# 3R - 340

# QUARTERLY GWMR

04/28/2011

**3 R 340** 6121 Indian School Rd. NE Suite 200 Albuquerque, NM 87110 (505) 237-8440



April 28, 2011

| Mr. Glenn vo  | n Gonten  | 20       | $\square$  |
|---------------|---|----------|------------|
| State of New  | Mexico Oil Conservation Division  |          | $\square$  |
| 1220 South S  | t. Francis Dr.  | MAN      | H          |
| Santa Fe, Nev | v Mexico 87505  | - 2      | NT.        |
| RE:           | ConocoPhillips Randleman No. I Quarterly Groundwater Monitorin<br>Aztec, New Mexico | g Report | 000        |
|               |   | л<br>Г   | $\bigcirc$ |

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced document as compiled by Tetra Tech, Inc., formerly Maxim Technologies, for this Aztec area site.

Please do not hesitate to contact me at (505) 237-8440 if you have any questions or require additional information.

Sincerely,

Kelly & Blanchard

Kelly E. Blanchard Project Manager/Geologist

Enclosures (1)

Cc: Brandon Powell, NMOCD Aztec, NM Terry Lauck, ConocoPhillips RM&R (electronic only)

## QUARTERLY GROUNDWATER MONITORING REPORT DECEMBER 2010

## CONOCOPHILLIPS COMPANY RANDLEMAN No.1 PRODUCTION FACILITY SAN JUAN COUNTY, NEW MEXICO

OCD # 3RP-340-0 API # 30-045-10698

**Prepared for:** 

**ConocoPhillips** 

Risk Management and Remediation 420 South Keeler Avenue Bartlesville, OK 74004

**Prepared by:** 



TETRA TECH, INC.

6121 Indian School Rd. NE, Suite 200 Albuquerque, NM 87110 Tetra Tech Project No. 1158690090

January 2010

ConocoPhillips Company

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# QUARTERLY GROUNDWATER MONITORING REPORT RANDLEMAN NO.I, SAN JUAN COUNTY, NEW MEXICO DECEMBER 2010

#### **I.0 INTRODUCTION**

This report discusses the groundwater sampling event performed by Tetra Tech, Inc. (Tetra Tech) on December 17, 2010 at the ConocoPhillips Company Randleman No. 1 site located outside of Aztec, New Mexico (Site). The Site is situated on private land in Section 13, Township 31N, Range 11W, of San Juan County, New Mexico. A site location map and detail map are included as **Figures 1** and **2**, respectively.

#### I.I Site Background

The historical timeline for the Site is summarized below, and is also presented in **Table I**.

In April 1997, an unlined surface impoundment (**Figure 2**) was discovered to have been impacted by petroleum hydrocarbons. On April 29, 1997, excavation of the soil beneath the impoundment began; once complete, a total of 613 cubic yards of hydrocarbon impacted soil were removed and landfarmed at the nearby Randleman No. 3 site (Williams 2002). Three monitor wells were installed at the Site on May 14, 1997, and quarterly groundwater monitoring was conducted through March 1998. Evaluation of groundwater monitoring results initiated another excavation in April 1998 of 2,220 cubic yards of hydrocarbon impacted soil "to address residual soil contamination extending to the south of the original excavated area" (Williams, 2002). Quarterly groundwater monitoring results below New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards for benzene, toluene, ethylbenzene, and total xylenes (BTEX), Williams Environmental Services (Williams) requested that the New Mexico Oil Conservation Division (OCD) grant closure status for the Site. In June 2002, OCD granted closure for the Site, provided that Williams plug and abandon all Site groundwater monitor wells according to OCD standards (NMEMNRD, 2002). The historical excavation area and historical groundwater monitor wells are displayed in **Figure 2**.

On February 23, 2009, a release of approximately 60 barrels of condensate occurred as a result of a hole in an on-Site production tank. Envirotech Inc. of Farmington, NM (Envirotech) excavated an area of approximately 42 ft. x 51 ft. x 7 ft. deep on February 26, 2009. Seven composite soil samples were collected during excavation activities and were field analyzed for total petroleum hydrocarbons (TPH) using Environmental Protection Agency (EPA) Method 418.1. Additionally, samples were field analyzed for organic vapors using a photoionization detector (PID) and heated headspace techniques. TPH results ranged from 8 to 1,080 parts per million (ppm) in the walls of the excavation. Organic vapor concentrations ranged from 6.8 ppm to 898 ppm. Due to levels of TPH and organic vapors above OCD action levels, the excavation was

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continued on February 27, 2009 (Envirotech, 2009). The total area of excavation measured 81 ft  $\times$  43 ft  $\times$  20 ft. deep. The excavation area is depicted in **Figure 2**.

On March 2, 2009, groundwater was found seeping into the southeast corner of the excavation at a depth of approximately 20 feet bgs. A vacuum truck operated by Rock Springs was contracted by Envirotech to collect groundwater from the excavation. After removal of accumulated groundwater, Envirotech obtained a soil sample from the southeast corner of the excavation at a depth of 20 feet bgs. TPH and organic vapor results were found to be above OCD action levels. During field analysis of the soil sample, groundwater continued to seep into the excavation. Groundwater was again removed from the excavation, and additional excavation was performed to obtain a soil sample below OCD action levels. A groundwater sample was collected and sent for laboratory analysis of volatile organic compounds by EPA Method 8260B. The groundwater quality standards. Soon after the groundwater sample was taken, the excavation caved in making further water removal via the vacuum truck impossible (Envirotech, 2009). The excavation area is depicted in **Figure 2**.

A total of 611 cubic yards of soil were removed from the Site and were transported to an OCD-permitted facility; clean fill was obtained from the landowner to backfill the excavation. Envirotech recommended the installation of groundwater monitor wells at the Site under OCD guidelines (Envirotech, 2009).

Tetra Tech installed four groundwater monitor wells at the Site between June 9, 2009 and June 10, 2009. A generalized geologic cross section was produced using soil boring data collected during monitoring well installation (**Figure 3**). Following drilling activities in June 2009, the casings for Site monitor wells were surveyed using an arbitrary reference-elevation of 100 feet above mean sea level (amsl). Data obtained from the Site survey is used in conjunction with quarterly monitoring data to produce groundwater elevation maps for the Site (**Figure 4**). Groundwater flow direction at the Site is to the east/southeast.

Tetra Tech began conducting groundwater monitoring events at the Site on June 12, 2009. Hydrocarbon absorbent socks were placed in Monitor Wells MW-2 and MW-3 on June 18, 2009 due to the presence of a spotty, discontinuous light non-aqueous phase liquid (LNAPL) sheen present in purge water during sampling. The socks were removed during the March 2010 sampling event. Since the removal of the socks, LNAPL has not been detected in MW-2 or in MW-3. Soil and groundwater samples were also collected from the Kiffen Canyon Wash on October 21, 2009 and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX). In both the soil and groundwater collected from Kiffen Canyon Wash, BTEX constituents were found to be below standards.

# 2.0 GROUNDWATER MONITORING SUMMARY, SAMPLING METHODOLOGY AND RESULTS

#### 2.1 Monitoring Summary

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A groundwater sampling event was conducted at the Site on December 17, 2010. Prior to collection of groundwater samples from Monitor Wells MW-1, MW-2, MW-3 and MW-4, depth to groundwater in each well was measured using a dual interface probe (**Table 2**). A groundwater elevation contour map reflecting December 2010 groundwater elevation is presented as **Figure 4**.

#### 2.2 Groundwater Sampling Methodology

During the December 17, 2010 groundwater monitoring event, Site monitor wells were purged of at least 3 casing volumes of groundwater using a 1.5-inch diameter, polyethylene dedicated bailer. While bailing each well, groundwater parameters were collected using a YSI 556 multi-parameter sonde and results were recorded on a Tetra Tech Water Sampling Field Form (**Appendix A**). Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Southern Petroleum Laboratory (SPL) of Houston, Texas.

December 2010 groundwater samples were analyzed for BTEX by EPA Method 8260B; sulfate and chloride by EPA Method E300.0; TDS by EPA Method 2540C; and dissolved manganese by EPA Method 6010B (**Table 3**). A summary of analytical results from the December 17, 2010 sampling event is displayed in **Table 4**. Tetra Tech has prepared **Table 4** as a historical analytical results table to include all quarterly analytical parameters to help document trends in constituent concentrations over time. Results from future groundwater monitoring events at the Site will be compiled in this table.

#### 2.3 Groundwater Sampling Analytical Results

The New Mexico Water Quality Control Commission (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. Exceedence of NMWQCC groundwater quality standards in Site monitoring wells are discussed below.

#### Chloride

The NMWQCC domestic water supply groundwater quality standard for chloride is 250 milligrams per liter (mg/L); in December 2010, the groundwater sample collected from MW-4, the up-gradient monitoring well, was found to contain chloride at concentration of 2,350 mg/L. This is the seventh consecutive quarter that Monitor Wells MW-1, MW-2, and MW-3 have been below the chloride standard.

#### • Sulfate

The NMWQCC domestic water supply groundwater quality standard for sulfate is 600 mg/L; groundwater samples collected in December 2010 from Monitor Well MW-1, MW-2, MW-3 and MW-4 were found to contain sulfate at concentrations of 2,100 mg/L, 1,520 mg/L, 1,760 mg/L, and 3,570 mg/L, respectively. Sulfate concentrations increased in all wells this quarter.

#### Manganese

The NMWQCC domestic water supply groundwater quality standard for manganese is 0.2 milligrams per liter (mg/L). In December 2010, groundwater samples collected from monitor wells MW-2, MW-3 and MW-4 were found to contain concentrations of manganese above the standard at 2.28 mg/L, 0.41 mg/L, and 1.68 mg/L, respectively.

#### • Benzene

 The human health NMWQCC groundwater quality standard for benzene is 10 μg/L. Benzene concentrations measured in the December 2010 sampling event were found to all be below NMWQCC standards. This is the second sampling event with benzene below standards in all monitoring wells.

#### • Total Xylenes

 The human health NMWQCC groundwater quality standard for total xylenes is 620 μg/L. The December 2010 groundwater samples collected from all Monitor Wells were below the NMWQCC standard for total xylenes; representing the forth quarter of NMWQCC compliance for total xylenes at the Site.

#### • Total Dissolved Solids

The human health NMWQCC groundwater quality standard for total dissolved solids is l,000 mg/L. The December 2010 groundwater samples collected from Monitor Wells MW-I, MW-2, MW-3 and MW-4 were above the standard with concentrations of 4,340 μg/L, 2,760 μg/L, 2,590 μg/L and 9,400 μg/L, respectively. It should be noted that the up-gradient well, MW-4, consistently contains TDS concentrations at higher levels than the other Site monitoring wells.

The corresponding laboratory analytical report for the December 2010 groundwater sampling event, including quality control summaries, is included in **Appendix B**. A map showing BTEX concentrations in groundwater from Site monitoring wells during the December 2010 groundwater sampling event is included as **Figure 5**. An isopleths map showing sulfate, chloride, and TDS concentrations is presented as **Figure 6**.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

Tetra Tech recommends continued quarterly groundwater sampling at the Site in order to provide sufficient data for Site closure. Site closure will be requested when groundwater analytical results indicate that all constituents of concern are consistently below NMWQCC groundwater quality standards. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

ConocoPhillips Company

### 4.0 **REFERENCES**

- Envirotech Incorporated (2009). Spill Cleanup Report, Located at: Burlington Resources [sic] Randleman #1 Well Site, Section 13, Township 31N, Range 11W, San Juan County, New Mexico: Prepared for ConocoPhillips. Report Dated February 2009. 3 pp (not including Figures, Tables, and Appendices).
- New Mexico Energy, Minerals and Natural Resources Department (2002). Case # 3R0-340, Randleman #1 Dehy Pit, San Juan County [sic], New Mexico. Letter from NMEMNRD to Williams Field Services. Dated June 14, 2002. 6 pp.
- Williams Environmental Services (2002). Randleman #1 Pit Remediation and Closure Report. Prepared for the New Mexico Oil Conservation Division. Report Dated February 11, 2002. 3 pp (not including Figures, Tables, and Appendices).

# **FIGURES**

I. Site Location Map

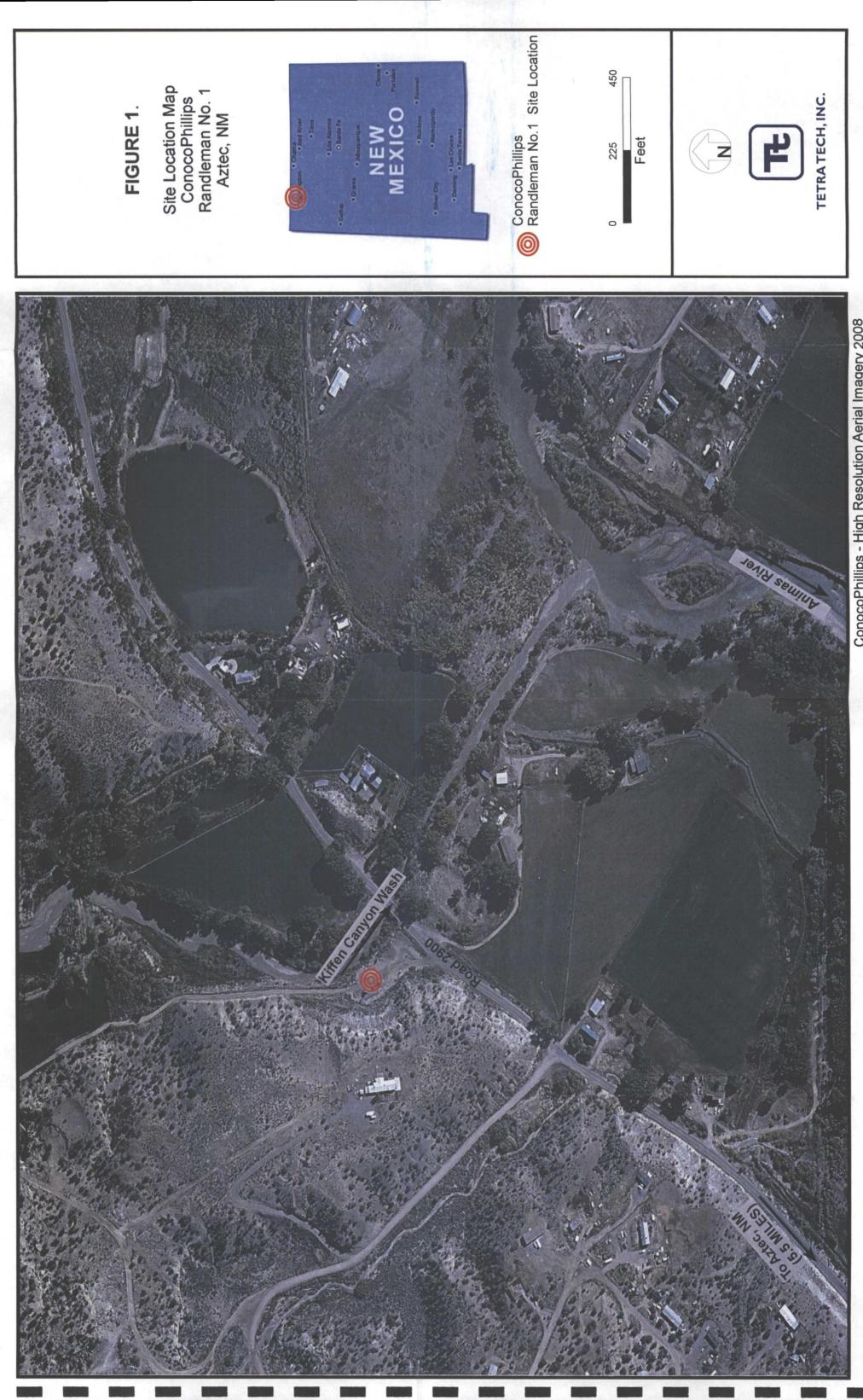
2. Site Detail Map

3. Generalized Geologic Cross Section

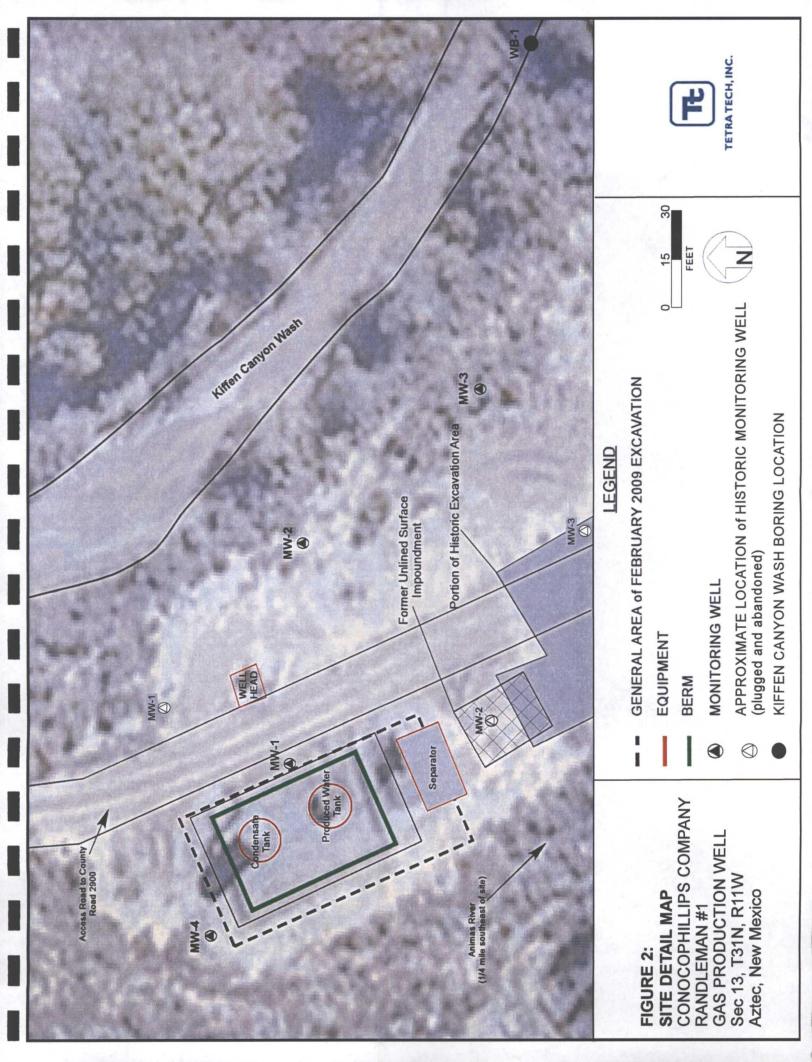
4. Groundwater Elevation Map – December 2010

5. BTEX Groundwater Concentration Map – December 2010

6. Sulfate, Chloride, and TDS Isopleth Map – December 2010



ConocoPhillips - High Resolution Aerial Imagery 2008



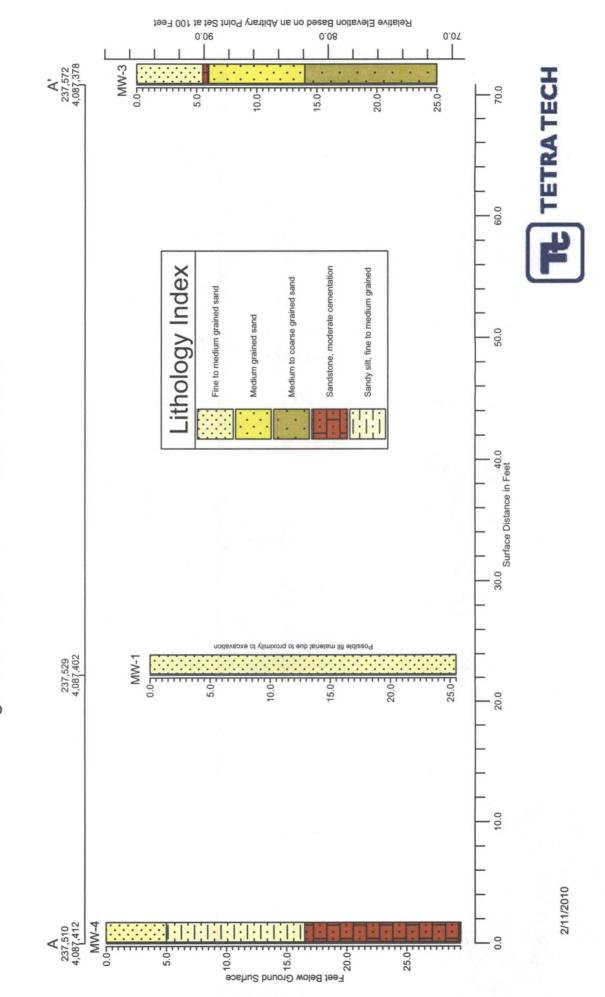
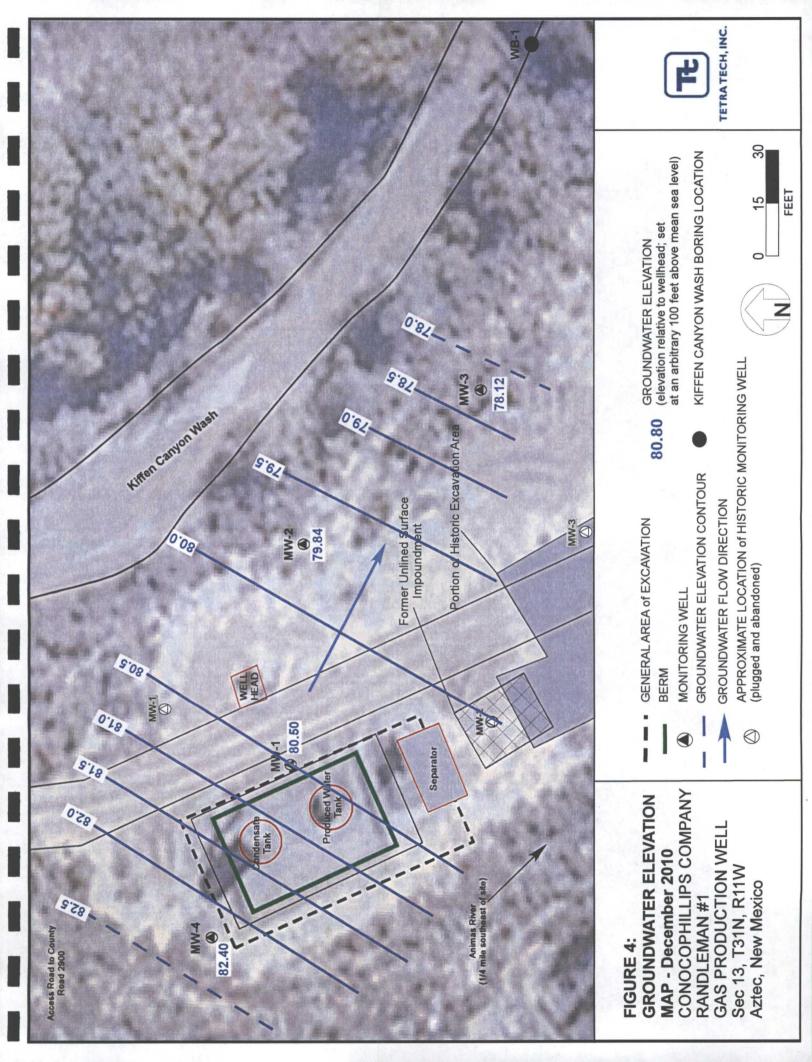
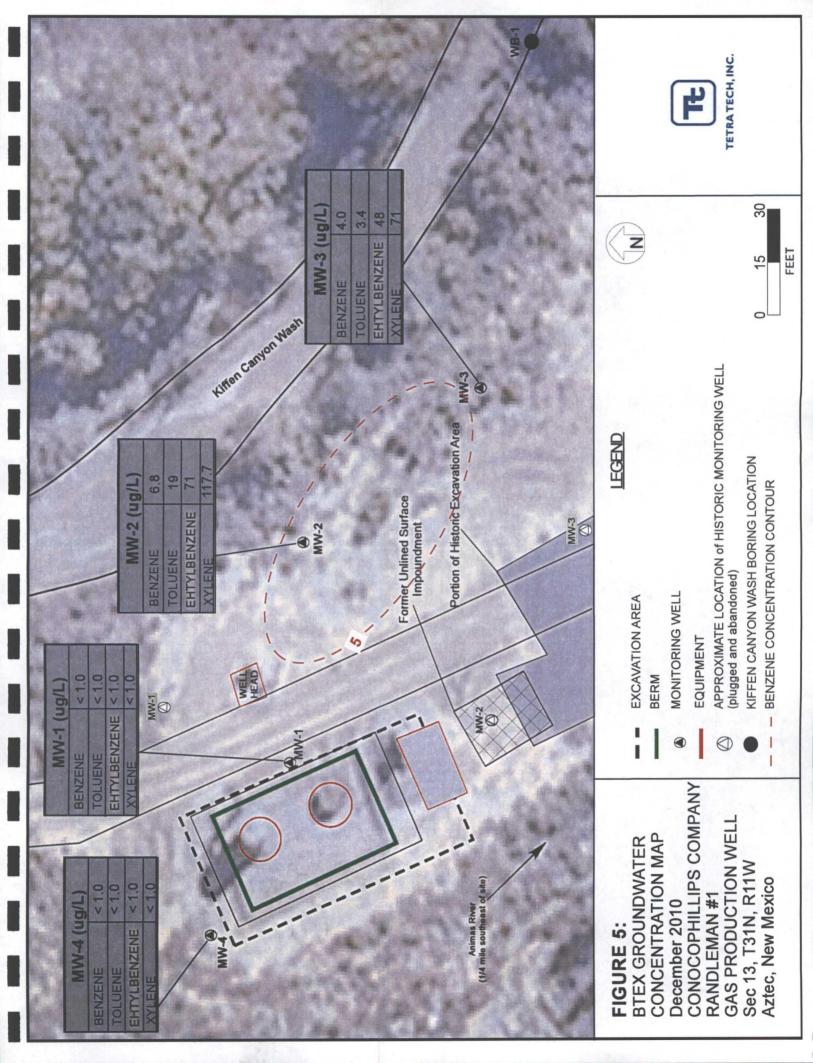
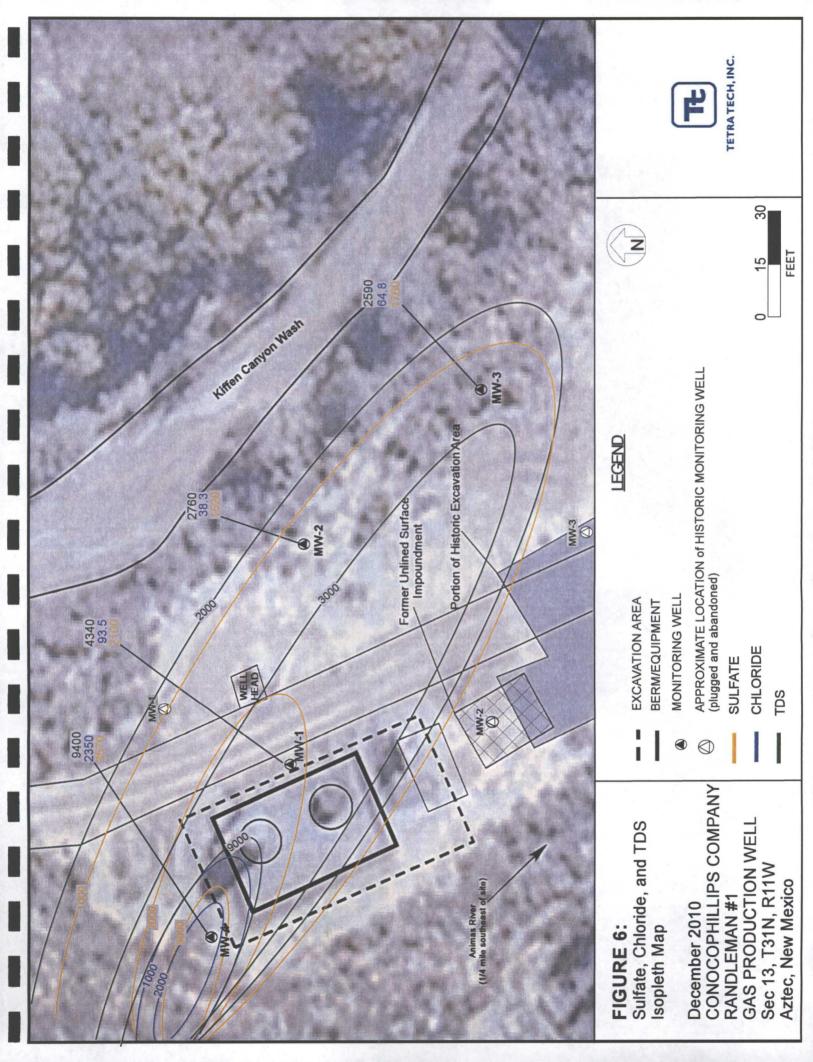


Figure 3. Randleman #1 - Cross-Section A-A'







# TABLES

I. Site History Timeline 2. Groundwater Elevation Data Summary (June 2009 – December 2010) Conserved and Summary, Baseline Parameters (June 2009) 4. Groundwater Laboratory Analytical Results Summary, Quarterly Parameters (June 2009 – December 2010)

|  | DATE                       | ACTIVITY   |
|--|----------------------------|--|
|  | September 20, 1951         | Well spudded by Southern Union Gas Company.  |
|  | August 1, 1952             | Well acquired by Aztec Oil and Gas Company.  |
|  | December 1, 1976           | Southland Royalty Company acquired Aztec Oil and Gas Company.  |
|  | November 22, 1985          | Southland Royalty Company acquired by Burlington Resources.  |
|  | April 1, 1997              | An unlined surface impoundment was discovered to have been impacted by petroleum hydrocarbons. On<br>April 29, 1997, excavation of the soil beneath the impoundment began; once complete, a total of 613 cubic<br>yards of hydrocarbon impacted soil were removed and landfarmed at the nearby Randleman #3 site.  |
|  | May 14, 1997               | Three groundwater monitor wells were installed at the Site. Groundwater monitoring was initiated on a<br>quarterly basis through March 1998.   |
|  | April 1, 1998              | Evaluation of groundwater monitoring results initiated another excavation of 2,220 cubic yards of hydrocarbon<br>impacted soil "to address residual soil contamination extending to the south of the original excavated area"<br>(Williams, 2002).   |
|  | February 1, 2002           | Quarterly groundwater monitoring was continued through September 2000, and after 4 consecutive quarters<br>of groundwater quality monitoring results below New Mexico Water Quality Control Commission (NMWQCC)<br>groundwater quality standards for benzene, toluene, ethylbenzene, and total xylenes (BTEX), Williams<br>Environmental Services (Williams) requested that the New Mexico Oil Conservation Division (OCD) grant<br>closure status for the Site.   |
|  | June 1, 2002               | OCD granted closure for the Site, provided that Williams plug and abandon all Site groundwater monitoring wells according to OCD standards (NMEMNRD, 2002). The historical excavation area and historical groundwater monitor wells are displayed in Figure 2.   |
|  | March 31, 2006             | ConocoPhillips Company acquired Burlington Resources and all assets.   |
|  | February 23, 2009          | Approximately 60 barrels of condensate were found to have spilled from a hole located on the back side of an<br>on-Site condensate tank into the bermed area. The spilled fluids remained in the berm and none of the<br>condensate was recovered. Form C-141 stated that the spill impacted the soil on the ground surface around<br>the tank, that the production tank was to be removed, and the affected soils were to be excavated.   |
| an gria  |                            | Envirotech Inc. of Farmington, NM (Envirotech) performed the soil excavation and collected soil samples for analysis. The area of release was excavated to approximately 42 feet by 51 feet by 7 feet deep. 7 composite soil samples were collected from the excavation and were analyzed for total petroleum hydrocarbons (TPH)   |
| an angga pangga ang<br>Distangga panggang<br>Ngangga panggang<br>Distangga panggang<br>Distangga panggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga pangganggang<br>Distangga panggangganggang<br>Distangga panggangganggang<br>Distangga pangganggangganggang<br>Distangga pangganggangganggangganggang<br>Distanggangganggangganggangganggangganggang | February 26, 2009          | using EPA Method 418.1. Additionally, organic vapors were measured using a Photoionization Detector (PID).<br>TPH results ranged from 8 parts per million (ppm) in the north wall sample to 1,080 ppm in the south wall<br>sample. The OCD recommended action level for TPH at the Site was determined to be 100 ppm. Organic<br>vapor concentrations ranged from 6.8 ppm from the north wall sample, to 898 ppm in the south wall<br>Due to high levels of TPH and organic vapors, the excavation was continued on February 27, 2009.   |
|  | February 27, 2009          | Envirotech continued the excavation and sampling activities. Samples collected from the north, west, and east<br>ends of the excavation on February 26, 2009 were found to be below OCD action levels for TPH, the focus of<br>the excavation on February 27, 2009 was the south wall, the southeast wall, and the bottom of the southeast<br>corner. The final excavation measured 81 feet by 43 feet by 20 feet deep (total depth is given for the deepest<br>part of the excavation; other areas determined to be below OCD action levels went to approximately 8 feet<br>bgs). Eight soil samples were collected and analyzed in the field for TPH and organic vapors. Excavation<br>continued until all samples were found to be below 100 ppm for both TPH and organic vapors. |
| ng séglené na sa s<br>na hari panantan   |                            | Groundwater began to seep into the southeast corner of the excavation at 20 feet bgs. A vacuum truck was contracted to remove groundwater from the excavation. After removal of groundwater, a soil sample from the southeast corner of the excavation was collected. TPH and organic vapor results were found to be above OCD action levels. More water was then removed from the excavation, and additional soil removal was performed.  |
|  | March 2, 2009              | A groundwater sample was collected from the area where water continued to seep into the excavation, and was analyzed for volatile organic compounds by EPA Method 8260. The groundwater sample was found to contain benzene, total xylenes and total naphthalenes above New Mexico Water Quality Control Commission  |
|  |                            | (NMWQCC) groundwater quality standards. Once this sample had been obtained, the excavation caved in,<br>making further water removal impossible (Envirotech, 2009). A total of 611 cubic yards of soil were romoved<br>from the Site. Clean fill was used to backfill the excavation.  |
|  | June 9 through 11,<br>2009 | Tetra Tech installs four groundwater monitor wells at the Site; MW-1, MW-2, MW-3 and MW-4.   |
|  | June 12, 2009              | Tetra Tech conducts the first groundwater monitoring event at the Site.  |
|  | June 17, 2009              | Depth to water measurements were taken by Tetra Tech in Site monitor wells to determine if hydrocarbons were accumulating in the water column. Hydrocarbon sheen was detected in MW-2 and MW-3.  |

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| June 18, 2009      | Hydrocarbon-absorbent socks were placed in monitor wells MW-2 and MW-3 by Tetra Tech.  |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|--|
| September 23, 2009 | Second quarterly groundwater monitoring event at the Site conducted by Tetra Tech.   |  |  |  |  |  |  |
| October 1, 2009    | Tetra Tech on Site to hand auger one boring near the Kiffen Canyon Wash, which is located downgradient<br>and east of the Site. Groundwater and soil samples collected from boring. No BTEX impacts were found.  |  |  |  |  |  |  |
| December 16, 2009  | Third quarterly groundwater monitoring event at the Site conducted by Tetra Tech.  |  |  |  |  |  |  |
| April 1, 2010      | Fourth quarterly groundwater monitoring event at the Site conducted by Tetra Tech.   |  |  |  |  |  |  |
| June 9, 2010       | Fifth quarterly groundwater monitoring event at the Site conducted by Tetra Tech.  |  |  |  |  |  |  |
| September 20, 2010 | Sixth quarterly groundwater monitoring event at the Site conducted by Tetra Tech. Lock and cap were observed missing from MW-4 -this was reported. The ground near MW-3 has shifted and the casing is sticking out of the completion. As a result, the PVC had to be cut and the site was re-surveyed by Tetra Tech. |  |  |  |  |  |  |
| December 17, 2010  | Seventh guarterly groundwater monitoring event at the Site conducted by Tetra Tech.  |  |  |  |  |  |  |

Tetra Tech, Inc.

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| ter (ft below  | Table 2. G | roundwater El           | evation Data            | Summary - C              | onocoPhillips Com | Table 2. Groundwater Elevation Data Summary - ConocoPhillips Company Randleman No. 1 |                                   |
|--|------------|-------------------------|-------------------------|--------------------------|-------------------|--|-----------------------------------|
| $ \begin{array}{c} 13.5.5 \\ 3 - 24. \\ 25.5 \\ 3 - 24. \\ 4 - 10.2009 \\ - 10.2000 \\ - 10.200 \\ - 1$ | Well ID    | Total Depth<br>(ft bgs) | Screen<br>Interval (ft) | *Elevation<br>(ft) (TOC) | Date Measured     | Depth to Groundwater (ft below<br>TOC)   | Relative Groundwater<br>Elevation |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |            |                         | ,                       | 1                        | 6/12/2009         | 13.98  | 81.21                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         | I                        | 6/14/2009         | 13.96  | 81.23                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  |            |                         |                         | 05 10                    | 9/23/2009         | 13.97  | 81.22                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  | MW-1       | 25.5                    | 6 - 24                  | 2                        | 12/16/2009        | 14.30  | 80.89                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  |            | 2                       |                         |                          | 4/1/2010          | 14.39  | 80.80                             |
| $ \left( \begin{array}{cccccc} & 1.2,1.7,20,00 & 14.5,4 & 0 \\ 12/17,20,00 & 15,57 & 0 \\ 12/17,20,00 & 15,67 & 0 \\ 12/17,20,00 & 15,67 & 0 \\ 12/12,00,0 & 15,67 & 0 \\ 12/12,00,0 & 15,67 & 0 \\ 12/12,00,0 & 16,67 & 0 \\ 12/17,20,0 & 16,67 & 0 \\ 12/17,20,0 & 16,67 & 0 \\ 12/17,20,0 & 16,67 & 0 \\ 12/17,20,0 & 16,67 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,97 & 0 \\ 12/17,20,0 & 15,98 & 0 \\ 12/17,20,0 & 17,95 & 0 \\ 12/17,20,0 & 11,94 & 0 \\ 12/17,20,0 & 14,14 & $   |            |                         |                         |                          | 6/9/2010          | 13.99  | 81.20                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  |            |                         |                         | 04 00                    | 9/20/2010         | 14.54  | 80.36                             |
|  |            |                         |                         | 00.10                    | 12/17/2010        | 14.40  | 80.50                             |
| $ \begin{array}{c} 1 + 2 + 23.8 \\ 23.80 \\ 23.80 \\ 23.80 \\ 23.80 \\ 23.8 \\ 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1$  |            |                         | ,<br>,                  |                          | 6/12/2009         | 15.57  | 81.22                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         |                          | 6/14/2009         | 15.63  | 81.16                             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |            |                         |                         | 06 70                    | 9/23/2009         | 15.67  | 81.12                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | C-MM       | 23 BU                   | 80-738                  | 61.00                    | 12/16/2009        | 16.41  | 80.38                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  | 7          | 00.77                   |                         |                          | 4/1/2010          | 16.75  | 80.04                             |
| $ \begin{array}{c ccccc} & & & & & & & & & & & & & & & & &$  |            |                         |                         |                          | 6/9/2010          | 15.71  | 81.08                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         | 96.51                    | 9/20/2010         | 16.28  | 80.23                             |
| $ \begin{array}{ccccccc} & & & & & & & & & & & & & & & &$  |            | -                       |                         | - 2000                   | 12/17/2010        | 16.67  | 79.84                             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |            |                         | ·                       |                          | 6/12/2009         | 16.00  | 80.31                             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |            |                         |                         |                          | 6/14/2009         | 15.97  | 80.34                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         | 06 31                    | 9/23/2009         | 15.78  | 80.53                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | MW-3       | 22.00                   | 65-215<br>5             | 2.22                     | 12/16/2009        | 16.77  | 79.54                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  |            |                         |                         |                          | 4/1/2010          | 16.79  | 79.52                             |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  |            |                         |                         |                          | 6/9/2010          | 15.89  | 80.42                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         | 96.07                    | 9/20/2010         | 16.95  | 79.12                             |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |            |                         |                         | 6.00                     | 12/17/2010        | 17.95  | 78.12                             |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   |            |                         |                         |                          | 6/12/2009         | 17.68  | . 81.15                           |
| 29.50 11 - 26 98.83 9/23/2009 17.56 17.56 12.009 17.56 12.16.2009 17.56 12.16.2009 17.56 11.27 12.10 17.57 11.57 12.10 18.06 18.54 12.171/2010 16.14 11.15 1   |            |                         |                         |                          | 6/14/2009         | 17.52  | 81.31                             |
| 29.50         11 - 26         12/16/2009         17.86           4/1/2010         17.94         17.57           98.54         9/20/2010         18.06           98.54         12/17/2010         16.14   |            |                         |                         | 08.83                    | 9/23/2009         | 17.56  | 81.27                             |
| 98.54 4/1/2010 17.94<br>6/9/2010 17.57<br>98.54 9/20/2010 18.06<br>12/17/2010 16.14  | MW-4       | 29 50                   | 11 - <b>2</b> 6         |                          | 12/16/2009        | 17.86  | 80.97                             |
| 6/9/2010         17.57           9/20/2010         18.06           12/17/2010         16.14  |            | 22.24                   |                         | I                        | 4/1/2010          | 17.94  | 80.89                             |
| 9/20/2010 18.06<br>12/17/2010 16.14  |            |                         |                         |                          | 6/9/2010          | 17.57  | 81.26                             |
| 12/17/2010 16.14   |            |                         |                         | 98.54                    | 9/20/2010         | 18.06  | 80.48                             |
|  |            |                         |                         |                          | 12/17/2010        | 16.14  | 82.40                             |

r -

ft = Feet TOC = Top of casing bgs = below ground surface \* Elevation relative to an arbitrary data point of 100 feet; resurveyed during 9/20/10 sampling event

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Table 4. ConocoPhillips Randleman No. 1 - Quarterly Groundwater Analytical Results Summary

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Tetra Tech, Inc.

 Explanation

 ND = Not Detected

 ND = Not Detected

 NMWQCC = New Mexico Water Quality Control Commission

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

 µg/L = micrograms per liter (parts per billion)

 NA = Not Analyzed

 <0.7 = Below laboratory detection limit of 0.7 ug/L</td>

 Sold = concentrations that exceed the NMWQCC limits

 \* = Results reported for total metals analysis, results cannot be compared to NMWQCC Standards for dissolved metals

# **APPENDIX A**

Groundwater Sampling Field Forms

|   | TETRA           | JECH, INC.                |                     | WATER S   | AMPLING F                             |                            | М                      |          |               |
|---|-----------------|---------------------------|---------------------|---|---------------------------------------|----------------------------|------------------------|----------|---------------|
|   | Project Name    | Randleman 1               | •                   | •   | • •                                   | Page                       | 1                      | of       | 4             |
|   | ect No.         | 114-6901                  | a.                  |   |                                       |                            |                        |          |               |
|   | Site Location   | · · ·                     |                     | · · · · · · · · · · · · · · · · · · ·                   |                                       |                            |                        |          |               |
| · | Site/Well No.   |                           | Coded/<br>Replicate |   |                                       | Date 12                    | 17-10                  | <u>ン</u> | <br>          |
|   | Weather         | Oblicast                  | Time San<br>Began   |   |                                       | Time Sampling<br>Completed | g la                   | 128      |               |
|   |                 | Old I windy               |                     | EVACUATIO   | N DATA                                |                            |                        |          |               |
|   | Description of  | Measuring Point (MP)      | Top of Casing       |   | . <u></u>                             | • • • • <u></u>            | ·                      |          |               |
|   | Height of MP    | Above/Below Land Surfa    | ace                 |   | MP Elevation                          |                            |                        |          |               |
|   | Total Sounder   | Depth of Weil Below N     | IP25.5              |   | Water-Level Ele                       | vation                     |                        | <u> </u> |               |
|   | Held            | Depth to Water Belo       | WMP 14,2            | <i>f</i>  | Diameter of Cas                       |                            |                        | ,        |               |
|   | Wet             | -<br>Water Column ir      |                     |   | Gallons Pumped<br>Prior to Sampling   |                            | 5.5                    |          | _             |
|   |                 | - Gallons per             |                     | 0.16  | · · · · · · · · · · · · · · · · · · · | - <u> </u>                 |                        |          |               |
|   |                 | · · · · ·                 |                     |   | Sampling Pump                         |                            |                        | <b>_</b> |               |
|   |                 |                           | Well <u>1. 71</u>   |   | (feet below land                      | sunace)                    |                        |          | <u></u>       |
|   | Purging Equip   | ment Purge pump           | Bailer ')           | 2,5)  | ·                                     |                            | •                      |          | ·             |
|   | Time            | Temperature (°C)          | <b>5</b><br>рН      | AMPLING DATA/FIEL<br>Conductivity (µS/cm <sup>3</sup> ) |                                       | S<br>DO (mg/L)             | DO %                   | ORP (mV) | Volume (gal.) |
| ľ | 1123            | /3.33                     | 7.13                | 2815  | 2.319                                 |                            | 36.0                   | 80.0     | 5.0           |
| • | 1/24            | 14.47                     | 6.90                | 2897  | 2.358                                 | 1.60                       | 15.7                   | 78.9     | 5.25          |
|   | 1125            | 14.67                     | 6.87                | 2913  | 2.359                                 | 1.3/                       | 12.9                   | 80.4     | 5.5           |
| 8 |                 |                           |                     |   |                                       |                            |                        |          |               |
| ł |                 |                           |                     |   |                                       |                            |                        |          |               |
|   | Sampling Equ    | ipment                    | Purge Pump/B        | ailer   | ·                                     |                            |                        |          |               |
| I | <u>Consti</u>   | tuents Sampled            | $\sim$              | Container Description                                   | <u>1</u>                              |                            | <u>Prese</u>           | rvative  |               |
| l | BTEX            | ļ                         | 3 40mL V            | /OAs  | <u> </u>                              | HCI                        |                        |          |               |
|   | Chloride, Sulfa | ate, TDS                  | 32 oz Pla           | istic   |                                       | None                       |                        |          |               |
|   | Dissolved MN    |                           | <u>16 oz Pia</u>    | istic   |                                       | None                       | <u> </u>               |          |               |
|   | Remarks         | 40 5                      | light g             | hay a No or   | for orshoe                            | detaka                     | 1                      |          |               |
| - | Sampling Pers   | sonnel Christine Mat      | ihews, Cassie B     |   |                                       |                            |                        |          |               |
|   |                 |                           |                     | · · ·   | ·                                     |                            |                        |          |               |
|   |                 |                           |                     | Well Casing   |                                       |                            |                        |          |               |
|   |                 | Gal./ft. 1 ¼" =<br>1 ½" = |                     | 2" = 0.16<br>2 ½" = 0.24                                | 3" =<br>3"½ =                         | 0.37<br>0.50               | 4" = 0.65<br>6" = 1.46 |          |               |
| 1 |                 | 1 /2 -                    |                     | 272 - V.27  |                                       |                            |                        |          |               |
| _ |                 |                           |                     |   |                                       |                            |                        |          |               |

| TETRA TECH, INC.                      | WATER SAMPLING                             | FIELD FORM   |
|---------------------------------------|--|--|
| Project Name <u>Randleman 1</u><br>   | lo   | Page of<br>2.  |
| Site Location Aztec, NM               | · · · · · · · · · · · · · · · · · · ·      |  |
| Site/Well No. <u>MW # 2</u>           | Coded/<br>Replicate No.<br>Time Sampling   | Date <u>12-17-162</u><br>Time Sampling <u>010</u>    |
| Weather Arth(ash,                     | Began50                                    | Completed 1212                                       |
| cold, wind                            |  |  |
| Description of Measuring Point (MP)   | I<br>Top of Casing                         |  |
| Height of MP Above/Below Land Sur     | ace MP Elevatio                            | on   |
| Total Sounded Depth of Well Below     | /P Water-Leve                              | l Elevation  |
| Held Depth to Water Bel               | Diameter of                                |  |
| Wet Water Column                      | in Well 5,33 Gallons Pur                   |  |
| Gallons p                             | ······································     |  |
|                                       | Sampling Pi                                | ump Intake Setting                                   |
| Purging Equipment Purge pump          | n 2-62 2107)                               |  |
|                                       | SAMPLING DATA/FIELD PARAMET                | EDS  |
| Time Temperature (°C)                 | pH Conductivity (µS/cm³) TDS (g/l          |  |
| 1208-13,23                            | 7.68 1855 1,555                            | 41B 113 341.7 3.0                                    |
| 1209 13,23                            | 7.74 1840 1.54                             | 3 1.35 12.8 339.4 3.25                               |
| 1211   13.17                          | -1.74 1839 1,544                           | 4 1,47 13,7 357 3,75                                 |
| · · · · · · · · · · · · · · · · · · · |  |  |
|                                       |  |  |
| Sampling Equipment                    | Purge Pump/Bailer                          |  |
| Constituents Sampled                  |  | Preservative   |
| BTEX                                  | 3 40mL VOAs                                | HCI  |
| Chloride, Sulfate, TDS                | 32 oz Plastic                              | None   |
| Dissolved MN                          | 16 oz Plastic                              | None   |
| Remarks                               |  |  |
| Sampling Personnel Christine-Ma       | theme-Cassie Brown, Craig Bown             | •  |
|                                       | Well Casing Volumes                        |  |
| Gal <i>J</i> ft. 1 ¼" =<br>1 ½" =     | 0.077 2 <sup>n</sup> = 0.16 3 <sup>n</sup> | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
|                                       |  |  |

| TETRA   | TECH, INC.               |  | WATER S/         | AMPLING FI                            | ELD FOR                    | M                     |           |               |
|---|--------------------------|--|------------------|---------------------------------------|----------------------------|-----------------------|-----------|---------------|
| Project Name                                  | Randleman 1              |  |                  |                                       | Page                       | A.                    | of        | 4             |
| ect No.                                       | 114-109012               | <b>3</b> 0 <sup>°</sup>                |                  | · · · · · · · · · · · · · · · · · · · |                            |                       | >         |               |
| Site Location                                 |                          |  |                  | · · · · · · · · · · · · · · · · · · · |                            |                       |           |               |
|   | Mar 3                    | Coded/<br>Replicate No.                |                  | · · · · ·                             | Date                       | 12-                   | 17-K      |               |
| Weather                                       | Orercael,                | Time Sampling<br>Began                 | 1150             |                                       | Time Sampling              | 9 12                  | 200       |               |
|   | (old windy               |  | EVACUATION       | N DATA                                |                            |                       |           |               |
| Description of                                | Measuring Point (MP) To  | p of Casing                            |                  |                                       |                            |                       |           | <u></u>       |
| Height of MP                                  | Above/Below Land Surface | )                                      |                  | MP Elevation                          |                            |                       | ·         |               |
| Total Sounder                                 | d Depth of Well Below MP | 29.5                                   |                  | Water-Level Ele                       | vation                     |                       |           |               |
| Held  | _ Depth to Water Below N | мр. 17.9 <u>6</u>                      |                  | Diameter of Cas<br>Gallons Pumped     |                            | $\overline{\partial}$ |           |               |
| Wet   | Water Column in W        | lell 11,56                             |                  | Prior to Samplin                      |                            | 12,8                  | >         |               |
|   | Gallons per Fo           | oot0                                   | .16              |                                       |                            |                       |           |               |
|   | Gallons in W             | ell 1. 013-                            |                  | Sampling Pump<br>(feet below land     | Intake Setting<br>surface) |                       |           |               |
| Purging Equip                                 | ~                        |  | 2.5              | -                                     |                            |                       |           |               |
| dAffall fab                                   | an part 1                | SAMPLI                                 | NG DATA/FIEL     | D PARAMETERS                          | 3                          |                       |           |               |
| s Sinter Time                                 | Temperature (°C)         | <u>L pH I Condu</u>                    |                  | -                                     | DO (mg/L)                  | DO %                  |           | Volume (gal.) |
| 1199  |                          | 7.20 2                                 |                  | 1.906                                 | 4.01                       | 34.1                  | -26/.9    | 1.25          |
| 115.4   | 13.04                    |  | 2212             | 1.863                                 | 1.52                       | 14.4                  | -305.Z    |               |
| 1/58  | /3. 09                   | 7,11 2                                 | 196              | 1.847                                 | 1.38                       | 133                   | -3239     | Z: 0          |
|   |                          |  |                  |                                       |                            |                       |           |               |
| Sampling Equipment Purge Pump/Bailer          |                          |  |                  |                                       |                            |                       |           |               |
| Const   | ituents Sampled          | Conta                                  | iner Description | ב                                     |                            | Prese                 | ervative  |               |
| BTEX  | · [                      | 3 40mL VOAs                            |                  |                                       | HCI                        |                       |           | ,             |
| Chloride, Sulf                                | ate, TDS                 | 32 oz Plastic                          |                  |                                       | None                       |                       |           |               |
| Dissolved MN                                  |                          | 16 oz Plastic                          |                  |                                       | None                       |                       | · · · · · |               |
| Remarks M20 GRAY 2/ SHEEN & MYDRO CARBON ODOR |                          |  |                  |                                       |                            |                       |           |               |
| Sampling Per                                  | sonnel Christine Mathe   | ws, Cassie Brown                       |                  | ·                                     |                            |                       |           |               |
|   |                          |  | Well Casing \    | /olumes                               |                            |                       |           |               |
|   | Gal./ft: 1 ¼" = 0.0      | 77 2" :                                | = 0.16           | •                                     | 0.37                       | 4" = 0.65             |           |               |
|   | 1 1/2" = 0.1             | 0 21/2" :                              | = 0.24           | 3" 1/2 =                              | 0.50                       | 6" = 1.46             |           |               |
| •   | L                        | ······································ |                  |                                       |                            |                       | ,d        |               |

| TE TETRA TECH, INC. WATER SAMPLING FIELD FORM   |  |                                       |                                       |                    |                           |                        |          |      |
|---|--|---------------------------------------|---------------------------------------|--------------------|---------------------------|------------------------|----------|------|
| Project Name  | Randleman 1  |                                       | · .                                   |                    | Page                      | b                      | of       | . 4  |
| et No.  | 114-109013   | 0                                     | · · · · · · · · · · · · · · · · · · · |                    | 5                         | - 2                    |          |      |
| Site Location   |  | · · · · · · · · · · · · · · · · · · · |                                       |                    |                           |                        | - · ·    |      |
| Site/Well No.   | _  | Coded/<br>Replicate                   | No.                                   | ·.                 | Date                      | 2-17.                  | 6        |      |
| Weather (   | merrage cott   | Time San<br>Began                     | npling 1113                           |                    | Time Samplin<br>Completed | ° 114                  | 5        |      |
| 1   |  |                                       | EVACUATION                            | I DATA             |                           |                        |          | . •  |
| Description of N  | Measuring Point (MP) _T                                    | op of Casing                          |                                       |                    |                           |                        |          |      |
| Height of MP A  | bove/Below Land Surface                                    | ә                                     |                                       | MP Elevation       |                           |                        |          |      |
| Total Sounded   | Depth of Well Below MP                                     | 23.8                                  |                                       | Water-Level Ele    | vation                    |                        |          |      |
| Held Depth to Water Below MP 1/2,1/4 Diameter of Casing 2"                                      |  |                                       |                                       |                    |                           |                        |          |      |
| Wet Water Column in Well C Gallons Pumped/Bailed  |  |                                       |                                       |                    |                           |                        |          |      |
| Gallons per Foot 0.16 3,75  |  |                                       |                                       |                    |                           |                        |          |      |
|   | Gallons in Well 1273 Sampling Pump Intake (feet below land |                                       |                                       |                    |                           |                        |          |      |
| Purging Equipment Purge pump / Bailer / //////////////////////////////////                      |  |                                       |                                       |                    |                           |                        |          |      |
| SAMPLING DATA/FIELD PARAMETERS  |  |                                       |                                       |                    |                           |                        |          |      |
| Time  | Temperature (°C)   |                                       | Conductivity (µS/cm <sup>3</sup> )    | TDS (g/L)          | DO (mg/L)                 | DO %                   | ORP (mV) |      |
| 139   | - 14.100   | 7,4!                                  | 9373                                  | 7.602              | 326                       | 328                    | -57,     | 30   |
| 1/4/1-  | 19.50  | 7.39                                  | 9419                                  | 7.60               | 2.39                      | 24.8                   | -337     | 5.5  |
| 1142  | 4.61   | 7,31                                  | 9425                                  | 7,644              | 2.00                      | 203                    | -42-4    | 3,25 |
|   |  |                                       |                                       |                    |                           |                        |          |      |
|   |  |                                       |                                       |                    |                           |                        |          |      |
| Sampling Equipment Purge Pump/Bailer Preservative   |  |                                       |                                       |                    |                           |                        |          |      |
|   | uents Sampled  | 2 (jml )                              | Container Description                 |                    |                           | <u>Prese</u>           | rvative  |      |
| BTEX     3 40mL VOAs     HCt       Chloride, Sulfate, TDS     32 oz Plastic     None            |  |                                       |                                       |                    |                           |                        |          |      |
| Chloride, Sulfate, IDS     32 oz Plastic     None       Dissolved MN     16 oz Plastic     None |  |                                       |                                       |                    |                           |                        |          |      |
| Lissoived MN 16 oz Plastic None   |  |                                       |                                       |                    |                           |                        |          |      |
| Remarks H2015 while & Claudy  |  |                                       |                                       |                    |                           |                        |          |      |
| Sampling Perso  | onnel Christine-Mathe                                      | ws, Cassie B                          | rown Chaig                            | Bown               |                           |                        |          |      |
|   | · · · · · · · · · · · · · · · · · · ·                      | ······                                | Well Casing V                         | olumes             |                           |                        |          |      |
|   | Gal./ft. 1 ¼" = 0.0<br>1 ½" = 0.                           |                                       | 2" = 0.16<br>$2\frac{1}{2}" = 0.24$   | 3" = (<br>3" ½ = ( | ).37<br>).50              | 4" = 0.65<br>6" = 1.46 |          |      |
| I   |  |                                       |                                       |                    |                           |                        |          |      |

#### 1 1

Groundwater Laboratory Analysis Report

# **APPENDIX B**

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

### **Conoco Phillips**

| Certificate of Analysis Number:<br><u>10120639</u> |                            |  |  |  |  |  |
|--|----------------------------|--|--|--|--|--|
| Report To:   | Project Name: Randleman #1 |  |  |  |  |  |
| Tetra Tech, Inc.                                   | Site: Aztec,NM             |  |  |  |  |  |
| Kelly Blanchard                                    | Site Address:              |  |  |  |  |  |
| 6121 Indian School Road, N.E.                      |                            |  |  |  |  |  |
| Suite 200  | PO Number:                 |  |  |  |  |  |
| Albuquerque  |                            |  |  |  |  |  |
| NM   | State: New Mexico          |  |  |  |  |  |
| 87110-   | State Cert. No.:           |  |  |  |  |  |
| ph (505) 237-8440 fax:                             | Date Reported: 12/28/2010  |  |  |  |  |  |

# This Report Contains A Total Of 19 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

12/28/2010



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

### Case Narrative for: Conoco Phillips

| Certificate of A              | nalysis Number:            |
|-------------------------------|----------------------------|
| <u>101</u> 2                  | 20639                      |
| Report To:                    | Project Name: Randleman #1 |
| Tetra Tech, Inc.              | Site: Aztec,NM             |
| Kelly Blanchard               | Site Address:              |
| 6121 Indian School Road, N.E. |                            |
| Suite 200<br>Albuquerque      | PO Number:                 |
| NM                            | State: New Mexico          |
| 87110-                        | State Cert. No.:           |
| ph (505) 237-8440 fax:        | Date Reported: 12/28/2010  |

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

**III. GENERAL REPORTING COMMENTS:** 

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg\kg-dry " or " ug\kg-dry " ).

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

E-Qu Cardinas

10120639 Page 1 12/28/2010

Erica Cardenas Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.



8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

### **Conoco Phillips**

|                   |   | Certifica           | te of Analy   | sis Number:                           |                          |        |     |
|-------------------|---|---------------------|---------------|---------------------------------------|--------------------------|--------|-----|
|                   |   |                     | <u>101206</u> | <u>39</u>                             |                          |        |     |
| <u>Report To:</u> | Tetra Tech, Inc.                                  |                     |               | Project Name                          | : Randleman #1           |        |     |
|                   | Kelly Blanchard                                   |                     |               | <u>Site:</u>                          | Aztec,NM                 |        |     |
|                   | 6121 Indian School Ro<br>Suite 200<br>Albuquerque | ad, N.E.            |               | Site Address                          | <u>.</u>                 |        |     |
|                   | NM<br>87110-                                      |                     |               | <u>PO Number:</u>                     |                          |        |     |
|                   | ph (505) 237-8440                                 | fax: (505) 881-3283 |               | <u>State:</u><br><u>State Cert. N</u> | New Mexico<br><u>o.:</u> |        |     |
| <u>Fax To:</u>    |   | )                   |               | Date Reporte                          | <u>d:</u> 12/28/2010     |        |     |
|                   |   |                     |               |                                       |                          |        |     |
|                   | Client Sample ID                                  | Lab Sample ID       | Matrix        | Date Collected                        | Date Received            | COC ID | HOL |

| Client Sample ID         |  | Lab Sample ID  | watrix  | Date Collected  | Date Received  |   | HOLD   |
|--------------------------|--|--|---|---|--|---|--|
| a di tana ang sa sita si |  | 10120639-01  | Water   | 12/17/2010 11:28  | 12/18/2010 10:30:00 AM   | 303423, 303449  |  |
| :                        |  | 10120639-02  | Water   | 12/17/2010 12:12  | 12/18/2010 10:30:00 AM   | 303423  |  |
| And a set of a           | · · ·  | 10120639-03  | Water   | 12/17/2010 12:00  | 12/18/2010 10:30:00 AM   | 303423  |  |
| ik ist tratis            | - 1  | 10120639-04  | . Water   | ; 12/17/2010 11:45  | 12/18/2010 10:30:00 AM   | 303423  |  |
| ant Chair an a           | Age and the second   | a. 10120639-05   | Water   | 12/17/2010 11:28  | 12/18/2010 10:30:00 AM   | 303423  |  |
| ESHOFACTER CO            | HAMPING TH   | 10120639-06  | Water   | 12/17/2010 10:00  | 12/18/2010 10:30:00 AM   | 303423  |  |
|                          | <ul> <li>Difference part of the</li> </ul> | <ul> <li>Alternation of the state of the</li></ul> | 10120639-01           10120639-02           10120639-03           10120639-04           10120639-05 | 10120639-01         Water           10120639-02         Water           10120639-03         Water           10120639-04         Water           10120639-04         Water           10120639-05         Water | 10120639-01         Water         12/17/2010 11:28           10120639-02         Water         12/17/2010 12:12           10120639-03         Water         12/17/2010 12:12           10120639-03         Water         12/17/2010 12:00           10120639-04         Water         12/17/2010 12:00           10120639-04         Water         12/17/2010 11:45           10120639-05         Water         12/17/2010 11:45 | 10120639-01         Water         12/17/2010 11:28         12/18/2010 10:30:00 AM           10120639-02         Water         12/17/2010 12:12         12/18/2010 10:30:00 AM           10120639-03         Water         12/17/2010 12:12         12/18/2010 10:30:00 AM           10120639-03         Water         12/17/2010 12:00         12/18/2010 10:30:00 AM           10120639-04         Water         12/17/2010 11:45         12/18/2010 10:30:00 AM           10120639-04         Water         12/17/2010 11:45         12/18/2010 10:30:00 AM           10120639-05         Water         12/17/2010 11:45         12/18/2010 10:30:00 AM | 10120639-01         Water         12/17/2010 11:28         12/18/2010 10:30:00 AM         303423, 303449           10120639-02         Water         12/17/2010 12:12         12/18/2010 10:30:00 AM         303423           10120639-03         Water         12/17/2010 12:10         12/18/2010 10:30:00 AM         303423           10120639-03         Water         12/17/2010 12:00         12/18/2010 10:30:00 AM         303423           10120639-04         Water         12/17/2010 11:45         12/18/2010 10:30:00 AM         303423           10120639-04         Water         12/17/2010 11:45         12/18/2010 10:30:00 AM         303423           10120639-05         Water         12/17/2010 11:28         12/18/2010 10:30:00 AM         303423 |

a Cardenas

Erica Cardenas Project Manager

> Kesavalu M. Bagawandoss Ph.D., J.D. Laboratory Director

> > Ted Yen Quality Assurance Officer

> > > 10120639 Page 2 12/28/2010 8:45:59 AM

12/28/2010 Date



8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

| Client Sample ID MW                          | /-1   |      |               | Col  | lected:  | 12/17/20 | 10 11:28   | SPL Sam     | ple ID:  | 1012       | 0639-01 |
|--|---|------|---------------|------|----------|----------|------------|-------------|----------|------------|---------|
|  |   |      |               | Sit  | e: Az    | ztec,NM  |            |             |          |            |         |
| Analyses/Method                              | Res   | sult | QUAL          | R    | ep.Limit |          | Dil. Facto | r Date Anal | yzed A   | nalyst     | Seq. #  |
| ION CHROMATOGRA                              | APHY  |      | ·.            |      |          | MCL      |            | E300.0      | Units    | : mg/L     |         |
| Chloride                                     | 93  | 3.5  |               |      | 5        |          | 10         | 12/19/10 1  | 11:00 ES | ЗK         | 5678072 |
| Sulfate                                      | 21  | 00   |               |      | 500      |          | 1000       | 12/19/101   | 12:36 ES | зĸ         | 5678078 |
| METALS BY METHO                              | D 6010B, DISSOLV  | ED   |               |      |          | MCL      | . S'       | W6010B      | Units    | : mg/L     |         |
| Manganese                                    | 0.1   | 31   |               | •    | 0.005    |          | 1          | 12/23/10 1  | 14:00 E  | G          | 5683186 |
| Prep Method                                  | Prep Date   | 1    | Prep Initials | Prep | Factor   |          |            |             |          |            |         |
| SW3005A                                      | 12/20/2010 17:00  |      | M_W           | 1.00 |          |          |            |             |          |            |         |
| TOTAL DISSOLVED                              | SOLIDS  |      | ······        |      |          | MCL      | . SI       | M2540 C     | Units    | : mg/L     |         |
| Total Dissolved Solids (Residue, Filterable) | 43  | 40   | ,             |      | 100      | •.       | 10         | 12/23/10 1  | 16:15 M  | <b>И</b> 1 | 5683282 |
| VOLATILE ORGANIC                             | S BY METHOD 82  | 60B  |               |      |          | MCL      | . S'       | W8260B      | Units    | : ug/L     |         |
| Benzene                                      | · · · · · · · · · · · · · · · · · · ·   | ١D   |               |      | 1        |          | 1          | 12/21/10 2  | 22:33 J  | С          | 5680333 |
| Ethylbenzene                                 | ·   | ١D   |               |      | 1        |          | 1          | 12/21/10 2  | 22:33 J  | С          | 5680333 |
| Toluene                                      | 1   | ٩D   | ;             |      | 1        |          | 1          | 12/21/10 2  | 22:33 J  | С          | 5680333 |
| m,p-Xylene                                   | . · · · · · · · · · · · · · · · · · · ·   | ١D   | j             | :    | 2        |          | 1          | 12/21/10 2  | 22:33 J  | С          | 5680333 |
| o-Xylene                                     | الم المحدين في المحديد  | ٧D   |               |      | · 1      |          | 1          | 12/21/10 2  | 22:33 J  | c          | 5680333 |
| Xylenes,Total :                              | internet de la composition de | ٧D   | ·. }          |      | -1       |          | 1          | 12/21/10 2  | 22:33 J  | c          | 5680333 |
| Surr: 1,2-Dichloroetha                       | ane-d4 96   | 6.5  | 1             | %    | 70-130   |          | 1          | 12/21/10 2  | 22:33 J  | С          | 5680333 |
| Surr: 4-Bromofluorobe                        | enzene 👾 90   | 3.2  | . )           | %    | 74-125   |          | 1          | 12/21/10 2  | 22:33 J  | c          | 5680333 |
|  |   |      |               |      |          |          |            |             |          |            |         |

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

. 10120639 Page 3 12/28/2010 8:46:07 AM



8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

| Client Sample ID MW                          | -2              |         |               | Col  | lected: 12 | 2/17/201 | 0 12:12     | SPL Sam               | nple IC | <b>):</b> 1012 | 0639-02 |
|--|-----------------|---------|---------------|------|------------|----------|-------------|-----------------------|---------|----------------|---------|
|  | ".              |         |               | Sit  | e: Azte    | ec,NM    |             |                       |         |                |         |
| Analyses/Method                              | ,               | Result  | QUAL          | R    | ep.Limit   | [        | Dil. Factor | Date Anal             | yzed    | Analyst        | Seq. #  |
| ION CHROMATOGRA                              | PHY             |         | 1,            |      |            | MCL      |             | E300.0                | Uni     | ts: mg/L       |         |
| Chloride                                     |                 | 38.3    |               | ,    | 5          |          | 10          | 12/19/10              | 11:48   | ESK            | 5678075 |
| Sulfate                                      |                 | 1520    | ٠,            |      | 500        |          | 1000        | 12/19/10              | 12:52   | ESK            | 5678079 |
| METALS BY METHO                              | D 6010B, DISS   | OLVED   | 1.            |      |            | MCL      | SI          | N6010B                | Uni     | ts: mg/L       |         |
| Manganese                                    |                 | 2.28    |               |      | 0.005      |          | 1           | 12/23/10              | 14:09   | EG             | 5683187 |
| Prep Method                                  | Prep Date       |         | Prep Initials | Prep | Factor     |          |             |                       |         |                |         |
| SW3005A                                      | 12/20/2010 17:  | 00      | M_W           | 1.00 |            |          |             |                       |         |                |         |
| TOTAL DISSOLVED                              | SOLIDS          |         | 1             |      |            | MCL      | SN          | 12540 C               | Uni     | ts: mg/L       |         |
| Total Dissolved Solids (Residue, Filterable) |                 | 2760    | -             |      | 100        |          | 10          | 12/23/10 <sup>-</sup> | 16:15   | MM1            | 5683283 |
| VOLATILE ORGANIC                             | S BY METHO      | D 8260E | 3             |      |            | MCL      | SI          | N8260B                | Uni     | ts: ug/L       |         |
| Benzene                                      | · · · ·         | 6.8     |               | 7    | 1          |          | 1           | 12/21/10              |         | JC             | 5680334 |
| Ethylbenzene                                 | -               | 71      |               |      | 1          |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| Toluene                                      |                 | 19      |               | 2    | 1          |          | 1           | 12/21/10 2            | 23:02   | JC             | 5680334 |
| m,p-Xylene                                   |                 | .110    |               | - ·  | 2          |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| o-Xylene                                     |                 | 7.7     |               | ş .  | 1          |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| Xylenes,Total                                | 125.21.00       | 117.7   | •             | ;    | 1          |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| Surr: 1,2-Dichloroetha                       | ine-d4          | 90.8    |               | . %  | 70-130     |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| Surr: 4-Bromofluorobe                        | nzene           | 96.6    |               | : %  | 74-125     |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |
| Surr: Toluene-d8                             | tij vitase i st | 101     | · .           | ' %  | 82-118     |          | 1           | 12/21/10              | 23:02   | JC             | 5680334 |

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated value between MDL and PQL
- E Estimated Value exceeds calibration curve

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>MCL - Result Over Maximum Contamination Limit(MCL) D - Surrogate Recovery Unreportable due to Dilution MI - Matrix Interference

> 10120639 Page 4 12/28/2010 8:46:07 AM

> > .



8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

| -3                                    |  |   | Coll  | ected: 1   | 2/17/201   | 0 12:00  | SPL Sam  | ple ID: 1012  | 0639-03  |
|---------------------------------------|--|---|---|--|--|--|--|---|--|
|                                       |  |   | Site  | e: Azte  | ec,NM  |  |  |   |  |
|                                       | Result   | QUAL  | Re  | p.Limit  | . C  | il. Factor   | Date Analy   | zed Analyst   | Seq. #   |
| PHY                                   |  | • .   |   |  | MCL  |  | E300.0   | Units: mg/L   |  |
|                                       | 64.8   |   |   | 5  |  | 10   | 12/19/10 1   | 2:04 ESK  | 5678076  |
|                                       | 1760   |   | •   | 500  |  | 1000   | 12/19/10 1   | 3:09 ESK  | 5678080  |
| 0 6010B, DISS                         | OLVED  | ) [ .   | ·   |  | MCL  | SV   | N6010B   | Units: mg/L   |  |
|                                       | 0.41   |   |   | 0.005  |  | 1  | 12/23/10 1   | 4:17 EG   | 5683188  |
| Prep Date                             |  | Prep Initial  | s Prep  | Factor   |  |  |  |   |  |
|                                       | 0  | M_W   | 1.00  |  |  |  |  |   |  |
| OLIDS                                 |  |   | •   |  | MCL  | SN   | 12540 C  | Units: mg/L   |  |
|                                       | 2590   |   | ļ   | 100  |  | 10   | 12/23/10 1   | 6:15 MM1  | 5683284  |
|                                       |  |   |   |  |  |  |  |   |  |
| S BY METHOD                           | 8260E  | 3   |   |  | MCL  | SV   | N8260B   | Units: ug/L   |  |
| BY METHOD                             | 8260E  | 3   | ;   | · 1  | MCL  | <b>SV</b>  | <b>N8260B</b><br>12/21/10 2  |   | 5680335  |
| S BY METHOD                           |  | 3   |   | · 1<br>1   | MCL  |  |  | 3:30 JC   | 5680335<br>5680335   |
| S BY METHOD                           | . 4  | 3   | ,   | · 1<br>1<br>1  | MCL  |  | 12/21/10 2   | 3:30 JC<br>3:30 JC  |  |
| S BY METHOD                           | . 4<br>· 48  | 3   | ·:  | 1  | MCL  | 1  | 12/21/10 2<br>12/21/10 2   | 3:30 JC<br>3:30 JC<br>3:30 JC   | 5680335  |
| S BY METHOD                           | 48<br>3.4  | 3   | ,<br>   | 1  | MCL  | 1<br>1<br>1  | 12/21/10 2<br>12/21/10 2<br>12/21/10 2   | 3:30     JC       3:30     JC       3:30     JC       3:30     JC   | 5680335<br>5680335   |
| · · · · · · · · · · · · · · · · · · · | 4<br>48<br>3.4<br>39   | 3   | ,   | 1<br>1<br>2  | · · · ·  | 1<br>1<br>1<br>1<br>1  | 12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2   | 3:30       JC         3:30       JC         3:30       JC         3:30       JC         3:30       JC         3:30       JC   | 5680335<br>5680335<br>5680335  |
|                                       | 4<br>48<br>3.4<br>39<br>32   |   | ;<br>;<br>;<br>;  | 1<br>1<br>2<br>1   | · · · ·  | 1<br>1<br>1<br>1<br>1<br>1   | 12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2   | 3:30     JC       3:30     JC       3:30     JC       3:30     JC       3:30     JC       3:30     JC   | 5680335<br>5680335<br>5680335<br>5680335   |
| tin and a state of the                | 4<br>48<br>3.4<br>39<br>32<br>71   |   | ;<br>;<br>;<br>;  | 1<br>1<br>2<br>1<br>1<br>1   | · · · ·  | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   | 12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2<br>12/21/10 2   | 3:30       JC   | 5680335<br>5680335<br>5680335<br>5680335<br>5680335  |
|                                       | October         October <t< td=""><td>PHY<br/>64.8<br/>1760<br/>6010B, DISSOLVED<br/>0.41<br/>Prep Date<br/>12/20/2010 17:00<br/>OLIDS</td><td>PHY         64.8           1760         0           0 6010B, DISSOLVED         0.41           Prep Date         Prep Initial           12/20/2010 17:00         M_W           OLIDS         1</td><td>Result         QUAL         Re           PHY         64.8         1760           0 6010B, DISSOLVED         0.41         0.41           Prep Date         Prep Initials         Prep           12/20/2010 17:00         M_W         1.00           OLIDS         1         1</td><td>Result         QUAL         Rep.Limit           PHY         64.8         5           1760         500           6010B, DISSOLVED         5           0.41         0.005           Prep Date         Prep Initials         Prep Factor           12/20/2010         1.00         1.00</td><td>Result         QUAL         Rep.Limit         E           PHY         MCL         64.8         5         1760         500           0         6010B, DISSOLVED         MCL         0.005         MCL         0.0105           Prep Date         Prep Initials         Prep Factor         12/20/2010 17:00         M_W         1.00         MCL           OLIDS         1         MCL         1.00         MCL         0.005</td></t<> <td>Result         QUAL         Rep.Limit         Dil. Factor           PHY         MCL           64.8         5         10           1760         500         1000           0         6010B, DISSOLVED         MCL         SN           0.41         0.005         1           Prep Date         Prep Initials         Prep Factor           12/20/2010         17:00         M_W         1.00</td> <td>Result         QUAL         Rep.Limit         Dil. Factor         Date Analy           PHY         MCL         E300.0           64.8         5         10         12/19/10 1           1760         500         1000         12/19/10 1           0         6010B, DISSOLVED         MCL         SW6010B           0.41         0.005         1         12/23/10 1           Prep Date         Prep Initials         Prep Factor           12/20/2010 17:00         M_W         1.00           OLIDS         1         MCL         SM2540 C</td> <td>Result         QUAL.         Rep.Limit         Dil. Factor         Date Analyzed         Analyst           PHY         MCL         E300.0         Units: mg/L           64.8         5         10         12/19/10         12:04         ESK           1760         500         1000         12/19/10         13:09         ESK           0         6010B, DISSOLVED         MCL         SW6010B         Units: mg/L           0.41         0.005         1         12/23/10         14:17         EG           Prep Date         Prep Initials         Prep Factor         1         12/23/10         14:17         EG           OLIDS         MCL         SM2540 C         Units: mg/L         1</td> | PHY<br>64.8<br>1760<br>6010B, DISSOLVED<br>0.41<br>Prep Date<br>12/20/2010 17:00<br>OLIDS | PHY         64.8           1760         0           0 6010B, DISSOLVED         0.41           Prep Date         Prep Initial           12/20/2010 17:00         M_W           OLIDS         1 | Result         QUAL         Re           PHY         64.8         1760           0 6010B, DISSOLVED         0.41         0.41           Prep Date         Prep Initials         Prep           12/20/2010 17:00         M_W         1.00           OLIDS         1         1 | Result         QUAL         Rep.Limit           PHY         64.8         5           1760         500           6010B, DISSOLVED         5           0.41         0.005           Prep Date         Prep Initials         Prep Factor           12/20/2010         1.00         1.00 | Result         QUAL         Rep.Limit         E           PHY         MCL         64.8         5         1760         500           0         6010B, DISSOLVED         MCL         0.005         MCL         0.0105           Prep Date         Prep Initials         Prep Factor         12/20/2010 17:00         M_W         1.00         MCL           OLIDS         1         MCL         1.00         MCL         0.005 | Result         QUAL         Rep.Limit         Dil. Factor           PHY         MCL           64.8         5         10           1760         500         1000           0         6010B, DISSOLVED         MCL         SN           0.41         0.005         1           Prep Date         Prep Initials         Prep Factor           12/20/2010         17:00         M_W         1.00 | Result         QUAL         Rep.Limit         Dil. Factor         Date Analy           PHY         MCL         E300.0           64.8         5         10         12/19/10 1           1760         500         1000         12/19/10 1           0         6010B, DISSOLVED         MCL         SW6010B           0.41         0.005         1         12/23/10 1           Prep Date         Prep Initials         Prep Factor           12/20/2010 17:00         M_W         1.00           OLIDS         1         MCL         SM2540 C | Result         QUAL.         Rep.Limit         Dil. Factor         Date Analyzed         Analyst           PHY         MCL         E300.0         Units: mg/L           64.8         5         10         12/19/10         12:04         ESK           1760         500         1000         12/19/10         13:09         ESK           0         6010B, DISSOLVED         MCL         SW6010B         Units: mg/L           0.41         0.005         1         12/23/10         14:17         EG           Prep Date         Prep Initials         Prep Factor         1         12/23/10         14:17         EG           OLIDS         MCL         SM2540 C         Units: mg/L         1 |

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- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated value between MDL and PQL
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> 10120639 Page 5 12/28/2010 8:46:08 AM



8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

| Clier | nt Sample ID MW                          | -4                |        | •             | Co   | llected: 1 | 2/17/201 | 0 11:45     | SPL Sarr   | nple ID:  | 1012  | 0639-04 |
|-------|--|-------------------|--------|---------------|------|------------|----------|-------------|------------|-----------|-------|---------|
|       |  |                   |        |               | Si   | te: Azt    | ec,NM    |             |            |           |       |         |
| Analy | ses/Method                               |                   | Result | QUAL          | R    | ep.Limit   | [        | Dil. Factor | Date Anal  | yzed An   | alyst | Seq. #  |
| ION   | CHROMATOGRA                              | VPHY              |        | 1,            |      | •          | MCL      |             | E300.0     | Units:    | mg/L  |         |
| Chl   | oride                                    |                   | 2350   |               |      | 250        |          | 500         | 12/19/10 1 | 12:20 ESK |       | 5678077 |
| Sul   | fate                                     |                   | 3570   |               | •    | 500        |          | 1000        | 12/19/10 1 | 13:25 ESK |       | 5678081 |
| MET   | ALS BY METHOD                            | D 6010B, DISSC    | LVED   | <b>)</b>  .   |      |            | MCL      | SI          | N6010B     | Units:    | mg/L  |         |
| Mar   | nganese                                  |                   | 1.68   |               |      | 0.005      |          | 1           | 12/23/10   | 14:27 EG  |       | 5683189 |
| ī     | Prep Method                              | Prep Date         |        | Prep Initials | Pre  | p Factor   |          |             |            |           |       |         |
| i     | SW3005A                                  | 12/20/2010 17:00  | )      | M_W           | 1.00 |            |          |             |            |           |       |         |
| TOT   | AL DISSOLVED S                           | SOLIDS            |        | 1             | •    |            | MCL      | SN          | 12540 C    | Units:    | mg/L  |         |
|       | al Dissolved Solids<br>sidue,Filterable) | •                 | 9400   |               | ý    | 100        |          | 10          | 12/23/10   | 16:15 MM1 |       | 5683285 |
| VOL   | ATILE ORGANIC                            | S BY METHOD       | 8260E  | <b>3</b> .    |      |            | MCL      | SV          | N8260B     | Units:    | ug/L  |         |
| Ben   | izene "                                  | -yare a maria     | ND     |               | ·;   | 1          |          | 1           | 12/21/10 2 |           |       | 5680336 |
| Eth   | ylbenzene                                | 1. 4 <sup>1</sup> | ND     |               | •;   | 1          |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| Tolu  | Jene                                     | -",#**            | ND     |               | ,    | 1          |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| m,p   | -Xylene                                  | 1                 | UND.   |               | ;    | 2          |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| + o-X | ylene                                    | ALP AND ST        | - ND   |               | •;   | . 1        |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| Xyle  | enes,Total                               | 接近的第三个            | · · ND |               | 3    | 1          |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| · S   | urr: 1,2-Dichloroetha                    | ne-d4             | 92.2   | -             | : %  | 70-130     |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
|       | 4 D                                      |                   |        |               | · 0/ | 74 405     |          | 1           | 12/21/10 2 | 23:59 JC  |       | 5680336 |
| . S   | Surr: 4-Bromofluorobe                    | nzene             | 92.9   |               | ; %  | 74-125     |          | 1           | 12/21/10/2 | 23.09 10  |       | 0000000 |

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> 10120639 Page 6 12/28/2010 8:46:08 AM



8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

10120639-05 **Client Sample ID** Duplicate Collected: 12/17/2010 11:28 SPL Sample ID: Site: Aztec,NM QUAL Dil. Factor Date Analyzed Analyses/Method Result **Rep.Limit** Analyst Seq. # **VOLATILE ORGANICS BY METHOD 8260B** MCL SW8260B Units: ug/L Benzene 1 1 12/22/10 0:28 JC 5680337 ND 12/22/10 0:28 5680337 Ethylbenzene ND 1 1 JC Toluene ND 1 1 12/22/10 0:28 JC 5680337 ! ND 2 12/22/10 0:28 JC 5680337 m,p-Xylene 1 1 5680337 JC o-Xylene ND 1 12/22/10 0:28 1 JC 5680337 Xylenes, Total ND 1 1 12/22/10 0:28 JC 5680337 Surr: 1,2-Dichloroethane-d4 93.4 % 70-130 1 12/22/10 0:28 % 1 12/22/10 0:28 JC 5680337 Surr: 4-Bromofluorobenzene 92.5 74-125 5680337 Surr: Toluene-d8 99.7 % 82-118 1 12/22/10 0:28 JC 7

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte Detected In The Associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated value between MDL and PQL
- E Estimated Value exceeds calibration curve
- TNTC Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL) D - Surrogate Recovery Unreportable due to Dilution MI - Matrix Interference

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8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

Client Sample ID Trip Blank

Collected: 12/17/2010 10:00

SPL Sample ID: 10120639-06

|                             |           |      | Si | te: Azte | c,NM |          |            |             |         |
|-----------------------------|-----------|------|----|----------|------|----------|------------|-------------|---------|
| Analyses/Method             | Result    | QUAL | R  | ep.Limit | Dil  | . Factor | Date Analy | zed Analyst | Seq. #  |
| VOLATILE ORGANICS BY MET    | HOD 8260B |      |    |          | MCL  | SV       | V8260B     | Units: ug/L |         |
| Benzene                     | ND        |      |    | 1        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Ethylbenzene                | ND        |      |    | 1        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Toluene                     | ND        | ;    |    | 1        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| m,p-Xylene                  | ND        |      |    | 2        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| o-Xylene                    | ND        |      |    | 1        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Xylenes,Total               | ND        |      |    | 1        |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Surr: 1,2-Dichloroethane-d4 | 93.3      |      | %  | 70-130   |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Surr: 4-Bromofluorobenzene  | 90.3      |      | %  | 74-125   |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |
| Surr: Toluene-d8            | 95.7      | نہ   | %  | 82-118   |      | 1        | 12/21/10 2 | 2:04 JC     | 5680332 |

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL) D - Surrogate Recovery Unreportable due to Dilution MI - Matrix Interference

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# Quality Control Documentation

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## HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

#### **Conoco Phillips** Dendle . ....

| Analysis:<br>Method:  | Metals by<br>SW6010B  | Method 60  | 10B, Dissol   | ved  |   |  |   |   |  | kOrder:<br>Batch ID  |                        | 120639<br>1030                    |                             |                                  |
|---|---|--|---|--|---|--|---|---|--|--|------------------------|-----------------------------------|-----------------------------|----------------------------------|
| · · · · · · · · · · · · · · · · · · ·   |   | Meth   | od Blank  |  |   |  | Sampl   | es in Analy   | tical Batc   | h:   |                        |                                   |                             |                                  |
| RunID: ICP2_10  | )1223A-568317;  | 2  | Units:  | mg/L   |   |  | Lob Sc  | imple ID  |  | Client   | Sample II              | <b>`</b>                          |                             |                                  |
| Analysis Date:  | 12/23/2010  | 12.35  | Analyst:  | EG   |   |  |   | 339-01B   |  | MW-1   |                        | 2                                 |                             |                                  |
| Preparation Date:   |   |  | Prep By:  |  | Method SW   | 3005A  |   | 339-02B   |  | MW-2   |                        |                                   |                             |                                  |
|   |   |  |   |  |   |  |   | 339-03B   |  | MW-3   |                        |                                   |                             |                                  |
|   |   | · · · · · · · · · · · · · · · · · · ·  |   |  | T   |  |   | 639-04B   | •  | MW-4   |                        |                                   |                             |                                  |
|   |   | nalyte   |   | Result   | Rep Limit   |  |   |   |  |  |                        |                                   |                             |                                  |
| Livian  | ganese  |  |   | NC   | 0.005   |  |   |   |  |  |                        |                                   |                             |                                  |
| -   | } •   |  |   | Li   | aboratory C   | ontrol Sa  | nple (LC  | <u>S)</u>   |  |  |                        |                                   |                             |                                  |
|   | 1.  | RunID:   |   | ICP2 10  | 223A-568317   | 73 Units   | ·   | ·//   |  |  |                        |                                   |                             |                                  |
|   |   | Analysis   | Date  | _  | )10 12:41   |  | : mo<br>/st: E0   |   |  |  |                        |                                   |                             |                                  |
| . /   | ,   | -  | tion Date:  |  | )10 17:00   | Prep   |   |   | SW 3005A   |  |                        |                                   |                             |                                  |
|   |   | ricpara  | don Date.   | 12/20/20   | /10 17.00   | Ticp   | Uy. 141_  |   |  | •  |                        |                                   |                             |                                  |
|   |   | · · · ·  | Anolid  |  |   | Spiko I  | Result  | Percent   | Lower  | Linnor   | -, .                   |                                   |                             |                                  |
|   |   |  | Analyi  | e  |   | Spike   I<br>Added   | tesuit  | Recovery  | Lower<br>Limit   | Upper<br>Limit   |                        |                                   |                             |                                  |
|   |   | Manganes   | <u> </u>  |  |   |  | 0.09750   | 97.50   | 80   | 12   | 20                     |                                   |                             |                                  |
|   | . 1   | Interigation of the second sec |   |  |   | 0.1000 0   |   | 57.00   | 00   | 12   |                        |                                   |                             |                                  |
| Sample Spiked:<br>RunID:  | 10120638-<br>ICP2_10122<br>12/23/2010   | 3A-5683178   | Units:<br>Analyst:  | mg/L<br>EG   |   |  |   |   |  |  |                        |                                   |                             |                                  |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122  | 3A-5683178   |   | EG<br>PDS<br>Spike   | PDS<br>Result   | PDS %<br>Recovery  |   | Result  | PDSI<br>Reco   |  | RPD                    | RPD                               | Low<br>Limit                | High<br>Limi                     |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178   | Analyst:<br>Sample<br>Result  | EG<br>PDS<br>Spike<br>Added  | Result  | Recovery   | / Spike<br>Addec  | Result  | Reco   | very   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178   | Analyst:<br>Sample<br>Result<br>0.178   | EG<br>PDS<br>Spike<br>Added<br>0.1   | Result<br>0.297   | Recovery   | 5 Spike<br>Addec  | Result  | Reco   |  | RPD<br>0.8716          | 1                                 | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:  | ICP2_10122<br>12/23/2010  | 3A-5683178<br>) 13:12  | Analyst:<br>Sample<br>Result<br>0.178<br><u>Matrix</u>  | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (f   | Result<br>0.297<br>AS) / Matrix   | Recovery   | 5 Spike<br>Addec  | Result  | Reco   | very   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12  | Analyst:<br>Sample<br>Result<br>0.178<br><u>Matrix</u><br>le Spiked:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (N<br>10120  | Result<br>0.297<br><u>MS) / Matrix</u><br>638-03  | Recovery   | Spike<br>Addec<br>0.  | Result<br>1 0.29  | Reco   | very   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178<br>) 13:12<br>Samp<br>RunID   | Analyst:<br>Sample<br>Result<br>0.178<br><u>Matrix</u><br>le Spiked:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (I<br>10120<br>ICP2_1  | Result<br>0.297<br><u>AS) / Matrix</u><br>638-03<br>01223A-5683   | Recovery<br>119.<br>Spike Du   | Spike<br>Addec<br><u>5 0.</u>   | Result<br>1 0.29<br>MSD)<br>ng/L  | Reco   | very   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (1<br>101200<br>ICP2_1<br>12/23/   | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53   | Recovery<br>119.<br>Spike Du<br>175 Un<br>An   | 5 O.<br>5 O.<br>5 O.<br>6 Dicate (I<br>6 ralyst: E  | MSD)<br>MSD<br>G  | 96 12  | 22.1 *   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A   | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br><u>Matrix</u><br>le Spiked:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (1<br>101200<br>ICP2_1<br>12/23/   | Result<br>0.297<br><u>AS) / Matrix</u><br>638-03<br>01223A-5683   | Recovery<br>119.<br>Spike Du<br>175 Un<br>An   | 5 O.<br>5 O.<br>5 O.<br>6 Dicate (I<br>6 ralyst: E  | MSD)<br>mg/L<br>G   | Reco   | 22.1 *   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese  | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>b:<br>sis Date:<br>ration Date:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br><b>Spike (1</b><br>10120<br>ICP2_1<br>12/23/<br>12/20/   | Result<br>0.297<br>(15) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 17:00   | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre  | / Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M   | MSD)<br>MSD)<br>mg/L<br>G<br>M_ Method  | Reco<br>96 12  | 22.1 *   | 0.8716                 | Limit                             | Limit<br>80                 | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese  | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>b:<br>sis Date:<br>ration Date:<br>Sample  | EG<br>PDS<br>Spike<br>Added<br>0.1<br><b>Spike (1</b><br>10120<br>ICP2_1<br>12/23/<br>12/20/<br>12/20/   | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53   | Recovery<br>119.4<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %   | V Spike<br>Addec<br>5 0.<br>plicate (I<br>its: r<br>alyst: E<br>p By: M   | Result           1         0.29           MSD)  | Reco<br>96 12<br>1 SW3005  | 22.1 *<br>5A   |                        | Limit                             | Limit                       | Limi                             |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese  | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>b:<br>sis Date:<br>ration Date:  | EG<br>PDS<br>Spike<br>Added<br>0.1<br><b>Spike (1</b><br>10120<br>ICP2_1<br>12/23/<br>12/20/   | Result<br>0.297<br>(15) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 12:53<br>2010 17:00<br>MS                     | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre  | V Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M   | Result           1         0.29           MSD)  | Reco<br>96 12<br>1 SW3005  | 22.1 *   | 0.8716                 | Limit<br>20                       | Limit<br>80<br>Low          | Limi<br>12                       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese  | ICP2_10122<br>12/23/2010  | 3A-5683178<br>0 13:12<br>Samp<br>RunID<br>Analys   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result  | EG<br>PDS<br>Spike<br>Added<br>0.1<br><b>Spike (1</b><br>10120<br>ICP2_1<br>12/23/<br>12/20/<br>12/20/<br>Spike  | Result<br>0.297<br>(15) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 12:53<br>2010 17:00<br>MS                     | Recovery<br>119.1<br>Spike Du<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %<br>Recover  | y Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>SE<br>y Spike<br>Adde  | Result Result Result Result MSD   | Reco<br>96 12<br>1 SW3005<br>1 SW3005  | 22.1 *<br>5A   | 0.8716<br>RPD          | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese<br>A<br>Manganese                        | ICP2_10122<br>12/23/2010<br>Analyte   | Samp<br>RunIC<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775  | EG<br>PDS<br>Spike<br>Added<br>0.1<br><b>Spike (1</b><br>10120<br>ICP2_1<br>12/23/<br>12/20/<br>12/20/<br>Spike<br>Added<br>0.1  | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 17:00<br>MS<br>Result                         | Recovery           119.1           Spike Du           175           175           MS %           Recover           6                           | V Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Addec<br>3.1 0                                      | Result           1         0.29           MSD)  | Reco<br>96 12<br>1 SW3005<br>1 SW3005  | 22.1 *<br>5A<br>D %<br>overy   | 0.8716                 | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese<br>A<br>Manganese<br>Qualifiers: Ni      | ICP2_10122<br>12/23/2010<br>Analyte   | Samp<br>RunIE<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775<br>Reporting Lin   | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (I<br>10120<br>ICP2_1<br>12/23/<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>ICP2_1<br>12/23/<br>12/20/<br>MS<br>Spike<br>Added<br>0.1  | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 12:53<br>2010 17:00<br>MS<br>Result<br>0.3000 | Recovery           119.           Spike Du           175           175           MS %           Recover           6           123           MI | V Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Adde<br>3.1 C<br>- Matrix II                        | Result<br>Result<br>1 0.29<br>MSD)<br>mg/L<br>G<br>M_ Method<br>MSD<br>Result<br>1 0.29<br>MSD)<br>1 0.3<br>nterference   | Reco<br>96 12<br>1 SW3005<br>8 MSI<br>Reco<br>040 1  | very<br>22.1 *<br>5A<br>D %<br>overy<br>26.5 *                               | 0.8716<br>RPD          | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese<br>A<br>Manganese<br>Qualifiers: NI<br>B | ICP2_10122<br>12/23/2010<br>Analyte<br>Analyte<br>D/U - Not Dete<br>- Analyte Dete                          | Samp<br>Samp<br>RunID<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775<br>Reporting Lin<br>Associated   | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (I<br>10120<br>ICP2_1<br>12/20/<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>nit<br>Wethod B  | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 12:53<br>2010 17:00<br>MS<br>Result<br>0.3000 | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %<br>Recover<br>6 12:<br>MI<br>D -   | y Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Adde<br>3.1 0<br>- Matrix II<br>Recover             | Result<br>Result<br>1 0.29<br>MSD)<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>y Unreportat  | Reco           96         12           96         12           97         12           98         12           99         12           99         12           99         12           99         12           99         12           99         1           99         1           99         1           99         1           99         1           99         1 | very<br>22.1 *<br>5A<br>D %<br>overy<br>26.5 *                               | 0.8716<br>RPD          | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>A<br>Manganese<br>Qualifiers: Ni<br>B<br>J              | ICP2_10122<br>12/23/2010<br>Analyte<br>Analyte<br>D/U - Not Dete<br>- Analyte Dete<br>- Estimated Va        | Samp<br>Samp<br>RunIC<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775<br>Reporting Lir<br>Associated In<br>n MDL And F                                 | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (I<br>10120/<br>ICP2_1<br>12/20/<br>ICP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>MS<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>12/20/<br>Spike<br>Added<br>0.1<br>UCP2_1<br>Added<br>0.1<br>Spike<br>Added<br>0.1<br>Spike<br>Added<br>DAT<br>Spike<br>Added<br>DAT<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Spike<br>Added<br>Spike<br>Spike<br>Added<br>Spike<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Added<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Spike<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Add<br>Ad | Result<br>0.297<br>(IS) / Matrix<br>638-03<br>01223A-5683<br>2010 12:53<br>2010 12:53<br>2010 17:00<br>MS<br>Result<br>0.3000 | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %<br>Recover<br>6 12:<br>MI<br>D -   | y Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Adde<br>3.1 0<br>- Matrix II<br>Recover             | Result<br>Result<br>1 0.29<br>MSD)<br>mg/L<br>G<br>M_ Method<br>MSD<br>Result<br>1 0.29<br>MSD)<br>1 0.3<br>nterference   | Reco           96         12           96         12           97         12           98         12           99         12           99         12           99         12           99         12           99         12           99         1           99         1           99         1           99         1           99         1           99         1 | very<br>22.1 *<br>5A<br>D %<br>overy<br>26.5 *                               | 0.8716<br>RPD          | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>Manganese<br>Manganese<br>Qualifiers: Ni<br>B<br>J<br>E | ICP2_10122<br>12/23/2010<br>Analyte<br>D/U - Not Dete<br>- Analyte Dete<br>- Estimated Va<br>- Estimated Va | Samp<br>RunID<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>:<br>:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775<br>Reporting Lir<br>Associated I<br>n MDL And F<br>s calibration             | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (1<br>10120/<br>1020/<br>1022.1<br>12/23/<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>10/20/<br>MS<br>Spike<br>Added<br>0.1<br>10/20/<br>MS<br>Spike<br>Added<br>0.1<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not   | Result<br>0.297<br><u>MS) / Matrix</u><br>638-03<br>01223A-5683<br>2010 12:53<br>2010 17:00<br>MS<br>Result<br>0.3000<br>lank | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %<br>Recover<br>6 12:<br>MI<br>D -<br>*-   | y Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Adde<br>3.1 0<br>- Matrix II<br>Recover<br>Recovery | Result<br>Result<br>1 0.29<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD | Reco<br>96 12<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005  | 22.1 *<br>22.1 *<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A | 0.8716<br>RPD<br>1.125 | Limit<br>20<br>RPD<br>Limit       | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi       |
| Sample Spiked:<br>RunID:<br>Analysis Date:<br>Manganese<br>Manganese<br>Qualifiers: Ni<br>B<br>J<br>J | ICP2_10122<br>12/23/2010<br>Analyte<br>Analyte<br>D/U - Not Dete<br>- Analyte Dete<br>- Estimated Va        | Samp<br>Samp<br>RunID<br>Analys<br>Prepa   | Analyst:<br>Sample<br>Result<br>0.178<br>Matrix<br>le Spiked:<br>o:<br>sis Date:<br>ration Date:<br>Sample<br>Result<br>0.1775<br>Reporting Lin<br>Associated<br>in MDL And F<br>s calibration<br>ole concentra | EG<br>PDS<br>Spike<br>Added<br>0.1<br>Spike (1<br>10120/<br>1020/<br>1022.1<br>12/23/<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>12/20/<br>MS<br>Spike<br>Added<br>0.1<br>10/20/<br>MS<br>Spike<br>Added<br>0.1<br>10/20/<br>MS<br>Spike<br>Added<br>0.1<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not<br>Not   | Result<br>0.297<br><u>MS) / Matrix</u><br>638-03<br>01223A-5683<br>2010 12:53<br>2010 17:00<br>MS<br>Result<br>0.3000<br>lank | Recovery<br>119.<br>Spike Du<br>175 Un<br>An<br>Pre<br>MS %<br>Recover<br>6 12:<br>MI<br>D -<br>*-   | y Spike<br>Addec<br>5 0.<br>plicate (f<br>its: r<br>alyst: E<br>p By: M<br>Spike<br>Adde<br>3.1 0<br>- Matrix II<br>Recover<br>Recovery | Result<br>Result<br>1 0.29<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD<br>MSD | Reco<br>96 12<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005<br>1 SW3005  | 22.1 *<br>22.1 *<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A<br>5A | 0.8716<br>RPD<br>1.125 | Limit<br>20<br>RPD<br>Limit<br>20 | Limit<br>80<br>Low<br>Limit | Limi<br>12<br>High<br>Limi<br>12 |



#### Conoco Phillips Randleman #1

#### HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Analysis: Metals by Method 6010B, Dissolved WorkOrder: 10120639 Lab Batch ID: 104030

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

Qualifiers:

rs: ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

J - Estimated Value Between MDL And PQL

E - Estimated Value exceeds calibration curve

aled value exceeds campration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

10120639 Page 11 12/28/2010 8:46:11 AM



#### HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

## **Conoco Phillips**

|                               |  |  |  | Randlemar                          | n #1             |  |                |   |                     |                    |
|-------------------------------|--|--|--|------------------------------------|------------------|--|----------------|---|---------------------|--------------------|
| Analysis:<br>Aethod:          | Volatile O<br>SW8260B  | rganics by Method 82                       | 60B  |                                    |                  |  |                | «Order:<br>Batch ID:                      | 10120639<br>R313157 |                    |
|                               |  | Method Blank                               |  |                                    | Samp             | oles in Analy  | tical Batch    | n:  |                     |                    |
| RunID: _ Q_1<br>Analysis Date | 01221E-5680324<br>: 12/21/201  | Units:<br>0 16:46 Analyst:                 | ug/L<br>JC                                   |                                    | · 10120<br>10120 | <u>Sample ID</u><br>0639-01A<br>0639-02A<br>0639-03A |                | <u>Client San</u><br>MW-1<br>MW-2<br>MW-3 | nple ID             |                    |
|                               | /<br>Benzene<br>Ethylbenzene<br>Toluene<br>m.p-Xylene                                  | Analyte                                    | Result Rep L<br>ND<br>ND<br>ND<br>ND         | imit<br>1.0<br>1.0<br>1.0<br>2.0   | 10120            | 0639-04A<br>0639-05A<br>0639-06A                     |                | MW-4<br>Duplicate<br>Trip Blank           |                     |                    |
|                               | o-Xylene<br>Xylenes,Total<br>Surr: 1,2-Dichlor<br>Surr: 4-Bromoflu<br>Surr: Toluene-d8 | orobenzene                                 | 90.2 74                                      | 1.0<br>1.0<br>-130<br>-125<br>-118 |                  |  |                |   |                     | ·                  |
|                               | }  |  | Laborate                                     | ory Control                        | Sample (L)       | CS)  |                |   |                     |                    |
|                               |  | RunID:<br>Analysis Date:                   | Q_101221E-5680<br>12/21/2010 16:             | 0323 Ui                            |                  | g/L  |                |   |                     |                    |
|                               |  | Analy                                      | te   | Spike<br>Added                     | Result           | Percent<br>Recovery                                  | Lower<br>Limit | Upper<br>Limit                            | ×                   |                    |
|                               |  | Benzene                                    |  | 20.0                               | 20.6             | 103  | 74             | 123                                       |                     |                    |
|                               |  | Ethylbenzene                               |  | 20.0                               | 22.5             | 113  | 72             | 127                                       |                     |                    |
|                               |  | Toluene<br>m,p-Xylene                      |  | 20.0                               |                  | 109<br>108   | 74<br>71       | 126<br>129                                |                     |                    |
|                               |  | o-Xylene                                   |  | 20.0                               | 22.6             | 113  | 74             | 130                                       |                     |                    |
|                               |  | Xylenes,Total                              |  | 60.0                               | 65.9             | 110  | 71             | 130                                       | •                   |                    |
|                               |  | Surr: 1,2-Dichloroet                       |  | 50.0                               | 49               | 98.0   | 70             | 130                                       |                     |                    |
|                               | 1  | Surr: 4-Bromofluoro<br>Surr: Toluene-d8    | benzene                                      | 50.0                               | 48.3<br>49.4     | 96.6<br>98.7   | 74<br>82       | 125<br>118                                |                     |                    |
|                               |  |  |  | 00.0                               |                  |  |                |   |                     |                    |
|                               |  | Matrix                                     | k Spike (MS) / M                             | atrix Spike                        | Duplicate        | (MSD)  |                |   |                     | · · ·              |
|                               |  | Sample Spiked:<br>RunID:<br>Analysis Date: | 10120627-01<br>Q_101221E-56<br>12/21/2010 15 |                                    |                  | ug/L<br>JC   |                |   |                     |                    |
| •                             | ,  |  |  |                                    |                  |  |                |   |                     |                    |
| Qualifiers:                   |  | ected at the Reporting Li                  |  |                                    |                  | Interference   |                |   |                     |                    |
|                               | -  | ected In The Associated                    |  |                                    |                  | ery Unreportat                                       |                |   |                     |                    |
|                               |  | alue Between MDL And                       |  | •                                  | - Recover        | y Outside Ad   | visable QC     | Limits                                    |                     |                    |
|                               |  | alue exceeds calibration                   |  |                                    |                  |  | ( Contract !!  | - 1                                       |                     |                    |
|                               |  | lated - Sample concentr                    | auon is greater th                           | ian 4 times th                     | e amount o       | or spike added                                       | i. Control li  | imits do not a                            |                     | 120620 Baca        |
|                               | INIC-100 nul   | merous to count                            |  |                                    |                  |  |                |   | 10                  | 120639 Page        |
| QC results of                 | esented on the Q   | C Summary Report have                      | e been rounded. F                            | RPD and pero                       | cent recove      | ery values   | •              |   | 12                  | /28/2010 8:46:11 / |



#### HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

#### Conoco Phillips Randleman #1

| Analysis:<br>Method: | Volatile Organics<br>SW8260B | by Method 826      | 0B                   |              |   |              | ,                     |               | WorkOrder:<br>Lab Batch I |       | 20639<br>13157 |              |               |
|----------------------|------------------------------|--------------------|----------------------|--------------|---|--------------|-----------------------|---------------|---------------------------|-------|----------------|--------------|---------------|
|                      | Analyte                      | . Sample<br>Result | MS<br>Spike<br>Added | MS<br>Result |   | 3 %<br>overy | MSD<br>Spike<br>Added | MSD<br>Result | MSD %<br>Recovery         | RPD   | RPD<br>Limit   | Low<br>Limit | High<br>Limit |
| Benzene              |                              | 88.5               | . 20                 | : 105        |   | N/C          | 20                    | 103           | N/C                       | N/C   | 22             | 70           | 124           |
| Ethylbenzene         |                              | 22.0               | 20                   | 40.3         | i | 91.6         | 20                    | 41.7          | 98.4                      | 3.34  | 20             | 76           | 122           |
| Toluene              | •                            | 5.03               | 20                   | 24.9         |   | 99.5         | 20                    | 25.6          | 103                       | 2.53  | . 24           | 80           | 117           |
| m,p-Xylene           |                              | 8.29               | 40                   | 49.3         |   | 102          | 40                    | 50.4          | 105                       | 2.19  | 20             | 69           | 127           |
| o-Xylene             |                              | 2.16               | 20                   | 23.3         |   | 106          | 20                    | 24.1          | 110                       | 3.19  | 20             | 84           | 114           |
| Xylenes,Total        |                              | 10.5               | 60                   | 72.6         | 1 | 104          | 60                    | 74.5          | 107                       | 2.51  | 20             | 69           | 127           |
| Surr: 1,2-Dichl      | oroethane-d4                 | ND                 | . 50                 | 47.6         |   | 95.1         | 50                    | 45.7          | 91.3                      | 4.06  | 30             | 70           | 130           |
| Surr: 4-Bromot       | fluorobenzene                | ND                 | 50                   | .47.7        | 1 | 95.4         | 50                    | 48.1          | 96.2                      | 0.856 | 30             | 74           | 125           |
| Surr: Toluene-       | d8                           | , ND               | 50                   | 48           |   | 95.9         | 50                    | 50.2          | 100                       | 4.60  | 30             | 82           | 118           |

**Qualifiers:** 

ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

J - Estimated Value Between MDL And PQL

E - Estimated Value exceeds calibration curve

- MI Matrix Interference
- D Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply. TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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### HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

#### **Conoco Phillips**

Randleman #1

|                      |                    |               |                            |              | Ra                       | andlemar   | n #1               |                |               |                     |           |                 |                    |         |
|----------------------|--------------------|---------------|----------------------------|--------------|--------------------------|------------|--------------------|----------------|---------------|---------------------|-----------|-----------------|--------------------|---------|
| Analysis:<br>Method: | lon Chro<br>E300.0 | omatograpi    | ıy .                       |              |                          |            |                    |                |               | Order:<br>Batch ID: | •         | 120639<br>13024 | )                  |         |
|                      |                    | Me            | thod Blank                 |              |                          |            | Sam                | oles in Analy  | tical Batch   | 1:                  |           |                 | · · <del>-</del> · |         |
| RunID: IC1_1         | 01219A-56780       | 88            | Units:                     | mg/L         |                          |            | Labs               | Sample ID      |               | Client              | Sample II | D               |                    |         |
| Analysis Date:       | 12/19/20           | 10 9:55       | Analyst:                   | ESK          |                          |            | -                  | 0639-02C       |               | MW-2                |           | -               |                    |         |
| ,,                   |                    |               | · · · · · <b>,</b> · · · · |              |                          |            |                    |                | · .           |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
| Г <sup></sup>        |                    | Analyte       |                            | Result       | Rep Limit                |            |                    |                |               |                     |           |                 |                    |         |
| G                    | hloride            | Analyte       |                            | ND           | <u> </u>                 | -          |                    |                |               |                     |           |                 |                    |         |
|                      | ulfate             |               |                            | ND           |                          | -          |                    |                |               |                     |           |                 |                    |         |
|                      |                    | •             |                            |              |                          |            |                    |                | •             |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     | •         |                 |                    |         |
|                      |                    | ·             |                            | La           | boratory                 | Control S  | <u>Sample (L</u>   | <u>CS)</u>     |               |                     |           |                 |                    |         |
|                      | , I.               | Runi          | ):                         | IC1_1012     | 19A-567806               | 59 Ur      | nits: n            | ng/L           |               |                     |           |                 |                    |         |
|                      |                    |               | sis Date:                  | 12/19/20     | 10 10:11                 |            |                    | SK             |               |                     |           |                 |                    |         |
|                      |                    | -             |                            | •            |                          |            | ·                  |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               | Analyt                     | e            |                          | Spike      | Result             | Percent        | Lower         | Upper               | 7         |                 |                    |         |
|                      |                    |               | ,                          | -            |                          | Added      |                    | Recovery       | Limit         | Limit               |           |                 |                    |         |
| {                    | - <del> </del>     | Chloride      |                            |              |                          | 10.00      | 9.211              | 92.11          | 90            | 110                 | 5         |                 |                    |         |
|                      | •                  | Sulfate       | ı                          |              |                          | 10.00      | 9.924              | 99.24          | 90            | 110                 | )         |                 |                    |         |
|                      |                    | L             |                            |              |                          |            |                    | 1I             |               | -                   |           |                 |                    |         |
|                      |                    | Run<br>Ana    | ID:<br>lysis Date:         |              | 1219A-5678<br>2010 15:34 |            | Jnits:<br>Analyst: | mg/L<br>ESK    |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      | Analyte            |               | Sample                     | MS           | MS                       | MS         |                    |                | MSE           |                     | RPD       |                 | Low                | High    |
|                      |                    |               | Result                     | Spike        | Result                   | Reco       | very Spi<br>Ado    |                | t Reco        | overy               |           | RPD<br>Limit    | Limit              | Limit   |
|                      | •                  | -             | 1                          | Added        | •                        |            |                    |                |               |                     |           |                 |                    |         |
| Sulfate              |                    |               | 1418                       | 5000         | 65                       | 22   1     | 102.1 5            | 000 6          | 523           | 102.1               | 0.01504   | 15              | 80                 | 120     |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    | •              |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      | •                  |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      |                    |               |                            |              |                          |            |                    |                |               |                     |           |                 |                    |         |
| Qualifiers:          | ND/U - Not D       | etected at th | e Reporting Lir            | nit          |                          | r          | MI - Matrix        | Interference   |               |                     |           |                 |                    |         |
|                      |                    |               | ne Associated I            |              | ank                      | ſ          | D - Recove         | ery Unreportat | le due to D   | ilution             |           |                 |                    |         |
|                      | -                  |               | en MDL And F               |              |                          |            |                    | ry Outside Ad  |               |                     |           |                 |                    |         |
|                      | E - Estimated      | Value excee   | eds calibration            | curve        |                          |            |                    |                |               |                     |           |                 |                    |         |
|                      | N/C - Not Cal      | culated - Sa  | mple concentra             | ation is gre | eater than 4             | 4 times th | e amount           | of spike added | d. Control li | mits do n           | ot apply. |                 |                    |         |
|                      | TNTC - Too n       | umerous to    | count                      |              |                          |            |                    |                |               |                     |           | 10              | 120639             | ) Page  |
| OC results pre       | sented on the      | QC Summa      | ry Report have             | been rou     | nded, RPD                | ) and perc | cent recove        | erv values     |               |                     |           | 10              | /28/2010           | 8-46-11 |

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



#### HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

#### **Conoco Phillips**

Randleman #1

| Analysis Date:         12/19/2010 9:55         Analyst:         ESK         Initiativity         Analysis         Distributivity         Distributivity <thdistributivity< th=""> <thdistributivity< th=""></thdistributivity<></thdistributivity<>   |             |                 |            |           |          | Ran  | ndleman  | #1       |           |           |          |             |          |    |       |      |
|---|-------------|-----------------|------------|-----------|----------|--|----------|----------|-----------|-----------|----------|-------------|----------|----|-------|------|
| RuniD:         IC1_101219A-5678068         Units:         mg/L         Lab Sample ID         Client Sample ID           Analysis Date:         12/19/2010 9:55         Analysi:         ESK         10120639-01C         MW-1           Indicesson         Analyte         Result         Rep Limit, 0.050         0.000         0.010           Interview         Analyte         Result         Rep Limit, 0.050         0.000         0.000           Interview         Analyte         Result         Rep Limit, 0.050         0.000         0.000           Laboratory Control Sample (LCS)         Analysis Date:         12/19/2010 10:11         Analysis:         MW-4           Analysis Date:         12/19/2010 10:11         Analysis:         ESK         Units:         mg/L           Analysis Date:         12/19/2010 10:11         Analysis         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Units:         mg/L           Surface         10.00         9.241         90         110           Surface         10/10/219A-5678073         Units:         mg/L         Analysis Date:         12/19/2010 11:16           Analyte         Sample Spike         MS         MS         MS         MSD         MSD         MSD         Recovery         Reb Low <th>-</th> <th></th> <th>matography</th> <th>у</th> <th></th>  | -           |                 | matography | у         |          |  |          |          |           |           |          |             |          |    |       |      |
| Lab Status         Lab Sta   | ·           |                 | Met        | hod Blank |          |  |          | Sam      | ples in A | Analytica | I Batch: |             |          |    |       |      |
| Analysis Date:       12/19/2010 9:55       Analyst:       ESK       Initiation in the initiation the initinitiation the initiation in the initiatind the initiati | RunID: IC1_ | 101219A-5678068 | 8          | Units:    | mg/L     |  |          | Lab      | Samolo    | חי        |          | Client S    | amole ID |    |       |      |
| 10120639-02C       MW-2         10120639-03C       MW-3         10120639-03C       MW-4         Laboratory Control Sample (LCS)       MW-4         Analysis Date:       12/19/2010 10:11         Analysis Date:       12/19/2010 10:11         Analysis Date:       12/19/2010 10:11         Analysis Date:       10/120639-01         Sutfrate       10/120639-01         RuniD:       K1 10/120639-01         Analysis Date:       12/19/2010 11:16         Analyte       Sample Spiket       MS         Marking Result       Recovery Accover         Analyte       Sample Spike       MS         Morid       Spike       Result         Analyte       Sample Spiket       100.8   |             | 12/19/201       | 0 9:55     | Analvst:  |          |  |          |          |           |           |          |             |          |    |       |      |
| Analyte       Result       Rep Limit         Chloridie       ND       0.50         Suttate       ND       0.50         Laboratory Control Sample (LCS)         RunID:       ICT_101219A-5676069       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analysi:       ESK         Matrix Spike (MS) / Matrix Spike       Recovery       Lower       Uppor         Chloride       10.00       9.211       90       110         Suifate         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Suifate       10120639-01         RunID:       ICT_101218A-5678073       Units:       mg/L         Analyte       Sample Spiked:       10120639-01       Result       Analysis Date:       12/19/2010 11:16       Analysi:       ESK         Analyte       Sample       MS       MS       MS       MS       MSD       Recovery       Recovery       RPD       RPD       Low         Model       Sample       MS       MS       MSD       MSD       MSD       NSD       NSD       NSD       NSD       NSD       NSD       NSD  |             |                 |            | ?<br>?    |          |  |          |          |           |           |          |             |          |    |       |      |
| Analyte       Regult Rep Linit<br>Suttate         Laboratory Control Sample (LCS)         RunID:       IC1_101219A:5678069       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analysis:       ESK         Matrix Spike (MS) / Matrix Spike       Recovery       Lower       Upper         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Suffate       10:200 9:211 9:2.11 9:0 110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiket:       10120639-01         RunID:       K11/219A:5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analysis:       ESK         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiket:       10120639-01       mg/L         RunID:       K12_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analysis:       ESK         Model       Spike       Result       MSD       Kesult       Recovery  |             |                 |            |           |          |  |          | 1012     | 0639-03   | С         |          | MW-3        |          |    |       |      |
| Did 0.50         Suttate       ND       0.50         Suttate       ND       0.50         Laboratory Control Sample (LCS)       MI       MI         RunID:       ICT_10/219A-657606       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analysi:       ESK         Matrix Spike       Result       Percent       Lower       Uppor         Limit       Limit       Limit       Limit       Limit         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)       Sufface       Surface       1020639-01         RunID:       IC1_101216A-6678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analysis       ESK         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)       MSD       MSD %       RPD       RPD       Low         Matrix Spike (MS) / Matrix Spike Covery       Spike       Result       MSD %       RPD       RPD       Low         Mindee       Sample       MS       MS       MS %       MSD       MSD %       RPD       RPD       Low         Mindee       Spike       Result       MSD       MSD       MSD       MSD %       RPD       RPD       RPD       RPD       RPD<   | Г           |                 | Analyte    |           | Result   | Rep Limit  |          | 1012     | 0639-04   | С         |          | MW-4        |          |    |       |      |
| Laboratory Control Sample (LCS)         RuniD:       C1_101219A-5678068       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analyst:       ESK         Analyte       Spike       Result       Percent       Lower       Upper         Chloride       10:00       9.211       90       110         Suffate       10120639-01         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiket:       10120639-01         RuniD:       CI_101219A-5678073       Units:       mg/L         Analyte       Sample Spiket:       10120639-01         RuniD:       CI_101219A-5678073       Units:       mg/L         Analyte       Sample Spike       Result       MS MS MS % MSD MSD MSD MSD % RPD RPD Low         Minorde       93.48       50       146.4       105.9       50       143.9       100.8       1.769       15       80         Matrix Interference         Matrix Interference   | c           |                 | , analyto  |           |          | for some state of the second state of the seco |          |          |           |           |          |             |          |    |       |      |
| RunID:       Cl_1212194-5678069       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analyst:       ESK         Image: Splead in the spl   | s           | Sulfate         |            |           | ND       | 0.50   |          |          |           |           |          |             |          |    |       |      |
| RuniD:       C1_101219A-6578069       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analyst:       ESK         Image: Splead in the spl   | •           |                 |            |           |          |  | •        |          |           |           |          |             |          |    |       |      |
| RunID:       Cl_1212194-5678069       Units:       mg/L         Analysis Date:       12/19/2010 10:11       Analyst:       ESK         Image: Splead in the spl   | ·····       |                 |            |           | La       | boratory C   | ontrol S | ample (L | CS)       |           |          |             |          |    |       |      |
| Analysis Date:       12/19/2010 10:11       Analysi:       ESK         Analysis Date:       12/19/2010 10:11       Analysi:       ESK         Analysis Date:       12/19/2010 10:11       Analysi:       ESK         Analysis Date:       10:00       9.211       92.11       90       110         Suifate       10:00       9.924       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked:       10120639-01         RunID:       1012109A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analysi:       ESK  |             |                 |            |           |          | _  |          |          |           |           |          |             |          |    |       |      |
| Analyte       Spike       Result       Percent       Lower       Upper         Chloride       10.00       9.211       92.11       90       110         Suffate       10.00       9.924       99.24       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked:       10120639-01       Main       Main       Mark       Mg/L         RuiD:       IC1_101219A-5678073       Units:       mg/L       Matrix Spike (MS)       Masyst:       ESK         Mainitia       MS       MS       MS       MSD       MSD       MSD %       RDD %       RPD       Low         Analyte       Sample       Spike       Result       Recovery       Spike       Result       Recovery       RPD       Limit         chloride       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       NDU - Not Detected at the Reporting Limit       MI - Matrix Interference   |             | , <sup>†</sup>  |            |           |          |  |          |          | -         |           |          |             |          | •  |       |      |
| Added       Recovery       Limit       Limit         Chloride       10.00       9.211       90       110         Suffate       10.00       9.924       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked:       10120639-01         RunID:       IC1_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analyst:       ESK         Analyte       Sample       MS       MS       MS %       MSD       MSD       Recovery       Recovery </td <td></td> <td></td> <td>Analys</td> <td>is Dale.</td> <td>12/19/20</td> <td>10 10.11</td> <td>Alle</td> <td>aiyst. E</td> <td>.on</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |             |                 | Analys     | is Dale.  | 12/19/20 | 10 10.11   | Alle     | aiyst. E | .on       |           |          |             |          |    |       |      |
| Added       Recovery       Limit       Limit         Chloride       10.00       9.211       90       110         Suffate       10.00       9.924       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)       90       110         Sample Spiked:       10120639-01  |             |                 | •          |           |          |  |          |          |           |           |          |             |          |    |       |      |
| Added       Recovery       Limit       Limit         Chloride       10.00       9.211       92.11       90       110         Sulfate       10.00       9.924       99.24       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked:       10120639-01       mg/L         RunID:       IC1_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analysi:       ESK         Analyte       Sample MS MS Result Added       MS % Added       MSD Result Recovery Added       RPD RPD Limit       Limit Limit         Norde       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       ND/U - Not Detected at the Reporting Limit       MI - Matrix Interference   | •           | 1               |            | Analyt    | te       |  | Snike    | Result   | Perce     | ent lio   | ower     | loper       | ľ        |    |       |      |
| Sulfate       10.00       9.924       90       110         Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked: 10120639-01         RunID:       IC1_101219A-5678073       Units: mg/L         Analysis Date:       12/19/2010       11:16       Analyst:         ESK         Analyte       Sample Spike       MS       MS %       MSD       MSD %       RPD       Low         Limit       Added       Result       Recovery       Spike       Result       Recovery       Added       RPD       Limit       Limit         hloride       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       ND/U - Not Detected at the Reporting Limit       MI - Matrix Interference       MI - Matrix Interference  |             |                 |            |           |          |  |          |          |           |           |          |             |          |    |       |      |
| Matrix Spike (MS) / Matrix Spike Duplicate (MSD)         Sample Spiked: 10120639-01         RuniD:       IC1_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analyst:       ESK         Analyte       Sample       MS       MS       MS %       MSD       MSD       MSD %       RPD       Low         Analyte       Sample       Spike       Result       Recovery       Spike       Result       Imit       Limit         hloride       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       ND/U - Not Detected at the Reporting Limit       MI - Matrix Interference       MI - Matrix Interference   |             |                 | Chloride   |           |          |  | 10.00    | 9.211    | 5         | 92.11     | 90       | 110         |          |    |       |      |
| Sample Spiked:       10120639-01         RunID:       IC1_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analyst:       ESK         Analyte       Sample Result       Spike Result       MS % Recovery Spike Result       MSD % Recovery Added         Analyte       Sample Result       Spike Result       Recovery Spike Result Added       NSD % Recovery Added       Recovery Spike Result Added       Recovery Added <t< td=""><td></td><td></td><td>Sulfate</td><td>۰<br/>ا</td><td></td><td></td><td>10.00</td><td>9.924</td><td>9</td><td>9.24</td><td>90</td><td><b>1</b>10</td><td></td><td></td><td></td><td></td></t<>  |             |                 | Sulfate    | ۰<br>ا    |          |  | 10.00    | 9.924    | 9         | 9.24      | 90       | <b>1</b> 10 |          |    |       |      |
| Sample Spiked:       10120639-01         RunID:       IC1_101219A-5678073       Units:       mg/L         Analysis Date:       12/19/2010 11:16       Analyst:       ESK         Analyte       Sample Result       Spike Result       MS % Recovery Spike Result       MSD % Recovery Added         Analyte       Sample Result       Spike Result       Recovery Spike Result Added       NSD % Recovery Added       Recovery Spike Result Added       Recovery Added <t< td=""><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>   |             |                 |            |           | •        |  |          |          |           |           |          | -           |          |    |       |      |
| Result       Spike<br>Added       Result       Recovery<br>Added       Spike<br>Added       Result       Recovery       Result       Recovery       RPD<br>Limit       Limit         Inloride       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       ND/U - Not Detected at the Reporting Limit       MI - Matrix Interference       MI - Matrix Interference       MI - Matrix Interference   | ,           |                 |            |           | _        |  |          |          |           |           |          |             |          |    |       | -    |
| Result       Spike<br>Added       Result       Recovery<br>Added       Spike<br>Added       Result       Recovery       Result       Recovery       RPD<br>Limit       Limit         hloride       93.48       50       146.4       105.9       50       143.9       100.8       1.759       15       80         Qualifiers:       ND/U - Not Detected at the Reporting Limit       MI - Matrix Interference       MI - Matrix Interference       MI - Matrix Interference  |             | Analvte         |            | Sample    | MS       | MS   | MS       | 6 MS     | SD D      | MSD       | MSD      | %           | RPD      |    | Low   | High |
| Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference   |             |                 | i<br>i     |           | Spike    |  |          | ery Spi  | ke l      |           | -        |             |          |    | Limit | Limi |
|   | hloride     |                 |            | 93.48     | 50       | 146.4  | 4   1    | 05.9     | 50        | 143.9     | 1        | 00.8        | 1.759    | 15 | 80    | 12   |
|   |             |                 | ·          |           |          |  |          |          |           |           |          |             |          | -  |       |      |
|   |             |                 |            |           |          |  |          |          |           |           |          |             |          |    |       |      |
|   |             |                 |            |           |          |  |          |          |           |           |          |             |          |    |       |      |
|   |             |                 | •          | ,         |          |  |          |          |           |           |          |             |          |    |       |      |
|   | Qualifiers: |                 |            | -         |          |  |          |          |           |           | 4        | ution       |          | ÷  |       |      |
| B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution   |             |                 |            |           |          | ank  |          |          | •         | •         |          |             |          |    |       |      |
| J - Estimated Value Between MDL And PQL * - Recovery Outside Advisable QC Limits<br>E - Estimated Value exceeds calibration curve   |             | J - ESUMATED V  | aute Kenve |           |          |  |          |          |           |           |          |             |          |    |       |      |

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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#### HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

## **Conoco Phillips**

| - |     |      |     |      | · – – |
|---|-----|------|-----|------|-------|
|   | Rar | ndle | mar | ז #1 |       |

|                                       |                     |           |   |                                   | Rar                                       | ndleman           | #1                         |                                 |            |                    |           |                  |              |               |
|---------------------------------------|---------------------|-----------|---|-----------------------------------|---|-------------------|----------------------------|---------------------------------|------------|--------------------|-----------|------------------|--------------|---------------|
| Analysis:<br>Method:                  | lon Chrom<br>E300.0 | atography | <b>y</b>                                  |                                   |   |                   |                            |                                 |            | Order:<br>Batch ID |           | 120639<br>13024E |              |               |
|                                       |                     | Meti      | hod Blank                                 |                                   |   |                   | Samp                       | les in Analy                    | ical Batch | n:,                |           |                  |              |               |
| RunID: IC1                            | _101219A-5678068    |           | Units:                                    | mg/L                              |   |                   | √Lab S                     | ample ID                        |            | Client             | Sample II | 5                |              |               |
| Analysis Date                         | e: 12/19/2010       | 9:55      | Analyst:                                  | ESK                               |   |                   |                            | 639-01C                         |            | MW-1               |           | -                |              |               |
| •                                     |                     |           | ,   |                                   |   |                   | 10120                      | 639-03C                         |            | MW-3               |           |                  |              |               |
|                                       |                     |           |   |                                   |   |                   | 10120                      | 639-04C                         |            | MW-4               |           |                  |              |               |
| ſ                                     | Δ                   | nalyte    |   | Result                            | Rep Limit                                 |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       | Chloride            |           |   | ND                                |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       | Sulfate             |           |   | ND                                |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       |                     |           |   |                                   | h a rata r C                              | a mána l C        |                            | 201                             |            |                    |           |                  |              |               |
|                                       |                     |           |   | La                                | aboratory C                               | ontrol 5          | ample (L                   | <u>, 5)</u>                     |            |                    |           |                  |              |               |
|                                       | :                   | RunID:    |   | IC1_1012                          | 19A-5678069                               | ) Un              | its: m                     | g/L                             |            |                    |           |                  |              |               |
|                                       |                     | Analys    | is Date:                                  | 12/19/20                          | 10 10:11                                  | An                | alyst: E                   | SK ·                            |            |                    |           |                  |              |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       | •                   | ·         | Analyt                                    | e                                 |   | Spike             | Result                     | Percent                         | Lower      | Upper              | ]         |                  | ÷            |               |
|                                       |                     |           |   |                                   |   | Added             |                            | Recovery                        | Limit      | Limit              |           |                  |              |               |
| 645 <u>-</u>                          |                     | Chloride  |   |                                   |   | 10.00             | 9.211                      | 92.11                           | 90         | 110                | <u>」</u>  |                  |              |               |
| •                                     |                     | Sulfate   |   |                                   |   | 10.00             | 9.924                      | 99.24                           | 90         | 110                | 2         |                  |              |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  | ·            |               |
|                                       |                     |           |   |                                   |   |                   |                            |                                 |            |                    |           |                  |              |               |
|                                       |                     |           | Matrix                                    | Spike (N                          | /IS) / Matrix                             | Spike D           | uplicate                   | MSD)                            |            |                    |           |                  |              |               |
|                                       |                     | Sami      |   |                                   |   | Spike D           | uplicate                   | <u>MSD)</u>                     |            |                    |           |                  |              |               |
|                                       |                     |           | ple Spiked:                               | 101206                            | 639-01                                    |                   |                            |                                 |            |                    |           |                  |              | <del></del>   |
|                                       |                     | Runi      | ple Spiked:<br>D:                         | 101206<br>IC1_101                 | 539-01<br>1219A-56780                     | 84 L              | Inits:                     | mg/L                            |            |                    |           |                  |              |               |
| · · ·                                 |                     | Runi      | ple Spiked:                               | 101206<br>IC1_101                 | 639-01                                    | 84 L              | Inits:                     |                                 |            |                    |           |                  |              |               |
|                                       |                     | Runi      | ple Spiked:<br>D:                         | 101206<br>IC1_101                 | 539-01<br>1219A-56780                     | 84 L              | Inits:                     | mg/L                            |            |                    |           |                  |              |               |
| · · · · · · · · · · · · · · · · · · · | Analyta             | Runi      | ole Spiked:<br>D:<br>/sis Date:           | 101206<br>IC1_101<br>12/19/2      | 639-01<br>1219A-56780<br>2010 15:01       | 84 L<br>A         | Inits:<br>nalyst:          | mg/L<br>ESK                     | Mer        |                    | RPD       |                  | Low          | Hich          |
|                                       | Analyte             | Runi      | ole Spiked:<br>D:<br>/sis Date:<br>Sample | 101206<br>IC1_10<br>12/19/2<br>MS | 639-01<br>1219A-56780<br>2010 15:01<br>MS | 84 L<br>A<br>MS 9 | Inits:<br>nalyst:<br>% MS  | mg/L<br>ESK<br>D MSD            | MSI        | ) %<br>wery        | RPD       | RPD              | Low<br>Limit |               |
| · · · · · · · · · · · · · · · · · · · | Analyte             | Runi      | ole Spiked:<br>D:<br>/sis Date:           | 101206<br>IC1_101<br>12/19/2      | 639-01<br>1219A-56780<br>2010 15:01       | 84 L<br>A         | Inits:<br>.nalyst:<br>% MS | mg/L<br>ESK<br>D MSD<br>æ Resul |            |                    | RPD       | RPD<br>Limit     |              | High<br>Limit |

Qualifiers: ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

J - Estimated Value Between MDL And PQL

E - Estimated Value exceeds calibration curve

MI - Matrix Interference

D - Recovery Unreportable due to Dilution \* - Recovery Outside Advisable QC Limits

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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HOUSTON LABORATORY 8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

## Conoco Phillips

|                      |   | - <b>b</b> - <b>c</b> - <b>b</b> - <b>b</b> - <b>c</b> - <b>b</b> - <b>c</b> - <b>b</b> - <b>c</b> - <b>b</b> - <b>c</b> |  |   | Ra   |  | •  |  | w                            |              | 404000           | -20                                   |      |
|----------------------|---|--|--|---|--|--|--|--|------------------------------|--------------|------------------|---------------------------------------|------|
| Analysis:<br>Method: | Total Diss<br>SM2540 C                                    |  | lids   |   |  |  |  | *  | WorkOrder<br>Lab Batch       |              | 101206<br>R31332 |                                       |      |
|                      | 3112340 0   |  |  |   |  |  | Complex in   |  |                              |              |                  |                                       |      |
|                      |   |  | thod Blan  |   |  |  | Samples In   | Analytical   | Batch:                       |              |                  | ×                                     |      |
|                      | _101223T-5683278  |  | Unit   |   |  |  | Lab Sample   |  |                              | nt Samp      | <u>le ID</u>     |                                       |      |
| Analysis Date:       | 12/23/2010  | ) 16:15  | Ana  | yst: MM   | 1  |  | 10120639-0   |  | MW                           |              |                  |                                       |      |
|                      |   | •  | 2  |   |  |  | 10120639-0   |  | MW                           |              |                  |                                       |      |
|                      |   |  |  |   |  |  | 10120639-0   |  | MW                           |              |                  |                                       |      |
| Γ                    | A   | nalyte   |  | Resu  | ult Rep Limit  | ]  | 10120639-0   | 4C   | MW                           | 4            |                  |                                       |      |
| 5                    | otal Dissolved Soli                                       | ds (Residu   | e,Filterable   | e)  | ND 10  | ]  |  | •  |                              |              |                  |                                       |      |
|                      |   |  |  |   |  |  |  |  |                              |              |                  |                                       |      |
|                      |   | Loboro   | ton Cont   | ral Commi   | e/Laboratory   | Control So   | malo Dualios   |  |                              |              |                  |                                       |      |
| · ·                  |   | Labora   | tory Cont  | roi Sampi   | e/Laboratory   | Control Sa   | mple Duplica   |  | 201                          |              |                  |                                       |      |
| , I.                 | . <b>R</b> u  | unID:  | v  | VET_10122   | 3T-5683280   | Units:   | mg/L   |  |                              |              |                  |                                       |      |
| l                    | · An  | nalysis Da   | te: 1  | 2/23/2010   | 16:15  | Analyst:   | MM1  |  |                              |              |                  |                                       |      |
|                      |   |  |  |   |  |  |  |  |                              |              |                  |                                       |      |
| •                    |   |  | •  | 1   |  |  |  |  | · · · · · ·                  |              | 1                |                                       |      |
| :                    | Analyte   | \$   | LCS<br>Spike   | LCS<br>Result   | LCS<br>Percent   | LCSD   | LCSD   | LCSD<br>Percent  | RPD                          | RPD<br>Limit | Lower<br>Limit   | Upper<br>Limit                        |      |
| •                    |   |  | Spike<br>Added   | Result  | Recovery   | Spike<br>Added   | Result   | Recovery   |                              |              | LITTI            |                                       |      |
| otal Dissolver       | d Solids (Residue,  | Filterabl  | 200.0  | 202.0   | 101.0  | 200.0  | 199.0  | 99.50  | 1.                           | 5 10         | 95               | 107                                   |      |
| •                    |   |  |  | 1   |  | mple Duplic  | 1  |  |                              |              |                  | <u> </u>                              |      |
|                      | • •   |  | unID:<br>nalysis Dat   |   | ET_101223T-56<br>2/23/2010 16:1  |  | nits: mg/l<br>nalyst: MM   |  |                              |              |                  |                                       |      |
|                      | •   |  |  |   | 2/23/2010 16:1   | I5 A   | nalyst: MM<br>e DUP  |  | RPD<br>Limit                 |              |                  |                                       |      |
|                      | •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1  | Limit                        |              |                  |                                       |      |
|                      | •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1   | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
|                      | • •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
| · · · ·              | •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
|                      | · ·   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              | ·                |                                       |      |
|                      | • •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
| •                    | · ·   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       | ·    |
|                      | · · ·   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
|                      | • •   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       | ·    |
|                      | · · ·   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
|                      |   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
|                      |   | Ar   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampl<br>Resu  | nalyst: MM<br>e DUP<br>lt Result   | 1<br>RPD   | Limit                        |              |                  |                                       |      |
| Qualifiere           | ND/U - Not Deto   | Ar<br>To   | nalysis Dat  | e: 12<br>Analyt   | 2/23/2010 16:1<br>e  | I5 A<br>Sampi<br>Resu<br>rabl 94                               | nalyst: MM<br>e DUP<br>it Result<br>00 9430  | 1<br>RPD<br>0.319  | Limit                        | ·<br>·       | ·<br>·           |                                       |      |
| Qualifiers:          | ND/U - Not Dete<br>B - Analyte Deter                      | Ar<br>To   | nalysis Dat  | e: 12<br>Analyt<br>red Solids   | 2/23/2010 16:1<br>e<br>(Residue,Filter   | I5 A<br>Sampl<br>Resu<br>rabl 94                               | nalyst: MM<br>e DUP<br>It Result<br>00 9430  | 1<br>RPD<br>0.319  | Limit                        |              | ·                | · · · · · · · · · · · · · · · · · · · |      |
| Qualifiers:          | ND/U - Not Dete<br>B - Analyte Deter<br>J - Estimated Va  | Ar<br>To   | e Reportin   | e: 12<br>Analyt<br>ved Solids<br>def Solids<br>g Limit<br>ited Methor                           | 2/23/2010 16:1<br>e<br>(Residue,Filter   | I5 A<br>Sampl<br>Resu<br>rabl 94                               | nalyst: MM<br>e DUP<br>it Result<br>00 9430  | 1<br>RPD<br>0.319<br>0.319   | e to Dilution                |              |                  |                                       |      |
| Qualifiers:          | B - Analyte Deter   | Ar<br>To<br>To<br>teted at th<br>cted in Th  | e Reportin<br>ne Associa<br>een MDL A                                      | e: 12<br>Analyt<br>red Solids of<br>g Limit<br>ted Methoo<br>and PQL                            | 2/23/2010 16:1<br>e<br>(Residue,Filter   | I5 A<br>Sampl<br>Resu<br>rabl 94                               | e DUP<br>It Result<br>00 9430  | 1<br>RPD<br>0.319<br>0.319   | e to Dilution                |              |                  |                                       |      |
| Qualifiers:          | B - Analyte Deter<br>J - Estimated Va                     | Ar<br>Tc   | e Reportin<br>te Associa<br>en MDL A<br>ds calibra                         | e: 12<br>Analyt<br>red Solids<br>g Limit<br>ted Methoo<br>und PQL<br>tion curve                 | 2/23/2010 16:1<br>e<br>(Residue,Filter   | I5 A<br>Sampl<br>Resu<br>rabl 94<br>94<br>MI<br>D -<br>* - F   | e DUP<br>It Result<br>00 9430<br>Matrix Interfe<br>Recovery Unr<br>Recovery Outs   | 1<br>RPD<br>0.319<br>0.319<br>erence<br>reportable du<br>side Advisabl                 | e to Dilution<br>e QC Limits |              | ly.              | · · · · · · · · · · · · · · · · · · · |      |
|                      | B - Analyte Deter<br>J - Estimated Va<br>E - Estimated Va | Ar<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To<br>To   | e Reportin<br>ne Associa<br>een MDL A<br>ads calibra<br>mple conc<br>count | e: 12<br>Analyt<br>ved Solids<br>g Limit<br>ted Methoo<br>and PQL<br>tion curve<br>entration is | 2/23/2010 16:1<br>e<br>(Residue,Filter<br>(Residue,Filter<br>Blank<br>greater than 4 | I5 A<br>Sampl<br>Resu<br>rabl 94<br>94<br>94<br>94<br>94<br>94 | e DUP<br>It Result<br>00 9430<br>• Matrix Interfe<br>Recovery Unr<br>Recovery Outs | 1<br>RPD<br>0.319<br>0.319<br>erence<br>reportable du<br>side Advisabl<br>e added. Cor | e to Dilution<br>e QC Limits |              |                  | 10120639                              | Page |

Sample Receipt Checklist And Chain of Custody

> 10120639 Page 18 12/28/2010 8:46:12 AM



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

#### Sample Receipt Checklist

| Workorder:         10120639           Date and Time Received:         12/18/2010 10:30:00 AM           Temperature:         2.5%C |              | Received By:<br>Carrier name:<br>Chilled by: | T_B<br>Fedex-Priority                 |
|---|--------------|--|---------------------------------------|
| Temperature: 3.5°C  |              | Crimed by.                                   | Water Ice                             |
| 1. Shipping container/cooler in good condition?   | Yes 🗹        | No   | Not Present                           |
| 2. Custody seals intact on shippping container/cooler?  | Yes 🗌        | No 🗌   | Not Present                           |
| 3. Custody seals intact on sample bottles?  | Yes          | Νο   | Not Present                           |
| 4. Chain of custody present?  | Yes 🗹        | No 🗌   |                                       |
| 5. Chain of custody signed when relinquished and received?  | Yes 🔽        | No 🗌   |                                       |
| 6. Chain of custody agrees with sample labels?  | Yes 🔽        | No   |                                       |
| 7. Samples in proper container/bottle?  | Yes 🗹        | No   |                                       |
| 8. Sample containers intact?  | Yes 🔽        | No 🗌   |                                       |
| 9. Sufficient sample volume for indicated test?   | Yes 🔽        | No   |                                       |
| 10. All samples received within holding time?   | Yes 🔽        | No 🗀   |                                       |
| 11. Container/Temp Blank temperature in compliance?   | Yes 🔽        | No 🗌   |                                       |
| <b>12.</b> Water - VOA vials have zero headspace?   | Yes 🗹        |  | Vials Not Present                     |
| <b>13.</b> Water - Preservation checked upon receipt (except VOA*)?   | Yes          | No   | Not Applicable                        |
| *VOA Preservation Checked After Sample Analysis   |              | <u>.</u>                                     | -                                     |
| SPL Representative:   | Contact Date | & Time:                                      |                                       |
| Client Name Contacted:  |              |  |                                       |
| Non Conformance<br>Issues:  |              |  |                                       |
| Client Instructions:  | <u> </u>     |  | · · · · · · · · · · · · · · · · · · · |
| · · · · · · · · · · · · · · · · · · ·   | ·            |  |                                       |

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|---|---|--|----------------------------|------------------------------|-------------------|---------------|--|-----------------------|----------------|-----------|--------------|-----------------------|--------------------------|---|------------|
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | $\begin{array}{c c c c c c c c c c c c c c c c c c c $  | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Analysis Re                | quest & Chain of Custody Rec | ord               | ۵<br>۲۰۰۰ میں | ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ،  | ہ<br>بر سب ہے ج       | Q              | ¢∕<br>∕   | 0            | 1                     | page                     | Jo  | 0          |
| (10) $(10)$   | Image: Color Action Action Action Science Minimum Calify Database Mini  | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  | Teha lelly                 |                              | the second second |               |  |                       | pres.          |           | [            | seque                 |                          | alysis  |            |
| are: CFD: LZ-1-CA4.0       M       L <thl< th="">       L       <thl< th=""></thl<></thl<>  | $\begin{array}{c c c c c c c c c c c c c c c c c c c $  | are:       CTC-       L3       -       Addition at the construction of the con | 10121 Incuan               |                              |                   | VIDUN         | sse<br>=0the                           | ıal<br>her            | •              | •         |              | XĨ.                   |                          |   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | Relation     Formulation     Image of the second s  | PLATING       train bill that left       train bill that left       train bill that left       train bill that left         III       III       III       III       IIII       IIII       IIII       IIIII       IIIII       IIIII       IIIII       IIIIII       IIIIII       IIIIII       IIIIIII       IIIIIIII       IIIIIIII       IIIIIIII       IIIIIIIII       IIIIIIIII       IIIIIIIIII       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII   | ax: 675-227-6              | 3440 MI                      |                   |               | t gl                                   | 10=3                  | :              | SJ        |              | ĽĄ                    |                          |   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | Reflect AH         Pit.   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | act: Kolly BL              | A Email: C                   | ".blandard        |               | admin<br>noon                          | y 10                  | iyer<br>NO3    | iəun      | り            | <b>1</b> 291          |                          |   |            |
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| MH         mi.         mi. <thmi.< th=""> <thmi.< th=""> <thmi.< th=""></thmi.<></thmi.<></thmi.<>  | MH         Ph.         Ph   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Site Name:                 |                              |                   |               | I 9                                    | τ<br>Λ                | { * 1<br>7     |           | 711<br>V     | 10                    |                          | <u>, , , , , , , , , , , , , , , , , , , </u> |            |
| ID     DATE     TIME     comp $\overline{P}$ in $\overline{D}$ $\overline$ | ID         DATE         TIME         comp $\overline{g}$ $g$ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Site Location: HZAC, NH    |                              |                   |               | site<br>Sbul                           | (GL<br>191            | 705<br>1       | <u>-</u>  | B.           | pч                    | <b>6</b> 1               |   |            |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$  | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Invoice To:                |                              | Ph:               | e 1           | [S=_]<br>[S=_]                         | <u>11  </u> =<br>218= | 7H<br>CH       |           | Ξή           | 91                    |                          |   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | I2-I7-10       I12.8       V       W       A       S       X       X         I2-I7-10       I12.8       V       W       P       I.M. I.       X       X         I2-I7-10       I12.17       I2.12       X       W       P       I.M. I.       X       X         I2-I7-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.12       X       W       P       I.M. I.       X       X         I12-17-10       I2.17       I12.12       X       W       V       V       X       X         I12-17-10       I2.17       I12.17       I12.17       X       X       X       X         X       M       V       V       V   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | SAMPLE ID                  | DATE                         | TIME              |               | $=\frac{1}{1S}$                        | =]<br>[]              | =£<br>=I       | 1.<br>INI | 0            | N                     | NA RAIN                  | ater:   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | 2+7-D  $ 128 $ $ 10-17-D $ $ 128 $ $ 10-17-D $ $ 12-17-D $ <th< td=""><td><math display="block"> \begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td><td>Mul</td><td>112-17-10</td><td>1128</td><td></td><td><math>W \mid v</math></td><td></td><td></td><td>×<br/>×</td><td></td><td></td><td></td><td></td><td></td></th<>  | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Mul                        | 112-17-10                    | 1128              |               | $W \mid v$                             |                       |                | ×<br>×    |              |                       |                          |   |            |
| 12-17-10       112-28       X       W       A       I       I       X       X         12-17-10       12-12       X       W       Y       M       Y       X       X       X         12-17-10       12-12       X       W       Y       M       Y       X       X         12-17-10       12/12       X       W       Y       H       X       X       X         12-17-10       12/12       X       W       Y       H       X       X       X         12-17-10       12/12       X       W       Y       H       X       X       X         12-17-10       12/12       X       W       Y       H       X       X       X         12-17-10       12/12       X       W       Y       Y       X       X       X         12-17-10       12/12       X       W       Y       Y       X       X       X         12-17-10       12/12       X       W       Y       Y       X       X       X         12-17-10       12/12       X       W       Y       Y       X       X       X   | 12- $17$ - $10$ $112$ - $8$ $112$ $12$ <t< td=""><td><math>12 \cdot 17 \cdot 10</math> <math>11 \cdot 28</math> <math>12 \cdot 17 \cdot 10</math> <math>11 \cdot 28</math> <math>12 \cdot 17 \cdot 10</math> <math>12 \cdot 10 \cdot 10 </math></td><td>Huc.</td><td>Q-17-21</td><td>1128</td><td><math>\geq</math></td><td>W F</td><td>10</td><td>N.</td><td></td><td>X</td><td></td><td>1 ka</td><td></td><td></td></t<>  | $12 \cdot 17 \cdot 10$ $11 \cdot 28$ $12 \cdot 17 \cdot 10$ $11 \cdot 28$ $12 \cdot 17 \cdot 10$ $12 \cdot 10 \cdot 10 $   | Huc.                       | Q-17-21                      | 1128              | $\geq$        | W F                                    | 10                    | N.             |           | X            |                       | 1 ka                     |   |            |
| I2-17-10       I2.I2       X       W       AC       IS       X       B         12-17-10       12.12       X       W       P       10       W       X       B         12-17-10       12.12       X       W       P       10       W       X       B         12-17-10       12.02       X       W       P       10       W       X       B         12-17-10       12.03       12.04       X       W       P       10       K       X       B         12-17-10       12.65       X       W       P       10       K       X       B         12-17-10       12.65       X       W       P       10       K       X       K         12-17-10       12.65       X       W       V       V       K       X       X       K         K       M       V       V       V       V       V       X       X       K   | I2-17-10       I2-12       X       W       46       3       X       8         I2-17-10       I2-12       X       W       Y       H       N       Y       X       X         I2-17-10       I2-17       I2-17       I2-17       I2-17       X       W       Y       X       X       X         I2-17-10       I2-17       I2-17       I2-17       X       W       Y       X <td><math display="block"> \begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td> <td>Mw-</td> <td>12-17-10</td> <td>1128</td> <td></td> <td>4 M</td> <td></td> <td>N<br/>V</td> <td></td> <td></td> <td><math>\mathbf{\mathbf{x}}</math></td> <td></td> <td></td> <td></td>   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Mw-                        | 12-17-10                     | 1128              |               | 4 M                                    |                       | N<br>V         |           |              | $\mathbf{\mathbf{x}}$ |                          |   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | I2-I7-ID       I2-I7-ID <t< td=""><td>I2-I7-ID       I2-I2       X       W       P       IQ       N       X       Z         I2-I7-ID       I2-I7-</td><td>MW-2</td><td>12-17-10</td><td>1212</td><td><math>\sim</math></td><td></td><td>40</td><td>5_</td><td>X</td><td></td><td></td><td></td><td></td><td></td></t<>   | I2-I7-ID       I2-I2       X       W       P       IQ       N       X       Z         I2-I7-ID       I2-I7-   | MW-2                       | 12-17-10                     | 1212              | $\sim$        |  | 40                    | 5_             | X         |              |                       |                          |   |            |
| 12-17-1012.12XWPINI12-17-1012.00XWPISXX12-17-1012.60XWPIMIXX12-17-1012.69XWPIMIXX12-17-1012.69XWPIMIXX12-17-1012.69XWVHIXX12-17-1012.69XWVHIX12-17-1011.45XWVHIX12-17-1011.45XWVHII12-17-1011.45LLRecisil Detection Limits (specify):Temp:13.8Standald OCLevel 3 OCLevel 4 OCT <x<trr p<="" td="">LLReceived by:1AC3.83.83.83.83.83.83.8<td>I2-I7-I0       I2-I1       I2-I1</td><td><math display="block"> \begin{array}{  c c c c c c c c c c c c c c c c c c </math></td><td>Mw-2</td><td>12-17-10</td><td>1212</td><td>~</td><td>A<br/>A</td><td>9</td><td>N/</td><td></td><td><math>\times</math></td><td></td><td></td><td></td><td></td></x<trr>   | I2-I7-I0       I2-I1  | $ \begin{array}{  c c c c c c c c c c c c c c c c c c $  | Mw-2                       | 12-17-10                     | 1212              | ~             | A<br>A                                 | 9                     | N/             |           | $\times$     |                       |                          |   |            |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$   | I2-I7-I0       I2-O       I2-I7-I0       I2-O       I2-I7-I0       I2-I7-  | I2-I7-I0       I2-O       I2-I7-I0       I2   | Mw-2                       | 01-11-21                     | 1212              | $\mathbf{X}$  | A M                                    |                       | Ž              |           | ,            | ×                     | $\cap$                   |   |            |
| I2-17-10       I2-60       X       W       P       I0       I       X       X         I2-17-10       12-60       X       W       P       I       K       I       X       X         W       AcbdS       Laboratory remarks:       X       W       P       I       K       X       X         W       AcbdS       Lab       Laboratory remarks:       Email       Y       Y       X       <  | I2-I7-10       I2-60       X       W       W       I       X       W       I       X       X       I       X       <  | I2-17-40       I2-60       X       W       P       I0       N  | E.M                        | 01-17-21                     | 1200              | $\succ$       | W. V                                   | 4                     |                | $\times$  |              |                       |                          |   |            |
| I2-I7-I0       I2   | Image       Image <th< td=""><td>I2-17-10       I2-6       X       W       P       I       K       Intact         YX       AbldG       Laboratory remarks:       X       W       Abld       Z       X       Intact         YX       AbldG       Lab       Itaboratory remarks:       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Steinquished by:       D       Inter       Inter</td><td>NWS</td><td>0+11-21</td><td>1200</td><td>X</td><td>AM</td><td>9</td><td>N.</td><td></td><td>X</td><td></td><td></td><td></td><td></td></th<>  | I2-17-10       I2-6       X       W       P       I       K       Intact         YX       AbldG       Laboratory remarks:       X       W       Abld       Z       X       Intact         YX       AbldG       Lab       Itaboratory remarks:       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Email       PDF       Special Detection Limits (specify):       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Special Reporting Requirements       Results:       Fax       Laboratory       Intact       Intact         Steinquished by:       D       Inter   | NWS                        | 0+11-21                      | 1200              | X             | AM                                     | 9                     | N.             |           | X            |                       |                          |   |            |
| [2-l7-b] $[l45]$ $X$ $W$ $V$ $db$ $[2]$ $X$ $Mact2$ $W$ $Acbded$ $Laboratory remarks:       Laboratory remarks:       Laboratory remarks:       Intact2 W Acbded Laboratory remarks:       Email M PoFA PoFA Intact2         Special Reporting Requirements       Results:       Fax Email M PoFA PoFA Intact2         Special Reporting Requirements       Results:       Fax Email M PoFA PoFA Intact2         Standafd OC       Level 4 OC       TX TRRP       LA RECAP       PoFA PoEcial Detection Limits (specify):       Icc2         I.       Reinquished by:       DOR Ix Ix Ix Icc2 Icc2 Icc2 Icc2 Icc2         3. Relinquished by:       DOR Ix Itme       Ix Icc2 $   | I2-17-b     I145     X     W     V     40     I     3     X       W     A. M.   | N     N     N     N     N     N     N     N     Intact?       N     A     A     B     I     I     I     Intact?     Intact?       Special Reporting Requirements     Results:     Fax     Email     PDF     Special Detection Limits (specify):     Icc??       Special Reporting Requirements     Results:     Fax     Email     PDF     Special Detection Limits (specify):     Icc??       Special Reporting Requirements     Results:     Fax     Lavel 3 QC     Level 4 QC     T     Icc?       1     Reinquished by:     Icv     Ico     Icc     Icc     Icc?     Icc?       3. Relinquished by:     Ico     Icine     1     Icc     Icine     Icc     Icc       5. Relinquished by:     Ico     Ico     Icc     Icc     Icc     Icc     Ico       3. Relinquished by:     Ico     Ico     Icc     Icc     Ico     Icc     Icc       5. Relinquished by:     Ico     Ico     Icc     Icc     Ico     Icc     Ico       3. 660-0901     Scott, LA 70583 (337) 237-4775     Ico     Ico     Icc     Ico     Ico  | NWS                        | 12-17-10                     | 126               | X             | w                                      |                       | R <sup>2</sup> | 1         |              | Х                     |                          |   |            |
| W     A. Model & Laboratory remarks:     Intact?       Special Reporting Requirements     Results:     Fax       Standard QC     Level 3 QC     Level 4 QC       I     Reforming Requirements     Results:       1     Reforming Requirements     Results:       1     Reforming Requirements     Results:       1     Reforming Requirements     Results:       2     Received by:     Adde       3     Relinquished by:     6. Received by:   | W       A. A  | W. A. M.   | MW-4                       | (2-17-B                      | (145              | $\chi$        | $  _{\mathcal{V}} $                    | 10                    |                | S X       |              |                       |                          |   |            |
| Special Reporting Requirements       Results: Fax Email PDF Special Detection Limits (specify):         Standad QC Level 3 QC Level 4 QC TX TRRP LA RECAP       LA RECAP         1. Reinquished by Sample:       daty         3. Relinquished by:       daty         5. Relinquished by:       6. Received by:  | Special Reporting Requirements       Results:       Fax       Email M       PDF M       Special Detection Limits (specify):         Standald QC       Level 3 QC       Level 4 QC       TX TRRP       LA RECAP       Inne       2. Received by:         1. Reinquished by:       M       M       Inne       2. Received by:       2. Received by:         3. Relinquished by:       M       Inne       4. Received by:       1. How N       1. How N         5. Relinquished by:       M       Inne       6. Received by:       1. N         5. Relinquished by:       M       M       1. How N       1. N         5. Relinquished by:       M       M       1. N       1. N         6. Drive       M       1. N       1. N       1. N       1. N   | Special Reporting Requirements       Results:       Fax       Email       PDF       Special Detection Limits (specify):         Standold       QC       Level 3 QC       Level 4 QC       TX TRRP       LA RECAP       Intervention Limits (specify):         1.       Helinquished by:       Image       Image       2. Received by:       Image       2. Received by:         3. Relinquished by:       Image       Image       4. Received by:       Image       4. Received by:         5. Relinquished by:       Image       Image       6. Received by Laboralory:       Image       1. Poly         5. Relinquished by:       Image       Image       6. Received by Laboralory:       Image       1. Poly         5. Relinquished by:       Image       Image       6. Received by Laboralory:       Image       1. Poly       1. Poly         5. Relinquished by:       Image       Image       1. Poly       1. Poly       1. Poly       1. Poly       1. Poly         5. Relinquished by:       Image       Image       1. Poly   | Client/Consultant Remarks: | noble lab                    | Laborato          | ory remarks:  |  |                       |                |           |              |                       | Intact?<br>Ice?<br>Temp: | 77  |            |
| Standafd QC Level 3 QC Level 4 QC TX TRRP LA RECAP       LA RECAP       2. Received by:         1. Helmoushed by Sampler:       date       date       2. Received by:         3. Relinquished by:       date       date       1. Helmoushed by:         5. Relinquished by:       date       date       1. Helmoushed by:   | Standald QC     Level 3 QC     Level 4 QC     TX TRRP     LA RECAP       1. Felinquished by:     daty     daty     1. Received by:       3. Relinquished by:     date     time     4. Received by:       5. Relinquished by:     6. Received by:     0. Received by:       6. Received by:     0. Received by:     0. Received by:  | Standard QC       Level 3 QC       Level 4 QC       TX TRRP       LA RECAP         1. Felinquished by:       Image       2. Received by:       Image       2. Received by:         3. Relinquished by:       Image       4       A. Received by:       A. Received by:         5. Relinquished by:       Image       6. Received by Laboralory:       Image       1. Received by Laboralory:         5. Relinquished by:       5. Relinquished by:       0. Received by Laboralory:       1. P. C. D. Received by Laboralory:       1. P. C. D. Received by Laboralory:         5. Relinquished by:       5. Relinquished by:       0. Received by Laboralory:       1. P. C. D. Received by Laboralory:       1. P. C. D. Received by Laboralory:         5. Booty:       D. D. D. D. D. Scott, LA 70583 (337) 237-4775       1. Traverse City MI 49686 (231) 947   |                            | pecial Reporting Requirement |                   |               | I PDF                                  | Special D             | etection I     | imits (sj | pecify):     |                       | đ                        | M reviev                                      | / (initia  |
| 1. Relinquished by Suppler:     date     1/2-/7-6     2. Received by:       3. Relinquished by:     date     date     4. Received by:       5. Relinquished by:     6. Received by Labora   | 1. Kelinquished by:     1. Received by:     1. Received by:       3. Relinquished by:     1. Received by:     1. Received by:       5. Relinquished by:     1. Received by:     1. Received by:       5. Relinquished by:     1. Received by:     1. Received by:       6. Received by:     1. Received by:     1. Received by:       6. Received by:     1. Received by:     1. Received by:       7. A lime     0. Received by:     1. Received by:       6. Received by:     1. Received by:     1. Received by:       7. A lime     1. Received by:     1. Received by:       6. Received by:     1. Received by:     1. Received by:       7. A lime     1. Received by:     1. Received by:       7. A lime     1. Received by:     1. Received by:   | 1. Refinquished by Sampler:     date     date     1. Received by:       3. Relinquished by:     date     date     time     2. Received by:       5. Relinquished by:     6. Received by Laboralory:     0. Received by Laboralory:       5. Relinquished by:     5. Relinquished by:     1. Received by Laboralory:       6. Berive     5. Relinquished by:     1. Received by Laboralory:       7. 1     1. 1     1. 1       6. Berive     1. 1       5. Berive     1. 1   | Contract                   | Standofd QC 🔲 Level 3 QC     | XI                | TRRP [        | RECAP                                  |                       |                |           |              |                       |                          |   |            |
| 3. Relinquished by:     4. Received by:       5. Relinquished by:     6. Received by Labora   | 3. Relinquished by:     4. Received by:       5. Relinquished by:     6. Received by Laboralory:       6. Received by Laboralory:     0. Received by Laboralory:       7. 7     7. 7       6. Received by Laboralory:     0. Received by Laboralory:       7. 7     7. 7       6. Received by Laboralory:     0. Received by Laboralory:       7. 7     7. 7       6. Received by Laboralory:     0. 100 M.   | 3. Relinquished by:     4. Received by Laboralory:       5. Relinquished by:     4. Received by Laboralory:       5. Relinquished by:     5. Received by Laboralory:       6. Received by Laboralory:     1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1   | Standard                   | · Feelinguesback by Sampler: | J.                | 2 dep         | Q-11-                                  | S.                    | 5              | Received  | by:          | •<br>• •              |                          | •   |            |
| 5. Relinquished by: 2 6. Received by Laboral 10. 10. 20 Control CAM 20  | 5. Relinquished by:   | 5. Relinquished by:       6. Received by Laboralory:         5. Relinquished by:       500 Ambassador Caffery Parkway         1. 500 Ambassador Caffery Parkway       1. 7. 7. 6. Received by Laboralory:         3. 660-0901       500 Ambassador Caffery Parkway         3. 660-0901       Scott, LA 70583 (337) 237-4775  | less Days                  | . Relinquished by:           |                   | date          |  | time                  | 4              | Received  | by:          |                       |                          |   |            |
|   | <b>500</b> Ambassador Caffery Parkway   | Scott, LA 70583 (337) 237-4775   |                            | . Relinquished by:           |                   | date          | 11                                     | time                  | -<br>L         | Received  | by Labo      |                       | A                        |   |            |
| <b>500</b> Ambassador Caffery Parkway   |   | Scott, LA 70583 (337) 237-4775   | <b>3880 Interchange I</b>  | Drive                        | <b>500 Am</b>     |               | ffery Park                             | way                   | منيست<br>،     |           |              | <b>]</b> 459          | Hughes                   | Drive   |            |

| 303449           | page 2 of 2                                | ested Analysis    |                           |                           |                               |                           | <u>V</u>            |           |       |           |                     |             |   |      |         |                                       | Intact?   | PM review (initial):                  |                                       |                        |                        | 6   | <b>459</b> Hughes Drive<br>City, MI 49686 (231) 947-5777     |
|------------------|--|-------------------|---------------------------|---------------------------|-------------------------------|---------------------------|---------------------|-----------|-------|-----------|---------------------|-------------|---|------|---------|---------------------------------------|---|---------------------------------------|---------------------------------------|------------------------|------------------------|---|--|
| N0.              | le 39                                      | Requested         | AL19<br>h                 | BIS<br>LIP                | 7 8 j<br>21 j                 | ри<br>PS                  | 91<br>77            |           |       | $\langle$ |                     |             |   |      |         | •                                     |   | cify):                                | · ·                                   | y:                     | y:                     | y Laberatory:                             | Traverse City M  |
| SPL WORKORDER NO | 06101                                      | es.               |                           | ntainers<br>=0ther        | X                             |                           |                     |           |       | ><br>- ≥  | $\langle 2 \rangle$ |             |   |      |         |                                       |   | Special Detection Limits (specify)    | •                                     | 2. Received by         | 4. Received by         | 6. Received by                            | <b>Trav</b>  |
|                  |  | bottle size pres. | other<br>)=vial<br>=other | EONH=<br>D=X ZC<br>D7 ZO7 | 5=<br> =]9(<br> =<br> =<br> = | 11<br>5 19<br>161<br>9123 | <u> 2H=</u><br>208= |           |       | 1         | 1                   | -<br>2<br>2 | - |      |         | · · · · · · · · · · · · · · · · · · · |   | Special Detect                        |                                       | tine<br>ZZ             | time                   | time<br>(S. j.)                           | Parkway<br>-4775   |
|                  | · · · · · · · ·                            |                   | Sil A=ai                  | =Olios                    |                               | Spn                       | s=79<br>м=Л         |           |       | +         |                     | × ×         |   |      |         |                                       | <b>KS:</b>  |                                       | LA RECAP                              | <sup>date</sup> 17.10  | date                   | date 15                                   | mbassador Caffery Parkv<br>LA 70583 (337) 237-4775           |
|                  | • • • •                                    |                   |                           | hadelethe                 |                               |                           | · ` -               | comp 1    | ·     |           |                     |             |   | <br> |         | <br>                                  | Laboratory remarks:   | Fax C Em                              | TX TRRP                               |                        |                        |   | ) Ambassador Caffery<br>tt, LA 70583 (337) 237-              |
| • •              | ord  | -                 | #2000<br>Zie (201         | Hy. Hand                  |                               |                           | Ph:                 |           |       |           |                     | 212         |   |      | <br>••• |                                       | Lab   | nts Results:                          | 📕 Level 4 QC                          |                        |                        |   | Scot   |
|                  | Analysis Request & Chain of Custody Record |                   | RA NE                     | Email: Le                 |                               |                           |                     |           |       | 10-1-10   |                     | 1-10        |   |      |         |                                       | lab.  | <b>Special Reporting Requirements</b> | Standard QC I Level 3 QC I Level 4 QC | ed by Sampler:         | ed by:                 | ed by:                                    |  |
| SPI Inc.         | Request & Chai                             | , MC              | Adian Ekpl ]<br>27-2010   | anchard                   | the wr                        | 5                         |                     |           |       |           |                     | -           | × |      |         |                                       | e weble le  | Special Repor                         |                                       | 1. Kelinguished        | 3. Relinquished by     | 5. Relinquished by:                       | e Drive<br>3) 660-0901                                       |
|                  | Analysis                                   | 12 Pri            | nzn-cd                    |                           | - CANCINE WILLIAM             | HIN 1927                  | )                   | SAMPLE ID |       | 4         | 25                  | NAME        |   |      |         |                                       | CP PEAR   | А ТАТ                                 | Contract                              | Standard               |                        | s prior notice                            | ☐ 8880 Interchange Drive<br>Houston, TX 77054 (713) 660-0901 |
|                  |  | Client Name: 196  | Address: U121<br>City ABQ | Client Contact: Vol       | Site Name: A                  | ü                         | Invoice To:         | 1 11/1 A  | Nul A |           | Trunt               |             |   |      |         |                                       | Client Consultant Remarks:<br>Plong Ji Her B Preser webb @ la | Rennested TAT                         | 1 Business Day                        | <b>2</b> Business Days | <b>3 Business Days</b> | L Other<br>Rush TAT requires prior notice | <b>Houston, T</b>  |