location of Material (Street Address, City, State or ULSTR): Unit N, Section 12, T29N, R07W, Navajo City, NM 87412
4. Source and Description of Waste: Remediation activities at gas production site. Installation of monitoring wells. Site contaminans of concern are associated with condensate from gas production activities.
Estimated Volume 6 yd3 bbls Known Volume (to be entered by the operator at the end of the haul) yd3 bbls
5. I, Terry S. Lauck representative or authorized agent for ConocoPhillips Company do hereby  PRINT & SIGN NAME  certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste.  **Operator Use Only: Waste Acceptance Frequency   Monthly   Weekly   Per Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS  I,
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: Young Environmental Services DBA Envirotech
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility #2 Permit # NM-01-0011
Address of Facility: #43 Road 7175, South of Bloomfield NM 87413
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other
PRINT NAME: Hendra Runung TITLE: Laste Coordinate DATE: 9/10/13  SIGNATURE: TELEPHONE NO.: (505) 632-0(15)
Surface Waste Management Facility Authorized Agent

	HSE - Risk Management & Remediation	Rev.	
× 100	Document Title:	2.0	
nocoPhillips	RMR Management System	Page:	
	Section 06.02.04.03 - Waste Determination Form	1 of 8	

### FORM MUST BE COMPLETED BEFORE WASTE IS TRANSPORTED

- UST Exemption: Complete Sections A and B, check "UST Exemption" box in Section B.
   E&P Exemption: Complete Sections A and B, check "E&P Exemption" box in Section B.
   All Others: Complete Sections A through G as appropriate.

» Indicate if analytical testing results are attached and st	
this material within the last 3 years* and there have be	able Waste Determination Form: If a Waste Determination Form was completed on zero no changes in material components or the process generating the material, form in the Livelink "Waste Management" folder for the subject site.
Date of most recent complete Waste Determination Form on F	File
All Others: If a Waste Determination Form (WDF) had or the material generation process has changed since a Maintain a copy of the completed form in the Livelink	ns not been completed in the last 3 years* for the material or if the material components this material was last generated, complete the entire Waste Determination Form. "Waste Management" folder for the subject site.
*State or local regulations may require a waste determination	t on a more frequent interval. PMR $R$ uses 3 years as a maximum period.
A. MATERIAL GENERATOR INFORMA	ATION
1. RM&R Site No.: 5293 2. Site Name: San J	uan 29-7 Unit 37 3. SIC Code: 1311
4. Site Area Name:	5. Site Address: T29N, R07W, Section 12, Unit N
6. City: Navajo City	7. County: Rio Arriba 8. State: NM
9. EPA ID No.: 10. 8	State ID No.: 11. Other ID:
12. Project Contact Name: Terry Lauck	13. Project Contact Phone No.:
14. Material Generation Start Date (date material is contain	ned): 17-13 15. Date Form Completed: 08/26/2013
B. MATERIAL INFORMATION	
Material Name: Non-Hazardous Soil Drums	Grand transportation of the contract of the
	ies/monitoring well installation at gas production well site
3. Specific Location of Material at the Site: On site/v	
UST Exemption: Petroleum contaminated media and debris are solid wastes that are expressly excluded from the definition	that fail the test for TCLP but are managed under a Federal/State UST Corrective Action program on of a hazardous waste (40 CFR 261.4(b)(10)). Project file has the necessary analytical data.
E&P Exemption: Petroleum contaminated media and debri	is generated by drilling fluids, produced waters, and other wastes associated with the exploration ermal energy are solid wastes that are expressly excluded from the definition of a hazardous wast
	wo hazardous waste exemptions must still be managed according to RM&i
Analytical testing results on material attached.	
Material is: RCRA Hazardous	Non-RCRA Hazardous Non-Hazardous
Section A	and B signatures required below:
Prepared by (name and company):	Digitally signed by Jones, Lesley DN: dc=int, dc=cra, ou=CRAInc; ou=DAL, ou=Users, cn=Jones, Lesley Date: 2013.08.26 15:33:55: 05:00'
ConocoPhillips Company Representative:  ** Remainder of form need not be completed if the second sec	the project-related waste conforms to UST or E&P Exemption criteria **

Content Owner: Commercial Waste Program Director

# **APPENDIX C**

GROUNDWATER SAMPLING FIELD FORMS

### WELL SAMPLING FIELD INFORMATION FORM IOB# ITE/PROJECT NAME: 032613-CM-MUJ-WELL# SAMPLE ID: WELL PURGING INFORMATION SAMPLE DATE WATER VOL. IN CASING ACTUAL VOL. PURGED PURGE DATE SAMPLE TIME (GALLONS) (GALLONS) (MM DD YY) (MM DD YY) (24 HOUR) PURGING AND SAMPLING EQUIPMENT SAMPLING EQUIPMENT......DEDICATED Y PURGING EQUIPMENT......DEDICATED Y (CIRCLE ONE) (CHICLE ONE) A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER PURGING DEVICE B - PERISTALTIC PUMP PURGING DEVICE OTHER (SPECIFY) E - PURGE PUMP H - WATERRA® C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER SAMPLING DEVICE SAMPLING DEVICE OTHER (SPECIFY) A - TEFLON PURGING MATERIAL D-PVC PURGING MATERIAL OTHER (SPECIFY) B - STAINLESS STEEL E - POLYETHYLENE C - POLYPROPYLENE X - OTHER SAMPLING MATERIAL SAMPLING MATERIAL OTHER (SPECIFY) PURGE TUBING A - TEFLON D - POLYPROPÝLENE G - COMBINATION TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) B - TYGON E - POLYETHYLENE F - SILICONE X - OTHER SAMPLING TUBING C - ROPE SAMPLING TUBING OTHER (SPECIFY) FILTERING DEVICES 0.45 A - IN-LINE DISPOSABLE B - PRESSURE C-VACUUM FIELD MEASUREMENTS DEPTH TO WATER (feet) WELL ELEVATION (feet) (feet) **GROUNDWATER ELEVATION** (feet) WELL DEPTH TDŞ **VOLUME** pН CONDUCTIVITY ORP TEMPERATURE 1.796 47 2764 (mV) (µS/cm) (gal) (std) 7, c 7.47 2776 (µS/cm) (mV) (gal) (std) 7.47 2784 (mV) (std) (µS/cm) (gal) (µS/cm) (mV) (gal) (g/L) (std) (gal) (°C) (std) (g/L) (µS/cm) (mV) FIELD COMMENTS COLOR: SAMPLE APPEARANCE: ODOR: WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE) SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRAPROTO

#### WELL SAMPLING FIELD INFORMATION FORM !TE/PROJECT NAME: JOB# 2613-M-MW-ZWELL# SAMPLE ID: WELL PURGING INFORMATION WATER VOL. IN CASING ACTUAL VOL. PURGED PURGE DATE SAMPLE DATE SAMPLE TIME (GALLONS) (MM DD YY) (MM DD YY) (24 HOUR) (GALLONS) PURGING AND SAMPLING EQUIPMENT SAMPLING EQUIPMENT......DEDICATED Y PURGING EQUIPMENT......DEDICATED Y (CIRCLE ONE) (CIRCLE ONE) A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER PURGING DEVICE B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER SAMPLING DEVICE SAMPLING DEVICE OTHER (SPECIFY) A - TEFLON PURGING MATERIAL D-PVC PURGING MATERIAL OTHER (SPECIFY) B - STAINLESS STEEL E - POLYETHYLENE C - POLYPROPYLENE X - OTHER SAMPLING MATERIAL SAMPLING MATERIAL OTHER (SPECIFY) PURGE TUBING - TEFLON D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) B - TYGON E - POLYETHYLENE SAMPLING TUBING X - OTHER C - ROPE F - SILICONE MICHOLOGICA CONTROL OFFICIALS ON FILTERING DEVICES 0.45 A - IN-LINE DISPOSABLE B - PRESSURE FIELD MEASUREMENTS DEPTH TO WATER WELL ELEVATION (feet) (feet) **GROUNDWATER ELEVATION** (feet) WELL DEPTH (feet) VOLUME CONDUCTIVITY ORP TEMPERATURE pН TDS .94 J 188 6.95 (mV) (µS/cm) (std) 2988 (mV) (std) (µS/cm) (gal) (mV) (std) (µS/cm) (gal) (µS/cm) (mV) (g/L) (std) (µS/cm) (gal) (°C) (std) (g/L) (mV) FIELD COMMENTS 1101V COLOR: SHEEN Y/N SAMPLE APPEARANCE: QDOR: WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE) SPECIFIC COMMENTS:

6.7104

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA

	WELL SAMPLING FIELD INFORMATION FORM	
ITE/PROJECT NAM SAMPLE I	A sound Assets	
PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)  WELL PURGING INFORMATION  1225  SAMPLE TIME WATER VOL. IN CASING ACTUAL VOL. PURGED (GALLONS)  (GALLONS)  WELL PURGING INFORMATION  (GALLONS)	
PURGING EQUIPMENTDI	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y N  (CIRCLE ONE)  (CIRCLE ONE)	
PURGING DEVICE SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=  SAMPLING DEVICE OTHER (SPECIFY)	
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) C - POLYPROPYLENE X - OTHER X=	
PURGE TUBING SAMPLING TUBING	SAMPLING MATERIAL OTHER (SPECIFY)  A - TEFLON  D - POLYPROPYLENE  B - TYGON  E - POLYETHYLENE  TEFLON/POLYPROPYLENE  PURGE TUBING OTHER (SPECIFY)  C - ROPE  F - SILICONE  X - OTHER  SAMPLING MATERIAL OTHER (SPECIFY)	
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE C-VACUUM 45 MIORN TO WE TAILS ONLY	
	FIELD MEASUREMENTS	
DEPTH TO WATER WELL DEPTH	177 10	•
TEMPERATURE		DO 1.47 1.44
[16.52](°C)		1.4a
[(°C)		
[(°C)	FIELD COMMENTS	
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	COLOR: NW COLOR: NYOWN SHEEN Y/N MO  TEMPERATURE 55° WINDY Y/N PRECIPITATION Y/N (IF Y TYPE) MO	
Initial DO	mg/c = 3.10	
2.6032 × 3= 7	. 8096	
I CERTIFY THAT SAMPLING TO DATE	PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTECCOLS Y WINT SIGNATURE	l

WELL SAMPLING FIELD INFORMATION FORM			
ITE/PROJECT NAM SAMPLE	400/10	<b>-</b>	
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION  3-26-13  SAMPLE DATE  SAMPLE TIME  SAMPLE TIME  WATER VOL. IN CASING  (GALLONS)  WELL PURGING INFORMATION  (GALLONS)  WELL PURGING INFORMATION  (GALLONS)		
PURGING EQUIPMENT	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y  (CIRCLE ONE)  (CIRCLE ONE)	) 1)	
PURGING DEVICE SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=  SAMPLING DEVICE OTHER (SPECIFY)	<b>-</b>	
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC X=  B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYPROPYLENE X - OTHER  SAMPLING MATERIAL OTHER (SPECIFY)  SAMPLING MATERIAL OTHER (SPECIFY)	_	
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)	_	
SAMPLING TUBING FILTERING DEVICES 0.45	C-ROPE F-SILICONE X-OTHER X=  SAMPLING TUBING OTHER (SPECIFY)  A-IN-LINE DISPOSABLE B-PRESSURE C-VACUUM 45 MICRON WYOUS ONLY		
	FIELD MEASUREMENTS		
DEPTH TO WATE			
WELL DEPT  TEMPERATURE  [	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(gal) (gal) (gal) (gal) (gal) (gal)	
SAMDI E ADDEADANCE.	FIELD COMMENTS  ODOR: NOV COLOR: DYOW SHEEN Y/N NO		
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:  2 4272 * 3 = 7	TEMPERATURE 55° WINDYY/N NO PRECIPITATION Y/N (IFY TYPE) NO $1000000000000000000000000000000000000$	- - - -	
	G PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRAPPENOCOLS  WISTING STENATURE  STENATURE	<b>-</b>	

#### WELL SAMPLING FIELD INFORMATION FORM ITE/PROJECT NAME: JOB# M-MW-5 WELL# SAMPLE ID: WELL PURGING INFORMATION SAMPLE TIME WATER VOL. IN CASING ACTUAL VOL. PURGED SAMPLE DATE PURGE DATE (MM DD YY) (MM DD YY) (24 HOUR) (GALLONS) (GALLONS) PURGING AND SAMPLING EQUIPMENT SAMPLING EQUIPMENT......DEDICATED Y PURGING EQUIPMENT.....DEDICATED Y (CIRCLE ONE) (CHICLE ONE) A - SUBMERSIBLE PUMP G - BAILER PURGING DEVICE D - GAS LIFT PUMP B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) C - BLADDER PUMP X - OTHER SAMPLING DEVICE F - DIPPER BOTTLE SAMPLING DEVICE OTHER (SPECIFY) A - TEFLON PURGING MATERIAL D-PVC PURGING MATERIAL OTHER (SPECIFY) B - STAINLESS STEEL E - POLYETHYLENE C - POLYPROPYLENE X - OTHER SAMPLING MATERIAL SAMPLING MATERIAL OTHER (SPECIFY) PURGE TUBING A - TEFLON D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) B - TYGON E - POLYETHYLENE X - OTHER SAMPLING TUBING C - ROPE F - SILICONE SAMPLING TUBING OTHER (SPECIFY) FILTERING DEVICES 0.45 A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM FIELD MEASUREMENTS DEPTH TO WATER WELL ELEVATION (feet) (feet) (feet) **GROUNDWATER ELEVATION** (feet) WELL DEPTH TEMPERATURE CONDUCTIVITY ORP VOLUME pН TDS 4,25 2.172 7.27 3344 30.7 15.38 (gal) (g/L) (mV) (µS/cm) (std) 3359 2.183 ,5 (µS/cm) (mV) (std) 2,188 38.7 15.66 3367 3,2*5* (µS/cm) (mV) (gal) (std) (g/L) (g/L) (gal) (°C) (µS/cm) (mV) (std) (µS/cm) (gal) (°C) (std) (g/L) (mV) FIELD COMMENTS A .... 10.

09

a1.14

16.16

1339

SAMPLE APPEARANCE:	( JUNAY	ODOR:	lu <u>v</u>	COLOR:	SHEEN Y/N	
WEATHER CONDITIONS:	TEMPERATURE	55	WINDY Y/N	170	PRECIPITATION Y/N (IF Y TYPE)	0
SPECIFIC COMMENTS:		n 8		i = I		
	NYII DUN	ed an	M 3	25/13	(a) 4 autons	
	1 00.		1		. 0	
2.1728 x3=	6.5184					
1 1 1 1 1 1 1	/ ~ ~ ~					
Initial DO	Mg/c = 5.0C	)		0		
I CERTIFY THAT SAMPLI	NG PROCEDURES WERE IN A	CORDANCE WITH A	PPLICABLE CRAP	ROTOCOLS	21600 1600	
3/76/13	1 nrist	ne Moite	A RES	14/100	(PR) X/VI (XXQ) (100)	

SIGNATURE

PRINT

DATE

WI	ELL SAMPLING FIELD INFORMATIO	ON FORM
   ITE/PROJECT NAME:	San Tuan 29-737 JOB#	7.333
SAMPLE ID:	6W-19034-032613-CM-MW-6 WELL#	MW-6
3-25-13 PURGE DATE (MM DD YY)	(MM DD YY) (24 HOUR) (C	416 5,75  VOL. IN CASING ACTUAL VOL. PURGED (GALLONS)
PURGING EQUIPMENTDEDICAT	PURGING AND SAMPLING EQUIPMENT (CIRCLE ONE)	SAMPLING EQUIPMENTDEDICATED Y N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X= PURGING DEVICE OTHER (SPECIFY) X=
SAMPLING DEVICE		SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC  B - STAINLESS STEEL E - POLYETHYLENE  C - POLYPROPYLENE X - OTHER	Y= PURGING MATERIAL OTHER (SPECIFY) X=
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION B - TYGON E - POLYETHYLENE TEFLON/POLYPROI	SAMPLING MATERIAL OTHER (SPECIFY)  X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C - ROPE F - SILICONE X - OTHER	SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM	45 microntar metals only
	FIELD MEASUREMENTS	
DEPTH TO WATER WELL DEPTH	(feet) WELL ELEVATION  (feet) GROUNDWATER ELEVATION	(feet)
TEMPERATURE		ORP VOLUME  (mV) 4.75 (gal)
16.46 (°C) 6	10 1072	S/cm) $\begin{bmatrix} 69.5 \\ \end{bmatrix}$ (mV) $\begin{bmatrix} 5.25 \\ \end{bmatrix}$ (gal)
[16.5 <u>d</u> ]ro	(8/ 2)	S/cm) (mV) 3, /3 (gal) S/cm) (mV) (gal)
(°C)		S/cm) (mV) (gal)
	FIELD COMMENTS	
SAMPLE APPEARANCE:  WEATHER CONDITIONS:  SPECIFIC COMMENTS:	PATURE 550 WINDYY/N 105	PRECIPITATION Y/N (IF Y TYPE)
Initial Domak = 4	.01 puplicate Collected @ 125:	5
1,8416×3= 5,5248		
1 3/26/13 L	URES WE'RE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  NUTURE RINT  SIGNATURE	Motiva

	WELL SAMPLING FIELD INFORMATION FORM	
   'ITE/PROJECT NAM   SAMPLE		
3 25.13 PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLE TIME WATER VOL. IN CASING ACTUAL VOL. PURGED (MM DD YY) (24 HOUR) (GALLONS) (GALLONS)	
PURGING EQUIPMENT	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y N  (CIRCLE ONE)	
PURGING DEVICE SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=  SAMPLING DEVICE OTHER (SPECIFY)	
PURGING MATERIAL	A - TEFLON D - PVC X=  B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYPROPYLENE X - OTHER X=  SAMPLING MATERIAL OTHER (SPECIFY)	
PURGE TUBING SAMPLING TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X=  B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)  C - ROPE F - SILICONE X - OTHER X=	
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE C-VACUUM 45 MICHAEL TO MUTALS MY	
DEPTH TO WATE		
TEMPERATURE	PH	<u>DO</u> 5743 5761
SAMPLE APPEARANCE; WEATHER CONDITIONS; SPECIFIC COMMENTS;	FIELD COMMENTS  ODOR: ODOR: COLOR: CLAY SHEEN Y/N  TEMPERATURE 55 WINDY Y/N D PRECIPITATION Y/N (IF Y TYPE)	
Initial Dom	9/L = 27.01	
2.6336×		
i Certify that sampling	PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRAPROPOCOLS  WISTING WATER LIX	

	WELL SAMPLING FIELD INFORMATION FORM	
SITE/PROJECT NAME SAMPLE II	E: 21 Juan 29-7#37 JOB# 075034	_
	WELL FURGING INFORMATION	
PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLE TIME WATER VOL. IN CASING ACTUAL VOL. PURGED (GALLONS) (GALLONS)	
	PURGING AND SAMPLING EQUIPMENT	~~
PURGING EQUIPMENTDEC	DICATED Y N SAMPLING EQUIPMENTDEDICATED Y N (CIRCLE ONE)	***
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  A B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAS PURGING DEVICE OTHER & PERGING DEVICE OTHER & PURGING D	-
SAMPLING DEVICE	C - ELADDER PUMP F - DIPTER BOTTLE X - OTHER X=  SAMPLING DEVICE OTHER (SPECIFY)	-
PURGING MATERIAL	B A-TEFLON D-FVC X=	-
SAMPLING MATERIAL B	B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYPROPYLENE X - OTHER  SAMPLING MATERIAL OTHER (SPECIFY)	-
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X=	-
SAMPLING TUBING	B-TYGON E-POLYETHYLENE PURGETURING OTHER (SPECIFY)  C-ROPE F-SILICONE X-OTHER X-  SAMPLING TUBING OTHER (SPECIFY)	-
FILTERING DEVICES 0.45	7 - IN-LINE DISPOSABLE B - PRESSURE	
	FIELD MEASUREMENTS	
DEPTH TO WATE	ER LOC. G(feet) WELL ELEVATION (feet)	
. WELL DEPTR	TH 1275 (feet) GROUNDWATER ELEVATION (feet)	
TEMPERATURE	PH TDS SC DO ORP VOLUME	
16370	7,79 (std) 1,848 (g/L) 2940 (us/cm) 0,53 (mg/L) 90.1 (mV) 2,5	(gal)
1(0:31/m	17, 67, 61d) 118/16(6/1) 29/16(05/cm) 0,43 (mg/L) 1018 (mV) 145	(gal)
110124 00	190 (std) $189$ (g/1) $290$ (us/cm) $0130$ (mg/L) $10315$ (mV) $100$	(gal)
(c)	(std) (g/L) (uS/cm) (mg/L) (mV)	(gal)
(°C)	[etd] [g/L] [(ng/L) [(nvg/L) [(nvV) [	(gal)
SAMPLE APPEARANCE: WEATHER CONDITIONS:	TEMPERATURE COLOR: COLOR: COLOR: SHEEN Y/N  TEMPERATURE PRECIPITATION Y/N (IF Y TYTE)	
SPECIFIC COMMENTS:	= 2,23 x3 = (0,109) DUP COLLECTED	·
10=	421	
L CERTIFY THAT SAMPLING PRO	ROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS	.
DATE	PRINT SIGNATURE	

	WELL SAMPLING FIELD INFORMATION FORM	1
SITE/PROJECT NAM SAMPLE I	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	16034 W-2
PURGEDATE (MM DD YY)	WELL PURGING INFORMATION  CV 020  75  SAMPLE DATE (MIND DYY)  SAMPLETIME (MIND DYY)  (GALLONS)	ng ACTUAL VOL PURGED (GALLONS)
PURGING EQUIPMENTDE	PURGING AND SAMPLING EQUIPMENT  SAMPLI  (CIRCLE ONE)	NG EQUIPMENTDEDICATED Y
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAD  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X= PURGING DEVICE OTHER (SPECIFY)  X=  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	B - STAINLESS STEEL E - POLYETHYLENE	X=  PURGING MATERIAL OTHER (SPECIFY)  X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING	TEFLON/POLYPROPYLENE  B-TYGON E-POLYETHYLENE	X**  PURGE TUBING OTHER (SPECIFY)  X**  SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE	
	FIELD MEASUREMENTS	
<b>ДЕРТН ТО WATE</b>	10020	(feet)
WELL DEPT		(feel)
15:68 co	pH TDS SC DO  7,240 (std) 2,43 (g/L) 3131 (uS/cm) 5,82 (mg/L)  7,04 (std) 2,03 (g/L) 3130 (uS/cm) 5,91 (mg/L)  4,86 (std) 2,04 (g/L) 3140 (uS/cm) 5,83 (mg/L)	ORP VOLUME  1092 (mV) 115 (gal)  11219 (mV) 316 (gal)  1216 (mV) 516 (gal)
(°C)	(mg/L) (g/L) (us/cm) (mg/L) (us/cm) (mg/L)	1 1 1
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:  10: 96 x.16	Diffy ODOR: WOWL COLOR: FOUND AND STATE OF THE PROPERTY OF THE	ALEN Y/N ALEN Y/N (IF Y TYPE)
I CERTIFY THAT SAMIFLING PR	OCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS	
DATE	PRINT SIGNATURE	

	WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAMI SAMPLE I	E: , Dan Juan 29-7-437 JOB# 075034
PURGEDATE (AM DD YY)	WELL PURGING INFORMATION  CK 40 10 48  ACTUAL VOL. PURGED  (MM DD YY)  WATER VOL. IN CASING (GALLONS)  ACTUAL VOL. PURGED  (GALLONS)
PURGING EQUIPMENTDEL	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y N  (CIRCLE ONE)  (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIPLE PUMP  B - PERISTALTIC PUMP  C - BLADDER PUMP  F - DIPPER BOTTLE  X - OTHER  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC X=  B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYPROPYLENE X - OTHER X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING	A - TEFLON  B - TYGON  B - TYGON  C - ROPE  A - TEFLON  D - POLYPROPYLENE  G - COMBINATION TEFLON/POLYPROPYLENE  PURGE TUBING OTHER (SPECIFY)  X - OTHER  X - SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE
	FIELD MEASUREMENTS
DEPTH TO WATE	171.61
TEMPERATURE  [16,4] (c) [16,4] (c) [16,25] (c) [16,25] (c)	PH TDS SC DO ORP VOLUME  126 (std) 187 (g/L) 2783 (us/cm) 217 (mg/L) 189 (mv) 26 (gal)  107 (std) 1889 (g/L) 2983 (us/cm) 2,34 (mg/L) -763 (mv) 4,0 (gal)  199 (std) 1889 (g/L) 2993 (us/cm) 2,34 (mg/L) -703 (mv) 4,0 (gal)  199 (std) 1897 (g/L) 2999 (us/cm) 2,86 (mg/L) 4,99 (mv) 700 (gal)
NAMIPLE APPEARANCE  VEATHER CONDITIONS:  APPECIFIC COMMENTS:  APPECIFIC	FIELD COMMENTS  COLOR: SHEEN Y/N  TEMPERATURE  WINDY Y/N  PRECIPITATION Y/N (IF Y TYPE)  SHEEN Y/N  FRECIPITATION Y/N (IF Y TYPE)
I CERTIFY THAT SAMPLING PRO	CEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT  SIGNATUSE

WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAME: SAMPLE ID: SAMPLE ID: WELL# MW-4  GILLO: 075034-061113-516-19W-4
WELL PURGING INFORMATION
PURGEDATE SAMPLE DATE SAMPLE TIME WATER VOL. IN CASING (GALLONS)  SAMPLE TIME (MM DD YY)  GAHOUR)  WATER VOL. IN CASING (GALLONS)  (GALLONS)
PURGING EQUIPMENTDEDICATED Y (N) (CIRCLE ONE)  PURGING AND SAMPLING EQUIPMENTDEDICATED Y (N) (CIRCLE ONE)
PURGING DEVICE  A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  A - B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAS PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE  C - BLADDER PUMP  F - DIPPER BOTTLE  X - OTHER  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL  B - STAINLESS STEFL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  SAMPLING MATERIAL  C - POLYTROPYLENE X-OTHER  X-OTHER  X-OTHER
SAMPLING MATERIAL C-POLYTROPYLENE X-OTHER X-OTHER SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING  A - TEFLON  D - POLYFROPYLENE  G - COLIBINATION  TEFLON/POLYFROPYLENE  PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING  C - ROPE  F - SILICONE  X - OTHER  X =  SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45 A - IN-LINE DISPOSABLE B - PRESSURE
FIELD MEASUREMENTS
DEPTH TO WATER [ 1144] (feet) WELL ELEVATION [ (feet) WELL DEPTH   123,24 (feet) GROUNDWATER ELEVATION [ (feet) [ (feet) ]
TEMPERATURE pH TDS SC DO ORP VOLUME  1442 c
$ \frac{[14.74]_{\text{res}}}{[34.74]_{\text{res}}} \frac{[7.97]_{\text{(old)}}}{[18.98]_{\text{(e/L)}}} \frac{[2920]_{\text{(us/m)}}}{[34.74]_{\text{res}}} \frac{[0.93]_{\text{(mg/L)}}}{[0.93]_{\text{(mg/L)}}} \frac{[4]_{\text{(gai)}}}{[6.93]_{\text{(mg/L)}}} $
19,690, 7,63 (old) 1098 (e/L) 1990 (us/cm) 0,13 (mg/L) 109,14 (mV) 10 1-16011
[rC] [sld] [g/L] [(sld] [ng/L] [(mV) [gal]
FIELD COMMENTS  AMPLE APPEARANCE:  JEATHER CONDITIONS:  TEMPERATURE  T
1h83x.110=1.89x3=(5.67)
D0-0136
I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  DATE PRINT SIGNATURE

(

	WELL SAMPLING FIELD INFORMATION FOR	RM
SITE/PROJECT NAM SAMPLE I	E: Day Juan 2a-7-1108#C	75634 V# 5
10/1/1	WELL PURGING INFORMATION	20.0
PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLE TIME WATER VOL. INC. (GALLONS)	
PURGING EQUIPMENTDE	PURGING AND SAMPLING EQUIPMENT  SAM  (CIRCLE ONE)	IPLING EQUIPMENTDEDICATED ON (CRECIE ONE)
PURGING DEVICE	A - SUBMEISSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAD	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X <sup>a</sup> SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A - TEFLON D - FVC B - STAINLESS STEEL E - POLYETHYLENE	X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	C - POLYPROPYLENE X - OTHER	X=SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE B - TYGON E - POLYETHYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C-ROPE F-SILICONE X-OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE	
	FIELD MEASUREMENTS	
DEPTH TO WATE	er 108.56 (feet) WELL ELEVATION	(feet)
WELL DEPI	H 119.89 (feet) GROUNDWATER ELEVATION	(feet)
TEMPERATURE	11.20 1 9 30 1 3 116 1 1 00 1	ORP VOLUME  VOLUME  VOLUME  VOLUME  VOLUME  VOLUME
1/1017/ 100	(1,24 (ct)) (137) (c/1) (3047 (ct) (2107 (m)	8/L) 1265 (mV) 2,5 (gal)
110100	1.32 (ctd) 237 (c/l) 2098 (us/cm) 21894 (m)	111 7 5.0
[CP10] (c)	(std) (g/L) (us/cm) (ng/cm) (ng/cm) (ng/cm)	3/L) (mV) (gal)
<u>,                                    </u>	And the state of t	Alm .
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	TEMPERATURE ODOR WINDYY/N COLOR: JULY PRECIPIT	SHEEN Y/N ATION Y/N (IF Y TYPE)
PO	5,40 1.109×3=(5,01)	
	2010 46,0	
1 CERTIFY THAT SAMPLING PE	OCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT  SIGNATURE	

	WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAM SAMPLE I	D: 6W.015384-061113-5K-MW6 WELL# MW-6
6/10/13 PURCE DATE (AM DD YY)	WELL PURGING INFORMATION    Color   Co
PURGING EQUIPMENTDE	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y N  (CIRCLE ONE)  (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - FERISTALTIC PUMP E - PUKGE PUMP H - WATERRAS PUKGING DEVICE OTHER (SPECIFY)  C - BLADDER FUMP F - DIPPER BOTTLE X - OTHER SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A - TEFLON D - PVC  B - STAINLESS SIEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYTROPYLENE X - OTHER  X - SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING	A - TEFLON  D - POLYPROPYLENE  B - TYGON  E - FOLYETHYLENE  C - ROPE  F - SILICONE  C - ROPE  A - TEFLON  D - POLYPROPYLENE  G - COMBINATION  TEFLON/POLYPROPYLENE  PURGE TUBING OTHER (SPECIFY)  X =   SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE
	FIELD MEASUREMENTS
DEPTH TO WATE	111 90
TEMPERATURE  LOS CO  L	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	(g/L) (g/L) (g/Cm) (mg/L) (mg/L) (gAl)
PAMPLE APPEARANCE:  VEATHER CONDITIONS:  SPECIFIC COMMENTS:	FIELD COMMENTS  ODOR: NOR COLOR: DROWN SHEENY/N  TEMPERATURE 98 WINDYY/N  FRECIPITATION Y/N (IF Y TYPE)  139 X3 X1 V
I CERTIFY THAT SAMPLING PR	OCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRAFROTOCOLS  BRINT  SIGNATURE

	WELL SAMPLING FIELD INFORMATION FORM	
SITE/PROJECT NAME: SAMPLE ID	70-11	
	WELL PURGING INFORMATION	
PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLE TIME WATER VOL IN CASING (GALLONS)  SAMPLE DATE (NIM DD YY)  SAMPLE TIME (24 HOUR)  WATER VOL IN CASING (GALLONS)	
PURGING EQUIPMENTDEDIG	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y  (CIRCLE ONE)	)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=	
SAMPLING DEVICE	B - PERISTALTIC PUMP E - PURGE PUMP H - WATERPAND  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X -	
	SAMPLING DEVICE OTHER (SPECIFY)	
PURGING MATERIAL	A - TEFLON D-PVC X=  B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)	ı
SAMPLING MATERIAL	C - POLYPROPYLENE X - OTHER X-  SAMPLING MATERIAL OTHER (SPECIFY)	
PURGE TUBING	A-TEFLON D-POLYPROPYLENE G-COMBINATION X+	
SAMPLING TUBING	B. TYGON E - POLYETHYLENE PURGE TURING OTHER (SPECIFY)  C - ROPE F - SILICONE X - OTHER X - SAMPLING TURING OTHER (SPECIFY)	
FILTERING DEVICES 0.45	A - IN-LINE DISPCGABLE B - PRESSURE	
	FIELD MEASUREMENTS	
DEPTH TO WATER	1/28, 46 (feet) WELLELEVATION (feet)	
WELL DEPTH	121,82 (feet) GROUNDWATER ELEVATION (feet)	
TEMPERATURE	рн TDS SC DO ORP VOLUME	l
, ~	PH TDS SC DO ORP VOLUME  [], [A](std) [2343(g/1)] [3083(us/cm) [0.5] (mg/1) 73/3 (mv) [2 (gal)	,
15,87 lo	10,79 (std) 2,377 (s/1) 3059 (us/cm) 0134 (ms/1)3613 (mv) 4.5 (san)	۱
15,8700	11 (B(std) 614 (B(g/L) 570 (g/s/cm) 036 (mg/L) (1.0 (mV) 6190)	
(°C)	(std) (g/L) (y5/cm) (ng/L) (mV) (gal)	.
ro [	(std) (g/L) (µS/cm) (mg/L) (mV) (gal)	·
SAMPLE APPEARANCE:  WEATHER CONDITIONS:  SPECIFIC COMMENTS:	FIELD COMMENTS  COLOR: LAW L  SHEEN Y/N  PRECIPITATION Y/N (IF Y TYPE)	
12.01x.16	-2.15×57 (0.41)	
10	7430	
DATE	EDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT  SIGNATURE	

SITE/PROJECT NAME: SAMPLE ID	( all A Property and the state of the state
9/9/13  PURGE DATE (MM DD YY)	WELL PURGING INFORMATION    1245   2,40   7,25     SAMPLE DATE (MM DD YY)   (24 HOUR)   (GALLONS)   (GALLONS)
PURGING EQUIPMENTDEDIC	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED  (CIRCLE ONE)
PURGING DEVICE SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)  C - BLADDER PUMP F - DIPPER BOYTLE X - OTHER SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D- PVC X=  B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)  C - POLYPROPYLENE X - OTHER X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING	A - TEFLON  D - POLYPROPYLENE  G - COMBINATION  TEFLON/POLYPROPYLENE  B - TYGON  C - ROPE  F - SILICONE  C - ROPE  SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE OLY For wetals only
DEPTH TO WATER  WELL DEPTH	FIELD MEASUREMENTS  109.04  (feet) WELL ELEVATION (feet)  124.05  (feet) GROUNDWATER ELEVATION (feet)
16.53 (°°°)  16.55 (°°°)  16.55 (°°°)  16.56 (°°°)	PH TDS SC DO ORP VOLUME  7.13 (std) 2.092 (g/L) 3218 (uS/cm) 1.78 (mg/L) 79.4 (mV) 6.25 (gal)  7.13 (std) 2.088 (g/L) 3212 (uS/cm) 1.74 (mg/L) 79.0 (mV) 6.75 (gal)  7.13 (std) 2.082 (g/L) 3203 (uS/cm) 1.69 (mg/L) 78.4 (mV) 7.25 (gal)  (std) (g/L) (uS/cm) (mg/L) (mV) (gal)  (std) (g/L) (uS/cm) (mg/L) (mV) (gal)
SAMPLE APPEARANCE:  WEATHER CONDITIONS:  SPECIFIC COMMENTS:  UNITED D.O.	TEMPERATURE 805 WINDY Y/N COLOR: BROWN SHEEN Y/N PRECIPITATION Y/N (IFY TYPE) N
I CERTIFY THAT SAMPLING PROC	CEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOIS  PRINT WITH MICHAELE CRA PROTOCOIS

SITE/PROJECT NAM SAMPLE I	E: SJ 29-7 D: <u>GW-075034-09/013-CM-MW</u> -Zwell#	15034 1w-2
9/9/13 PURGE DATE (MM DD YY)	WELL PURGING INFORMATION    2	
PURGING EQUIPMENTDE	PURGING AND SAMPLING EQUIPMENT  DICATED  (CIRCLE ONE)	IPLING EQUIPMENTDEDICATER (CIRCLE ON
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAÐ  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X=  PURGING DEVICE OTHER (SPECIFY)  X=  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	B - STAINLESS STEEL E - POLYETHYLENE C - POLYPROPYLENE X - OTHER	X=
PURGE TUBING SAMPLING TUBING	A - TEFLON  D - POLYPROPYLENE  B - TYGON  E - POLYETHYLENE  C - ROPE  F - SILICONE  G - COMBINATION  TEFLON/POLYPROPYLENE  X - OTHER	X=
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE CHUS FRANCE	etals only
DEPTH TO WATI	130 81	(feet)
TEMPERATURE  15.36 (°C)  15.37 (°C)  15.38 (°C) (°C) (°C)  SAMIPLE APPEARANCE EVERATHER CONDITIONS: SPECIFIC COMMENTS:	6.58 (std) 2.125 (g/L) 3269 (µS/cm) 5.10 (n 6.59 (std) 2.126 (g/L) 3271 (µS/cm) 5.20 (n (std) (g/L) (µS/cm) (n (std) (g/L) (µS/cm) (n  SLIGHTLY (g/L) (µS/cm) (n  SLIGHTLY (pS/cm) (n  COLOR: Blewn  PRECIPI	ORP VOLUME  93.2 (mV) 4.5  94.6 (mV) 5.0  15.0  15.5  15.5  16.1 (mV)  16.1 (mV)  17.1 (mV)
initial Da	o. = 6.78	

	WELL SAMPLING FIELD INFORMATION FORM $0.250.34$	
SITE/PROJECT NAME SAMPLE II	Children and and and and a	
	WELL PURGING INFORMATION	
9/9/13  PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLETIME WATER VOL IN CASING (GALLONS) (GALLONS) (GALLONS)	
(min BB 11)	PURGING AND SAMPLING EQUIPMENT	
PURGING EQUIPMENTDED		) N ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAS PURGING DEVICE OTHER (SPECIFY)	
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER  X=  SAMPLING DEVICE OTHER (SPECIFY)	
PURGING MATERIAL	A-TEFLON D-PVC X=	
SAMPLING MATERIAL	C - POLYPROPYLENE X - OTHER  X=  SAMPLING MATERIAL OTHER (SPECIE	
PURGE TUBING	A - TEFLON D - POLYFROPYLENE G - COMBINATION X=  D - FOLYFINHENE G - COMBINATION X=  TEFLON/POLYPROPYLENE PURGETUBLING OTHER (SPECIFY)	
SAMPLING TUBING	B - TYGON E - POLYETHYLENE PURGE TUBING OTHER (SPECIFY)  C - ROPE F - SILICONE X - OTHER  X = SAMPLING TUBING OTHER (SPECIFY)	
FILTERING DEVICES 0.45	HA-IN-LINE DISPOSABLE B-PRESSURE 0,45 For metals only	
	FIELD MEASUREMENTS	
DEPTH TO WATER	er 109.58 (feet) WELL ELEVATION (feet)	
WELL DEPTH	H [122,19] (6ee) GROUNDWATER ELEVATION [ (6ee)	
TEMPERATURE	pH TDS SC DO ORP VOLUM	1E
16.43 Jes	$[7.03]_{\text{(std)}}$ $[1.896]_{\text{(g/L)}}$ $[2.918]_{\text{(uS/cm)}}$ $[0.30]_{\text{(mg/L)}}$ $[97.4]_{\text{(mV)}}$ $[5.2]_{\text{(mV)}}$	5] <sub>(gal)</sub>
16.42	7.02 (std) [1.895] (g/L) 2916 ((nS/cm) 0.28 (mg/L) 77.7 (mV) 5.75	(gal)
16.51 100	7.00 (std) [1.911 (g/L) [2940 (us/cm) 0.28 (mg/L) 97,0 (mv) 6.23	5 (gal)
(°C)	(std) (g/L) (gS/cm) (mV)	(gal)
(°C)	(std) (g/L) (μS/cm) (mg/ <u>L)</u> (mtV)	(gal)
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	TEMPERATURE SO_S WINDY Y/N N PRECIPITATION Y/N (IF Y TYPE)	_
initial D.O	7. = 7.09	
I CERTIFY THAT SAMPLING PRODUCE OF THE COLUMN TO THE COLUMN THE CO	OCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT A A A A A A A A A A A A A A A A A A A	

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SITE/PROJECT NAME: SAMPLE ID:	WELL SAMPLING FIELD INFORMATION FORM  SJ 29-7  JOB# 076034-091013411-11111111111111111111111111111111
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION  1.89  SAMPLE DATE (MM DD YY)  SAMPLE TIME (24 HOUR)  WATER VOL IN CASING (GALLONS)  ACTUAL VOL PURGED (GALLONS)
PURGING EQUIPMENTDEDIC	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y  N  (CIRCLE ONE)  (CIRCLE ONE)
PURGING DEVICE  SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAD PURGING DEVICE OTHER (SPECIFY)  X=  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	Nation   Dark   Nation   Nat
PURGE TUBING SAMPLING TUBING	SAMPLING MATERIAL OTHER (SPECIFY)    C   A - TEFLON
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE A. HS FOR ANGLAS CONY
DEPTH TO WATER WELL DEPTH	FIELD MEASUREMENTS    111, 47
l ,	PH TDS SC DO ORP VOLUME  7.09   (std)   1,961   (g/L)   3017   (uS/cm)   6.12   (mg/L)   182.5   (mV)   4,75   (gAl)  7.08   (std)   1,961   (g/L)   3017   (uS/cm)   6.19   (mg/L)   181.6   (mV)   5,05   (gAl)  7.07   (std)   1,961   (g/L)   3 017   (uS/cm)   6.27   (mg/L)   180.5   (mV)   5.75   (gAl)    (std)   (g/L)   (uS/cm)   (mg/L)   (mV)   (gAl)    (std)   (g/L)   (uS/cm)   (mg/L)   (mV)   (gAl)
WEATHER CONDITIONS: SPECIFIC COMMENTS:	TEMPERATURE BOS WINDY Y/N N PRECIPITATION Y/N (IF YTYPE)
DATE 7/10/13	PRINT MATNU, MATHUS SIGNATURE

	WELL SAMPLING FIELD INFORMATION FORM	1
SITE/PROJECT NAME	SJ 29-7 DE GW 075034-041013-(M-MW-5 WELL# M	75034
SAMPLE II	DE GU-075034-041013-(M-MU-5 WELL# M	W-5
	WELL PURGING INFORMATION	
9/9/13	1192	6.0
PURGE DATE (MM DD YY)	SAMPLE DATE SAMPLE TIME WATER VOL. IN CASIR (MM DD YY) (24 HOUR) (GALLONS)	NG ACTUAL VOL PURGED (GALLONS)
PURGING EQUIPMENTDED	PURGING AND SAMPLING EQUIPMENT  (CATED Y N SAMPLIN  (CIRCLE ONE)	NG EQUIPMENTDEDICATEION N (CIRCLE ONE)
PURGING DEVICE	A SUBMERSIBLE DILARD D. CAS LIST DILARD C. BALLED	X=
	B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAD	PURGING DEVICE OTHER (SPECIFY)
AMPLING DEVICE		X=SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A-TEFLON D-PVC	x=
AMPLING MATERIAL	B-STAINLESS STEEL E-POLYETHYLENE  C-POLYPROPYLENE X-OTHER	PURGING MATERIAL OTHER (SPECIFY) X=
		SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE	X=
AMPLING TUBING	B-TYGON E-POLYETHYLENE	PURGE TUBING OTHER (SPECIFY) X=
ILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE OFF FOR MOTALS	SAMPLING TUBING OTHER (SPECIFY)
	FIELD MEASUREMENTS	
DEPTH TO WATER	(feet) WELL ELEVATION MILE STREET MILE STR	(feet)
WELL DEPTH	(feet) GROUNDWATER ELEVATION	(feet)
TEMPERATURE	$_{ m pH}$ TDS SC DO	ORP VOLUME
[6.87] <sub>(°C)</sub>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	62.4 (mv) <b>3</b> .0 (gal)
16.89 Jec	[6.43] (std) [2.42] (g/L) [3727] (uS/cm) [0.24] (mg/L)	6d,2 (mv) <b>3</b> .5 (gal)
	[6.46] (std) [2.422] (g/L) [3726] (uS/cm) [0.29] (mg/L)	
	[6.50] (std) [2.427] (g/L) [3734] (uS/cm) [0.29] (mg/L)	
[17,33](0)		
•	FIELD COMMENTS	u /
MPLE APPEARANCE:  EATHER CONDITIONS:  ECIFIC COMMENTS:	50.5	HEEN Y/N VON Y/N (JE Y TYPE) N
initial D.	v. = 4.86	
17.61 6	.60 2.430 3739 0.16	49.8 5.5
17.85 6	·61 2.432 3741 Q.15	36,2 6,0
DATE O 13	CEDURES WERNIN ACCORDANCE WITH APPLICABLE CHAPROTOCOLS  PRINT  WHITE  WHITE  WHITE  PRINT	Timb

WELL SAMPLING FIELD INFORMATION FORM  SITE/PROJECT NAME: 39-7 JOB# 075034	
SAMPLE II	SJ 29-7 DE GW-075034-091013-CM-MW-6 WELL# MW-6
9/9/13 PURGE DATE (MM DD YY)	WELL PURGING INFORMATION  1275  1.36  4,25  SAMPLE TIME WATER VOL IN CASING (GALLONS)  ACTUAL VOL PURGED (GALLONS)
PURGING EQUIPMENTDED	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED N  (CIRCLE ONE)  (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAD PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER  X==  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	B-STAINLESS STEEL E-POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	C-POLYPROPYLENE X-OTHER  X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X=  B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C - ROPE F - SILICONE X - OTHER X = SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE GAB for metals only
	FIELD MEASUREMENTS
DEPTH TO WATEI	(feet) WELL ELEVATION (feet)
WELL DEPTH	groundwater elevation (feet)
TEMPERATURE	pH TDS SC DO ORP VOLUME
16.38 co	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
16.38	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
(°C)	(std) (g/L) (μS/cm) (mg/L) (mV) (gol)
(°C)	(std) (g/L) (μS/cm) (mg/L) (mV) (gal)
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	SCIGHTLY  CLOUDY  ODOR  NONE  COLOR: BROWN  SHEEN Y/N  TEMPERATURE  80.5  WINDY Y/N  PRECIPITATION Y/N (IF YTYPE)  NOTE  PRECIPITATION Y/N (IF YTYPE)
initial D.o.	= 1.45
I CERTIFY THAT SAMILING PRODUCE THE TOTAL SAMILI	CEDURES IWERE IN ACCOMPANCE WITH APPLICABLE CHA PROTOCOLS  PRINT  WHITE  WHITE

SITE/PROJECT NAME: SAMPLE ID:  9/9/13 PURGE DATE (MM DD YY)  SAMPLE DATE (MM DD YY)	29-7  34-09/0/3-CM-MW-7 WELL#  WELL PURGING INFORMATION  1255   2.11	075034 MW-7
SAMPLE ID: GW-0750:  9/9/13  PURGE DATE  SAMPLE DATE		MW-7
	WELL PURGING INFORMATION	
	1 1255 1 12.11	
		16,5
	SAMPLE TIME WATER VOL. II (24 HOUR) (GALLO	
	PURGING AND SAMPLING EQUIPMENT	
URGING EQUIPMENTDEDICATED Y N (CIRCLE ONE)	5/	AMPLING EQUIPMENTDEDICATEI Y N (CIRCLE ONE)
URGING DEVICE A - SUBMERSIBLE PUMP	D-GAS LIFT PUMP G-BAILER	X=
B - PERISTALTIC PUMP  C - BLADDER PUMP	E - PURGE PUMP H - WATERRAÐ F - DIPPER BOTTLE X - OTHER	PURGING DEVICE OTHER (SPECIFY) X□
9		SAMPLING DEVICE OTHER (SPECIFY)
URGING MATERIAL  B - STAINLESS STEEL	D-PVC E-POLYETHYLENE	X==
AMPLING MATERIAL C-POLYPROPYLENE	X - OTHER	PURGING MATERIAL OTHER (SPECIFY)  X=
		SAMPLING MATERIAL OTHER (SPECIFY)
JRGE TUBING A - TEFLON B - TYGON	D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE E - POLYETHYLENE	X= PURGE TUBING OTHER (SPECIFY)
MIPLING TUBING C-ROPE	F-SILICONE X-OTHER	X=SAMPLING TUBING OTHER (SPECIFY)
1 1	e B-PRESSURE 0,45 Av n	
LTERING DEVICES 0.45 A - IN-LINE DISPOSABLE	E B-PRESSURE U193 TOV N	retails orthy
	FIELD MEASUREMENTS	
DEPTH TO WATER 108.64	(feet) WELL ELEVATION	(feel)
WELL DEPTH 121.81	(feet) GROUNDWATER ELEVATION	(feel)
	TDS SC DO	ORP VOLUME
$\frac{16.08}{1.00} = \frac{10.08}{1.00} = 10$	163   (6/L)   3789   (105/cm)   23.35   (165   (16/L)   3792   (105/cm)   24.55   (165/cm)	mg/ <u>L)</u> (mV) (g
16.14 co 19.81 (std) 2.4	$\frac{169}{(6/1)} \frac{137}{6} \frac{1}{6} \frac{1}{(68/60)} \frac{1}{6} \frac{1}{6} \frac{1}{1} \frac{1}{1$	740
[6,19] (cc) 7,01 (std) 2,1	470 G(K/L) 3800 G(KS/CM) 24.40 G	mg/L) $(mV)$ $(g$
(std)	(g/L) (µS/cm)	(mg/ <u>L</u> ) (mV) (g
(°C) (std)	(g/L) (μS/cm)	(my/ <u>L)</u> (mV)
Cinun	FIELD COMMENTS	λ/
IPLE APPEARANCE  ODOR  ATHER CONDITIONS:  TEMPERATURE  SOS	WINDYY/N COLOR: WHITE	SHEEN Y/N
initial D.O. = 21,27		

V

SITE/PROJECT NAME: SAMPLE ID:	WELL SAMPLING FIELD INFORMATION FORM  ST 29-7  JOB#  MI  MI  MI  MI  MI  MI  MI  MI  MI  M	•
SAMI EL ID.	Gustin 1100-CITE 11100-DKWELL# 1/1/10	<i>y</i> - <i>y</i> /
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION  1.83  SAMPLE DATE (MM DD YY)  SAMPLE TIME (24 HOUR)  WATER VOL. IN CASIR (GALLONS)	NG ACTUAL VOL. PURGED (GALLONS)
PURGING EQUIPMENTDEDICATI	PURGING AND SAMPLING EQUIPMENT  SAMPLIN  (CIRCLE ONE)	NG EQUIPMENTDEDICATED V N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA®	X==
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A - TEFLON D - PVC  B - STAINLESS STEEL E - POLYETHYLENE	X=
SAMPLING MATERIAL	C. POLYPROPYLENIE X. OTHER	PURGING MATERIAL OTHER (SPECIFY)  X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	TEFLON/POLYPROPYLENE	X=
SAMPLING TUBING	B-TYGON E-POLYETHYLENE	PURGE TUBING OTHER (SPECIFY)  X=  SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE 0,45 For MAG	
	FIELD MEASUREMENTS	
DEPIH TO WATER	[108,34] (feet) WELL ELEVATION [	(feet)
WELL DEPTH	(feet) GROUNDWATER ELEVATION	(feet)
16.60 (C) 7	PH TDS SC DO $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ORP VOLUME
		$85.7_{\text{(mV)}}$ $5.0_{\text{(gal)}}$
(°C)	(std) (g/L) (us/cm) (mg/L) (mg/L)	77
(°C)	(std) (g/L) (µS/cm) (mg/L)	
(°C)	(std) (g/L) (μS/cm) (mg/ <u>L)</u>	(mV) [gal]
	Xo.	EEN Y/N  ON Y/N (IF Y TYPE)
initial D.o. =	= 7.81 Duplicat Collected For BTEX	0 1345 \$ HPC
	RES WARE N ACCORDANCE WITH APPLICABLE CRA PROTOCOLS PRINT NACORDANCE WITH APPLICABLE CRA PROTOCOLS	

11.11

	WELL SAMPLING FIELD INFORMATION FORM	1
SITE/PROJECT NAME SAMPLE ID	(7)	75034. MU-1
PURGE DATE (MM DD YY)	WELL FURGING INFORMATION  1250  SAMPLE DATE SAMPLE TIME WATER VOL. IN CASE (24 HOUR)  WELL FURGING INFORMATION  WELL FURGING INFORMATION  WELL FURGING INFORMATION  (GALLONS)	ING ACTUAL VOL. PURGED (GALLONS)
PURGING EQUIPMENTDED	PURGING AND SAMPLING EQUIPMENT  SAMPLI  (CIRCLE ONE)	NG EQUIPMENTDEDICATED Y
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAO	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X=SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A-TEFLON D-PVC B-STAINLESS SIEEL E-POLYETHYLENE	X=
SAMPLING MATERIAL	C-POLYPROPYLENE X-OTHER	X=SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A-TEFLON D-POLYPROPYLENE G-COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C-ROPE F-SILICONE X-OTHER	X=SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE FOR METALS M	ly
DEPIH TO WATER	FIELD MEASUREMENTS  (feet) WELL ELEVATION	, (feet)
WELL DEPTH	I 24,05 GROUNDWATER BLEVATION	(feet)
TEMPERATURE  [16.35] (co)  [16.35] (co)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	45.8 (mV) 6.75 (sal)
(%)	(mg/l) (uS/cm) (mg/l)	
[C)	(g/L) (uS/cm) (mg/l	
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	200	HEENY/N MYY NOI
	7 20	
23664 X3	2= 1,019	
I CERTIFY THAT SAMPLING PRODATE	CEDURES VERE NACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT  PRINT  SIGNATURE	tallo

SITE/PROJECT NAME: SAMPLE ID:	SanJuar	MPLING FIE 1 29-7 ( -010714-(	ID INFORMAT Unit 37 M-MW-2	JOB# //	15034 W-Z	
PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WELL PURG		WATER VOL IN CASIN (GALLONS)	G ACTUAL VOL. PURGED (GALLONS)	
PURGING EQUIPMENTDEDIC	CATED Y N (CIRCLE ONE)	PURGING AND	SAMPLING EQUIPMENT	SAMPLIN	G EQUIPMENTDEDICATE Y N	
PURGING DEVICE	A - SUBMERSIBLE PUMP  B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	,	PURGING DEVICE OTHER (SPECIFY)	
SAMPLING DEVICE	C-BLADDER PUMP	F - DIPPER BOTTLE	X-OTHER		SAMPLING DEVICE OTHER (SPECIFY)	
PURGING MATERIAL SAMPLING MATERIAL	B-STAINLESS STEEL C-POLYPROPYLENE	D-PVC E-POLYETHYLENE X-OTHER			PURGING MATERIAL OTHER (SPECIFY)	
PURGE TUBING	E A-TEFLON	D - POLYPROPYLENE	G - COMBINATION	· · · · · · · · · · · · · · · · · · ·	SAMPLING MATERIAL OTHER (SPECIFY)	
SAMPLING TUBING	B-TYGON C-ROPE	E - POLYETHYLENE F - SILICONE	TEFLON/POLYPROPYLENE  X-OTHER		PURGE TUBING OTHER (SPECIFY)  SAMPLING TUBING OTHER (SPECIFY)	
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE	B - PRESSURE	for meta	15 only	SAME LING TO BING OTHER (SEE LETT)	
DEPTH TO WATER	109,71	FIELD M	EASUREMENTS WELL ELEVA	TION	(feet)	
WELL DEPTH	[20.8]	(feet)	GROUNDWATER ELEVA	ATION	(feet)	
TEMPERATURE	pH T	DS .	<b>~</b>	DO	ORP VOLUME	
1553 m		(g/L) (g/L)	3241 (µS/cm) [2	1.62 (mg/L)	12,9 (mV) 4,5 (gal)	)
[5.53] co	(64) (std) Z1	<u>08</u> (g/L)	)294 (µS/cm) [1	173 (mg/L)	(gal)	ì
15.52 co	0159 (std) 21	<u>09 (g/1)</u>	245 (µS/cm) [	1,67 (mg/L)	11.6 (mV) 5,5 (gal)	1
(%)	(std)	(g/L)	(µS/cm)	(mg/L)	(mV) (gal)	1
(°C)	(std)	(g/L)	(μS/cm)	(mg/L)	(mV) (gal)	1
SAMPLE APPEARANCE WEATHER CONDITIONS: TI SPECIFIC COMMENTS:	LOUGY / SITY ODOR: 0 EMPERATURE DO	MINDY Y/N	COMMENTS  COLOR:  NO  My/L		EENY/N NO	
1.776×3=	5,32		J'			
I CERTIFY THAT SAMPLING PROCE	EDURES WERE IN ACCORDANCE WITH AP	0/1.11	LS NATURE	MAKA	Fuel -	

SITE/PROJECT NAME: SAMPLE ID:	well sampling field information form  San Juan 29-7 Unit 3 7 job# 0  Gut-075034-010714-0n-MW-3 well#	75034 NW-3
PURGEDATE (MM DD YY)	WELL PURGING INFORMATION  SAMPLE DATE (MM DD YY)  WELL PURGING INFORMATION  SAMPLE TIME (MATER VOL. IN CASIN (GALLONS)	ACTUAL VOL PURGED (GALLONS)
PURGING EQUIPMENT,DEDIC	PURGING AND SAMPLING EQUIPMENT  (CIRCLE ONE)  SAMPLIN	G EQUIPMENTDEDICATELY N (CIRCLE ONE)
PURGING DEVICE	B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA®	Y.™PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C-BLADDER PUMP F-DIPPER BOTTLE X-OTHER	X=
PURGING MATERIAL SAMPLING MATERIAL	B-STAINLESS STEEL E-POLYETHYLENE	(=
	<u> </u>	SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	B-TYGON E-POLYETHYLENE TEFLON/POLYFROPYLENE	PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	Av metak mali	SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE J W YY KJ COLON J	
DEPTH TO WATER	(feet) WELL ELEVATION	(feet)
WELL DEPTH	(feet) GROUNDWATER BLEVATION	(feet)
16,40 co	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ORP VOLUME  138.2 (61V) 5,0 (gal)  136.2 (mV) 5,5 (gal)  137.4 (mV) 6,0 (gal)
(0)	(g/L) (uS/cn) (mg/L)	(mV) (gal)
[	(std) (g/L) (μS/cm) (mg/L)	(mV) (gai)
SAMPLE APPEARANCE WEATHER CONDITIONS: T SPECIFIC COMMENTS:	100	PENY/N 170 NY/N (IFYTYPE) NW
MINISTER COMMENTS:	DO = 2.30 mg/L	
,9984X3	= 5,99	
I CERTIFY THAT SAMPLING PROCE	EDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT SIGNATURE	

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SITE/PROJECT NAME: SAMPLE ID:	WELL SAMPLING FIELD INFORMATION FORM SUN JUAN 24-7 Unit 37 JOB# 075034  SU-075034-010714-CM-MW-4 WELL# 111W-4
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION  1320  SAMPLE DATE (MM DD YY)  WATER VOL. IN CASING (GALLONS)  WATER VOL. IN CASING (GALLONS)  ACTUAL VOL. PURGED (GALLONS)  (GALLONS)
PURGING EQUIPMENTDEDIC	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED  (CIRCLE ONE)  (CIRCLE ONE)
PURGING DEVICE SAMPLING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICH OTHER (SPECIFY)  C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=
PURGING MATERIAL SAMPLING MATERIAL	SAMPLING DEVICE OTHER (SPECIFY)  B - STAINLESS STEEL  B - POLYETHYLENE  C - POLYPROPYLENE  X=  PURGING MATERIAL OTHER (SPECIFY)  X=
PURGE TUBING SAMPLING TUBING	A-TEFLON D-POLYPROPYLENE G-COMBINATION X=  B-TYGON E-POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)  C-ROPE F-SILICONE X-OTHER X=
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE A-IN-LINE DISPOSABLE B-PRESSURE
DEPIH TO WATER  WELL DEPTH  TEMPERATURE  14, 72 (°°)  14, 72 (°°)  (°°)  SAMPLE APPEARANCE WEATHER CONDITIONS: SPECIFIC COMMENTS:	
I CERTIFY THAT SAMPLING PROX	EDURES WERE INACÇORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT  ON STOLON (1) SIGNATURE

	WELL SAMPLING FIELD INFORMATION FO	DRM,
SITE/PROJECT NAME: SAMPLE ID:	San Juan 29-7 Unit 37 JOB# GW-075034-010714-CM-MW-5 WELL#	(173034 YNU-5
FURGE DATE (MM DD YY)	SAMPLE DATE SAMPLETIME (24 HOUR) WATER VOL.	
PURGING EQUIPMENTDEDICA	PURGING AND SAMPLING EQUIPMENT  SA  (CIRCLE ONE)	AMPLING EQUIPMENTDEDICATED Y N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER	X=
PURGING MATERIAL	A-TEFLON D-PVC  B-STAINLESS STEEL E-POLYETHYLENE	X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	C-POLYPROPYLENE X-OTHER	X=SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION TEFLON/POLYPROPYLENE  B - TYGON E - POLYETHYLENE	X== PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C-ROPE F-SILICONE X-OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE TO MOTOLS OF	ny
DEPTH TO WATER	FIELD MEASUREMENTS  (feet) WELL ELEVATION	(feet)
WELL DEPTH	[20,79] (feet) GROUNDWATER BLEVATION	(feet)
TEMPERATURE  [752](10)	(175) (std) 2.345 (g/L) (3611) (µS/cm) 1.11	ORP VOLUME  [(mg/L)   5, 1
16,73100 1	6,75 (std) 2353 (g/1) 3622 (us/cm) 1,18	(gal) (mg/L) 24.9 (mv) (D.25 (gal)
658 0	6,74   (std)   2,366   (g/L)   3640   (uS/cm)   1,2	(mg/167,5 (mV) 5,75 (gal)
(°0)	(std) (g/L) (µS/cm)	(mg/L) (mV) (gal)
(C)	(std) (g/L) (µS/cm)	(mg/L) (mV) (gal)
<u> </u>	SULVY 5 HYDOR: NOVE COLOR: HTD WINDYY/N NO PREC	SHEENY/N
initio	at PO 22	
1.90×3-	5,7024	
I CERTIFY THAT SAMPLING PROCES	DURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  PRINT SIGNATURE  SIGNATURE	Www

	WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAME: SAMPLE ID	San Juan 29-7 (Init 37 job# 075034 GW-075034-010714-CM-MW-6WELL# MW-6
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION    3216
PURGING EQUIPMENTDEDI	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATE  Y  N  (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X=  B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=  SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	BE A-TEFLON D-PVC X=
SAMPLING MATERIAL	C-POLYPROPYLENE X-OTHER  X=  SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X=  D - POLYPROPYLENE G - COMBINATION X=  TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C - ROPE F - SILICONE X - OTHER X =
FILTERING DEVICES 0.45	A-IN-LINE DISPOSABLE B-PRESSURE TO METALS ONLY
DEPTH TO WATER	FIELD MEASUREMENTS  (feet) WELL ELEVATION (feet)
WELL DEPTH	GROUNDWATER ELEVATION (feet)
TEMPERATURE  16.15 co   16.21 co	(4573 (std) 1708 (g/L) 2627 (µS/cm) 2184 (mg/L) 29.0 (mV) 3,0 (gal) (4.74 (std) 1705 (g/L) 2620 (µS/cm) 2.93 (mg/L) 29.7 (mV) 4.0 (gal)
(°C)	(std) (g/L) (μS/cm) (mg/L) (mV) (gal)
(%)	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$
SAMPLE APPEARANCE:  VEATHER CONDITIONS:  THE COMMENTS:	FIELD COMMENTS  COLOR: HBY SHEENY/N  SHEENY/N  SHEENY/N  PRECIPITATION Y/N (IFY TYPE)  TO
tritial	DO = 2.30mg/L
1.3216 ×3.	= 3,96
I CERTIFY THAT SAMPLING PROC	PRINT MCTM V ACCORDANCE AVITH APPLICABLE CRA PROTOCOLS  SIGNATURE

		i
	WELL SAMPLING FIELD INFORMATION FORM	
SITE/PROJECT NAME: SAMPLE ID	THE THE THE PARTY OF THE PARTY	
FURGE BATE (MM DD YY)	WELL PURGING INFORMATION    0 25	
PURGING EQUIPMENTDEDI	PURGING AND SAMPLING EQUIPMENT  SAMPLING EQUIPMENTDEDICATED Y N  (CIRCLE ONE)	
PURGING DEVICE	A - SUBMERSIBLE PUMP  D - GAS LIFT PUMP  G - BAILER  X=  PURGING DEVICE OTHER (SPECIFY)  C - BLADDER PUMP  F - DIPPER BOTTLE  X - OTHER  SAMPLING DEVICE OTHER (SPECIFY)	
URGING MATERIAL  AMPLING MATERIAL	B-STAINLESS STEEL E-POLYETHYLENE Y-OTHER X=  C-POLYPROPYLENE X-OTHER  SAMPLING DEVICEOTIEN (SPECIFY)  X=  SAMPLING MATERIAL OTHER (SPECIFY)	
URGE TUBING AMPLING TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X=  B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)  C - ROPE F - SILICONE X - OTHER X=  SAMPLING TUBING OTHER (SPECIFY)	
LITERING DEVICES 0.45  DEPTH TO WATER  WELL DEPTH	FIELD MEASUREMENTS  (feet)  GROUNDWATER ELEVATION  (feet)  (feet)  (feet)	
TEMPERATURE  [6.78] (°0)  [6.32] (°0)	PH TDS SC DO ORP VOLUME  (145   (std)	
(°C)	(std) (g/L) (µS/cm) (mg/L) (mV) (gal)	
MPLE APPEARANCE COUNTY	FIELD COMMENTS	
2.09X3=	=	
I CERTIFY THAT SAMPLING PROX	PRINT DOCTOR OF THE CONTROL OF THE C	



SITE/PROJECT NAME SAMPLE DIS SAMPLE DI SAMPLE
PURGING DEVICE SAMPLING DEVICES GAS  PURGING DEVICES GAS  A - SULDISSOSTEE PURD D - CASILIFY PURD SAMPLING EQUIPMENTDEDUCATED Y SOLDISSOSTEE SAMPLING DEVICE  A - SULDISSOSTEE D - PRESENTE D - PRESENTE D - PROCESSOR SAMPLING DEVICE SAMPLING DEVICES GAS  A - PERION D - POUT SECOND SAMPLING DEVICES GAS  A - DELING DEVICES GAS  FELD MEASUREMENTS  FELD MEASURE
PURCING RQUIPMENT
B - PERSTALINE PUMP E - FUNCE PUMP F - DIPPER SOTTLE X - OTHER  SAMPLING DEVICE  C - RADGER FUMP F - DIPPER SOTTLE X - OTHER  PURGING MATERIAL  B - STAINLESS STEEL E - POLYETHYLINE SAMPLING MATERIAL DIPER SOPECIFY)  SAMPLING MATERIAL  C - POLYPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND B - TYCON B - POLCHPROPYLINE C - RODGE FUND C
FURGING MATERIAL  A-TEFLON  B-STAINLESS STEEL  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-POLYPHOPYLENE  C-COMBINATION  X= SAMPLING MATERIAL OTHER (SPECIFY)  X= SAMPLING MATERIAL OTHER (SPECIFY)  X= SAMPLING TUBING  B-TYCON  B-TYCON  C-ROPE  F-SILCONE  X-OTHER  X= SAMPLING TUBING OTHER (SPECIFY)  PUTGE TUBING OTHER (SPECIFY)  FILTERING DEVICES 0.45  PUTGE TUBING OTHER (SPECIFY)  TEMPORATION  WELL BLEVATION  (Feet)  TEMPERATURE  PH  TDS  SC  DO  ORP  VOLUME  (Feet)  (Feet)  GROUNDWATER ELEVATION  (Feet)  (Feet)  TEMPERATURE  PH  TDS  SC  DO  ORP  VOLUME  (Feet)  ST  (Feet)  SC  ORD  ORP  VOLUME  (Feet)  ST  (Feet)  SC  ORD  ORP  VOLUME  (Feet)  ST  (Feet)  SC  ORD  ORD  ORP  VOLUME  (Feet)  ST  (Feet)  SC  ORD  ORP  VOLUME  (Feet)  ST  (Feet)  SC  ORD  ORP  VOLUME  (Feet)  ST  ORD  ORD  ORD  ST  ORD  ORD  ST  ORD  ORD  ORD  ST  ORD  ORD  ST  ORD  ORD  ST  ORD  ORD  ORD  ORD  ORD  ORD  ORD  OR
B. STAINLESS STEEL E. POLYPHYLENE X-OTHER X=  PURGE TURING  PURGE TURING OTHER (SPECIFY)  **SAMPLING TURING OTHER (SPECIFY)  **SAMPLING TURING OTHER (SPECIFY)  **PRICE TURING OTHER (SPECIFY)  **PRICE TURING OTHER (SPECIFY)  **PRICE TURING OTHER (SPECIFY)  PURGE TURING OTHER (SPECIFY)  **PRICE TURI
PURGE TUBING    E
FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE  B - PRESSURE  FIELD MEASUREMENTS  WELL ELEVATION  WELL DEPTH  WELL DEPTH  TOS  SC  Geet)  GROUNDWATER ELEVATION  Geet)  GROUNDWATER ELEVATION  TEMPERATURE  PH  TDS  SC  DO  ORP  VOLUME  15 15   CC)  1 03   Gatd)  2 1 127   (g/L)  3 2 7 3   (g/L)  3 3 1 4   (g/S/cm)  1 3 3 1 5   (mg/L)  3 3 7 5   (mV)  5 5 0   (gal)  1 5 5 5 4   (CC)  GROUNDWATER ELEVATION  (Geet)  WELL DEPTH  TOS  SC  DO  ORP  VOLUME  1 5 15   (Geet)  GROUNDWATER ELEVATION  GROUNDWATER
FIELD MEASUREMENTS    WELL ELEVATION   (feet)   WELL ELEVATION   (feet)   WELL DEPTH
DEPTH TO WATER
TEMPERATURE pH TDS SC DO ORP VOLUME    (1)   (1)   (1)   (2)   (3)   (2)   (2)   (3)   (3)   (4)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
15,54 (c) 6,95 (std) 2,161 (g/L) 3325 (µS/cm) 141 (mg/L) 5,5 (gal) (pS/cm) (mg/L) (my/L) (gal)
SAMPLE APPEARANCE: VEW SITTY ODOR: PIONOL COLOR: SHEENY/N 100 PRECIPITATION Y/N (IF YTYPE) 100 SPECIFIC COMMENTS:
BIEX DUP @ 113600 1140 4.75 gallens will
1 CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS  DATE 1 7 11 PRINT 1 PRINT

# **APPENDIX D**

GROUNDWATER LABORATORY ANALYTICAL REPORTS





April 08, 2013

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

RE: Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

## Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on March 27, 2013. 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

Ilice Flanagan

alice.flanagan@pacelabs.com Project Manager

**Enclosures** 

cc: Kelly Blanchard, COP Conestoga-Rovers & Associa Angela Bown, COP Conestoga-Rovers & Associa Cassie Brown, COP Conestoga-Rovers & Associa Jason Ploss, COP Conestoga-Rovers & Associa







## **CERTIFICATIONS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Kansas Certification IDs** 

9608 Loiret Boulevard, Lenexa, KS 66219 A2LA Certification #: 2456.01 Arkansas Certification #: 12-019-0 Illinois Certification #: 002885 Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-12-3 Utah Certification #: KS000212012-2 Illinois Certification #: 003097

**Southeast Kansas Certification IDs** 

808 West McKay, Frontenac, KS 66763 Arkansas Certification #: 12-019-0 Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Oklahoma Certification #: 2012-051 Texas Certification #: T104704407-12-3 Utah Certification #: KS000212012-2 Minnesota Certification #: 495004





# **SAMPLE SUMMARY**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60141160001	GW-075034-032613-CM-MW-1	Water	03/26/13 14:35	03/27/13 08:45
60141160002	GW-075034-032613-CM-MW-2	Water	03/26/13 12:55	03/27/13 08:45
60141160003	GW-075034-032613-CM-MW-3	Water	03/26/13 13:25	03/27/13 08:45
60141160004	GW-075034-032613-CM-MW-4	Water	03/26/13 10:55	03/27/13 08:45
60141160005	GW-075034-032613-CM-MW-5	Water	03/26/13 12:00	03/27/13 08:45
60141160006	GW-075034-032613-CM-MW-6	Water	03/26/13 13:50	03/27/13 08:45
60141160007	GW-075034-032613-CM-MW-7	Water	03/26/13 11:30	03/27/13 08:45
60141160008	GW-075034-032613-CM-DUP	Water	03/26/13 13:55	03/27/13 08:45
60141160009	TB-075034-032613-CM-001	Water	03/26/13 16:00	03/27/13 08:45
60141160010	GW-075034-032613-CM-MW-1	Water	03/26/13 14:35	03/27/13 10:20
60141160011	GW-075034-032613-CM-MW-2	Water	03/26/13 12:55	03/27/13 10:20
60141160012	GW-075034-032613-CM-MW-3	Water	03/26/13 13:25	03/27/13 10:20
60141160013	GW-075034-032613-CM-MW-4	Water	03/26/13 10:55	03/27/13 10:20
60141160014	GW-075034-032613-CM-MW-5	Water	03/26/13 12:00	03/27/13 10:20
60141160015	GW-075034-032613-CM-MW-6	Water	03/26/13 13:50	03/27/13 10:20
60141160016	GW-075034-032613-CM-MW-7	Water	03/26/13 11:30	03/27/13 10:20



# **SAMPLE ANALYTE COUNT**

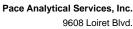
Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60141160001	GW-075034-032613-CM-MW-1	EPA 6010	TDS	
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160002	GW-075034-032613-CM-MW-2	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160003	GW-075034-032613-CM-MW-3	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160004	GW-075034-032613-CM-MW-4	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160005	GW-075034-032613-CM-MW-5	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160006	GW-075034-032613-CM-MW-6	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160007	GW-075034-032613-CM-MW-7	EPA 6010	TDS	2
		EPA 8260	RNS	9
		SM 2540C	JGH	1
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60141160008	GW-075034-032613-CM-DUP	SM 9215B	MEB	1
		EPA 8260	RNS	9

# **REPORT OF LABORATORY ANALYSIS**

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# **SAMPLE ANALYTE COUNT**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60141160009	TB-075034-032613-CM-001	EPA 8260	RNS	9
60141160010	GW-075034-032613-CM-MW-1	SM 9215B	MEB	1
60141160011	GW-075034-032613-CM-MW-2	SM 9215B	MEB	1
60141160012	GW-075034-032613-CM-MW-3	SM 9215B	MEB	1
60141160013	GW-075034-032613-CM-MW-4	SM 9215B	MEB	1
60141160014	GW-075034-032613-CM-MW-5	SM 9215B	MEB	1
60141160015	GW-075034-032613-CM-MW-6	SM 9215B	MEB	1
60141160016	GW-075034-032613-CM-MW-7	SM 9215B	MEB	1



## **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: April 08, 2013

## **General Information:**

7 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 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:**



### **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: SM 9215B

**Description:** MBIO HPC (Drinking Water)

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** April 08, 2013

### **General Information:**

8 samples were analyzed for SM 9215B. 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.

u3: Analysis initiated more than 8 hours but less than 24 hours after sample collection.

- GW-075034-032613-CM-DUP (Lab ID: 60141160008)
- GW-075034-032613-CM-MW-1 (Lab ID: 60141160010)
- GW-075034-032613-CM-MW-2 (Lab ID: 60141160011)
- GW-075034-032613-CM-MW-3 (Lab ID: 60141160012)
- GW-075034-032613-CM-MW-4 (Lab ID: 60141160013)
- GW-075034-032613-CM-MW-5 (Lab ID: 60141160014)
- GW-075034-032613-CM-MW-6 (Lab ID: 60141160015)
- GW-075034-032613-CM-MW-7 (Lab ID: 60141160016)

### **Sample Preparation:**

The samples were prepared in accordance with SM 9215B with any exceptions noted below.

# **Duplicate Sample:**

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



### **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: EPA 8260

Description: 8260 MSV UST, Water

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** April 08, 2013

### **General Information:**

9 samples were analyzed for EPA 8260. 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.

### **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 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/52710

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





### **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: SM 2540C

**Description:** 2540C Total Dissolved Solids

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: April 08, 2013

### **General Information:**

7 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 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.





### **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: April 08, 2013

### **General Information:**

7 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 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.



### **PROJECT NARRATIVE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Method: EPA 353.2

Description: 353.2 Nitrogen, NO2/NO3 unpres

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** April 08, 2013

### **General Information:**

7 samples were analyzed for EPA 353.2. 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 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/24026

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60141165004,60141172001

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

MS (Lab ID: 1160139)Nitrogen, Nitrate

### **Duplicate Sample:**

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

### **Additional Comments:**

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



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM- MW-1	Lab ID: 60°	141160001	Collecte	d: 03/26/1:	3 14:35	Received: 03/	27/13 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Me	thod: EPA 60	010 Prepa	ration Meth	od: EPA	3010			
Manganese, Dissolved	<b>486</b> ug/L		5.0	0.49	1	03/29/13 13:00	04/08/13 12:20	7439-96-5	
Selenium, Dissolved	<b>79.2</b> ug/L		15.0	4.2	1	03/29/13 13:00	04/08/13 12:20	7782-49-2	
8260 MSV UST, Water	Analytical Me	thod: EPA 82	260						
Benzene	ND ug/L		1.0	0.040	1		04/01/13 18:43	71-43-2	
Ethylbenzene	ND ug/L		1.0	0.10	1		04/01/13 18:43	100-41-4	
Toluene	ND ug/L		1.0	0.10	1		04/01/13 18:43	108-88-3	
Xylene (Total)	ND ug/L		3.0	0.30	1		04/01/13 18:43	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	103 %		80-120		1		04/01/13 18:43	1868-53-7	
Toluene-d8 (S)	102 %		80-120		1		04/01/13 18:43	2037-26-5	
4-Bromofluorobenzene (S)	100 %		80-120		1		04/01/13 18:43	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		80-120		1		04/01/13 18:43	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		04/01/13 18:43		
2540C Total Dissolved Solids	Analytical Me	thod: SM 25	40C						
Total Dissolved Solids	<b>1980</b> mg/L	-	5.0	5.0	1		03/28/13 13:17		
300.0 IC Anions 28 Days	Analytical Me	thod: EPA 30	0.00						
Sulfate	<b>1000</b> mg/L	-	100	18.0	100		04/02/13 09:53	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Me	thod: EPA 3	53.2						
Nitrogen, Nitrate	<b>37.0</b> mg/L	<u>-</u>	1.0	0.51	10		03/27/13 13:30		



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM- MW-2	Lab ID:	60141160002	Collecte	d: 03/26/13	3 12:55	Received: 03/	27/13 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical N	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>18.8</b> ug	ı/L	5.0	0.49	1	03/29/13 13:00	04/08/13 12:29	7439-96-5	
Selenium, Dissolved	<b>72.8</b> ug	ı/L	15.0	4.2	1	03/29/13 13:00	04/08/13 12:29	7782-49-2	
8260 MSV UST, Water	Analytical N	Method: EPA 8	260						
Benzene	ND ug	ı/L	1.0	0.040	1		04/01/13 18:58	71-43-2	
Ethylbenzene	ND ug	ı/L	1.0	0.10	1		04/01/13 18:58	100-41-4	
Toluene	ND ug	ı/L	1.0	0.10	1		04/01/13 18:58	108-88-3	
Xylene (Total)	ND ug	<sub>J</sub> /L	3.0	0.30	1		04/01/13 18:58	1330-20-7	
Surrogates	_								
Dibromofluoromethane (S)	103 %		80-120		1		04/01/13 18:58	1868-53-7	
Toluene-d8 (S)	101 %		80-120		1		04/01/13 18:58	2037-26-5	
4-Bromofluorobenzene (S)	97 %		80-120		1		04/01/13 18:58	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		80-120		1		04/01/13 18:58	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		04/01/13 18:58		
2540C Total Dissolved Solids	Analytical N	Method: SM 25	540C						
Total Dissolved Solids	<b>1930</b> mg	g/L	5.0	5.0	1		03/28/13 13:17		
300.0 IC Anions 28 Days	Analytical N	Method: EPA 3	0.00						
Sulfate	<b>1200</b> mg	g/L	100	18.0	100		04/02/13 10:39	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical N	Method: EPA 3	53.2						
Nitrogen, Nitrate	<b>43.3</b> mg	g/L	1.0	0.51	10		03/27/13 13:26		



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID: 60141160003 Sample: GW-075034-032613-CM-Collected: 03/26/13 13:25 Received: 03/27/13 08:45 Matrix: Water MW-3 Report **Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 1830 ug/L 5.0 0.49 03/29/13 13:00 04/08/13 12:31 7439-96-5 Selenium, Dissolved ND ug/L 15.0 4.2 1 03/29/13 13:00 04/08/13 12:31 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene ND ug/L 1.0 0.040 04/01/13 19:13 71-43-2 Ethylbenzene ND ug/L 0.10 04/01/13 19:13 100-41-4 1.0 1 0.10 Toluene ND ug/L 1.0 1 04/01/13 19:13 108-88-3 Xylene (Total) ND ug/L 0.30 04/01/13 19:13 1330-20-7 3.0 1 Surrogates Dibromofluoromethane (S) 102 % 80-120 04/01/13 19:13 1868-53-7 Toluene-d8 (S) 101 % 80-120 1 04/01/13 19:13 2037-26-5 4-Bromofluorobenzene (S) 99 % 80-120 1 04/01/13 19:13 460-00-4 1,2-Dichloroethane-d4 (S) 100 % 80-120 04/01/13 19:13 17060-07-0 1 0.10 04/01/13 19:13 Preservation pH 1.0 1.0 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 2030 mg/L 5.0 5.0 03/28/13 13:18 1 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1080 mg/L 100 18.0 100 04/02/13 11:25 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2

0.051

0.10

0.42 mg/L

Nitrogen, Nitrate

03/27/13 13:12



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM- MW-4	Lab ID: 60	141160004	Collecte	d: 03/26/13	3 10:55	Received: 03/	27/13 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010 MET ICP, Dissolved	Analytical Me	ethod: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>60.5</b> ug/L		5.0	0.49	1	03/29/13 13:00	04/08/13 12:33	7439-96-5	
Selenium, Dissolved	<b>44.1</b> ug/L		15.0	4.2	1	03/29/13 13:00	04/08/13 12:33	7782-49-2	
3260 MSV UST, Water	Analytical Me	ethod: EPA 8	260						
Benzene	ND ug/L		1.0	0.040	1		04/01/13 19:28	71-43-2	
Ethylbenzene	ND ug/L		1.0	0.10	1		04/01/13 19:28	100-41-4	
Toluene	ND ug/L		1.0	0.10	1		04/01/13 19:28	108-88-3	
Xylene (Total)	ND ug/L		3.0	0.30	1		04/01/13 19:28	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	102 %		80-120		1		04/01/13 19:28	1868-53-7	
Toluene-d8 (S)	101 %		80-120		1		04/01/13 19:28		
4-Bromofluorobenzene (S)	101 %		80-120		1		04/01/13 19:28	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120		1		04/01/13 19:28	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		04/01/13 19:28		
2540C Total Dissolved Solids	Analytical Me	ethod: SM 25	540C						
Total Dissolved Solids	<b>1950</b> mg/L	_	5.0	5.0	1		03/28/13 13:18		
300.0 IC Anions 28 Days	Analytical Me	ethod: EPA 3	0.00						
Sulfate	<b>1200</b> mg/L	_	100	18.0	100		04/02/13 11:40	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Me	ethod: EPA 3	53.2						
Nitrogen, Nitrate	<b>8.9</b> mg/L	_	0.50	0.26	5		03/27/13 13:25		



### **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM-Lab ID: 60141160005 Received: 03/27/13 08:45 Collected: 03/26/13 12:00 Matrix: Water MW-5 Report **Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 356 ug/L 5.0 0.49 03/29/13 13:00 04/08/13 12:39 7439-96-5 Selenium, Dissolved ND ug/L 15.0 4.2 1 03/29/13 13:00 04/08/13 12:39 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene ND ug/L 1.0 0.040 04/01/13 19:43 71-43-2 Ethylbenzene ND ug/L 0.10 04/01/13 19:43 100-41-4 1.0 1 0.10 Toluene ND ug/L 1.0 1 04/01/13 19:43 108-88-3 Xylene (Total) ND ug/L 0.30 04/01/13 19:43 1330-20-7 3.0 1 Surrogates Dibromofluoromethane (S) 103 % 80-120 04/01/13 19:43 1868-53-7 Toluene-d8 (S) 102 % 80-120 1 04/01/13 19:43 2037-26-5 4-Bromofluorobenzene (S) 102 % 80-120 1 04/01/13 19:43 460-00-4 1,2-Dichloroethane-d4 (S) 101 % 80-120 04/01/13 19:43 17060-07-0 1 0.10 04/01/13 19:43 Preservation pH 1.0 1.0 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 2370 mg/L 5.0 5.0 03/28/13 13:18 1 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1700 mg/L 200 36.0 200 04/02/13 11:56 14808-79-8

0.051

0.10

Analytical Method: EPA 353.2

0.30 mg/L

353.2 Nitrogen, NO2/NO3 unpres

Nitrogen, Nitrate

03/27/13 13:09



### **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM-Lab ID: 60141160006 Collected: 03/26/13 13:50 Received: 03/27/13 08:45 Matrix: Water MW-6 Report **Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 282 ug/L 5.0 0.49 03/29/13 13:00 04/08/13 12:41 7439-96-5 Selenium, Dissolved 60.2 ug/L 15.0 4.2 1 03/29/13 13:00 04/08/13 12:41 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene 2.2 ug/L 1.0 0.040 04/01/13 19:58 71-43-2 Ethylbenzene ND ug/L 0.10 04/01/13 19:58 100-41-4 1.0 1 0.10 Toluene ND ug/L 1.0 1 04/01/13 19:58 108-88-3 Xylene (Total) ND ug/L 0.30 04/01/13 19:58 1330-20-7 3.0 1 Surrogates Dibromofluoromethane (S) 105 % 80-120 04/01/13 19:58 1868-53-7 Toluene-d8 (S) 101 % 80-120 1 04/01/13 19:58 2037-26-5 4-Bromofluorobenzene (S) 98 % 80-120 1 04/01/13 19:58 460-00-4 1,2-Dichloroethane-d4 (S) 104 % 80-120 04/01/13 19:58 17060-07-0 1 0.10 04/01/13 19:58 Preservation pH 1.0 1.0 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 1740 mg/L 5.0 5.0 03/28/13 13:18 1 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 945 mg/L 100 18.0 100 04/02/13 12:11 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2

0.51

10

1.0

30.9 mg/L

Date: 04/08/2013 06:06 PM

Nitrogen, Nitrate

03/27/13 13:27



### **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID: 60141160007 Received: 03/27/13 08:45 Sample: GW-075034-032613-CM-Collected: 03/26/13 11:30 Matrix: Water MW-7 Report **Parameters** Results Units Limit MDL DF Prepared CAS No. Qual Analyzed 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved ND ug/L 5.0 0.49 03/29/13 13:00 04/08/13 12:43 7439-96-5 Selenium, Dissolved ND ug/L 15.0 4.2 1 03/29/13 13:00 04/08/13 12:43 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene ND ug/L 1.0 0.040 04/01/13 20:13 71-43-2 Ethylbenzene ND ug/L 0.10 04/01/13 20:13 100-41-4 1.0 1 0.10 Toluene ND ug/L 1.0 1 04/01/13 20:13 108-88-3 Xylene (Total) ND ug/L 0.30 04/01/13 20:13 1330-20-7 3.0 1 Surrogates Dibromofluoromethane (S) 104 % 80-120 04/01/13 20:13 1868-53-7 Toluene-d8 (S) 102 % 80-120 1 04/01/13 20:13 2037-26-5 4-Bromofluorobenzene (S) 98 % 80-120 1 04/01/13 20:13 460-00-4 1,2-Dichloroethane-d4 (S) 104 % 80-120 04/01/13 20:13 17060-07-0 1 0.10 04/01/13 20:13 Preservation pH 1.0 1.0 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 3050 mg/L 5.0 5.0 03/28/13 13:19 1 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1730 mg/L 200 36.0 200 04/02/13 12:27 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2

0.50

0.26

5

03/27/13 13:26

5.3 mg/L

Date: 04/08/2013 06:06 PM

Nitrogen, Nitrate



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM-Lab ID: 60141160008 Collected: 03/26/13 13:55 Received: 03/27/13 08:45 Matrix: Water

DUP									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	od: SM	1 9215B			
Heterotrophic Plate Count	<b>27000</b> C	FU/mL	1.0	1.0	1	03/27/13 10:50	03/29/13 11:00		u3
8260 MSV UST, Water	Analytical	Method: EP	A 8260						
Benzene	<b>2.3</b> uç	g/L	1.0	0.040	1		04/01/13 20:28	71-43-2	
Ethylbenzene	ND ug	g/L	1.0	0.10	1		04/01/13 20:28	100-41-4	
Toluene	ND ug	g/L	1.0	0.10	1		04/01/13 20:28	108-88-3	
Xylene (Total) Surrogates	ND uç	g/L	3.0	0.30	1		04/01/13 20:28	1330-20-7	
Dibromofluoromethane (S)	103 %	)	80-120		1		04/01/13 20:28	1868-53-7	
Toluene-d8 (S)	103 %	)	80-120		1		04/01/13 20:28	2037-26-5	
4-Bromofluorobenzene (S)	98 %	)	80-120		1		04/01/13 20:28	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %	)	80-120		1		04/01/13 20:28	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		04/01/13 20:28		



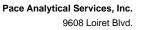


# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: TB-075034-032613-CM	I-001 Lab ID:	60141160009	Collecte	d: 03/26/13	16:00	Received: 03/	/27/13 08:45 Ma	atrix: Water	•
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical	Method: EPA 8	3260						
Benzene	ND u	g/L	1.0	0.040	1		04/01/13 20:43	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.10	1		04/01/13 20:43	100-41-4	
Toluene	ND u	g/L	1.0	0.10	1		04/01/13 20:43	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.30	1		04/01/13 20:43	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	103 %	, D	80-120		1		04/01/13 20:43	1868-53-7	
Toluene-d8 (S)	102 %	, D	80-120		1		04/01/13 20:43	2037-26-5	
4-Bromofluorobenzene (S)	97 %	, o	80-120		1		04/01/13 20:43	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %	, o	80-120		1		04/01/13 20:43	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		04/01/13 20:43		



Lenexa, KS 66219 (913)599-5665



**ANALYTICAL RESULTS** 

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

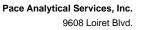
Sample: GW-075034-032613-CM- Lab ID: 60141160010 Collected: 03/26/13 14:35 Received: 03/27/13 10:20 Matrix: Water

MW-1

Report
Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **280000** CFU/mL 1.0 1.0 3/27/13 10:50 03/29/13 11:00 u3



Analyzed

Lenexa, KS 66219 (913)599-5665

Qual



**ANALYTICAL RESULTS** 

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Parameters** 

Sample: GW-075034-032613-CM-Lab ID: 60141160011 Collected: 03/26/13 12:55 Received: 03/27/13 10:20 Matrix: Water

Limit

MW-2

Report MDL

DF

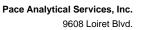
Prepared

**MBIO HPC (Drinking Water)** Analytical Method: SM 9215B Preparation Method: SM 9215B

Units

Results

Heterotrophic Plate Count 4100 CFU/mL 1.0 03/27/13 10:50 03/29/13 11:00 u3 1.0



Lenexa, KS 66219 (913)599-5665



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Sample: GW-075034-032613-CM- Lab ID: 60141160012 Collected: 03/26/13 13:25 Received: 03/27/13 10:20 Matrix: Water

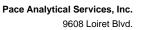
MW-3

Report
Parameters Results Units Limit MDL DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water)

Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **70** CFU/mL 1.0 1.0 3/27/13 10:50 03/29/13 11:00 u3



Analyzed

Lenexa, KS 66219 (913)599-5665

Qual

u3



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Parameters** 

Sample: GW-075034-032613-CM- Lab ID: 60141160013 Collected: 03/26/13 10:55 Received: 03/27/13 10:20 Matrix: Water

Limit

MW-4

Report

MDL

DF

Prepared

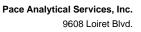
MBIO HPC (Drinking Water)

Analytical Method: SM 9215B Preparation Method: SM 9215B

Units

Results

Heterotrophic Plate Count **42500** CFU/mL 1.0 1.0 03/27/13 10:50 03/29/13 11:00



Analyzed

Lenexa, KS 66219 (913)599-5665

Qual



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Parameters** 

Sample: GW-075034-032613-CM-Lab ID: 60141160014 Collected: 03/26/13 12:00 Received: 03/27/13 10:20 Matrix: Water

Limit

MW-5

Report MDL

DF

Prepared

**MBIO HPC (Drinking Water)** Analytical Method: SM 9215B Preparation Method: SM 9215B

Units

Results

Heterotrophic Plate Count 16950 CFU/mL 1.0 03/27/13 10:50 03/29/13 11:00 u3 1.0



Analyzed

Lenexa, KS 66219 (913)599-5665

Qual

u3



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Parameters** 

Sample: GW-075034-032613-CM-Lab ID: 60141160015 Collected: 03/26/13 13:50 Received: 03/27/13 10:20 Matrix: Water

Limit

MW-6

Report MDL

DF

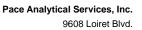
Prepared

**MBIO HPC (Drinking Water)** Analytical Method: SM 9215B Preparation Method: SM 9215B

Units

Results

Heterotrophic Plate Count 25500 CFU/mL 1.0 03/27/13 10:50 03/29/13 11:00 1.0



Analyzed

Lenexa, KS 66219 (913)599-5665

Qual



# **ANALYTICAL RESULTS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

**Parameters** 

Sample: GW-075034-032613-CM-Lab ID: 60141160016 Collected: 03/26/13 11:30 Received: 03/27/13 10:20 Matrix: Water

Limit

MW-7

Report MDL

DF

Prepared

**MBIO HPC (Drinking Water)** Analytical Method: SM 9215B Preparation Method: SM 9215B

Units

Results

Heterotrophic Plate Count 79 CFU/mL 1.0 03/27/13 10:50 03/29/13 11:00 u3 1.0



# **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: MBIO/11046 Analysis Method: SM 9215B

QC Batch Method: SM 9215B Analysis Description: 9215B Heterotrophic Plate Count

Associated Lab Samples: 60141160008, 60141160010, 60141160011, 60141160012, 60141160013, 60141160014, 60141160015,

60141160016

METHOD BLANK: 1161715 Matrix: Solid

Associated Lab Samples: 60141160008, 60141160010, 60141160011, 60141160012, 60141160013, 60141160014, 60141160015,

60141160016

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Heterotrophic Plate Count CFU/mL <1 1.0 03/29/13 11:00

SAMPLE DUPLICATE: 1161716

Date: 04/08/2013 06:06 PM

60141160010 Dup Max

Parameter Units Result Result RPD RPD Qualifiers

Heterotrophic Plate Count CFU/mL 280000 285000





### **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: MPRP/22082 Analysis Method: EPA 6010

QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

METHOD BLANK: 1161645 Matrix: Water

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersManganese, Dissolvedug/LND5.004/08/13 12:16Selenium, Dissolvedug/LND15.004/08/13 12:16

LABORATORY CONTROL SAMPLE: 1161646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1050	105	80-120	
Selenium, Dissolved	ug/L	1000	1040	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1161647 1161648

	601	41160001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Manganese, Dissolved	ug/L	486	1000	1000	1500	1430	101	95	75-125	5	20	
Selenium, Dissolved	ug/L	79.2	1000	1000	1140	1160	106	108	75-125	2	20	



# **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: MSV/52710 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007,

60141160008, 60141160009

METHOD BLANK: 1162930 Matrix: Water

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007,

60141160008, 60141160009

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	04/01/13 17:13	
Ethylbenzene	ug/L	ND	1.0	04/01/13 17:13	
Toluene	ug/L	ND	1.0	04/01/13 17:13	
Xylene (Total)	ug/L	ND	3.0	04/01/13 17:13	
1,2-Dichloroethane-d4 (S)	%	99	80-120	04/01/13 17:13	
4-Bromofluorobenzene (S)	%	98	80-120	04/01/13 17:13	
Dibromofluoromethane (S)	%	100	80-120	04/01/13 17:13	
Toluene-d8 (S)	%	103	80-120	04/01/13 17:13	

LABORATORY	CONTROL SAMPLE:	1162931
------------	-----------------	---------

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	20	17.1	86	73-122	_
Ethylbenzene	ug/L	20	16.2	81	76-123	
Toluene	ug/L	20	16.2	81	76-122	
Xylene (Total)	ug/L	60	47.5	79	76-122	
1,2-Dichloroethane-d4 (S)	%			110	80-120	
4-Bromofluorobenzene (S)	%			97	80-120	
Dibromofluoromethane (S)	%			107	80-120	
Toluene-d8 (S)	%			101	80-120	



### **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: WET/40450 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

METHOD BLANK: 1160565 Matrix: Water

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L ND 5.0 03/28/13 13:12

SAMPLE DUPLICATE: 1160566

60140990007 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 238 **Total Dissolved Solids** mg/L 239 0 17

SAMPLE DUPLICATE: 1160567

60141155004 Dup Max **RPD RPD** Parameter Units Result Result Qualifiers 2010 2 **Total Dissolved Solids** 1980 17 mg/L



### **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: WETA/24083 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

METHOD BLANK: 1163135 Matrix: Water

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Sulfate
 mg/L
 ND
 1.0
 04/02/13 09:22

LABORATORY CONTROL SAMPLE: 1163136

 Parameter
 Units
 Spike Conc.
 LCS Result
 LCS % Rec Limits
 Qualifiers

 Sulfate
 mg/L
 5
 5.0
 99
 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1162949 1162950

MS MSD 60141160001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD Qual Sulfate mg/L 1000 500 500 1440 1440 88 61-119 0 10 87

MATRIX SPIKE SAMPLE: 1162951

60141238002 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 216 Sulfate mg/L 100 316 100 61-119



### **QUALITY CONTROL DATA**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

QC Batch: WETA/24026 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

METHOD BLANK: 1160137 Matrix: Water

Associated Lab Samples: 60141160001, 60141160002, 60141160003, 60141160004, 60141160005, 60141160006, 60141160007

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersNitrogen, Nitratemg/LND0.1003/27/13 12:59

LABORATORY CONTROL SAMPLE: 1160138

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 1.6 1.7 109 90-110

MATRIX SPIKE SAMPLE: 1160139

60141165004 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers ND 1.6 Nitrogen, Nitrate 1.8 112 90-110 M1 mg/L

MATRIX SPIKE SAMPLE: 1160141

60141172001 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 52.7 Nitrogen, Nitrate mg/L 32 81.1 89 90-110 M6

SAMPLE DUPLICATE: 1160140

60141173001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers Nitrogen, Nitrate 45.6 2 mg/L 44.9 15



### **QUALIFIERS**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

### **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: MSV/52710

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

### **ANALYTE QUALIFIERS**

Date: 04/08/2013 06:06 PM

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

u3 Analysis initiated more than 8 hours but less than 24 hours after sample collection.

**REPORT OF LABORATORY ANALYSIS** 



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 075034 SAN JUAN 29-7 UNIT 37

Pace Project No.: 60141160

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60141160001	GW-075034-032613-CM-MW-1	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
60141160002	GW-075034-032613-CM-MW-2	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
60141160003	GW-075034-032613-CM-MW-3	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
0141160004	GW-075034-032613-CM-MW-4	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
0141160005	GW-075034-032613-CM-MW-5	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
0141160006	GW-075034-032613-CM-MW-6	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
0141160007	GW-075034-032613-CM-MW-7	EPA 3010	MPRP/22082	EPA 6010	ICP/17624
60141160008	GW-075034-032613-CM-DUP	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160010	GW-075034-032613-CM-MW-1	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160011	GW-075034-032613-CM-MW-2	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160012	GW-075034-032613-CM-MW-3	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160013	GW-075034-032613-CM-MW-4	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160014	GW-075034-032613-CM-MW-5	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
0141160015	GW-075034-032613-CM-MW-6	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
60141160016	GW-075034-032613-CM-MW-7	SM 9215B	MBIO/11046	SM 9215B	MBIO/11047
60141160001	GW-075034-032613-CM-MW-1	EPA 8260	MSV/52710		
0141160002	GW-075034-032613-CM-MW-2	EPA 8260	MSV/52710		
0141160003	GW-075034-032613-CM-MW-3	EPA 8260	MSV/52710		
0141160004	GW-075034-032613-CM-MW-4	EPA 8260	MSV/52710		
0141160005	GW-075034-032613-CM-MW-5	EPA 8260	MSV/52710		
0141160006	GW-075034-032613-CM-MW-6	EPA 8260	MSV/52710		
0141160007	GW-075034-032613-CM-MW-7	EPA 8260	MSV/52710		
0141160008	GW-075034-032613-CM-DUP	EPA 8260	MSV/52710		
0141160009	TB-075034-032613-CM-001	EPA 8260	MSV/52710		
60141160001	GW-075034-032613-CM-MW-1	SM 2540C	WET/40450		
0141160002	GW-075034-032613-CM-MW-2	SM 2540C	WET/40450		
0141160003	GW-075034-032613-CM-MW-3	SM 2540C	WET/40450		
60141160004	GW-075034-032613-CM-MW-4	SM 2540C	WET/40450		
0141160005	GW-075034-032613-CM-MW-5	SM 2540C	WET/40450		
0141160006	GW-075034-032613-CM-MW-6	SM 2540C	WET/40450		
0141160007	GW-075034-032613-CM-MW-7	SM 2540C	WET/40450		
0141160001	GW-075034-032613-CM-MW-1	EPA 300.0	WETA/24083		
0141160002	GW-075034-032613-CM-MW-2	EPA 300.0	WETA/24083		
0141160003	GW-075034-032613-CM-MW-3	EPA 300.0	WETA/24083		
0141160004	GW-075034-032613-CM-MW-4	EPA 300.0	WETA/24083		
0141160005	GW-075034-032613-CM-MW-5	EPA 300.0	WETA/24083		
0141160006	GW-075034-032613-CM-MW-6	EPA 300.0	WETA/24083		
0141160007	GW-075034-032613-CM-MW-7	EPA 300.0	WETA/24083		
0141160001	GW-075034-032613-CM-MW-1	EPA 353.2	WETA/24026		
60141160002	GW-075034-032613-CM-MW-2	EPA 353.2	WETA/24026		
60141160003	GW-075034-032613-CM-MW-3	EPA 353.2	WETA/24026		
60141160004	GW-075034-032613-CM-MW-4	EPA 353.2	WETA/24026		
60141160005	GW-075034-032613-CM-MW-5	EPA 353.2	WETA/24026		
60141160006	GW-075034-032613-CM-MW-6	EPA 353.2	WETA/24026		
60141160007	GW-075034-032613-CM-MW-7	EPA 353.2	WETA/24026		

Date: 04/08/2013 06:06 PM

# **REPORT OF LABORATORY ANALYSIS**



# Sample Condition Upon Receipt ESI Tech Spec Client



Client Name: COP- CRA NM			Optional
Courier: Fed Ex ☑ UPS □ USPS □ Client □ Commer	rcial 🗆 Pa	ce  Other	Proj Due Date:
Tracking #: 8023 6946 6775 Pace Ship	ping Label U	sed? Yes □ No Ø	Proj Name:
Custody Seal on Cooler/Box Present: Yes, ✓ No □ Sea	ils intact: Y		
Packing Material: Bubble Wrap ☐ Bubble Bags ☐	Foam		her 🗸 20 <sup>(C</sup>
	e: Wet Blu circle	A 11 A 1	eived on ice, cooling process has begun.
Cooler Temperature: 2-6	(Circle	Date a	nd initials of person examining
Temperature should be above freezing to 6°C			
orialit of oddiody present.	□No □N/A	1,,	
Chair of Custody filled out.	□No □N/A	2,	
Orialit or ouslody reiniquisited.	□No □N/A	3.	
bamper name a signature on coo.	□No □N/A	4.	
Samples arrived within holding time:	□No □N/A	5.	
Short Hold Time analyses (<72hr):	□No □N/A	6. NO3	
Rush Turn Around Time requested:	N/A □N/A	7.	
Sufficient volume:	□No □N/A	8.	
Correct containers used:	□No □N/A		
Pace containers used:	□No □N/A	9.	
Containers intact:	□No □N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs? □Yes	□No ØN/A	11.	
Filtered volume received for dissolved tests?	□No ØN/A	12.	
Sample labels match COC:	□No □N/A	sample # 1 0	collected @ 1335
Includes date/time/ID/analyses Matrix: W		13.	
All containers needing preservation have been checked.	□No □N/A		
All containers needing preservation are found to be in compliance with EPA recommendation.	□ <b>n</b> o □n/A	14.	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	□No	Initial when completed	Lot # of added preservative
E. Bi i	□No □ <b>N</b> /A		*
Pace Trip Blank lot # (if purchased): 030413 - 3		15.	
	ØNo □N/A		
		16.	
Project sampled in USDA Regulated Area: □Yes	□No JANIA	17. List State:	
Client Notification/ Resolution: Copy COC to Clie	ent? Y /	Field Data Requir	ed? Y / N
Person Contacted Date/Time			Temp Log: Record start and finish times when unpacking cooler, if >20 min,
Comments/ Resolution:			recheck sample temps Start 920 Start:
3		1	End: 0930 End:
Project Manager Review: AAF		Date: 3 7 7 13	Temp: Temp:



# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Indian School Rd NE   Sie 200   Copy To   Christine Mathews	Section A	Section A Required Client Information:	Section B Required Project Information	formation			vn ⊆	Section C Invoice Information:	ation:							Page:	of		_
The property of the property	ompany	COP CRA NM	Report To: Christi	ine Mathews			4	ttention:	ENFOS								J4		1
Charlest	Address	6121 Indian School Rd NE, Ste 200	1	3lanchard, Ar	ngela Bowr	1, Cassie Bro		ompany Nar	ne:				REGULA	TORY A	SENCY	237			
Total Control Contro		Albequerque, NM 87110					Z.	ddress:					IGAN	L Si	GROUND	WATER	- DRINKIN	G WATER	
The colored	Email To.	cmathews@craworld.com	Purchase Order No.				0.00	ace Quote	s:				TSU T	L	RCRA		- OTHER		
Note   White				an Juan 29-	7 Unit 37		0.5	ace Project	Alice Flan	agan			Site Loc	ation	]				
	Requeste		Project Number: 07	75034-95			۵	ace Profile #:	5514				ST	TE:	Z				
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1534-63263-00-mu-2   1536-00-mu-2	-	175734-0321.12-11M-	TIME I	-	5,	1	Ī		X	×	$\leq$	-	XX			306	24 180c	20	_
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	f 3							A CONTRACTOR		3					,		100	١.	1





June 26, 2013

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

RE: Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

# Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2013. 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

alice.flanagan@pacelabs.com Project Manager

**Enclosures** 

cc: Kelly Blanchard, COP Conestoga-Rovers & Associa Angela Bown, COP Conestoga-Rovers & Associa Cassie Brown, COP Conestoga-Rovers & Associa Jason Ploss, COP Conestoga-Rovers & Associa







9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

# **CERTIFICATIONS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

**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

**Southeast Kansas Certification IDs** 

808 West McKay, Frontenac, KS 66763 Arkansas Certification #: 13-012-0 Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-13-4 Utah Certification #: KS000212013-3 Illinois Certification #: 003097

Oklahoma Certification #: 2012-051 Texas Certification #: T104704407-13-4 Utah Certification #: KS000212013-3 Minnesota Certification #: 495004

# **REPORT OF LABORATORY ANALYSIS**





# **SAMPLE SUMMARY**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60146648001	GW-075034-061113-JK-MW1	Water	06/11/13 13:00	06/12/13 08:15
60146648002	GW-075034-061113-JK-MW2	Water	06/11/13 13:58	06/12/13 08:15
60146648003	GW-075034-061113-JK-MW3	Water	06/11/13 13:50	06/12/13 08:15
60146648004	GW-075034-061113-JK-MW4	Water	06/11/13 13:20	06/12/13 08:15
60146648005	GW-075034-061113-JK-MW5	Water	06/11/13 13:40	06/12/13 08:15
60146648006	GW-075034-061113-JK-MW6	Water	06/11/13 13:30	06/12/13 08:15
60146648007	GW-075034-061113-JK-MW7	Water	06/11/13 13:10	06/12/13 08:15
60146648008	GW-075034-061113-JK-DUP	Water	06/11/13 08:00	06/12/13 08:15
60146648009	TRIP BLANK	Water	06/11/13 13:00	06/12/13 08:15

# **REPORT OF LABORATORY ANALYSIS**

Lenexa, KS 66219 (913)599-5665



# **SAMPLE ANALYTE COUNT**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60146648001	GW-075034-061113-JK-MW1	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTK	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648002	GW-075034-061113-JK-MW2	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTK	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648003	GW-075034-061113-JK-MW3	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTK	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648004	GW-075034-061113-JK-MW4	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTK	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648005	GW-075034-061113-JK-MW5	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTK	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648006	GW-075034-061113-JK-MW6	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTS	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648007	GW-075034-061113-JK-MW7	EPA 6010	SMW	2
		SM 9215B	TDH	1
		EPA 8260	JTS	9
		EPA 300.0	OL	1
		EPA 353.2	DJR	1
60146648008	GW-075034-061113-JK-DUP	EPA 8260	JTS	9
60146648009	TRIP BLANK	EPA 8260	JTS	9

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** June 26, 2013

### **General Information:**

7 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 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:**

Sample Comments:

HPC Samples received in laboratory 6/12/13 0850

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004)
- GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)
- GW-075034-061113-JK-MW7 (Lab ID: 60146648007)



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: SM 9215B

**Description:** MBIO HPC (Drinking Water)

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** June 26, 2013

# **General Information:**

7 samples were analyzed for SM 9215B. 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.

u3: Analysis initiated more than 8 hours but less than 24 hours after sample collection.

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004)
- GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)
- GW-075034-061113-JK-MW7 (Lab ID: 60146648007)

# Sample Preparation:

The samples were prepared in accordance with SM 9215B with any exceptions noted below.

# **Duplicate Sample:**

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

# **Additional Comments:**

Sample Comments:

HPC Samples received in laboratory 6/12/13 0850

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004)
- GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)
- GW-075034-061113-JK-MW7 (Lab ID: 60146648007)



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: EPA 8260

Description: 8260 MSV UST, Water

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** June 26, 2013

# **General Information:**

9 samples were analyzed for EPA 8260. 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.

# **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.

QC Batch: MSV/54395

S0: Surrogate recovery outside laboratory control limits.

- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
  - 4-Bromofluorobenzene (S)

# Method Blank:

All analytes were below the report limit in the method blank 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/54396

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

# **Additional Comments:**

Sample Comments:

HPC Samples received in laboratory 6/12/13 0850

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004)
- GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)





# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: EPA 8260

Description: 8260 MSV UST, Water

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** June 26, 2013

Sample Comments:

HPC Samples received in laboratory 6/12/13 0850
• GW-075034-061113-JK-MW7 (Lab ID: 60146648007)



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** June 26, 2013

# **General Information:**

7 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 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:**

# Sample Comments:

HPC Samples received in laboratory 6/12/13 0850

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004)
- GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)
- GW-075034-061113-JK-MW7 (Lab ID: 60146648007)



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Method: EPA 353.2

Description: 353.2 Nitrogen, NO2/NO3 unpres

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: June 26, 2013

# **General Information:**

7 samples were analyzed for EPA 353.2. 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 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:**

Sample Comments:

HPC Samples received in laboratory 6/12/13 0850

- GW-075034-061113-JK-MW1 (Lab ID: 60146648001)
- GW-075034-061113-JK-MW2 (Lab ID: 60146648002)
- GW-075034-061113-JK-MW3 (Lab ID: 60146648003)
- GW-075034-061113-JK-MW4 (Lab ID: 60146648004) • GW-075034-061113-JK-MW5 (Lab ID: 60146648005)
- GW-075034-061113-JK-MW6 (Lab ID: 60146648006)
- GW-075034-061113-JK-MW7 (Lab ID: 60146648007)

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





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK-MW1 Lab ID: 60146648001 Collected: 06/11/13 13:00 Received: 06/12/13 08:15 Matrix: Water

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010 MET ICP, Dissolved	Analytical	Method: EP/	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>520</b> υ	ıg/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:30	7439-96-5	
Selenium, Dissolved	<b>55.8</b> υ	ıg/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:30	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	nod: SN	1 9215B			
Heterotrophic Plate Count	81500	CFU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
3260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	ıg/L	1.0	0.060	1		06/19/13 00:36	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.18	1		06/19/13 00:36	100-41-4	
oluene	ND u	ıg/L	1.0	0.17	1		06/19/13 00:36	108-88-3	
(ylene (Total)	ND u	ıg/L	3.0	0.42	1		06/19/13 00:36	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	96 %		80-120		1		06/19/13 00:36		
oluene-d8 (S)	102 %		80-120		1		06/19/13 00:36		
I-Bromofluorobenzene (S)	97 %	-	80-120		1		06/19/13 00:36		
,2-Dichloroethane-d4 (S)	97 %	%	80-120		1		06/19/13 00:36	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/19/13 00:36		
00.0 IC Anions 28 Days	Analytical	Method: EP/	A 300.0						
Sulfate	<b>1050</b> n	ng/L	100	16.0	100		06/23/13 14:18	14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA	A 353.2						
Nitrogen, Nitrate	<b>31.1</b> n	ng/L	1.0	0.51	10		06/12/13 13:33		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK-Lab ID: 60146648002 Collected: 06/11/13 13:58 Received: 06/12/13 08:15 Matrix: Water

Date: 06/26/2013 08:58 AM

MW2	ad ia labaratan	. 6/40/40 005	-0						
Comments: • HPC Samples received  Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EP/	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>8.6</b> U	g/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:34	7439-96-5	
Selenium, Dissolved	<b>66.6</b> U	g/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:34	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	nod: SM	1 9215B			
Heterotrophic Plate Count	18000	FU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
8260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	g/L	1.0	0.060	1		06/19/13 00:51	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.18	1		06/19/13 00:51	100-41-4	
Toluene	ND u	g/L	1.0	0.17	1		06/19/13 00:51	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.42	1		06/19/13 00:51	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99 %		80-120		1		06/19/13 00:51		
Toluene-d8 (S)	100 %		80-120		1		06/19/13 00:51	2037-26-5	
4-Bromofluorobenzene (S)	124 %		80-120		1		06/19/13 00:51		S0
1,2-Dichloroethane-d4 (S)	101 %	6	80-120		1		06/19/13 00:51	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/19/13 00:51		
800.0 IC Anions 28 Days	Analytical	Method: EP/	A 300.0						
Sulfate	<b>1230</b> n	ng/L	100	16.0	100		06/23/13 15:07	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA	A 353.2						
Nitrogen, Nitrate	<b>40.6</b> n	ng/L	1.0	0.51	10		06/12/13 13:37		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK- Lab ID: 60146648003 Collected: 06/11/13 13:50 Received: 06/12/13 08:15 Matrix: Water

MW3

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
010 MET ICP, Dissolved	Analytical	Method: EPA	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>1750</b> ug	g/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:43	7439-96-5	
Selenium, Dissolved	ND u	g/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:43	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	od: SM	1 9215B			
Heterotrophic Plate Count	<b>830</b> C	FU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	g/L	1.0	0.060	1		06/19/13 01:07	71-43-2	
Ethylbenzene	ND ug	g/L	1.0	0.18	1		06/19/13 01:07	100-41-4	
oluene	ND u	g/L	1.0	0.17	1		06/19/13 01:07	108-88-3	
(ylene (Total)	ND u	g/L	3.0	0.42	1		06/19/13 01:07	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	101 %		80-120		1		06/19/13 01:07		
oluene-d8 (S)	104 %		80-120		1		06/19/13 01:07		
-Bromofluorobenzene (S)	105 %		80-120		1		06/19/13 01:07		
,2-Dichloroethane-d4 (S)	98 %	D	80-120		1		06/19/13 01:07	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/19/13 01:07		
00.0 IC Anions 28 Days	Analytical	Method: EPA	0.008						
Sulfate	<b>1110</b> m	ıg/L	100	16.0	100		06/23/13 15:24	14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA	A 353.2						





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK-MW4 Lab ID: 60146648004 Collected: 06/11/13 13:20 Received: 06/12/13 08:15 Matrix: Water

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010 MET ICP, Dissolved	Analytical	Method: EP	A 6010 Prepar	ation Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>48.4</b> υ	ıg/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:46	7439-96-5	
Selenium, Dissolved	<b>36.9</b> υ	ıg/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:46	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	nod: SN	1 9215B			
Heterotrophic Plate Count	33000	CFU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
8260 MSV UST, Water	Analytical	Method: EP	A 8260						
Benzene	ND u	ıg/L	1.0	0.060	1		06/19/13 01:23	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.18	1		06/19/13 01:23	100-41-4	
Toluene	ND u	ıg/L	1.0	0.17	1		06/19/13 01:23	108-88-3	
Xylene (Total)	ND u	ıg/L	3.0	0.42	1		06/19/13 01:23	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	104 %		80-120		1		06/19/13 01:23		
Toluene-d8 (S)	103 %		80-120		1		06/19/13 01:23		
I-Bromofluorobenzene (S)	105 %		80-120		1		06/19/13 01:23		
I,2-Dichloroethane-d4 (S)	104 %	%	80-120		1		06/19/13 01:23	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/19/13 01:23		
800.0 IC Anions 28 Days	Analytical	Method: EP	A 300.0						
Sulfate	<b>1260</b> n	ng/L	100	16.0	100		06/23/13 15:40	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EP	A 353.2						
Nitrogen, Nitrate	<b>7.3</b> n	ng/L	0.20	0.10	2		06/12/13 13:36		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK- Lab ID: 60146648005 Collected: 06/11/13 13:40 Received: 06/12/13 08:15 Matrix: Water

MW5

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
010 MET ICP, Dissolved	Analytical	Method: EPA	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>609</b> u	ıg/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:50	7439-96-5	
Selenium, Dissolved	ND u	ıg/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:50	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	od: SN	1 9215B			
Heterotrophic Plate Count	20500	CFU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	ıg/L	1.0	0.060	1		06/19/13 01:38	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.18	1		06/19/13 01:38	100-41-4	
- oluene	ND u	ıg/L	1.0	0.17	1		06/19/13 01:38	108-88-3	
(ylene (Total)	ND u	ıg/L	3.0	0.42	1		06/19/13 01:38	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	96 %		80-120		1		06/19/13 01:38		
oluene-d8 (S)	106 %		80-120		1		06/19/13 01:38		
-Bromofluorobenzene (S)	114 9		80-120		1		06/19/13 01:38		
,2-Dichloroethane-d4 (S)	104 %	6	80-120		1		06/19/13 01:38	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/19/13 01:38		
00.0 IC Anions 28 Days	Analytical	Method: EPA	A 300.0						
Sulfate	<b>1630</b> n	ng/L	200	32.0	200		06/23/13 15:56	14808-79-8	
FO O NICE NOO/NOO	Analytical	Method: EPA	Δ 353 2						
53.2 Nitrogen, NO2/NO3 unpres	Allalytical	Wictillou. Li	1000.2						





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK-MW6 Lab ID: 60146648006 Collected: 06/11/13 13:30 Received: 06/12/13 08:15 Matrix: Water

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010 MET ICP, Dissolved	Analytical	Method: EP/	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>328</b> ι	ıg/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:53	7439-96-5	
Selenium, Dissolved	<b>62.1</b> u	ıg/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:53	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	od: SM	/I 9215B			
Heterotrophic Plate Count	4750	CFU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
3260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	ıg/L	1.0	0.060	1		06/18/13 23:11	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.18	1		06/18/13 23:11	100-41-4	
oluene	ND u	ıg/L	1.0	0.17	1		06/18/13 23:11	108-88-3	
(ylene (Total)	ND u	ıg/L	3.0	0.42	1		06/18/13 23:11	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99 %		80-120		1		06/18/13 23:11	1868-53-7	
oluene-d8 (S)	100 %		80-120		1		06/18/13 23:11	2037-26-5	
-Bromofluorobenzene (S)	100 %		80-120		1		06/18/13 23:11	460-00-4	
,2-Dichloroethane-d4 (S)	102 %	6	80-120		1		06/18/13 23:11	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/18/13 23:11		
00.0 IC Anions 28 Days	Analytical	Method: EPA	A 300.0						
Sulfate	<b>946</b> n	ng/L	100	16.0	100		06/23/13 16:29	14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA	A 353.2						
Nitrogen, Nitrate	<b>27.6</b> n	ng/L	1.0	0.51	10		06/12/13 13:36		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Sample: GW-075034-061113-JK-MW7 Lab ID: 60146648007 Collected: 06/11/13 13:10 Received: 06/12/13 08:15 Matrix: Water

Date: 06/26/2013 08:58 AM

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010 MET ICP, Dissolved	Analytical	Method: EP/	A 6010 Prepai	ration Meth	od: EP/	A 3010			
Manganese, Dissolved	<b>8.2</b> ι	ıg/L	5.0	0.49	1	06/14/13 09:30	06/17/13 11:56	7439-96-5	
Selenium, Dissolved	ND u	ıg/L	15.0	4.2	1	06/14/13 09:30	06/17/13 11:56	7782-49-2	
MBIO HPC (Drinking Water)	Analytical	Method: SM	9215B Prepa	ration Meth	nod: SN	1 9215B			
Heterotrophic Plate Count	17.5	CFU/mL	1.0	1.0	1	06/12/13 11:00	06/14/13 11:30		u3
3260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	ND u	ıg/L	1.0	0.060	1		06/18/13 23:26	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.18	1		06/18/13 23:26	100-41-4	
oluene	ND u	ıg/L	1.0	0.17	1		06/18/13 23:26	108-88-3	
(ylene (Total)	ND u	ıg/L	3.0	0.42	1		06/18/13 23:26	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	100 %		80-120		1		06/18/13 23:26		
oluene-d8 (S)	99 9		80-120		1		06/18/13 23:26		
I-Bromofluorobenzene (S)	100 %		80-120		1		06/18/13 23:26		
,2-Dichloroethane-d4 (S)	102 %	%	80-120		1		06/18/13 23:26	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/18/13 23:26		
00.0 IC Anions 28 Days	Analytical	Method: EP/	A 300.0						
Sulfate	<b>1700</b> r	ng/L	200	32.0	200		06/23/13 16:46	14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA	A 353.2						
Nitrogen, Nitrate	<b>18.7</b> r	ng/L	1.0	0.51	10		06/12/13 13:35		

06/18/13 23:42





# **ANALYTICAL RESULTS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Preservation pH

Date: 06/26/2013 08:58 AM

Sample: GW-075034-061113-JK-Lab ID: 60146648008 Collected: 06/11/13 08:00 Received: 06/12/13 08:15 Matrix: Water DUP Report Limit MDL DF **Parameters** Results Units Prepared Analyzed CAS No. Qual 8260 MSV UST, Water Analytical Method: EPA 8260 ND ug/L 0.060 06/18/13 23:42 71-43-2 Benzene 1.0 Ethylbenzene ND ug/L 1.0 0.18 1 06/18/13 23:42 100-41-4 Toluene ND ug/L 1.0 0.17 1 06/18/13 23:42 108-88-3 Xylene (Total) ND ug/L 0.42 06/18/13 23:42 1330-20-7 3.0 1 Surrogates Dibromofluoromethane (S) 98 % 80-120 06/18/13 23:42 1868-53-7 Toluene-d8 (S) 99 % 80-120 1 06/18/13 23:42 2037-26-5 4-Bromofluorobenzene (S) 100 % 80-120 1 06/18/13 23:42 460-00-4 1,2-Dichloroethane-d4 (S) 99 % 80-120 1 06/18/13 23:42 17060-07-0

1.0

0.10

1.0





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Date: 06/26/2013 08:58 AM

Sample: TRIP BLANK	Lab ID:	60146648009	Collecte	d: 06/11/13	13:00	Received: 06/12/13 08:15 Matrix: Water			ſ	
ъ.	<b>5</b> . "	11.2	Report	MDI		5		04011	0 1	
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water	Analytical	l Method: EPA 8	260							
Benzene	ND u	ıg/L	1.0	0.060	1		06/18/13 22:55	71-43-2		
Ethylbenzene	ND ι	ıg/L	1.0	0.18	1		06/18/13 22:55	100-41-4		
Toluene	ND u	ıg/L	1.0	0.17	1		06/18/13 22:55	108-88-3		
Xylene (Total)	ND ι	ıg/L	3.0	0.42	1		06/18/13 22:55	1330-20-7		
Surrogates										
Dibromofluoromethane (S)	101 9	%	80-120		1		06/18/13 22:55	1868-53-7	HS	
Toluene-d8 (S)	100 %	%	80-120		1		06/18/13 22:55	2037-26-5		
4-Bromofluorobenzene (S)	100 %	%	80-120		1		06/18/13 22:55	460-00-4		
1,2-Dichloroethane-d4 (S)	101 9	%	80-120		1		06/18/13 22:55	17060-07-0		
Preservation pH	1.0		1.0	0.10	1		06/18/13 22:55			

Qualifiers

Lenexa, KS 66219 (913)599-5665



# **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

QC Batch: MBIO/11424 Analysis Method: SM 9215B

QC Batch Method: SM 9215B Analysis Description: 9215B Heterotrophic Plate Count

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

METHOD BLANK: 1205062 Matrix: Solid

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Heterotrophic Plate Count CFU/mL <1 1.0 06/14/13 11:30

SAMPLE DUPLICATE: 1205063

Date: 06/26/2013 08:58 AM

60146828001 Dup Max
Parameter Units Result RepD RPD

Heterotrophic Plate Count CFU/mL <1 <1





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Date: 06/26/2013 08:58 AM

QC Batch: MPRP/23072 Analysis Method: EPA 6010

QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

METHOD BLANK: 1204778 Matrix: Water

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

Blank Reporting

Parameter Limit Qualifiers Units Result Analyzed Manganese, Dissolved ug/L ND 06/17/13 10:28 5.0 Selenium, Dissolved ug/L ND 15.0 06/17/13 10:28

LABORATORY CONTROL SAMPLE: 1204779

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Manganese, Dissolved ug/L 1000 966 97 80-120 Selenium, Dissolved 1000 986 99 80-120 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1204780 1204781

MSD MS 60146846001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Manganese, Dissolved ug/L 558 1000 1000 1470 1460 91 90 75-125 20 Selenium, Dissolved ug/L ND 1000 1000 972 974 97 97 75-125 0 20





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

QC Batch: MSV/54395 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005

METHOD BLANK: 1206962 Matrix: Water

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND ND	1.0	06/18/13 19:57	
Ethylbenzene	ug/L	ND	1.0	06/18/13 19:57	
Toluene	ug/L	ND	1.0	06/18/13 19:57	
Xylene (Total)	ug/L	ND	3.0	06/18/13 19:57	
1,2-Dichloroethane-d4 (S)	%	106	80-120	06/18/13 19:57	
4-Bromofluorobenzene (S)	%	111	80-120	06/18/13 19:57	
Dibromofluoromethane (S)	%	101	80-120	06/18/13 19:57	
Toluene-d8 (S)	%	112	80-120	06/18/13 19:57	

LABORATORY CONTROL SAMPLE: 1206963

Date: 06/26/2013 08:58 AM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.8	89	73-122	
Ethylbenzene	ug/L	20	16.6	83	76-123	
Toluene	ug/L	20	16.6	83	76-122	
Xylene (Total)	ug/L	60	55.0	92	76-122	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			99	80-120	
Dibromofluoromethane (S)	%			92	80-120	
Toluene-d8 (S)	%			92	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 12069	64		1206965							
			MS	MSD								
	60	146706001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Benzene	ug/L	ND	20	20	18.4	16.1	92	80	48-150	13	31	
Ethylbenzene	ug/L	ND	20	20	16.6	17.2	83	86	50-147	4	31	
Toluene	ug/L	ND	20	20	18.7	16.4	93	82	51-147	13	32	
Xylene (Total)	ug/L	ND	60	60	53.9	47.2	90	79	49-145	13	31	
1,2-Dichloroethane-d4 (S)	%						107	97	80-120			
4-Bromofluorobenzene (S)	%						97	98	80-120			
Dibromofluoromethane (S)	%						99	102	80-120			
Toluene-d8 (S)	%						102	99	80-120			
Preservation pH		1.0			1.0	1.0				0		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

QC Batch: MSV/54396 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60146648006, 60146648007, 60146648008, 60146648009

METHOD BLANK: 1206966 Matrix: Water

Associated Lab Samples: 60146648006, 60146648007, 60146648008, 60146648009

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/18/13 22:40	
Ethylbenzene	ug/L	ND	1.0	06/18/13 22:40	
Toluene	ug/L	ND	1.0	06/18/13 22:40	
Xylene (Total)	ug/L	ND	3.0	06/18/13 22:40	
1,2-Dichloroethane-d4 (S)	%	98	80-120	06/18/13 22:40	
4-Bromofluorobenzene (S)	%	100	80-120	06/18/13 22:40	
Dibromofluoromethane (S)	%	99	80-120	06/18/13 22:40	
Toluene-d8 (S)	%	99	80-120	06/18/13 22:40	

LABORATORY CONTROL SAMPLE: 1206967

Date: 06/26/2013 08:58 AM

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L		20.0	100	73-122	
Ethylbenzene	ug/L	20	21.1	106	76-123	
Toluene	ug/L	20	19.5	97	76-122	
Xylene (Total)	ug/L	60	62.8	105	76-122	
1,2-Dichloroethane-d4 (S)	%			99	80-120	
4-Bromofluorobenzene (S)	%			99	80-120	
Dibromofluoromethane (S)	%			100	80-120	
Toluene-d8 (S)	%			98	80-120	

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# **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

QC Batch: WETA/25201 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

METHOD BLANK: 1209174 Matrix: Water

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Sulfate
 mg/L
 ND
 1.0
 06/23/13 11:01

LABORATORY CONTROL SAMPLE: 1209175

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1209176 1209177

MS MSD 10232144001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD Qual 61-119 Sulfate mg/L 390 250 250 630 620 96 92 10

MATRIX SPIKE SAMPLE: 1209178

Date: 06/26/2013 08:58 AM

60146648005 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 1630 61-119 Sulfate mg/L 1000 2650 102





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

QC Batch: WETA/25073 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

METHOD BLANK: 1203368 Matrix: Water

Associated Lab Samples: 60146648001, 60146648002, 60146648003, 60146648004, 60146648005, 60146648006, 60146648007

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersNitrogen, Nitratemg/LND0.1006/12/13 12:56

LABORATORY CONTROL SAMPLE: 1203369

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers 1.7 Nitrogen, Nitrate mg/L 1.6 103 85-115

MATRIX SPIKE SAMPLE: 1203370

60146645001 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 7.8 8 14.7 Nitrogen, Nitrate 86 85-115 mg/L

MATRIX SPIKE SAMPLE: 1203372

60146645002 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 1.4 1.6 2.9 95 85-115

SAMPLE DUPLICATE: 1203371

Date: 06/26/2013 08:58 AM

Parameter Units 60146645003 Dup Max Result RPD Qualifiers

Nitrogen, Nitrate mg/L ND ND 20



# **QUALIFIERS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

# **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: MSV/54396

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

# **ANALYTE QUALIFIERS**

Date: 06/26/2013 08:58 AM

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

S0 Surrogate recovery outside laboratory control limits.

u3 Analysis initiated more than 8 hours but less than 24 hours after sample collection.





# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60146648

Date: 06/26/2013 08:58 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60146648001	GW-075034-061113-JK-MW1	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648002	GW-075034-061113-JK-MW2	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648003	GW-075034-061113-JK-MW3	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648004	GW-075034-061113-JK-MW4	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648005	GW-075034-061113-JK-MW5	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648006	GW-075034-061113-JK-MW6	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648007	GW-075034-061113-JK-MW7	EPA 3010	MPRP/23072	EPA 6010	ICP/18221
60146648001	GW-075034-061113-JK-MW1	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648002	GW-075034-061113-JK-MW2	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648003	GW-075034-061113-JK-MW3	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648004	GW-075034-061113-JK-MW4	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648005	GW-075034-061113-JK-MW5	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648006	GW-075034-061113-JK-MW6	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648007	GW-075034-061113-JK-MW7	SM 9215B	MBIO/11424	SM 9215B	MBIO/11425
60146648001	GW-075034-061113-JK-MW1	EPA 8260	MSV/54395		
60146648002	GW-075034-061113-JK-MW2	EPA 8260	MSV/54395		
60146648003	GW-075034-061113-JK-MW3	EPA 8260	MSV/54395		
60146648004	GW-075034-061113-JK-MW4	EPA 8260	MSV/54395		
60146648005	GW-075034-061113-JK-MW5	EPA 8260	MSV/54395		
60146648006	GW-075034-061113-JK-MW6	EPA 8260	MSV/54396		
60146648007	GW-075034-061113-JK-MW7	EPA 8260	MSV/54396		
60146648008	GW-075034-061113-JK-DUP	EPA 8260	MSV/54396		
60146648009	TRIP BLANK	EPA 8260	MSV/54396		
60146648001	GW-075034-061113-JK-MW1	EPA 300.0	WETA/25201		
60146648002	GW-075034-061113-JK-MW2	EPA 300.0	WETA/25201		
60146648003	GW-075034-061113-JK-MW3	EPA 300.0	WETA/25201		
60146648004	GW-075034-061113-JK-MW4	EPA 300.0	WETA/25201		
60146648005	GW-075034-061113-JK-MW5	EPA 300.0	WETA/25201		
60146648006	GW-075034-061113-JK-MW6	EPA 300.0	WETA/25201		
60146648007	GW-075034-061113-JK-MW7	EPA 300.0	WETA/25201		
60146648001	GW-075034-061113-JK-MW1	EPA 353.2	WETA/25073		
60146648002	GW-075034-061113-JK-MW2	EPA 353.2	WETA/25073		
60146648003	GW-075034-061113-JK-MW3	EPA 353.2	WETA/25073		
60146648004	GW-075034-061113-JK-MW4	EPA 353.2	WETA/25073		
60146648005	GW-075034-061113-JK-MW5	EPA 353.2	WETA/25073		
60146648006	GW-075034-061113-JK-MW6	EPA 353.2	WETA/25073		
60146648007	GW-075034-061113-JK-MW7	EPA 353.2	WETA/25073		



# Sample Condition Upon Receipt ESI Tech Spec Client



Client Name: COP CRA NM					Optional
Courier: Fed Ex ☑ UPS □ USPS □ Client □ Co	mmercial [	□ Pa	ce □ Other □		Proj Due Date:
Tracking #: 6757 1462 8943 Pace	Shipping I	_abel U	sed? Yes □ N	o <b>∀</b>	Proj Name:
Custody Seal on Cooler/Box Present: Yes □ No 🗷	Seals inta	act: Ye	es 🗆 No ⁄ 🗷		
Packing Material: Bubble Wrap Ø Bubble Bags	]	Foam [	☐ None ☐	Other	
Thermometer Used: T-112 / T-194 Type	of Ice:			les received on	ice, cooling process has begun.
Cooler Temperature: 0-6		(circle	· ·	Date and initial	s of person examining
Temperature should be above freezing to 6°C				contents. VM	6/12/13 925
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. <b>M</b> 2		
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	<b>P</b> N/A	11.		
Filtered volume received for dissolved tests?	Yes □No	ØN/A	12.		
Sample labels match COC:	Yes □No	□N/A			
Includes date/time/ID/analyses Matrix:	iter		13.		
All containers needing preservation have been checked.	Yes □No	<b>₹</b> N/A			
All containers needing preservation are found to be in compliance with EPA recommendation.	Yes □No	MN/A	14.		
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	Yes □No		Initial when completed		of added
Trip Blank present:	%es □No	□N/A	17		
Pace Trip Blank lot # (if purchased): 050613.5			15.		
Headspace in VOA vials ( >6mm):	Ŷes □No	□N/A	MW3 Trip BIGAK	2013 vic	is w/ heads pace
Project sampled in USDA Regulated Area:	Yes □No	MN/A	47. List State:		
Client Notification/ Resolution: Copy COC t	o Client?	Y /	Field Data	Required? Y	/ N
Person Contacted: Date/	Γime:	10			og Record start and finish times backing cooler, if >20 min,
Comments/ Resolution;					sample temps
				Start:	Start
- Mar			10/19/10	End:	Endi
Project Manager Review:	_		Date ()   L	Temp	Temp:

# Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

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

	Sec	Section D Required Client Information	Valid Matrix Codes MATRIX CODE		_		COLLECTED	CTED				Presi	Preservatives	,es	₽N/A							um				
			NG WATER DE VALID SOLID	ee valid codes (d	00=0 8ARD:	COMPOSI	COMPOSITE	Ho C	1	SOLLECTION		ini			1,1	1	A 3S PL	,				(14)7/				_
		SAMPLE ID (A-Z, 0-9/) Sample IDs MUST BE UNIQUE	WIPE WP AIR AR OTHER OT TISSUE TS	CODE (a					2 1 0 0 0 1 3 1	A SIN					seT sis/	X∃T	ed Mn ai		M 2540C			, -170 10	al Chlorin	5	(POTHERENS	Z
	# MƏTI			XIATAM	SAMPLE	DATE	TIME	DATE	TIME		H <sup>S</sup> 2O <sup>4</sup>	<sup>€</sup> ONH	NgOH	Na <sub>2</sub> S <sub>2</sub> O	Other	8560 B	Dissolv HPC 92	Nitrates Sulfate				, ,0		Pace Pro	Pace Project No./ Lab I.D.	/ Lab I.D.
41	-	(JW-015034-04113-5K-CM)	13-5K-CHW			17-11	2495	Jn-9	1300 6	9						1	1/2	1	1				36	29#)(G	3(DC9H)(LEP2M)(LEP2F)	(35)
-	2	CM. 475624-061113-JK-MW	13-JK-MW 2	B.4		_	1020	1	1358 6	. 4						7	7	7	_							3
	6	2W. 015821. 041115- 5K.MM	S- JK-NW 3				1048		1350 6	. 38						7	7	7	_							B
	4	CAW 075034 CKII13-	NK-MW 7				1112		1320 6	_						7	1	7								200
	чo	GW 015034 O 61113-	1			_	1140		1340 6							7	7	7	2							Z
	9		5K-MW 6				1215		1330 6	A						1	7	7								3
	^	GW 075034-0611 13-	JK-19127				1240	_	1310 4	٩					_	7	7	7 7								3
	80	1. 1	SK DUP			1		1	1	3					-1	7								300 BM	(F)	SO.
	6			H																				200	200 FM) TB	60)
	10														T		$\exists$									
	11			-						-					T		-				+					
	12			$\dashv$						4					_			-	1				_			
		ADDITIONAL COMMENTS		REI	LINQUI	ISHED BY	RELINQUISHED BY / AFFILIATION	NC.	DATE		TIME			ACCEPTED BY / AFFILIATION	TED BY	/ AFF	LATION		δ.	DATE	THME			SAMPLE	SAMPLE CONDITIONS	S
*	ALI	LTWES ARE N	Mountain	TIME	N	K	1/1	26.4	1600				C	The Contract of the Contract o	113	B	3		ajo	13	815	0.0	2	7	>	Σ.
本	HP	HPC SAMPLE COLLECTED	CARRTHE			,				-			`										_			
		OTHER SAMPLES								$\dashv$		_											_			
																				-						

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

Samples Intact (V/Y)

Custody Sealed Cooler (Y/N)

Received on Ice (Y/N)

O° ni qmeT

DATE Signed (MM/DD/YY): 06/

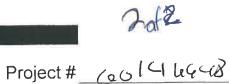
H50

Page 29 of 31

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

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

# Sample Condition Upon Receipt



Pace Analytical

Pace Analytical Client Name:	COPC	RA	Project # 6014 4448
	Commercial Shipping Label Used  No Seals	☐Pace ☐Other d? ☐ Yes ☐ intact: ☐Yes ☐	Optional  No Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble B	agsFoam	√ None Dther	
Thermometer Used:	Type of Ice: Wet	Blue None	Samples on ice, cooling process has begun
Cooler Temperature: 2.6 Temperature should be above freezing to 6°C		Comments:	Date and Initials of personyexamining contents: 12 6/2/13 0850
Chain of Custody present:	Yes \( \text{No} \( \text{N/A} \)	1.	
Chain of Custody filled out:	Yes No NA	2.	
Chain of Custody relinquished:	Yes DNO DN/A	3.	
Sampler name & signature on COC	Yes □No □N/A	4.	
Samples arrived within holding time:	□Yes No □N/A	5.	The state of the s
Short Hold Time analyses (<72hr):	Yes □No □N/A	6.	
Rush Turn Around Time requested:	□Yes □M6 □N/A	7.	The second secon
Sufficient volume:	Yes No N/A	8.	
Correct containers used:	Yes DNo DN/A	9.	
-Pace containers used:	Yes No N/A		
Containers intact	Yes □No □N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	/ □Yes □No XN/A	11.	
Filtered volume received for dissolved tests	□Yes □No 🞾N/A	12.	
Sample labels match COC:	Yes No NA	13.	51
-Includes date/time/ID/analyses Matrix:	Cut	V	
All containers needing preservation have been checked.	□Yes □No N/A	14-	
All containers needing preservation are found to be in compliance with EPA recommendation.	□Yes □No ♥N/A	A	
Exceptions VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	Yes ONo	Initial when completed	Lot # of added preservative
Trip Blank present	Tyes DNo QN/A	15.	
Pace Trip Blank lot # (if purchased):	/		
Headspace in VOA vials ( >6mm):	□Yes □No □VN/A	16.	
Project sampled in USDA Regulated Area	□Yes □No DANA	17. List State:	
Client Notification/ Resolution: Copy	COC to Client?	Y (N)	Field Data Required? Y / N
Person Contacted	Date	/Time	
Comments/ Resolution:			
- MAC			-10/14/12
Project Manager Review:			Date:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

# Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately

			ATER						St.	Lab I.D.								T				S	3				) Iursci	N/Y)	ma2	7
of			DRINKING WATER	OTHER					60144648	Pace Project No./ Lab I.D	9.PST					1						SAMPLE CONDITIONS	>				ooler dy	otsu		F-ALL-Q-020rev 08, 12-Oct-2007
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Page:		λ:	GROUND WATER	4	NIM	2			(N/X) ə	Residual Chlorin						#		_	+				220				٥. ١	u dw	ÐΤ	F-ALI
		AGEN	GRO	RCRA	2		(N/A) Pa															TIME	2820						N	A.
		REGULATORY AGENCY	NPDES	UST	Site Location	STATE:	Requested Analysis Filtered (Y/N)			TDS SM 25400												DATE	P 21/2	)					1/11/0	
1		RE	L	L_	Ö		ted Ana			Vitrates 353.2 Sulfate 300.0	7	14	7	3	7	2	2			ł		Z	1/9						red O.	
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								↑N/A	<b>†</b> ı	♣ Analysis Tes		7	~	7	~			-3			-	# BY I A	HON					20		
	S				Alice Flanagan	24		Preservatives		NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other											-	AGCEPT	13/1	3				412CH	1	nin 30 days
Section C Invoice Information:	ENFOS	Name:		Ψ		e#: 5514, 24		Preser		HCI HNO <sup>3</sup> H <sup>5</sup> 2O <sup>4</sup>						-							0	111			-	SH.	(	per month for any invoices not paid within 30 days
Section C	Attention:	Company Name	Address:	Pace Quote Reference:	Pace Project Manager:	Pace Profile #:		K.	S	# OF CONTAINER	T.					H			1		4	THE		±		*	Ĩ.	P	A	r any invoic
		5							OLLECTION	TA GMET ELGMAR	90	200	06	0 6	0 (	30 6	0	5	-	-	+	DATE	0				ND SIGNATURE	MPLER	MPLER	r month fo
		Kelly Blanchard, Angela Bown, Cassie Brown						D	OOMPOSITE ENGINAB	TIME	130	125	135	132	134	133	131	+	+	+		٥	1600		-1		ME AND SIG	PRINT Name of SAMPLER	SIGNATURE OF SAMPLER:	ges of 15% pe
		Bown, C			37			COLLECTED	* I	, o	3	1	×	7		15	0	7	-	+	-	ATION	160				SAMPLER NAME A	PRINT	SIGN	to late char
1	ews	d, Angela		I	San Juan 29-7 Unit 37	2		00	COMPOSITE START	TIME	0	1070	104	1112	1140	17.1	1240		+			RELINQUISHED BY / AFFILIATION	Me	V .			SAM			and agreeing
Section B Required Project Information:	Report To: Christine Mathews	Blanchan			an Juan	075034-95		(awo		SAMPLE TYPE (G=	1							-		+		QUISHED	N	0						yment terms
Project In	Christ	Kelly		Order No				(Nel o	see valid codes	PATRIX CODE (s										1	1	RELIN	TIME							30 day pa
Section B Required P	Report To	Copy To:		Purchase Order No	Project Name:	Project Number.		x Codes CODE		WP AR D	CAK!	-MM 2	K-MW 3	H MW.	NWS	nu 6	MWT	DUP				_	+	27150	į					oting Pace's NET
		NE, Ste 200	01	mc mc	Fax: (505)884-4932			Valid Matrix Codes	DRINKING WATER WATER WASTE WATER PRODUCT SOIL/SOLID OIL		OC1113- TV.	12	15 JK	13-5K.	六	- JK.	- JK-M	5k- D.	7,8			ITS	Maria	o CAR						Important Note. By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to tate charges of 1.5%
	2	School Rd	NM 8711	raworld.cc	Fax: (505	standard		no		E ID  /) BE UNIQUE	34-01	10 m	170	. 6611	S	O	5/ 1130-	SI IBO				ADDITIONAL COMMENTS	A.72	Collecte	No DI 75					y signing this fo
Information:	COP CRA NM	6121 Indian School Rd NE, Ste 200	Albequerque, NM 87110	cmathews@craworld.com	(505)884-0672	Date/TAT:		Section D Required Client Information		Sample IDS MUST BE UNIQUE	1-01SF	1 - 12/2	. 07 50c	. 075034	-0715034	07	.07503H	GW-075034				ADDITION	1700	310	R SA					Important Note B
Section A Required Client Information:	Company: (	Address: 6	,	Email To:	Phone: (505)	Requested Due Date/TAT:		Sectio		ITEM #	Cale		12			T	7 (SW	8 (54)	on on	10	= 5	7	A11 T	197 S	21170		Page	e 31	of 3	
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September 26, 2013

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

RE: Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

# Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2013. 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.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

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

Sincerely,

Alice Flanagan

Alice Flanagan

alice.flanagan@pacelabs.com Project Manager

Enclosures

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







9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

# **CERTIFICATIONS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

**Kansas Certification IDs** 

9608 Loiret Boulevard, Lenexa, KS 66219 WY STR Certification #: 2456.01 Arkansas Certification #: 13-012-0 Illinois Certification #: 003097 lowa 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

9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



# **SAMPLE SUMMARY**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60152803001	GW-075040-091013-CM-MW-1	Water	09/10/13 12:45	09/11/13 08:10
60152803002	GW-075040-091013-CM-MW-2	Water	09/10/13 12:20	09/11/13 08:10
60152803003	GW-075040-091013-CM-MW-3	Water	09/10/13 11:50	09/11/13 08:10
60152803004	GW-075040-091013-CM-MW-4	Water	09/10/13 14:00	09/11/13 08:10
60152803005	GW-075040-091013-CM-MW-5	Water	09/10/13 11:45	09/11/13 08:10
60152803006	GW-075040-091013-CM-MW-6	Water	09/10/13 12:25	09/11/13 08:10
60152803007	GW-075040-091013-CM-MW-7	Water	09/10/13 12:55	09/11/13 08:10
60152803008	GW-075040-091013-CM-MW-8R	Water	09/10/13 13:35	09/11/13 08:10
60152803009	GW-075040-091013-CM-DUP	Water	09/10/13 13:45	09/11/13 08:10
60152803010	TB-075040-091013-CM-001	Water	09/10/13 15:50	09/11/13 08:10





# **SAMPLE ANALYTE COUNT**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60152803001	GW-075040-091013-CM-MW-1	EPA 6010	 NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803002	GW-075040-091013-CM-MW-2	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803003	GW-075040-091013-CM-MW-3	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803004	GW-075040-091013-CM-MW-4	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803005	GW-075040-091013-CM-MW-5	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803006	GW-075040-091013-CM-MW-6	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803007	GW-075040-091013-CM-MW-7	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803008	GW-075040-091013-CM-MW-8R	EPA 6010	NDJ	2
		EPA 8260	SDR	8

# **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..





# **SAMPLE ANALYTE COUNT**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C	RAH	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60152803009	GW-075040-091013-CM-DUP	EPA 8260	JTK	8
60152803010	TB-075040-091013-CM-001	EPA 8260	JTK	8



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: September 26, 2013

# **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 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:**



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Method: EPA 8260

Description: 8260 MSV UST, Water

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: September 26, 2013

# **General Information:**

10 samples were analyzed for EPA 8260. 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.

# **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 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/56253

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

QC Batch: MSV/56362

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

QC Batch: MSV/56393

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

# **Additional Comments:**



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Method: SM 2540C

**Description: 2540C Total Dissolved Solids** 

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: September 26, 2013

# **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 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:**



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: September 26, 2013

# **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 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:



# **PROJECT NARRATIVE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Method: EPA 353.2

Description: 353.2 Nitrogen, NO2/NO3 unpres

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: September 26, 2013

# **General Information:**

8 samples were analyzed for EPA 353.2. 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 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/26180

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60152798004,60152803004

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

MS (Lab ID: 1251403)Nitrogen, Nitrate

# **Duplicate Sample:**

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

# **Additional Comments:**

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





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM- MW-1	Lab ID: 6015280	03001 Collecte	d: 09/10/1	3 12:45	Received: 09/	/11/13 08:10 Ma	atrix: Water	
		Report						
Parameters	Results Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method:	EPA 6010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>164</b> ug/L	5.0	0.49	1	09/18/13 11:30	09/19/13 11:48	7439-96-5	
Selenium, Dissolved	<b>49.2</b> ug/L	15.0	4.2	1	09/18/13 11:30	09/19/13 11:48	7782-49-2	
8260 MSV UST, Water	Analytical Method:	EPA 8260						
Benzene	ND ug/L	1.0	0.060	1		09/13/13 09:56	71-43-2	
Ethylbenzene	ND ug/L	1.0	0.18	1		09/13/13 09:56	100-41-4	
Toluene	ND ug/L	1.0	0.17	1		09/13/13 09:56	108-88-3	
Xylene (Total)	ND ug/L	3.0	0.42	1		09/13/13 09:56	1330-20-7	
Surrogates								
Toluene-d8 (S)	92 %	80-120		1		09/13/13 09:56	2037-26-5	
4-Bromofluorobenzene (S)	95 %	80-120		1		09/13/13 09:56	460-00-4	
1,2-Dichloroethane-d4 (S)	89 %	80-120		1		09/13/13 09:56	17060-07-0	
Preservation pH	1.0	1.0	0.10	1		09/13/13 09:56		
2540C Total Dissolved Solids	Analytical Method:	SM 2540C						
Total Dissolved Solids	<b>2090</b> mg/L	5.0	5.0	1		09/17/13 13:12		
300.0 IC Anions 28 Days	Analytical Method:	EPA 300.0						
Sulfate	<b>1130</b> mg/L	200	32.0	200		09/25/13 09:32	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method:	EPA 353.2						
Nitrogen, Nitrate	<b>18.7</b> mg/L	1.0	0.51	10		09/11/13 15:34		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM- MW-2	Lab ID: 6	0152803002	Collecte	d: 09/10/13	3 12:20	Received: 09/	/11/13 08:10 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical M	1ethod: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	ND ug/	L	5.0	0.49	1	09/18/13 11:30	09/19/13 11:57	7439-96-5	
Selenium, Dissolved	<b>65.7</b> ug/	L L	15.0	4.2	1	09/18/13 11:30	09/19/13 11:57	7782-49-2	
8260 MSV UST, Water	Analytical M	1ethod: EPA 8	260						
Benzene	ND ug/	′L	1.0	0.060	1		09/13/13 10:11	71-43-2	
Ethylbenzene	ND ug/	′L	1.0	0.18	1		09/13/13 10:11	100-41-4	
Toluene	ND ug/	′L	1.0	0.17	1		09/13/13 10:11	108-88-3	
Xylene (Total)	ND ug/	′L	3.0	0.42	1		09/13/13 10:11	1330-20-7	
Surrogates									
Toluene-d8 (S)	101 %		80-120		1		09/13/13 10:11	2037-26-5	
4-Bromofluorobenzene (S)	98 %		80-120		1		09/13/13 10:11	460-00-4	
1,2-Dichloroethane-d4 (S)	89 %		80-120		1		09/13/13 10:11	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/13/13 10:11		
2540C Total Dissolved Solids	Analytical M	1ethod: SM 25	540C						
Total Dissolved Solids	<b>2210</b> mg	/L	5.0	5.0	1		09/17/13 13:12		
300.0 IC Anions 28 Days	Analytical M	1ethod: EPA 3	0.00						
Sulfate	<b>1200</b> mg	/L	200	32.0	200		09/25/13 10:18	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical M	lethod: EPA 3	53.2						
Nitrogen, Nitrate	<b>35.6</b> mg	/L	1.0	0.51	10		09/11/13 15:35		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM- MW-3	Lab ID:	60152803003	Collecte	d: 09/10/1	3 11:50	Received: 09/	/11/13 08:10 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>1700</b> ug	g/L	5.0	0.49	1	09/18/13 11:30	09/19/13 11:59	7439-96-5	
Selenium, Dissolved	ND u	g/L	15.0	4.2	1	09/18/13 11:30	09/19/13 11:59	7782-49-2	
8260 MSV UST, Water	Analytical	Method: EPA 8	3260						
Benzene	ND u	g/L	1.0	0.060	1		09/13/13 10:26	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.18	1		09/13/13 10:26	100-41-4	
Toluene	ND u	g/L	1.0	0.17	1		09/13/13 10:26	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.42	1		09/13/13 10:26	1330-20-7	
Surrogates									
Toluene-d8 (S)	102 %	)	80-120		1		09/13/13 10:26	2037-26-5	
4-Bromofluorobenzene (S)	100 %	)	80-120		1		09/13/13 10:26	460-00-4	
1,2-Dichloroethane-d4 (S)	92 %	)	80-120		1		09/13/13 10:26	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/13/13 10:26		
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C						
Total Dissolved Solids	<b>1910</b> m	ıg/L	5.0	5.0	1		09/17/13 13:12		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	800.0						
Sulfate	<b>1120</b> m	ıg/L	200	32.0	200		09/25/13 11:20	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical	Method: EPA 3	353.2						
Nitrogen, Nitrate	<b>1.4</b> m	ıg/L	0.10	0.051	1		09/11/13 15:48		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM- MW-4	Lab ID: 6	0152803004	Collected	d: 09/10/13	3 14:00	Received: 09/	/11/13 08:10 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical M	lethod: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>30.3</b> ug/l	L	5.0	0.49	1	09/18/13 11:30	09/19/13 12:01	7439-96-5	
Selenium, Dissolved	<b>36.9</b> ug/l	L	15.0	4.2	1	09/18/13 11:30	09/19/13 12:01	7782-49-2	
8260 MSV UST, Water	Analytical M	lethod: EPA 8	260						
Benzene	ND ug/l	L	1.0	0.060	1		09/13/13 10:42	71-43-2	
Ethylbenzene	ND ug/l	L	1.0	0.18	1		09/13/13 10:42	100-41-4	
Toluene	ND ug/l	L	1.0	0.17	1		09/13/13 10:42	108-88-3	
Xylene (Total)	ND ug/l	L	3.0	0.42	1		09/13/13 10:42	1330-20-7	
Surrogates									
Toluene-d8 (S)	103 %		80-120		1		09/13/13 10:42	2037-26-5	
4-Bromofluorobenzene (S)	97 %		80-120		1		09/13/13 10:42	460-00-4	
1,2-Dichloroethane-d4 (S)	87 %		80-120		1		09/13/13 10:42	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/13/13 10:42		
2540C Total Dissolved Solids	Analytical M	lethod: SM 25	540C						
Total Dissolved Solids	<b>2090</b> mg/	/L	5.0	5.0	1		09/17/13 13:13		
300.0 IC Anions 28 Days	Analytical M	lethod: EPA 3	0.00						
Sulfate	<b>1180</b> mg/	/L	200	32.0	200		09/25/13 11:35	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical M	lethod: EPA 3	53.2						
Nitrogen, Nitrate	<b>8.6</b> mg/	/L	0.50	0.26	5		09/11/13 15:49		M1



#### **ANALYTICAL RESULTS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM-Lab ID: 60152803005 Collected: 09/10/13 11:45 Received: 09/11/13 08:10 Matrix: Water MW-5 Report **Parameters** Results Units Limit MDL DF Prepared Analyzed CAS No. Qual 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 368 ug/L 5.0 0.49 1 09/18/13 11:30 09/19/13 12:12 7439-96-5 Selenium, Dissolved ND ug/L 15.0 4.2 1 09/18/13 11:30 09/19/13 12:12 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene ND ug/L 1.0 0.060 1 09/13/13 10:57 71-43-2 Ethylbenzene ND ug/L 0.18 09/13/13 10:57 100-41-4 1.0 1 Toluene ND ug/L 0.17 1.0 1 09/13/13 10:57 108-88-3 Xylene (Total) ND ug/L 3.0 0.42 09/13/13 10:57 1330-20-7 1 Surrogates 97 % 80-120 Toluene-d8 (S) 1 09/13/13 10:57 2037-26-5 4-Bromofluorobenzene (S) 93 % 80-120 1 09/13/13 10:57 460-00-4 1,2-Dichloroethane-d4 (S) 86 % 80-120 1 09/13/13 10:57 17060-07-0 Preservation pH 1.0 1.0 0.10 09/13/13 10:57 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 2540 mg/L 5.0 5.0 09/17/13 13:13 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1640 mg/L 32.0 200 09/25/13 11:51 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2 Nitrogen, Nitrate ND mg/L 0.10 0.051 09/11/13 15:53





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: GW-075040-091013-CM- MW-6	Lab ID: 60	152803006	Collected	d: 09/10/13	3 12:25	Received: 09/	/11/13 08:10 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Me	thod: EPA 60	010 Prepa	ration Meth	od: EPA	A 3010			
Manganese, Dissolved	<b>299</b> ug/L		5.0	0.49	1	09/18/13 11:30	09/19/13 12:14	7439-96-5	
Selenium, Dissolved	<b>38.9</b> ug/L		15.0	4.2	1	09/18/13 11:30	09/19/13 12:14	7782-49-2	
8260 MSV UST, Water	Analytical Me	thod: EPA 82	260						
Benzene	ND ug/L		1.0	0.060	1		09/17/13 23:41	71-43-2	
Ethylbenzene	ND ug/L		1.0	0.18	1		09/17/13 23:41	100-41-4	
Toluene	ND ug/L		1.0	0.17	1		09/17/13 23:41	108-88-3	
Xylene (Total)	ND ug/L		3.0	0.42	1		09/17/13 23:41	1330-20-7	
Surrogates									
Toluene-d8 (S)	97 %		80-120		1		09/17/13 23:41	2037-26-5	
4-Bromofluorobenzene (S)	95 %		80-120		1		09/17/13 23:41	460-00-4	
1,2-Dichloroethane-d4 (S)	97 %		80-120		1		09/17/13 23:41	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/17/13 23:41		
2540C Total Dissolved Solids	Analytical Me	thod: SM 25	40C						
Total Dissolved Solids	<b>1710</b> mg/L	-	5.0	5.0	1		09/17/13 13:13		
300.0 IC Anions 28 Days	Analytical Me	thod: EPA 30	0.00						
Sulfate	<b>929</b> mg/L	-	200	32.0	200		09/25/13 12:06	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Me	thod: EPA 35	53.2						
Nitrogen, Nitrate	<b>22.7</b> mg/L	=	1.0	0.51	10		09/11/13 15:40		





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Received: 09/11/13 08:10 Sample: GW-075040-091013-CM-Lab ID: 60152803007 Collected: 09/10/13 12:55 Matrix: Water MW-7 Report **Parameters** Results Units Limit MDL DF Prepared Analyzed CAS No. Qual 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 168 ug/L 5.0 0.49 1 09/18/13 11:30 09/19/13 12:16 7439-96-5 Selenium, Dissolved ND ug/L 15.0 4.2 1 09/18/13 11:30 09/19/13 12:16 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene ND ug/L 1.0 0.060 1 09/17/13 23:57 71-43-2 Ethylbenzene ND ug/L 0.18 09/17/13 23:57 100-41-4 1.0 1 Toluene 0.17 ND ug/L 1.0 1 09/17/13 23:57 108-88-3 Xylene (Total) ND ug/L 3.0 0.42 09/17/13 23:57 1330-20-7 1 Surrogates 80-120 Toluene-d8 (S) 103 % 1 09/17/13 23:57 2037-26-5 4-Bromofluorobenzene (S) 97 % 80-120 1 09/17/13 23:57 460-00-4 1,2-Dichloroethane-d4 (S) 97 % 80-120 1 09/17/13 23:57 17060-07-0 Preservation pH 1.0 1.0 0.10 09/17/13 23:57 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 3080 mg/L 5.0 5.0 09/17/13 13:13 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1740 mg/L 32.0 200 09/25/13 12:21 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2 Nitrogen, Nitrate 31.4 mg/L 1.0 0.51 10 09/11/13 15:42





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Received: 09/11/13 08:10 Lab ID: 60152803008 Collected: 09/10/13 13:35 Sample: GW-075040-091013-CM-Matrix: Water MW-8R Report **Parameters** Results Units Limit MDL DF Prepared Analyzed CAS No. Qual 6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010 Manganese, Dissolved 395 ug/L 5.0 0.49 1 09/18/13 11:30 09/19/13 12:19 7439-96-5 Selenium, Dissolved 38.0 ug/L 15.0 4.2 1 09/18/13 11:30 09/19/13 12:19 7782-49-2 8260 MSV UST, Water Analytical Method: EPA 8260 Benzene 10.0 ug/L 1.0 0.055 1 09/18/13 15:51 71-43-2 Ethylbenzene 1.7 ug/L 0.056 09/18/13 15:51 100-41-4 1.0 1 Toluene 17.1 ug/L 0.066 1.0 1 09/18/13 15:51 108-88-3 Xylene (Total) 61.5 ug/L 3.0 0.12 09/18/13 15:51 1330-20-7 1 Surrogates 80-120 Toluene-d8 (S) 100 % 1 09/18/13 15:51 2037-26-5 4-Bromofluorobenzene (S) 103 % 80-120 1 09/18/13 15:51 460-00-4 1,2-Dichloroethane-d4 (S) 99 % 80-120 1 09/18/13 15:51 17060-07-0 Preservation pH 1.0 1.0 0.10 09/18/13 15:51 1 2540C Total Dissolved Solids Analytical Method: SM 2540C **Total Dissolved Solids** 2430 mg/L 5.0 5.0 09/17/13 13:13 300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Sulfate 1230 mg/L 32.0 200 09/25/13 12:37 14808-79-8 353.2 Nitrogen, NO2/NO3 unpres Analytical Method: EPA 353.2 Nitrogen, Nitrate 38.6 mg/L 1.0 0.51 10 09/11/13 15:43





Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Sample: GW-075040-091013-CM-Collected: 09/10/13 13:45 Received: 09/11/13 08:10 Matrix: Water Lab ID: 60152803009

Date: 09/26/2013 01:55 PM

DUP									
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical	Method: EPA	A 8260						
Benzene	<b>8.3</b> u	g/L	1.0	0.060	1		09/18/13 00:27	71-43-2	
Ethylbenzene	<b>1.8</b> u	g/L	1.0	0.18	1		09/18/13 00:27	100-41-4	
Toluene	<b>12.5</b> u	g/L	1.0	0.17	1		09/18/13 00:27	108-88-3	
Xylene (Total)	<b>44.3</b> u	g/L	3.0	0.42	1		09/18/13 00:27	1330-20-7	
Surrogates									
Toluene-d8 (S)	109 %	6	80-120		1		09/18/13 00:27	2037-26-5	
4-Bromofluorobenzene (S)	101 %	6	80-120		1		09/18/13 00:27	460-00-4	
1,2-Dichloroethane-d4 (S)	100 %	6	80-120		1		09/18/13 00:27	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/18/13 00:27		



# **ANALYTICAL RESULTS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Sample: TB-075040-091013-CI	M-001 Lab ID:	60152803010	Collecte	d: 09/10/13	15:50	Received: 09	9/11/13 08:10 M	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytica	ll Method: EPA 8	260						
Benzene	ND I	ug/L	1.0	0.060	1		09/18/13 00:42	71-43-2	
Ethylbenzene	ND (	ug/L	1.0	0.18	1		09/18/13 00:42	100-41-4	
Toluene	ND (	ug/L	1.0	0.17	1		09/18/13 00:42	108-88-3	
Xylene (Total)	ND (	ug/L	3.0	0.42	1		09/18/13 00:42	1330-20-7	
Surrogates									
Toluene-d8 (S)	104 9	%	80-120		1		09/18/13 00:42	2037-26-5	
4-Bromofluorobenzene (S)	94 9	%	80-120		1		09/18/13 00:42	460-00-4	
1,2-Dichloroethane-d4 (S)	105 9	%	80-120		1		09/18/13 00:42	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		09/18/13 00:42		





(913)599-5665

#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

QC Batch: MPRP/24320 Analysis Method: EPA 6010

QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

METHOD BLANK: 1255299 Matrix: Water

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

Reporting Blank Parameter Units Limit Qualifiers Result Analyzed Manganese, Dissolved ug/L ND 5.0 09/19/13 11:46 ug/L Selenium, Dissolved ND 15.0 09/19/13 11:46

LABORATORY CONTROL SAMPLE: 1255300

Date: 09/26/2013 01:55 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1020	102	80-120	
Selenium, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SP		1255302										
			MS	MSD								
	601	152803001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Manganese, Dissolved	ug/L	164	1000	1000	1160	1160	99	99	75-125	0	20	
Selenium, Dissolved	ug/L	49.2	1000	1000	1120	1120	107	108	75-125	1	20	





#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

QC Batch: MSV/56253 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005

METHOD BLANK: 1252403 Matrix: Water

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/13/13 06:09	
Ethylbenzene	ug/L	ND	1.0	09/13/13 06:09	
Toluene	ug/L	ND	1.0	09/13/13 06:09	
Xylene (Total)	ug/L	ND	3.0	09/13/13 06:09	
1,2-Dichloroethane-d4 (S)	%	86	80-120	09/13/13 06:09	
4-Bromofluorobenzene (S)	%	103	80-120	09/13/13 06:09	
Toluene-d8 (S)	%	96	80-120	09/13/13 06:09	

LABORATORY CONTROL SAMPLE: 1252404

Date: 09/26/2013 01:55 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L		19.7	99	73-122	
Ethylbenzene	ug/L	20	21.6	108	76-123	
Toluene	ug/L	20	20.0	100	76-122	
Xylene (Total)	ug/L	60	58.5	97	76-122	
1,2-Dichloroethane-d4 (S)	%			87	80-120	
4-Bromofluorobenzene (S)	%			92	80-120	
Toluene-d8 (S)	%			101	80-120	





#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

QC Batch: MSV/56362 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60152803006, 60152803007, 60152803009, 60152803010

METHOD BLANK: 1254860 Matrix: Water

Associated Lab Samples: 60152803006, 60152803007, 60152803009, 60152803010

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/17/13 23:26	
Ethylbenzene	ug/L	ND	1.0	09/17/13 23:26	
Toluene	ug/L	ND	1.0	09/17/13 23:26	
Xylene (Total)	ug/L	ND	3.0	09/17/13 23:26	
1,2-Dichloroethane-d4 (S)	%	101	80-120	09/17/13 23:26	
4-Bromofluorobenzene (S)	%	97	80-120	09/17/13 23:26	
Toluene-d8 (S)	%	107	80-120	09/17/13 23:26	

LABORATORY CONTROL SAMPLE: 1254861

Date: 09/26/2013 01:55 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L		19.1	96	73-122	
Ethylbenzene	ug/L	20	21.2	106	76-123	
Toluene	ug/L	20	20.4	102	76-122	
Xylene (Total)	ug/L	60	62.2	104	76-122	
1,2-Dichloroethane-d4 (S)	%			97	80-120	
4-Bromofluorobenzene (S)	%			94	80-120	
Toluene-d8 (S)	%			103	80-120	



#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

QC Batch: MSV/56393 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60152803008

METHOD BLANK: 1255410 Matrix: Water

Associated Lab Samples: 60152803008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND ND	1.0	09/18/13 13:39	
Ethylbenzene	ug/L	ND	1.0	09/18/13 13:39	
Toluene	ug/L	ND	1.0	09/18/13 13:39	
Xylene (Total)	ug/L	ND	3.0	09/18/13 13:39	
1,2-Dichloroethane-d4 (S)	%	104	80-120	09/18/13 13:39	
4-Bromofluorobenzene (S)	%	101	80-120	09/18/13 13:39	
Toluene-d8 (S)	%	103	80-120	09/18/13 13:39	

LABORATORY CONTROL SAMPLE: 1255411

Date: 09/26/2013 01:55 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L		18.9	95	73-122	
Ethylbenzene	ug/L	20	20.4	102	76-123	
Toluene	ug/L	20	20.1	100	76-122	
Xylene (Total)	ug/L	60	59.9	100	76-122	
1,2-Dichloroethane-d4 (S)	%			101	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			101	80-120	



#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

QC Batch: WET/43442 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

METHOD BLANK: 1254348 Matrix: Water

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

ParameterUnitsBlank Reporting ResultReporting LimitAnalyzedQualifiersTotal Dissolved Solidsmg/LND5.009/17/13 13:11

LABORATORY CONTROL SAMPLE: 1254349

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Dissolved Solids** 97 80-120 mg/L 1000 974

SAMPLE DUPLICATE: 1254350

60152803001 Dup Max RPD RPD Units Result Qualifiers Parameter Result Total Dissolved Solids 2090 mg/L 2150 3 17

SAMPLE DUPLICATE: 1254351

Date: 09/26/2013 01:55 PM

60153027002 Dup Max Parameter Units Result Result **RPD** RPD Qualifiers **Total Dissolved Solids** mg/L 1070 1050 2 17



#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Sulfate

QC Batch: WETA/26316 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

METHOD BLANK: 1258997 Matrix: Water

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

Parameter Units Blank Reporting Result Limit Analyzed Qualifiers

mg/L ND 1.0 09/25/13 09:01

LABORATORY CONTROL SAMPLE: 1258998

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfate 5 mg/L 4.9 98 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1258999 1259000

MS MSD MSD 60152803001 Spike Spike MS MS MSD % Rec Max % Rec Parameter Units Conc. % Rec RPD Result Conc. Result Result Limits RPD Qual Sulfate 1130 1000 1000 2150 2140 102 101 80-120 15 mg/L

MATRIX SPIKE SAMPLE: 1259001

Date: 09/26/2013 01:55 PM

60152803002 Spike MS MS % Rec Qualifiers Parameter Units Result Conc. Result % Rec Limits Sulfate mg/L 1200 1000 2230 103 80-120



#### **QUALITY CONTROL DATA**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

QC Batch: WETA/26180 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

METHOD BLANK: 1251399 Matrix: Water

Associated Lab Samples: 60152803001, 60152803002, 60152803003, 60152803004, 60152803005, 60152803006, 60152803007,

60152803008

ParameterUnitsBlank Reporting ResultReporting LimitAnalyzedQualifiersNitrogen, Nitratemg/LND0.1009/11/13 15:21

Spike

LABORATORY CONTROL SAMPLE: 1251400

Parameter Units Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate 1.6 101 85-115 mg/L 1.6 MATRIX SPIKE SAMPLE: 1251402 MS 60152798004 Spike MS % Rec Result Conc. Result % Rec Limits Qualifiers Parameter Units ND Nitrogen, Nitrate mg/L 1.6 1.6 103 85-115 MATRIX SPIKE SAMPLE: 1251403 60152803004 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 8.6 8 15.4 84 85-115 M1 SAMPLE DUPLICATE: 1251404

LCS

LCS

% Rec

60152813001 Dup Max RPD RPD Parameter Units Result Qualifiers Result 24.4 24.1 2 20 Nitrogen, Nitrate mg/L

(913)599-5665



#### **QUALIFIERS**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

#### **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: MSV/56253

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

Batch: MSV/56362

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

Batch: MSV/56393

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

#### **ANALYTE QUALIFIERS**

Date: 09/26/2013 01:55 PM

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





# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: SAN JUAN 29-7 UNIT 37

Pace Project No.: 60152803

Date: 09/26/2013 01:55 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
60152803001	GW-075040-091013-CM-MW-1	EPA 3010	MPRP/24320	EPA 6010	ICP/18973
60152803002	GW-075040-091013-CM-MW-2	EPA 3010	MPRP/24320	EPA 6010	ICP/18973
60152803003	GW-075040-091013-CM-MW-3	EPA 3010	MPRP/24320		ICP/18973
60152803004	GW-075040-091013-CM-MW-4	EPA 3010	MPRP/24320		ICP/18973
60152803005	GW-075040-091013-CM-MW-5	EPA 3010	MPRP/24320		ICP/18973
60152803006	GW-075040-091013-CM-MW-6	EPA 3010	MPRP/24320		ICP/18973
60152803007	GW-075040-091013-CM-MW-7	EPA 3010	MPRP/24320		ICP/18973
0152803008	GW-075040-091013-CM-MW-8R	EPA 3010	MPRP/24320		ICP/18973
0152803001	GW-075040-091013-CM-MW-1	EPA 8260	MSV/56253		
60152803002	GW-075040-091013-CM-MW-2	EPA 8260	MSV/56253		
0152803003	GW-075040-091013-CM-MW-3	EPA 8260	MSV/56253		
0152803004	GW-075040-091013-CM-MW-4	EPA 8260	MSV/56253		
60152803005	GW-075040-091013-CM-MW-5	EPA 8260	MSV/56253		
60152803006	GW-075040-091013-CM-MW-6	EPA 8260	MSV/56362		
60152803007	GW-075040-091013-CM-MW-7	EPA 8260	MSV/56362		
60152803008	GW-075040-091013-CM-MW-8R	EPA 8260	MSV/56393		
60152803009	GW-075040-091013-CM-DUP	EPA 8260	MSV/56362		
60152803010	TB-075040-091013-CM-001	EPA 8260	MSV/56362		
60152803001	GW-075040-091013-CM-MW-1	SM 2540C	WET/43442		
60152803002	GW-075040-091013-CM-MW-2	SM 2540C	WET/43442		
0152803003	GW-075040-091013-CM-MW-3	SM 2540C	WET/43442		
60152803004	GW-075040-091013-CM-MW-4	SM 2540C	WET/43442		
0152803005	GW-075040-091013-CM-MW-5	SM 2540C	WET/43442		
60152803006	GW-075040-091013-CM-MW-6	SM 2540C	WET/43442		
60152803007	GW-075040-091013-CM-MW-7	SM 2540C	WET/43442		
0152803008	GW-075040-091013-CM-MW-8R	SM 2540C	WET/43442		
0152803001	GW-075040-091013-CM-MW-1	EPA 300.0	WETA/26316		
60152803002	GW-075040-091013-CM-MW-2	EPA 300.0	WETA/26316		
60152803003	GW-075040-091013-CM-MW-3	EPA 300.0	WETA/26316		
60152803004	GW-075040-091013-CM-MW-4	EPA 300.0	WETA/26316		
60152803005	GW-075040-091013-CM-MW-5	EPA 300.0	WETA/26316		
60152803006	GW-075040-091013-CM-MW-6	EPA 300.0	WETA/26316		
60152803007	GW-075040-091013-CM-MW-7	EPA 300.0	WETA/26316		
0152803008	GW-075040-091013-CM-MW-8R	EPA 300.0	WETA/26316		
0152803001	GW-075040-091013-CM-MW-1	EPA 353.2	WETA/26180		
60152803002	GW-075040-091013-CM-MW-2	EPA 353.2	WETA/26180		
0152803003	GW-075040-091013-CM-MW-3	EPA 353.2	WETA/26180		
60152803004	GW-075040-091013-CM-MW-4	EPA 353.2	WETA/26180		
0152803005	GW-075040-091013-CM-MW-5	EPA 353.2	WETA/26180		
60152803006	GW-075040-091013-CM-MW-6	EPA 353.2	WETA/26180		
60152803007	GW-075040-091013-CM-MW-7	EPA 353.2	WETA/26180		
60152803008	GW-075040-091013-CM-MW-8R	EPA 353.2	WETA/26180		







September 25 2013

Angela Brown Pace Analytical-KS 9608 Loiret Blvd. Lenexa, KS 66219

RE: PAS Subcontract-AB
COPCRA NM

Enclosed are the results of analyses for samples received by the laboratory on 09/11/13 09:30. If you have any questions concerning this report, please feel free to contact me at 1-800-858-5227.

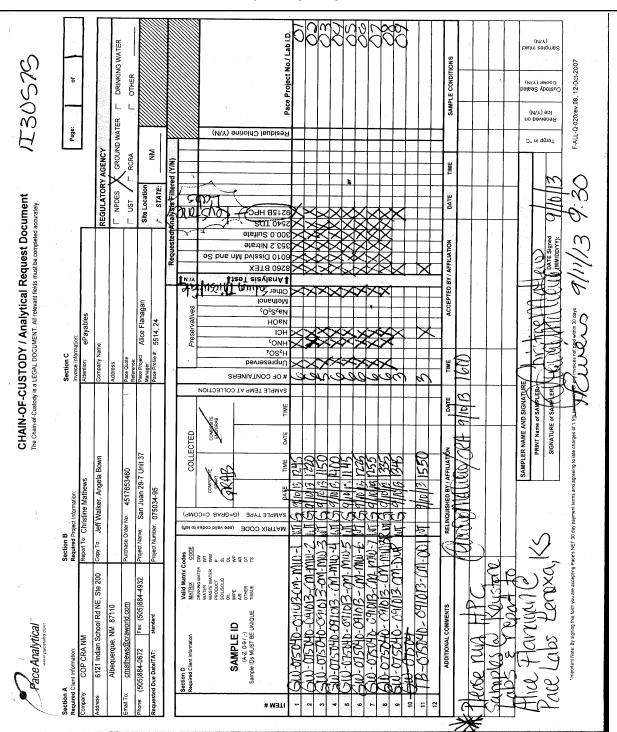
#### ANALYTICAL REPORT FOR SAMPLES

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-075040-091013-CM-MW-1	1130575-01	Water	09/10/13 12:45	09/11/13 09:30
GW-075040-091013-CM-MW-2	1130575-02	Water	09/10/13 12:20	09/11/13 09:30
GW-075040-091013-CM-MW-3	1130575-03	Water	09/10/13 11:50	09/11/13 09:30
GW-075040-091013-CM-MW-4	1130575-04	Water	09/10/13 14:00	09/11/13 09:30
GW-075040-091013-CM-MW-5	1130575-05	Water	09/10/13 11:45	09/11/13 09:30
GW-075040-091013-CM-MW-6	1130575-06	Water	09/10/13 12:25	09/11/13 09:30
GW-075040-091013-CM-MW-7	1130575-07	Water	09/10/13 12:55	09/11/13 09:30
GW-075040-091013-CM-MW-8R	1130575-08	Water	09/10/13 13:35	09/11/13 09:30
GW-075040-091013-CM-MW-Dup	1I30575-09	Water	09/10/13 13:45	09/11/13 09:30















Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-1 1I30575-01 (Water)

Date Sampled:9/10/2013 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Keystone Laboratories, Inc. - Newton** 

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 2300 1.0 CFU/ml 1 1W10309 09/11/13 09/11/13 12:00 9215B







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-2 1I30575-02 (Water)

Date Sampled:9/10/2013 12:20:00PM

	Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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#### **Keystone Laboratories, Inc. - Newton**

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 160 1.0 CFU/ml 1 1W10309 09/11/13 09/11/13 12:00 9215B



**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 



1WI0309

09/11/13

09/11/13 12:00

9215B

I-02



Pace Analytical-KSProject:PAS Subcontract-AB9608 Loiret Blvd.Project Number:COPCRA NMLenexa, KS 66219Project Manager:Angela Brown

110

Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-3 1I30575-03 (Water)

Date Sampled:9/10/2013 11:50:00AM

	Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc Newton										

1.0 CFU/ml







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-4 1I30575-04 (Water)

Date Sampled:9/10/2013 2:00:00PM

		D (:							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Keystone Laboratories, Inc. - Newton** 

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count**910
1.0 CFU/ml
1 1W10309 09/11/13 09/11/13 12:00 9215B



**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 



1WI0309

09/11/13

09/11/13 12:00

9215B

I-02



Pace Analytical-KSProject:PAS Subcontract-AB9608 Loiret Blvd.Project Number:COPCRA NMLenexa, KS 66219Project Manager:Angela Brown

660

Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-5 1I30575-05 (Water)

Date Sampled:9/10/2013 11:45:00AM

	Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc Newton										

1.0 CFU/ml







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-6 1I30575-06 (Water)

Date Sampled:9/10/2013 12:25:00PM

Analyte	Reporting Result Limit	Units Diluti	on Batch	Prepared	Analyzed	Method	Notes
	Keystone Labo	ratories, Inc No	wton				

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 65 1.0 CFU/ml 1WI0309 09/11/13 09/11/13 12:00 9215B







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-7 1I30575-07 (Water)

Date Sampled:9/10/2013 12:55:00PM

Analyte	Result	Reporting Limit Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Vox	estano I abanatanias i	Ina Navyta					

#### **Keystone Laboratories, Inc. - Newton**

**Determination of Microbiological Parameters** 

 Heterotrophic Plate Count
 110
 1.0
 CFU/ml
 1
 1WI0309
 09/11/13
 09/11/13 12:00
 9215B







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-8R 1I30575-08 (Water)

Date Sampled:9/10/2013 1:35:00PM

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Keystone Laboratories, Inc. - Newton** 

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 5700 1.0 CFU/ml 1 1W10309 09/11/13 09/11/13 12:00 9215B







Reported 09/25/13 17:36

# GW-075040-091013-CM-MW-Dup 1130575-09 (Water)

Date Sampled:9/10/2013 1:45:00PM

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Keystone Laboratories, Inc. - Newton** 

**Determination of Microbiological Parameters** 

**Heterotrophic Plate Count** 8700 1.0 CFU/ml 1 1W10309 09/11/13 09/11/13 12:00 9215B







Reported 09/25/13 17:36

# **Determination of Microbiological Parameters - Quality Control**

# **Keystone Laboratories, Inc. - Newton**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch 1WI0309 - General Prep Micro** 

Blank (1WI0309-BLK1) Prepared & Analyzed: 09/11/13

Heterotrophic Plate Count ND 1.0 CFU/ml

# **Certified Analyses Included in This Report**

Method/Matrix Analyte Certifications

Code	Certifying Authority	Certificate Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2014
KS-NT	Kansas Department of Health and Environment	E-10287	10/30/2013
MO-KC	Missouri Department of Natural Resources	140	04/30/2014
NELAC	New Jersey Department of Environmental Protection	IA001	06/30/2014
SIA1X	Iowa Department of Natural Resources	95	02/01/2014







#### **Notes and Definitions**

I-02	This result was analyzed outside of the EPA recommended holding time.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Sue Thompson





Pace Analytical-KSProject:PAS Subcontract-AB9608 Loiret Blvd.Project Number:COPCRA NMLenexa, KS 66219Project Manager:Angela Brown

Reported 09/25/13 17:36

Sue Thompson

Project Manager II



# Sample Condition Upon Receipt ESI Tech Spec Client



Client Name: CoP - CRA	Optional
Courier: Fed Ex S UPS USPS Client Commercial Page	ce  Other  Proj Due Date:
Tracking #: 802310827 9502 Pace Shipping Label U	sed? Yes □ No □ Proj Name:
Custody Seal on Cooler/Box Present: Yes No . Seals intact: Yes	es 🖫 No 🗆
Packing Material: Bubble Wrap □ Bubble Bags □ Foam □	None Other 201
	e None   Samples received on ice, cooling process has begun
Cooler Temperature: (circle	Date and initials of person examining contents:
Temperature should be above freezing to 6°C	contents. A. ( 1
Chain of Custody present:	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: \(\sqrt{Yes} \sqrt{No} \sqrt{N/A}\)	4:-
Samples arrived within holding time: □Yes □No □N/A	5.
Short Hold Time analyses (<72hr):	6. NO <sub>2</sub>
Rush Turn Around Time requested:	7.
Sufficient volume:	8.
Correct containers used:	
Pace containers used:	9,:
Containers intact:	10.
Unpreserved 5035A soils frozen w/in 48hrs? □Yes □No □N/A	11.
Filtered volume received for dissolved tests?	12.
Sample labels match COC:	
Includes date/time/ID/analyses Matrix: WT	13.
All containers needing preservation have been checked.	
All containers needing preservation are found to be in compliance with EPA recommendation.	14.
Exceptions VOA coliform, TOC. O&G, WI-DRO (water), Phenolics	Initial when Lot # of added completed preservative
Trip Blank present:	
Pace Trip Blank lot # (if purchased): Aug 20	15.
Headspace in VOA vials ( >6mm):	
,	16.
Project sampled in USDA Regulated Area:	1Z, List State:
Client Notification/ Resolution: Copy COC to Client? Y	Field Data Required? Y / N
Person Contacted: Date/Time:	Temp Log: Record start and finish times
Comments/ Resolution:	when unpacking cooler, if >20 min, recheck sample temps.
	Start: 0915 Start:
- And	0111/2 End: 0930 End:
Project Manager Review:	Date ( Temp: 0.3 Temp:

# Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

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

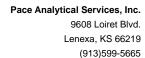
3 3 3 Pace Project No./ Lab I.D. 750 3 3 010 ζ, 3 63 (N/Y) DRINKING WATER Samples Intact SAMPLE CONDITIONS Cooler (Y/N) OTHER ō BP3 N 1.5 Custody Sealed Ice (Y/N) Received on GROUND WATER Page: Residual Chlorine (Y/N) O" ni qmeT REGULATORY AGENCY Σ 0120 RCRA Requested Analysis Filtered (Y/N) TIME STATE: Site Location DATE NPDES UST 1110 9215B HPC 240 IDS 300.0 Sulfate ACCEPTED BY / AFFILIATION 553.2 Nitrate 5010 Disslvd Mn and Se SEC BTEX Analysis Test N/A MISCHALL WITH Ofher 50 Methanol Alice Flanagan Preservatives <sub>E</sub>O<sub>S</sub>S<sub>S</sub>bN ePayables HOBN 5514, 24 HCI HNO<sup>3</sup> Company Name DS2H Manager. Pace Profile #: Section C Reference: TIME Unpreserved ace Quote ddress # OF CONTAINERS SAMPLER NAME AND SIGNATURE PRINT Name of SAWPLER SAMPLE TEMP AT COLLECTION BFBL 1 DATE P 3/044 3(06,44) 2/0694 36994 COLLECTED RELINQUISHED BY / AFFILIATION San Juan 29-7 Unit 37 Jeff Walker, Angela Bown 4517653460 Report To: Christine Mathews 075034-95 Required Project information: (G=GRAB C=COMP) SAMPLE TYPE urchase Order No.: roject Number; (see valid codes to left) MATRIX CODE Project Name: Section B Copy To: Valid Matrix Codes
MATRIX
CODE
DRINKING WATER
WATER
WASTE WATER
PRODUCT
SOLUSOUD
SU 6121 Indian School Rd NE, Ste 200 Fax: (505)884-4932 187 cmathews@craworld.com ADDITIONAL COMMENTS Albequerque, NM 87110 (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE SAMPLE ID Section D Required Client Information COP CRA NM (505)884-0672 Required Client Information: Requested Due Date/TAT: Section A Page 45 of 45 mail To: ddress 10 7 12 # MaTI 9

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

DATE Signed (YYYOD/MM)

mportant Note. By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per

SIGNATURE of SAMPLER





January 22, 2014

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

RE: Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

#### Dear Jeff Walker:

Enclosed are the analytical results for sample(s) received by the laboratory between January 08, 2014 and January 09, 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

alice.flanagan@pacelabs.com

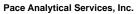
**Project Manager** 

**Enclosures** 

cc: Angela Bown, COP Conestoga-Rovers & Associa

Christine Matthews, CRA





9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665

#### **CERTIFICATIONS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

**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

**Southeast Kansas Certification IDs** 

808 West McKay, Frontenac, KS 66763 Arkansas Certification #: 13-012-0

Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-13-4

Utah Certification #: KS000212013-3 Illinois Certification #: 003097

Oklahoma Certification #: 2012-051 Texas Certification #: T104704407-13-4 Utah Certification #: KS000212013-3

Minnesota Certification #: 495004



## **SAMPLE SUMMARY**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60160790001	GW-075034-010714-CM-MW-1	Water	01/07/14 13:50	01/08/14 12:45
60160790002	GW-075034-010714-CM-MW-2	Water	01/07/14 13:20	01/08/14 12:45
60160790003	GW-075034-010714-CM-MW-3	Water	01/07/14 12:50	01/08/14 12:45
60160790004	GW-075034-010714-CM-MW-4	Water	01/07/14 14:20	01/08/14 12:45
60160790005	GW-075034-010714-CM-MW-5	Water	01/07/14 12:00	01/08/14 12:45
60160790006	GW-075034-010714-CM-MW-6	Water	01/07/14 12:20	01/08/14 12:45
60160790007	GW-075034-010714-CM-MW-7	Water	01/07/14 11:25	01/08/14 12:45
60160790008	GW-075034-010714-CM-MW-8R	Water	01/07/14 12:35	01/08/14 12:45
60160790009	GW-075034-010714-CM-MW-DUP	Water	01/07/14 13:00	01/08/14 12:45
60160790010	GW-075034-010714-CM-MW-1	Water	01/07/14 13:50	01/09/14 09:30
60160790011	GW-075034-010714-CM-MW-2	Water	01/07/14 13:20	01/09/14 09:30
60160790012	GW-075034-010714-CM-MW-3	Water	01/07/14 12:50	01/09/14 09:30
60160790013	GW-075034-010714-CM-MW-4	Water	01/07/14 14:20	01/09/14 09:30
60160790014	GW-075034-010714-CM-MW-5	Water	01/07/14 12:00	01/09/14 09:30
60160790015	GW-075034-010714-CM-MW-6	Water	01/07/14 12:20	01/09/14 09:30
60160790016	GW-075034-010714-CM-MW-7	Water	01/07/14 11:25	01/09/14 09:30
60160790017	GW-075034-010714-CM-MW-8R	Water	01/07/14 12:35	01/09/14 09:30
60160790018	GW-075034-010714-CM-DUP	Water	01/07/14 12:40	01/09/14 09:30
60160790019	TB-075034-010714-CM-001	Water	01/07/14 16:00	01/09/14 09:30
60160790020	TB-075034-010714-CM-002	Water	01/07/14 16:10	01/09/14 09:30



## **SAMPLE ANALYTE COUNT**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60160790001	GW-075034-010714-CM-MW-1	SM 9215B	MEB	1
60160790002	GW-075034-010714-CM-MW-2	SM 9215B	MEB	1
60160790003	GW-075034-010714-CM-MW-3	SM 9215B	MEB	1
60160790004	GW-075034-010714-CM-MW-4	SM 9215B	MEB	1
60160790005	GW-075034-010714-CM-MW-5	SM 9215B	MEB	1
60160790006	GW-075034-010714-CM-MW-6	SM 9215B	MEB	1
60160790007	GW-075034-010714-CM-MW-7	SM 9215B	MEB	1
60160790008	GW-075034-010714-CM-MW-8R	SM 9215B	MEB	1
60160790009	GW-075034-010714-CM-MW-DUP	SM 9215B	MEB	1
60160790010	GW-075034-010714-CM-MW-1	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790011	GW-075034-010714-CM-MW-2	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790012	GW-075034-010714-CM-MW-3	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790013	GW-075034-010714-CM-MW-4	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790014	GW-075034-010714-CM-MW-5	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790015	GW-075034-010714-CM-MW-6	EPA 6010	NDJ	2
		EPA 8260	JTK	8
		SM 2540C	JMC	1

## **REPORT OF LABORATORY ANALYSIS**

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## **SAMPLE ANALYTE COUNT**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790016	GW-075034-010714-CM-MW-7	EPA 6010	NDJ	2
		EPA 8260	JTS	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790017	GW-075034-010714-CM-MW-8R	EPA 6010	NDJ	2
		EPA 8260	JTS	8
		SM 2540C	JMC	1
		EPA 300.0	OL	1
		EPA 353.2	AJM	1
60160790018	GW-075034-010714-CM-DUP	EPA 8260	JTS	8
60160790019	TB-075034-010714-CM-001	EPA 8260	JTS	8
60160790020	TB-075034-010714-CM-002	EPA 8260	JTS	8



#### **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** January 22, 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:**



#### **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: SM 9215B

Description: MBIO HPC (Drinking Water)

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** January 22, 2014

#### **General Information:**

9 samples were analyzed for SM 9215B. 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.

H3: Sample was received or analysis requested beyond the recognized method holding time.

- GW-075034-010714-CM-MW-5 (Lab ID: 60160790005)
- GW-075034-010714-CM-MW-6 (Lab ID: 60160790006)
- GW-075034-010714-CM-MW-7 (Lab ID: 60160790007)
- GW-075034-010714-CM-MW-8R (Lab ID: 60160790008)

u3: Analysis initiated more than 8 hours but less than 24 hours after sample collection.

- GW-075034-010714-CM-MW-1 (Lab ID: 60160790001)
- GW-075034-010714-CM-MW-2 (Lab ID: 60160790002)
- GW-075034-010714-CM-MW-4 (Lab ID: 60160790004)
- GW-075034-010714-CM-MW-DUP (Lab ID: 60160790009)

u6: Analysis initiated more than 24 hours after sample collection.

- GW-075034-010714-CM-MW-3 (Lab ID: 60160790003)
- GW-075034-010714-CM-MW-5 (Lab ID: 60160790005)
- GW-075034-010714-CM-MW-6 (Lab ID: 60160790006)
- GW-075034-010714-CM-MW-7 (Lab ID: 60160790007)
- GW-075034-010714-CM-MW-8R (Lab ID: 60160790008)

## Sample Preparation:

The samples were prepared in accordance with SM 9215B with any exceptions noted below.

## **Duplicate Sample:**

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

#### Additional Comments:





#### **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: **EPA 8260** 

Description: 8260 MSV UST, Water

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: January 22, 2014

#### **General Information:**

11 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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/58783

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

QC Batch: MSV/58789

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

QC Batch: MSV/58812

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

#### Additional Comments:



## **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: SM 2540C

**Description: 2540C Total Dissolved Solids** 

Client: COP Conestoga-Rovers & Associates, Inc. NM

**Date:** January 22, 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:**



#### **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: January 22, 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:**



#### **PROJECT NARRATIVE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Method: EPA 353.2

Description: 353.2 Nitrogen, NO2/NO3 unpres

Client: COP Conestoga-Rovers & Associates, Inc. NM

Date: January 22, 2014

#### **General Information:**

8 samples were analyzed for EPA 353.2. 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/27774

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60160732002,60160790010

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

MS (Lab ID: 1315351)Nitrogen, Nitrate

#### **Duplicate Sample:**

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

#### **Additional Comments:**

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

u3



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790001 Collected: 01/07/14 13:50 Received: 01/08/14 12:45 Matrix: Water

MW-1

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count 335000 CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30

u3



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790002 Collected: 01/07/14 13:20 Received: 01/08/14 12:45 Matrix: Water

MW-2

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **2435** CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30

u6



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790003 Collected: 01/07/14 12:50 Received: 01/08/14 12:45 Matrix: Water

MW-3

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **283.5** CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30

u3



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790004 Collected: 01/07/14 14:20 Received: 01/08/14 12:45 Matrix: Water

MW-4

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **1160** CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790005 Collected: 01/07/14 12:00 Received: 01/08/14 12:45 Matrix: Water

MW-5

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count 5450 CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30 H3,u6



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790006 Collected: 01/07/14 12:20 Received: 01/08/14 12:45 Matrix: Water

MW-6

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **2460** CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30 H3,u6



**ANALYTICAL RESULTS** 

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790007 Collected: 01/07/14 11:25 Received: 01/08/14 12:45 Matrix: Water

MW-7

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count **8300** CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30 H3,u6



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790008 Collected: 01/07/14 12:35 Received: 01/08/14 12:45 Matrix: Water

MW-8R

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count 425000 CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30 H3,u6

u3



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Sample: GW-075034-010714-CM- Lab ID: 60160790009 Collected: 01/07/14 13:00 Received: 01/08/14 12:45 Matrix: Water

MW-DUP

Date: 01/22/2014 01:17 PM

Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual

MBIO HPC (Drinking Water) Analytical Method: SM 9215B Preparation Method: SM 9215B

Heterotrophic Plate Count 350 CFU/mL 1.0 1 01/08/14 12:58 01/10/14 11:30



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-1	Lab ID: 601	60790010	Collected: 01/07/1	4 13:50	Received: 01	/09/14 09:30 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Meth	nod: EPA 601	0 Preparation Meth	nod: EP	A 3010			
Manganese, Dissolved	<b>132</b> ug	/L	5.0	1	01/09/14 14:55	01/10/14 13:36	7439-96-5	
Selenium, Dissolved	<b>34.9</b> ug	/L	15.0	1	01/09/14 14:55	01/10/14 13:36	7782-49-2	
8260 MSV UST, Water	Analytical Meth	nod: EPA 826	60					
Benzene	ND ug	/L	1.0	1		01/09/14 16:57	71-43-2	
Ethylbenzene	ND ug	/L	1.0	1		01/09/14 16:57	100-41-4	
Toluene	ND ug	/L	1.0	1		01/09/14 16:57	108-88-3	
Xylene (Total)	ND ug	/L	3.0	1		01/09/14 16:57	1330-20-7	
Surrogates								
Toluene-d8 (S)	100 %		80-120	1		01/09/14 16:57	2037-26-5	
4-Bromofluorobenzene (S)	94 %		80-120	1		01/09/14 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		80-120	1		01/09/14 16:57	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 16:57		
2540C Total Dissolved Solids	Analytical Meth	nod: SM 2540	OC .					
Total Dissolved Solids	<b>1990</b> mg	g/L	5.0	1		01/14/14 16:03		
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 300	0.0					
Sulfate	<b>1040</b> mg	g/L	100	100		01/20/14 13:51	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 353	3.2					
Nitrogen, Nitrate	<b>22.5</b> mg	g/L	1.0	10		01/09/14 11:16		M1



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-2	Lab ID: 6016	60790011	Collected: 01/07/1	4 13:20	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Meth	od: EPA 601	0 Preparation Met	nod: EP	A 3010			
Manganese, Dissolved	<b>6.9</b> ug/	'L	5.0	1	01/09/14 14:55	01/10/14 13:43	7439-96-5	
Selenium, Dissolved	<b>74.5</b> ug/	'L	15.0	1	01/09/14 14:55	01/10/14 13:43	7782-49-2	
8260 MSV UST, Water	Analytical Meth	od: EPA 826	0					
Benzene	ND ug/	'L	1.0	1		01/09/14 17:12	71-43-2	
Ethylbenzene	ND ug/	'L	1.0	1		01/09/14 17:12	100-41-4	
Toluene	ND ug/	'L	1.0	1		01/09/14 17:12	108-88-3	
Xylene (Total)	ND ug/	'L	3.0	1		01/09/14 17:12	1330-20-7	
Surrogates								
Toluene-d8 (S)	102 %		80-120	1		01/09/14 17:12		
4-Bromofluorobenzene (S)	100 %		80-120	1		01/09/14 17:12		
1,2-Dichloroethane-d4 (S)	99 %		80-120	1		01/09/14 17:12	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 17:12		
2540C Total Dissolved Solids	Analytical Meth	od: SM 2540	OC					
Total Dissolved Solids	<b>2390</b> mg	/L	5.0	1		01/14/14 16:05		
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 300	.0					
Sulfate	<b>1300</b> mg	/L	100	100		01/20/14 14:37	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	od: EPA 353	.2					
Nitrogen, Nitrate	<b>33.5</b> mg	/L	1.0	10		01/09/14 11:15		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-3	Lab ID: 601	60790012	Collected: 01/07/1	14 12:50	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Met	hod: EPA 60	10 Preparation Met	hod: EP	A 3010			
Manganese, Dissolved	<b>1770</b> ug	<sub>J</sub> /L	5.0	1	01/09/14 14:55	01/10/14 13:45	7439-96-5	
Selenium, Dissolved	ND ug	<sub>J</sub> /L	15.0	1	01/09/14 14:55	01/10/14 13:45	7782-49-2	
8260 MSV UST, Water	Analytical Met	hod: EPA 82	60					
Benzene	ND ug	ı/L	1.0	1		01/09/14 17:27	71-43-2	
Ethylbenzene	ND ug	]/L	1.0	1		01/09/14 17:27	100-41-4	
Toluene	ND ug	J/L	1.0	1		01/09/14 17:27	108-88-3	
Xylene (Total)	ND ug	<sub>J</sub> /L	3.0	1		01/09/14 17:27	1330-20-7	
Surrogates								
Toluene-d8 (S)	102 %		80-120	1		01/09/14 17:27		
4-Bromofluorobenzene (S)	98 %		80-120	1		01/09/14 17:27	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120	1		01/09/14 17:27	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 17:27		
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	IOC					
Total Dissolved Solids	<b>1970</b> mg	g/L	5.0	1		01/14/14 16:05		
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
Sulfate	<b>1180</b> mg	g/L	100	100		01/20/14 15:39	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Met	hod: EPA 35	3.2					
Nitrogen, Nitrate	<b>0.15</b> mg	g/L	0.10	1		01/09/14 11:14		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-4	Lab ID: 601	60790013	Collected: 01/07/1	4 14:20	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Metl	nod: EPA 601	0 Preparation Meth	nod: EP	A 3010			
Manganese, Dissolved	<b>26.5</b> ug	/L	5.0	1	01/09/14 14:55	01/10/14 13:48	7439-96-5	
Selenium, Dissolved	<b>38.1</b> ug	/L	15.0	1	01/09/14 14:55	01/10/14 13:48	7782-49-2	
8260 MSV UST, Water	Analytical Meth	nod: EPA 826	60					
Benzene	ND ug	/L	1.0	1		01/09/14 17:43	71-43-2	
Ethylbenzene	ND ug	/L	1.0	1		01/09/14 17:43	100-41-4	
Toluene	ND ug	/L	1.0	1		01/09/14 17:43	108-88-3	
Xylene (Total)	ND ug	/L	3.0	1		01/09/14 17:43	1330-20-7	
Surrogates								
Toluene-d8 (S)	106 %		80-120	1		01/09/14 17:43	2037-26-5	
4-Bromofluorobenzene (S)	103 %		80-120	1		01/09/14 17:43	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		80-120	1		01/09/14 17:43	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 17:43		
2540C Total Dissolved Solids	Analytical Meth	nod: SM 2540	OC .					
Total Dissolved Solids	<b>1960</b> mg	g/L	5.0	1		01/14/14 16:06		
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 300	0.0					
Sulfate	<b>1350</b> mg	g/L	100	100		01/20/14 15:54	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 353	3.2					
Nitrogen, Nitrate	<b>5.5</b> mg	g/L	0.50	5		01/09/14 11:17		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-5	Lab ID: 601	60790014	Collected: 01/07/1	4 12:00	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Metl	nod: EPA 601	0 Preparation Meth	nod: EP	A 3010			
Manganese, Dissolved	<b>396</b> ug	/L	5.0	1	01/09/14 14:55	01/10/14 13:50	7439-96-5	
Selenium, Dissolved	ND ug	/L	15.0	1	01/09/14 14:55	01/10/14 13:50	7782-49-2	
8260 MSV UST, Water	Analytical Meth	nod: EPA 826	60					
Benzene	ND ug	/L	1.0	1		01/09/14 17:58	71-43-2	
Ethylbenzene	ND ug	/L	1.0	1		01/09/14 17:58	100-41-4	
Toluene	ND ug	/L	1.0	1		01/09/14 17:58	108-88-3	
Xylene (Total)	ND ug	/L	3.0	1		01/09/14 17:58	1330-20-7	
Surrogates								
Toluene-d8 (S)	99 %		80-120	1		01/09/14 17:58		
4-Bromofluorobenzene (S)	97 %		80-120	1		01/09/14 17:58	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120	1		01/09/14 17:58	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 17:58		
2540C Total Dissolved Solids	Analytical Meth	nod: SM 2540	oc					
Total Dissolved Solids	<b>2770</b> mg	g/L	5.0	1		01/14/14 16:11		
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 300	0.0					
Sulfate	<b>1740</b> mg	g/L	200	200		01/20/14 16:10	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 353	3.2					
Nitrogen, Nitrate	ND mg	g/L	0.10	1		01/09/14 11:11		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-6	Lab ID: 601	60790015	Collected: 01/07/1	4 12:20	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Met	hod: EPA 60	10 Preparation Met	nod: EP	A 3010			
Manganese, Dissolved	<b>268</b> ug	g/L	5.0	1	01/09/14 14:55	01/10/14 13:52	7439-96-5	
Selenium, Dissolved	<b>41.7</b> uç	g/L	15.0	1	01/09/14 14:55	01/10/14 13:52	7782-49-2	
8260 MSV UST, Water	Analytical Met	hod: EPA 82	60					
Benzene	<b>2.6</b> uç	g/L	1.0	1		01/09/14 18:13	71-43-2	
Ethylbenzene	ND uç	g/L	1.0	1		01/09/14 18:13	100-41-4	
Toluene	ND ug	g/L	1.0	1		01/09/14 18:13	108-88-3	
Xylene (Total)	<b>3.4</b> ug	g/L	3.0	1		01/09/14 18:13	1330-20-7	
Surrogates								
Toluene-d8 (S)	102 %		80-120	1		01/09/14 18:13		
4-Bromofluorobenzene (S)	99 %		80-120	1		01/09/14 18:13	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120	1		01/09/14 18:13	17060-07-0	
Preservation pH	1.0		1.0	1		01/09/14 18:13		
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	0C					
Total Dissolved Solids	<b>2060</b> m	g/L	5.0	1		01/14/14 16:12		
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
Sulfate	<b>984</b> m	g/L	100	100		01/20/14 16:25	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Met	hod: EPA 35	3.2					
Nitrogen, Nitrate	<b>19.5</b> m	g/L	1.0	10		01/09/14 11:12		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-7	Lab ID: 601	60790016	Collected: 01/0	7/14 11:2	5 Received: 0°	1/09/14 09:30	Matrix: Water	
Parameters	Results	Units	Report Lim	t DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Metl	nod: EPA 60	10 Preparation N	lethod: El	PA 3010			
Manganese, Dissolved	<b>452</b> ug	/L	5	.0 1	01/09/14 14:55	01/10/14 13:59	7439-96-5	
Selenium, Dissolved	ND ug	/L	15	.0 1	01/09/14 14:55	01/10/14 13:59	7782-49-2	
8260 MSV UST, Water	Analytical Meth	nod: EPA 82	60					
Benzene	ND ug	/L	1	.0 1		01/10/14 19:59	9 71-43-2	
Ethylbenzene	ND ug	/L	1	.0 1		01/10/14 19:59	9 100-41-4	
Toluene	ND ug	/L	1	.0 1		01/10/14 19:59	9 108-88-3	
Xylene (Total)	ND ug	/L	3	.0 1		01/10/14 19:59	9 1330-20-7	
Surrogates								
Toluene-d8 (S)	93 %		80-12			01/10/14 19:59		
4-Bromofluorobenzene (S)	96 %		80-12			01/10/14 19:59		
1,2-Dichloroethane-d4 (S)	99 %		80-12	-		01/10/14 19:59		
Preservation pH	1.0		1	.0 1		01/10/14 19:59	9	
2540C Total Dissolved Solids	Analytical Meth	nod: SM 254	10C					
Total Dissolved Solids	<b>3320</b> mg	g/L	5	.0 1		01/14/14 16:13	3	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.0					
Sulfate	<b>1950</b> mg	g/L	20	0 200		01/20/14 16:4	1 14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	3.2					
Nitrogen, Nitrate	<b>28.5</b> mg	g/L	1	.0 10		01/09/14 11:09	)	



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- MW-8R	Lab ID: 601	60790017	Collected: 01/07/1	4 12:35	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Metl	hod: EPA 601	10 Preparation Meth	nod: EP	A 3010			
Manganese, Dissolved	<b>255</b> ug	ı/L	5.0	1	01/09/14 14:55	01/10/14 14:02	7439-96-5	
Selenium, Dissolved	<b>37.4</b> ug	ı/L	15.0	1	01/09/14 14:55	01/10/14 14:02	7782-49-2	
8260 MSV UST, Water	Analytical Meth	nod: EPA 826	60					
Benzene	<b>179</b> ug	ı/L	1.0	1		01/10/14 20:15	71-43-2	
Ethylbenzene	<b>10.5</b> ug	ı/L	1.0	1		01/10/14 20:15	100-41-4	
Toluene	<b>353</b> ug	ı/L	5.0	5		01/14/14 01:00	108-88-3	
Xylene (Total)	<b>690</b> ug	ı/L	15.0	5		01/14/14 01:00	1330-20-7	
Surrogates								
Toluene-d8 (S)	91 %		80-120	1		01/10/14 20:15		
4-Bromofluorobenzene (S)	95 %		80-120	1		01/10/14 20:15		
1,2-Dichloroethane-d4 (S)	104 %		80-120	1		01/10/14 20:15		
Preservation pH	1.0		1.0	1		01/10/14 20:15		
2540C Total Dissolved Solids	Analytical Meth	nod: SM 254	0C					
Total Dissolved Solids	<b>2900</b> mg	g/L	5.0	1		01/14/14 16:13		
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 300	0.0					
Sulfate	<b>1360</b> mg	g/L	100	100		01/20/14 16:56	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 353	3.2					
Nitrogen, Nitrate	<b>28.3</b> mg	g/L	1.0	10		01/09/14 11:13		



Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: GW-075034-010714-CM- DUP	Lab ID: 6016	60790018	Collected: 01/07/1	14 12:40	Received: 0	1/09/14 09:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Meth	od: EPA 8260	)					
Benzene	<b>192</b> ug/	L	1.0	1		01/10/14 20:3	1 71-43-2	
Ethylbenzene	<b>10.7</b> ug/	L	1.0	1		01/10/14 20:3	1 100-41-4	
Toluene	<b>344</b> ug/	L	5.0	5		01/14/14 01:16	6 108-88-3	
Xylene (Total)	<b>715</b> ug/	L	15.0	5		01/14/14 01:16	6 1330-20-7	
Surrogates								
Toluene-d8 (S)	84 %		80-120	1		01/10/14 20:3	1 2037-26-5	
4-Bromofluorobenzene (S)	100 %		80-120	1		01/10/14 20:3	1 460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		80-120	1		01/10/14 20:3	1 17060-07-0	
Preservation pH	1.0		1.0	1		01/10/14 20:3	1	



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: TB-075034-010714-CM-001	Lab ID: 60160790019	Collected: 01/07/1	4 16:00	Received: 01	/09/14 09:30 N	Matrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 82	260					
Benzene	ND ug/L	1.0	1		01/10/14 20:47	71-43-2	
Ethylbenzene	ND ug/L	1.0	1		01/10/14 20:47	100-41-4	
Toluene	ND ug/L	1.0	1		01/10/14 20:47	108-88-3	
Xylene (Total)	ND ug/L	3.0	1		01/10/14 20:47	1330-20-7	
Surrogates	_						
Toluene-d8 (S)	92 %	80-120	1		01/10/14 20:47	2037-26-5	
4-Bromofluorobenzene (S)	98 %	80-120	1		01/10/14 20:47	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %	80-120	1		01/10/14 20:47	17060-07-0	
Preservation pH	1.0	1.0	1		01/10/14 20:47		



## **ANALYTICAL RESULTS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Sample: TB-075034-010714-CM-002	Lab ID: 60160790020	Collected: 01/07/1	4 16:10	Received: 01	/09/14 09:30 N	/latrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 82	260					
Benzene	ND ug/L	1.0	1		01/10/14 21:03	71-43-2	
Ethylbenzene	ND ug/L	1.0	1		01/10/14 21:03	100-41-4	
Toluene	ND ug/L	1.0	1		01/10/14 21:03	108-88-3	
Xylene (Total)	ND ug/L	3.0	1		01/10/14 21:03	1330-20-7	
Surrogates	-						
Toluene-d8 (S)	91 %	80-120	1		01/10/14 21:03	2037-26-5	
4-Bromofluorobenzene (S)	95 %	80-120	1		01/10/14 21:03	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %	80-120	1		01/10/14 21:03	17060-07-0	
Preservation pH	1.0	1.0	1		01/10/14 21:03		





#### **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

QC Batch: MBIO/12425 Analysis Method: SM 9215B

QC Batch Method: SM 9215B Analysis Description: 9215B Heterotrophic Plate Count

Associated Lab Samples: 60160790001, 60160790002, 60160790003, 60160790004, 60160790005, 60160790006, 60160790007,

60160790008, 60160790009

METHOD BLANK: 1315960 Matrix: Solid

Associated Lab Samples: 60160790001, 60160790002, 60160790003, 60160790004, 60160790005, 60160790006, 60160790007,

60160790008, 60160790009

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Heterotrophic Plate Count CFU/mL <1 1.0 01/10/14 11:30

SAMPLE DUPLICATE: 1315961

Date: 01/22/2014 01:17 PM

60160790001 Dup Max

Parameter Units Result Result RPD RPD Qualifiers

Heterotrophic Plate Count CFU/mL 335000 360000



#### **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

LABORATORY CONTROL SAMPLE: 1315519

Date: 01/22/2014 01:17 PM

Pace Project No.: 60160790

QC Batch: MPRP/25842 Analysis Method: EPA 6010

QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved

Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016,

60160790017

METHOD BLANK: 1315518 Matrix: Water

Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016,

60160790017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND ND	5.0	01/10/14 13:34	
Selenium, Dissolved	ug/L	ND	15.0	01/10/14 13:34	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	1000	100	80-120	
Selenium, Dissolved	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SF	PIKE DUPLICAT	E: 13155	20		1315521							
			MS	MSD								
	601	160790010	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Manganese, Dissolved	ug/L	132	1000	1000	1130	1130	100	100	75-125	0	20	
Selenium, Dissolved	ug/L	34.9	1000	1000	1070	1070	104	103	75-125	0	20	



## **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

QC Batch: MSV/58783 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015

METHOD BLANK: 1315542 Matrix: Water

Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	01/09/14 12:46	
Ethylbenzene	ug/L	ND	1.0	01/09/14 12:46	
Toluene	ug/L	ND	1.0	01/09/14 12:46	
Xylene (Total)	ug/L	ND	3.0	01/09/14 12:46	
1,2-Dichloroethane-d4 (S)	%	103	80-120	01/09/14 12:46	
4-Bromofluorobenzene (S)	%	100	80-120	01/09/14 12:46	
Toluene-d8 (S)	%	98	80-120	01/09/14 12:46	

LABORATORY CONTROL SAMPLE:	1315543					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L		20.1	101	73-122	
Ethylbenzene	ug/L	20	19.7	98	76-123	
Toluene	ug/L	20	21.3	106	76-122	
Xylene (Total)	ug/L	60	60.5	101	76-122	
1,2-Dichloroethane-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			97	80-120	
Toluene-d8 (S)	%			105	80-120	



## **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

QC Batch: MSV/58789 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60160790016, 60160790017, 60160790018, 60160790019, 60160790020

METHOD BLANK: 1315772 Matrix: Water

Associated Lab Samples: 60160790016, 60160790017, 60160790018, 60160790019, 60160790020

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND ND	1.0	01/10/14 16:44	
Ethylbenzene	ug/L	ND	1.0	01/10/14 16:44	
Toluene	ug/L	ND	1.0	01/10/14 16:44	
Xylene (Total)	ug/L	ND	3.0	01/10/14 16:44	
1,2-Dichloroethane-d4 (S)	%	99	80-120	01/10/14 16:44	
4-Bromofluorobenzene (S)	%	102	80-120	01/10/14 16:44	
Toluene-d8 (S)	%	86	80-120	01/10/14 16:44	

LABORATORY CONTROL SAME	PLE: 1315773					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L		21.6	108	73-122	
Ethylbenzene	ug/L	20	18.5	93	76-123	
Toluene	ug/L	20	17.3	86	76-122	
Xylene (Total)	ug/L	60	56.4	94	76-122	
1,2-Dichloroethane-d4 (S)	%			113	80-120	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			93	80-120	



#### **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

QC Batch: MSV/58812 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60160790017, 60160790018

METHOD BLANK: 1316773 Matrix: Water

Associated Lab Samples: 60160790017, 60160790018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	01/13/14 23:55	<del></del>
Xylene (Total)	ug/L	ND	3.0	01/13/14 23:55	
1,2-Dichloroethane-d4 (S)	%	100	80-120	01/13/14 23:55	
4-Bromofluorobenzene (S)	%	99	80-120	01/13/14 23:55	
Toluene-d8 (S)	%	100	80-120	01/13/14 23:55	

LABORATORY CONTROL SAMPLE: 1316774 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Toluene ug/L 20 20.2 101 76-122 ug/L Xylene (Total) 60 62.1 103 76-122 80-120 1,2-Dichloroethane-d4 (S) % 98 4-Bromofluorobenzene (S) % 99 80-120 Toluene-d8 (S) % 99 80-120



#### **QUALITY CONTROL DATA**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

QC Batch: WET/45607 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016,

60160790017

METHOD BLANK: 1317303 Matrix: Water

Associated Lab Samples: 60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016,

60160790017

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L ND 5.0 01/14/14 16:00

LABORATORY CONTROL SAMPLE: 1317304

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Dissolved Solids** 98 80-120 mg/L 1000 980

SAMPLE DUPLICATE: 1317305

Date: 01/22/2014 01:17 PM

60160790010 Dup Max RPD RPD Qualifiers Units Result Result Parameter **Total Dissolved Solids** 1990 mg/L 1990 0 17



#### **QUALITY CONTROL DATA**

Reporting

075034 San Juan 29-7 Unit 37 Project:

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

QC Batch: WETA/27861 Analysis Method: EPA 300.0 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016, Associated Lab Samples:

60160790017

METHOD BLANK: 1319733 Matrix: Water

60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016, Associated Lab Samples: Blank

60160790017

Units Qualifiers Parameter Result Limit Analyzed Sulfate mg/L ND 1.0 01/20/14 11:02

LABORATORY CONTROL SAMPLE: 1319734

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfate 5 5.1 102 mg/L 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1319736 1319735

MS MSD MSD MS 60160790010 Spike MS MSD % Rec Spike Max % Rec Parameter Units Conc. % Rec Limits RPD RPD Result Conc. Result Result Qual Sulfate 1040 500 500 1520 1490 96 89 80-120 2 15 mg/L

MATRIX SPIKE SAMPLE: 1319737 60160790011 Spike MS MS % Rec Qualifiers Parameter Units Result Conc. Result % Rec Limits

Sulfate mg/L 1300 500 1750 80-120



#### **QUALITY CONTROL DATA**

075034 San Juan 29-7 Unit 37 Project:

Pace Project No.: 60160790

QC Batch: WETA/27774 Analysis Method: EPA 353.2

Units

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016, Associated Lab Samples:

60160790017

METHOD BLANK: 1315295 Matrix: Water

60160790010, 60160790011, 60160790012, 60160790013, 60160790014, 60160790015, 60160790016,Associated Lab Samples: Blank

60160790017

Reporting Units Limit Qualifiers Parameter Result Analyzed Nitrogen, Nitrate mg/L ND 0.10 01/09/14 10:18

Spike

Conc.

LABORATORY CONTROL SAMPLE: 1315296

Parameter

1.7 Nitrogen, Nitrate 109 85-115 mg/L 1.6 MATRIX SPIKE SAMPLE: 1315299 60160732002 MS Spike MS % Rec Result Conc. Result % Rec Limits Qualifiers Parameter Units 1.1 2.7 Nitrogen, Nitrate mg/L 1.6 101 85-115 MATRIX SPIKE SAMPLE: 1315351 60160790010 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 22.5 16 35.9 84 85-115 M1

LCS

Result

LCS

% Rec

% Rec

Limits

Qualifiers

SAMPLE DUPLICATE: 1315300

Date: 01/22/2014 01:17 PM

60160826002 Dup Max RPD RPD Units Result Qualifiers Parameter Result 0.86 0.89 3 20 Nitrogen, Nitrate mg/L



#### **QUALIFIERS**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

#### **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: MSV/58783

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

Batch: MSV/58789

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

Batch: MSV/58812

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

## **ANALYTE QUALIFIERS**

Date: 01/22/2014 01:17 PM

H3 Sample was received or analysis requested beyond the recognized method holding time.

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

u3 Analysis initiated more than 8 hours but less than 24 hours after sample collection.

u6 Analysis initiated more than 24 hours after sample collection.



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60160790010	GW-075034-010714-CM-MW-1	EPA 3010	MPRP/25842	EPA 6010	ICP/19799
60160790011	GW-075034-010714-CM-MW-2	EPA 3010	MPRP/25842		ICP/19799
60160790012	GW-075034-010714-CM-MW-3	EPA 3010	MPRP/25842		ICP/19799
60160790013	GW-075034-010714-CM-MW-4	EPA 3010	MPRP/25842	EPA 6010	ICP/19799
60160790014	GW-075034-010714-CM-MW-5	EPA 3010	MPRP/25842		ICP/19799
60160790015	GW-075034-010714-CM-MW-6	EPA 3010	MPRP/25842	EPA 6010	ICP/19799
60160790016	GW-075034-010714-CM-MW-7	EPA 3010	MPRP/25842	EPA 6010	ICP/19799
60160790017	GW-075034-010714-CM-MW-8R	EPA 3010	MPRP/25842	EPA 6010	ICP/19799
60160790001	GW-075034-010714-CM-MW-1	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790002	GW-075034-010714-CM-MW-2	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790003	GW-075034-010714-CM-MW-3	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790004	GW-075034-010714-CM-MW-4	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790005	GW-075034-010714-CM-MW-5	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790006	GW-075034-010714-CM-MW-6	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790007	GW-075034-010714-CM-MW-7	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790008	GW-075034-010714-CM-MW-8R	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790009	GW-075034-010714-CM-MW-DUP	SM 9215B	MBIO/12425	SM 9215B	MBIO/12426
60160790010	GW-075034-010714-CM-MW-1	EPA 8260	MSV/58783		
60160790011	GW-075034-010714-CM-MW-2	EPA 8260	MSV/58783		
60160790012	GW-075034-010714-CM-MW-3	EPA 8260	MSV/58783		
60160790013	GW-075034-010714-CM-MW-4	EPA 8260	MSV/58783		
60160790014	GW-075034-010714-CM-MW-5	EPA 8260	MSV/58783		
60160790015	GW-075034-010714-CM-MW-6	EPA 8260	MSV/58783		
60160790016	GW-075034-010714-CM-MW-7	EPA 8260	MSV/58789		
60160790017	GW-075034-010714-CM-MW-8R	EPA 8260	MSV/58789		
60160790017	GW-075034-010714-CM-MW-8R	EPA 8260	MSV/58812		
60160790018	GW-075034-010714-CM-DUP	EPA 8260	MSV/58789		
60160790018	GW-075034-010714-CM-DUP	EPA 8260	MSV/58812		
60160790019	TB-075034-010714-CM-001	EPA 8260	MSV/58789		
60160790020	TB-075034-010714-CM-002	EPA 8260	MSV/58789		
60160790010	GW-075034-010714-CM-MW-1	SM 2540C	WET/45607		
60160790011	GW-075034-010714-CM-MW-2	SM 2540C	WET/45607		
60160790012	GW-075034-010714-CM-MW-3	SM 2540C	WET/45607		
60160790013	GW-075034-010714-CM-MW-4	SM 2540C	WET/45607		
60160790014	GW-075034-010714-CM-MW-5	SM 2540C	WET/45607		
60160790015	GW-075034-010714-CM-MW-6	SM 2540C	WET/45607		
60160790016	GW-075034-010714-CM-MW-7	SM 2540C	WET/45607		
60160790017	GW-075034-010714-CM-MW-8R	SM 2540C	WET/45607		
60160790010	GW-075034-010714-CM-MW-1	EPA 300.0	WETA/27861		
60160790011	GW-075034-010714-CM-MW-2	EPA 300.0	WETA/27861		
60160790012	GW-075034-010714-CM-MW-3	EPA 300.0	WETA/27861		
60160790013	GW-075034-010714-CM-MW-4	EPA 300.0	WETA/27861		
60160790014	GW-075034-010714-CM-MW-5	EPA 300.0	WETA/27861		
60160790015	GW-075034-010714-CM-MW-6	EPA 300.0	WETA/27861		



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 075034 San Juan 29-7 Unit 37

Pace Project No.: 60160790

Date: 01/22/2014 01:17 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60160790016	GW-075034-010714-CM-MW-7	EPA 300.0	WETA/27861		
60160790017	GW-075034-010714-CM-MW-8R	EPA 300.0	WETA/27861		
60160790010	GW-075034-010714-CM-MW-1	EPA 353.2	WETA/27774		
60160790011	GW-075034-010714-CM-MW-2	EPA 353.2	WETA/27774		
60160790012	GW-075034-010714-CM-MW-3	EPA 353.2	WETA/27774		
60160790013	GW-075034-010714-CM-MW-4	EPA 353.2	WETA/27774		
60160790014	GW-075034-010714-CM-MW-5	EPA 353.2	WETA/27774		
60160790015	GW-075034-010714-CM-MW-6	EPA 353.2	WETA/27774		
60160790016	GW-075034-010714-CM-MW-7	EPA 353.2	WETA/27774		
60160790017	GW-075034-010714-CM-MW-8R	EPA 353.2	WETA/27774		



# Sample Condition Upon Receipt ESI Tech Spec Client



Client Name: COP CEA NM			Optional
Courier: Fed Ex № UPS □ USPS □ Client □	Commercial	Pace □ Other □	Proj Due Date:
Tracking #: 8043 6584 7724	Pace Shipping Lal	bel Used? Yes □ No	⊠¹ Proj Name:
Custody Seal on Cooler/Box Present: Yes > No	□ Seals intact	t: Yes ⊯ No □	
Packing Material: Bubble Wrap Bubble Ba	ags □ Fo	am.∕☑ None □	Other □
			s received on ice, cooling process has begun.
Cooler Temperature: 1.4, 1.8	(		nte and initials of person examining ontents: 1/9/14
Temperature should be above freezing to 6°C			1020
Chain of Custody present:	✓ Yes □No □		
Chain of Custody filled out:	Yes No 🗆	N/A 2. All twos	on COC gie MST
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. N/2N03	
Rush Turn Around Time requested:	□Yes ÆNo □	N/A 7.	
Sufficient volume:	ØYes □No □	N/A 8.	
Correct containers used:	☑Yes ☐No ☐	N/A	
Pace containers used:	ØYes □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?	Ø Pres □ No Ø	N/A 12.	
Sample labels match COC:	∕2Yes □No □	N/A	
Includes date/time/ID/analyses Matrix:	water	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
Trip Blank present:	ØYes □No □		
Pace Trip Blank lot # (if purchased): 11113-3		15.	
Headspace in VOA vials ( >6mm):	□Yes ANo □	N/A	
		16,	
Project sampled in USDA Regulated Area:	□Yes □No 🎾	N/A 17 List State	
Client Notification/ Resolution: Copy C	COC to Client? Y	N Field Data Re	equired? Y / N
Person Contacted:	)ate/Time:		Temp Log: Record start and finish times
Comments/ Resolution:			when unpacking cooler, if >20 min, recheck sample temps
			Start: 1010 Start:
AM		11941	End: 1029 End:
Project Manager Review:		Date:	Temp: Temp



# Sample Condition Upon Receipt

60/60790

Client Name: COP CRA MM	72				Optional
Courier: Fed Ex UPS USPS Client	Commercial [	Pace [	☐ Other ☐		Proj Due Date
Sourier.	Pace Shipping L		? Yes□ N	01	Proj Name:
Custody Seal on Cooler/Box Present: Yes No		ict: Yes		*	
Packing Material: Bubble Wrap ☐ Bubble Ba		Foam □	None 🛱	Other 🗆	
-111	ype of Ice: (We			les received o	n ice, cooling process has begun.
Cooler Temperature: 1.6		(circle one		Date and initi	als of person examining
Temperature should be above freezing to 6°C				contents. 1	10 10 10 10 10
Chain of Custody present:	¥(Yes □No	□N/A 1.			
Chain of Custody filled out:	Ľ⁄ves □No	[]N/A 2.			
Chain of Custody relinquished:	X(Yes □No	□N/A 3			
Sampler name & signature on COC:	7€Yes □No	□N/A 4.		7251	
Samples arrived within holding time:	□Yes No	□N/A 5.	> 8hr.	11.00	s are in
Short Hold Time analyses (<72hr):	Yes \( \subseteq No	□N/A 6.	Mour	Hain,	Logged il
Rush Turn Around Time requested:	Xyes □No	□N/A 7.	ac	cent	of Time,
Sufficient volume:	Yayes □No	□N/A 8.			
Correct containers used:	ÿAyes □Nο	□n/a			
Pace containers used:	Xiyes □No	□N/A 9,			
Containers intact:	Yes DNo	EJN/A 10.	8		
Unpreserved 5035A soils frozen w/in 48hrs?	□Yes K(No	□N/A 11.			
Filtered volume received for dissolved tests?	□Yes ANo	□N/A 12.	01		
Sample labels match COC:	Yes □No	□n/a			
Includes date/time/ID/analyses Matrix:	6.5	13			
All containers needing preservation have been checked.	□Yes □No	ØN/A			
All containers needing preservation are found to be in	□Yes □No				
compliance with EPA recommendation.	1		ial when		et # of added
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	XYes □No	cor	mpleted		eservative
Trip Blank present:	□Yes □No	* AINIA			
Pace Trip Blank lot # (if purchased):		15			
Headspace in VOA vials ( >6mm):	□Yes □No	DANIA			
		16			
Project sampled in USDA Regulated Area:	□Yes □No	DUIA 17	List State:		
Client Notification/ Resolution: Copy	COC to Client?	Y / N	Field Data	Required?	Y / N
Person Contacted:	Date/Time:				
Comments/ Resolution:					The state of the s
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			to:		
Project Manager Review:		Da	te:		

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

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

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REGULATORY AGENCY  NaCH NAOH NA2S2O3 Methanol Other  ACCEPTED BY AFFILIATION  DATE TIME  REGULATORY AGENCY REGULATORY AGENCY  REGULATORY AGENCY  REGULATORY AGENCY  REGULATORY AGENCY  REGULATORY AGENCY  NAD SITUATION  SITUATION  NM STATE:  NM STATE:  NM SITUATION  NM STATE:  NM STATE:  OATE Signed  OATE  TIME  OATE  TIME
#OF CONTAINERS
300.0 Sulfate  Analysis Filtered  Analysis Filtered  Analysis Filtered
Temp in °C Residual Chlorine (Y/N)

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

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