3R-430

JUNE, OCTOBER, AND DECEMBER 2011 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS WILMUTH No. 1
SAN JUAN COUNTY, NEW MEXICO

API# 30-045-10370
NMOCD# 3R-430

Prepared For:

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

MARCH 2012
REF. NO. 074937 (2)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring events conducted by Conestoga-Rovers & Associates, Inc. (CRA) on June 22, October 12, and December 14, 2011 at the ConocoPhillips Company (ConocoPhillips) Wilmuth No. 1 remediation site located north of Aztec, New Mexico (Site). The Site is located on private land leased to ConocoPhillips and is situated in Section 26, Township 31N, Range 11W, of San Juan County, New Mexico (**Figure 1**). Geographical coordinates for the Site are 36.864823° North and 107.964516° West. A Site vicinity map and Site plan are included as **Figures 1** and **2**, respectively.

1.1 BACKGROUND

The Wilmuth No. 1 natural gas well was spudded in 1958 by El Paso Natural Gas Company. Meridian Oil, Inc., a subsidiary of Burlington Resources, Inc. (Burlington), took over operation of the well on November 1, 1986. ConocoPhillips acquired Burlington on March 31, 2006.

A release of approximately 22 barrels (bbls) of produced water occurred within the bermed area surrounding the produced water tank on May 17, 2001. Twenty bbls were later recovered. A release of condensate occurred on December 17, 2002 from a corrosion hole in the condensate tank. Burlington excavated a total of 85 cubic yards of impacted soil and disposed of it at JFJ landfarm, located in Aztec, NM.

ConocoPhillips personnel notified the New Mexico Oil Conservation Division (NMOCD) in December 2009 of groundwater seeping into two separate areas that were undergoing excavation to remove stained soil discovered during line tie-in procedures. Four groundwater monitor wells were subsequently installed under the supervision of Tetra Tech in April, 2010. A generalized geologic cross section was produced using boring logs from monitor well installation at the Site. The cross section is presented as **Figure 3**. Tetra Tech began quarterly sampling immediately following development of the wells by collecting a baseline round of groundwater samples on April 8, 2010.

On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM. The most recent sampling event took place on December 14, 2011. The December 2011 sampling event marks the eighth consecutive round of quarterly sampling at the Site. A historical timeline is presented in **Table 1**.

2.0 MONITORING SUMMARY, SAMPLING METHODOLOGY, AND ANALYTICAL RESULTS

2.1 MONITORING SUMMARY

Groundwater quality monitoring events were conducted on June 22, October 12, and December 14, 2011 at the Wilmuth No. 1 site. 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 determined using an oil/water interface probe. Groundwater elevation data are summarized in **Table 2**. The casings for Site monitor wells were surveyed on April 8, 2010 using an arbitrary reference-elevation of 100 feet. The data obtained from the Site survey and groundwater elevations collected during the June, October, and December 2011 sampling events were used to create groundwater potentiometric surface maps for the Site (**Figures 4, 5** and **6,** respectively). Using these data, it was determined that the groundwater flow direction at the Site is to the southwest.

2.2 GROUNDWATER SAMPLING METHODOLOGY

During the June 22, October 12, and December 14, 2011 groundwater monitoring events, Site monitor wells were purged of at least 3 casing volumes of groundwater using 1.5-inch diameter, polyethylene, dedicated bailers. While bailing each well, groundwater parameter data including temperature, pH, conductivity, and oxidation-reduction potential (ORP) were collected using a YSI 556 multi-parameter sonde and results were recorded on CRA Well Sampling Field Information Forms (**Appendix A**). Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Pace Analytical Services, Inc. of Lenexa, KS for analysis.

Samples were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX) by EPA Method 8260; total dissolved solids (TDS) by SM 2540C; and dissolved manganese by EPA Method 6010. This list of constituents was determined based on the analytical results from the groundwater baseline and initial Site groundwater quality concerns. Analytical results for all groundwater monitoring events at the Site are summarized in **Table 3** and discussed in more detail in the following section.

2.3 GROUNDWATER 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. Exceedences of NMWQCC groundwater quality standards in Site monitor wells are discussed below. Results are summarized in **Table 3**.

June 2011

- **Dissolved Manganese**
    - The groundwater quality standard for dissolved manganese is 0.2 milligrams per liter (mg/L). Groundwater collected from all Site monitor wells was found to be above the standard for dissolved manganese during June 2011. Dissolved manganese concentrations were 2.32 mg/L, 1.51 mg/L, 1.71 mg/L, and 2.31 mg/L for wells MW-1, MW-2, MW-3, and MW-4, respectively.

October 2011

- **Dissolved Manganese**
    - Groundwater collected from all Site monitor wells was found to be above the standard for dissolved manganese during October 2011. Dissolved manganese concentrations were 1.04 mg/L, 1.49 mg/L, 1.67 mg/L, and 2.13 mg/L for wells MW-1, MW-2, MW-3, and MW-4, respectively.

December 2011

- **Dissolved Manganese**
    - Groundwater collected from all Site monitor wells was found to be above the standard for dissolved manganese during December 2011. Dissolved manganese concentrations were 0.972 mg/L, 1.47 mg/L, 1.56 mg/L, and 1.94 mg/L for wells MW-1, MW-2, MW-3, and MW-4, respectively.

No other analyzed groundwater quality parameters, including BTEX, were found above NMWQCC groundwater quality standards in Site monitor wells during the June, October, or December 2011 monitoring events.

The corresponding laboratory analytical reports, including quality control summaries, are included in **Appendix B**.

3.0 CONCLUSIONS AND RECOMMENDATIONS

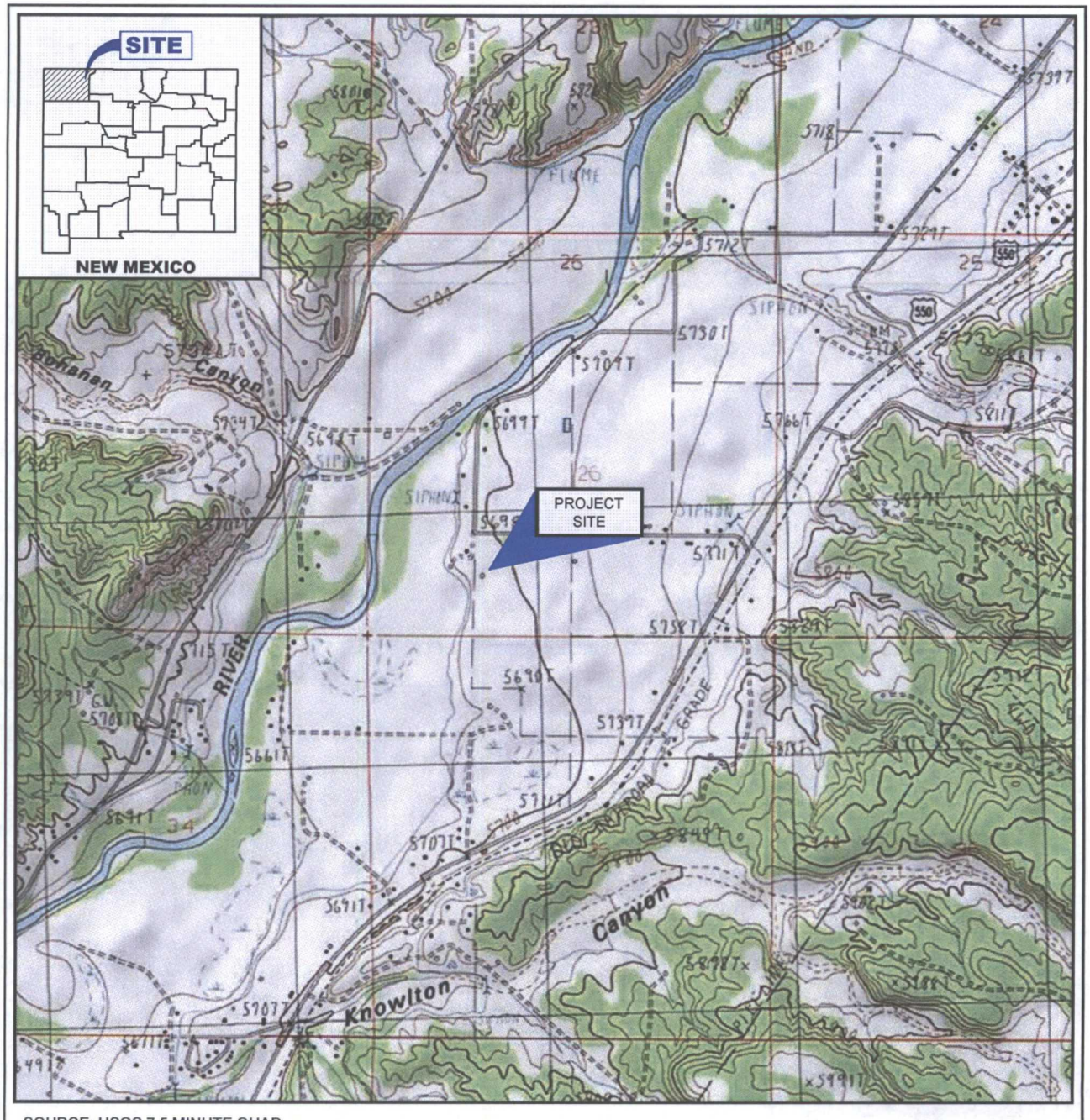
The December 14, 2011 groundwater quality monitoring event represents the eighth consecutive quarterly sampling event at the Site. BTEX constituents have been below laboratory detection limits since monitoring began. CRA recommends discontinuation of analysis for BTEX.

Groundwater samples from all Site monitor wells have continually exceeded NMWQCC the groundwater quality standard for dissolved manganese, which has remained stable over time in all Site monitor wells. Groundwater samples from all Site monitor wells have intermittently exceeded the standard for TDS.

Quarterly analysis will continue for dissolved manganese and TDS for all Site monitor wells. When eight consecutive quarters of data within compliance levels or at background concentrations has been achieved, remediation Site closure will be requested.

The next groundwater monitoring event at the Site is scheduled for March 2011.

FIGURES



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

N

0 1000 2000ft

Figure 1

SITE VICINITY MAP
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31N-R11W, SAN JUAN COUNDY, NEW MEXICO
ConocoPhillips Company

CRA

074937-95(002)GN-DL004 FEB 14/2012

ConocoPhillips high resolution aerial imagery 2008.

Figure 2

SITE PLAN
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074937-95(002)GN-DL001 FEB 14/2012

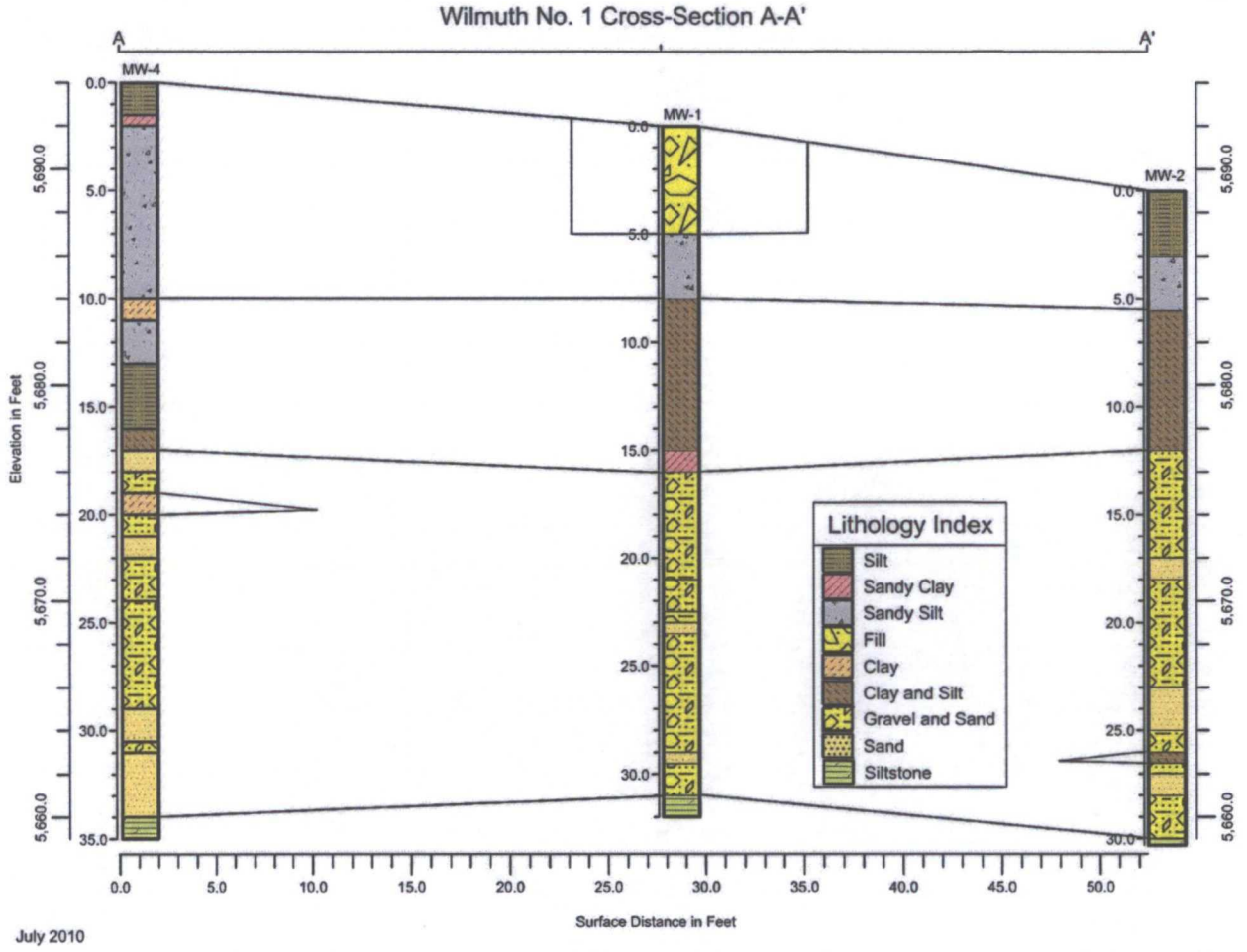


Figure 3

GEOLOGICAL CROSS SECTION
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

ConocoPhillips high resolution aerial imagery 2008.

Figure 4

JUNE 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

CRA

074937-95(002)GN-DL003 FEB 14/2012

ConocoPhillips high resolution aerial imagery 2008.

Figure 5

OCTOBER 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074937-95(002)GN-DL005 FEB 15/2012

ConocoPhillips high resolution aerial imagery 2008.

Figure 6

DECEMBER 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
WILMUTH No. 1 NATURAL GAS WELL SITE
SECTION 26, T31-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074937-95(002)GN-DL006 FEB 15/2012

TABLES

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	*Event/Action*	*Description/Comments*
July 24, 1958 to August 11, 1958	Production Well Completion	Well spudded and completed by El Paso Natural Gas Company.
November 1, 1986	Change of Operator	Operator changed from El Paso Natural Gas Company to Meridian Oil Inc. (a subsidiary of Burlington Resources, Inc.)
May 17, 2001	Release	Due to a broken dump arm, 22 barrels (bbls) of produced water were released within the bermed area around the produced water tank. 20 bbls were reported to be recovered.
December 17, 2002	Release	A corrosion hole in the bottom of a steel pit tank that collected fluids from the separator and condensate tank drain allowed an unknown volume of produced water and condensate to leak onto the ground. All fluids were contained inside the tank berm. Impacted gravel and soils were excavated and disposed of at JFJ Landfarm. Excavation dimensions were approximately 30 feet by 25 feet by 3 feet for a total of 85 cubic yards.
May 21, 2004	Workover Pit Proposal Approved	A lined workover pit was approved by Denny Faust of the NMOCD as detailed in Burlington Resources general pit construction plan dated April 26, 2004 which was also approved by the NMOCD.
March 31, 2006	Change of Operator	ConocoPhillips Company completed acquisition of Burlington Resources.
December 22 and 23, 2009	Potential for Groundwater Impacts Discovered	ConocoPhillips company notified Brandon Powell and Kelly Roberts of the NMOCD about groundwater seeping into two excavated areas on Site where discolored soils had been found during line tie-in procedures. The type, volume, and origin of the initial release was unknown. Groundwater samples were collected from the two areas and analyzed by Envirotech Inc. of Farmington, NM for benzene, toluene, ethylbenzene and total xylenes (BTEX), total petroleum hydrocarbons (TPH) and chloride. Analytical results indicated that BTEX and TPH are below NMWQCC groundwater standards; however, chloride was present at a concentration above the standard of 250 mg/L with a concentration of 2,500 mg/L in the area of the excavation and a concentration of 950 mg/L in an trench associated with line tie-in procedures. Soil samples were collected from the same trench and groundwater samples were collected from where discolored soil was present. The soil was analyzed by Envirotech for BTEX, TPH and Chloride. Analytical results for all soil samples were below NMOCD recommended soil action levels.
January 7, 2010	NMOCD Correspondence	A C-141 Release Notification and Corrective Action form was submitted to the NMOCD by ConocoPhillips.

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	*Event/Action*	*Description/Comments*
April 5, 2010 through April 7, 2010	Groundwater Monitoring Well Installation and Baseline Soil Sampling	Tetra Tech supervised the installation of 4 groundwater Monitor Wells; MW-1, MW-2, MW-3 and MW-4, by Enviro-Drill Inc. of Albuquerque, NM. Each well was installed with 25 feet of screen. MW-1, MW-2 and MW-3 were all set at 30 feet below ground surface. MW-4 was set at 35 feet below ground surface. A confining layer of gray siltstone was found at depth in each of the four boring locations. Soil samples were collected from all four soil borings and analyzed for major ions, total metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs) including BTEX, diesel range organics, and gasoline range organics. Analytical results for all soil samples were below NMOCD recommended soil action levels.
April 8, 2010	Baseline Groundwater Sampling	Tetra Tech conducted the initial groundwater sampling from Site Monitor Wells, MW-1, MW-2, MW-3 and MW-4. A baseline suite was completed including major ions, NMWQCC dissolved metals, SVOCs , VOCs including BTEX, diesel range organics, and gasoline range organics. All four Site monitor wells were below NMWQCC standards for BTEX constituents. All four wells were above the standard for dissolved manganese. MW-1, MW-2 and MW-4 were above the standard for total dissolved solids (TDS). MW-1 and MW-4 were also above the standard for sulfate.
June 9, 2010	Quarterly Groundwater Monitoring Event	Quarterly groundwater sampling was conducted by Tetra Tech. Samples were collected from all Site monitor wells and analyzed for BTEX, dissolved manganese, chloride, sulfate, and TDS. All four Site monitor wells were below NMWQCC standards for BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese. Samples collected from MW-1, MW-2 and MW-4 were above the standard for TDS.
September 20, 2010	Quarterly Groundwater Monitoring Event	Quarterly groundwater sampling was conducted by Tetra Tech. Samples were collected from all Site monitor wells and analyzed for BTEX, dissolved manganese, chloride, sulfate, and TDS. All four Site monitor wells were below NMWQCC standards for BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese. Samples collected from MW-1, MW-2 and MW-4 were above the standard for TDS.
December 16, 2010	Quarterly Groundwater Monitoring Event	Forth quarterly groundwater sampling was conducted by Tetra Tech. Samples were collected from all Site monitor wells and analyzed for BTEX, dissolved manganese, sulfate, and TDS. All four Site monitor wells were below NMWQCC standards for BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese. Samples collected from MW-1, MW-2 and MW-4 were above the standard for TDS.

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	*Event/Action*	*Description/Comments*
March 16, 2011	Quarterly Groundwater Monitoring Event	Fifth quarterly groundwater sampling was conducted by Tetra Tech. Samples were collected from all Site monitor wells and analyzed for BTEX, dissolved manganese, chloride, sulfate, and TDS. All four Site monitor wells were below NMWQCC standards for chloride, sulfate and BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese. The sample collected from MW-1 was above the standard for TDS.
June 15, 2011	Transfer of Consulting Responsibilities	Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.
June 22, 2011	Quarterly Groundwater Monitoring Event	Sixth quarterly groundwater sampling was conducted by CRA. Samples were collected from all Site monitoring wells and analyzed for BTEX, dissolved manganese, chloride, sulfate, and TDS. All four Site monitoring wells were below NMWQCC standards for chloride, sulfate and BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese. The sample collected from MW-1 was above the standard for TDS.
October 12, 2011	Quarterly Groundwater Monitoring Event	Seventh quarterly groundwater sampling event was conducted by CRA. Samples were collected from all Site monitoring wells and analyzed for BTEX, dissolved manganese, and TDS. All four Site monitoring wells were below NMWQCC standards for TDS and BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese.
December 14, 2011	Quarterly Groundwater Monitoring Event	Eighth quarterly groundwater sampling event was conducted by CRA. Samples were collected from all Site monitoring wells and analyzed for BTEX, dissolved manganese, and TDS. All four Site monitoring wells were below NMWQCC standards for TDS and BTEX constituents. Samples collected from all four Site wells were above the standard for dissolved manganese.

Notes:
NMOCD = New Mexico Oil Conservation Division
NMWQCC = New Mexico Water Quality Control Commission

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Total Depth (feet bgs)	Top of Casing Elevation*	Screen Interval (feet bgs)	Date Measured	Depth to Groundwater (feet below TOC)	Relative Water Level*
MW-1	30	95.8	4.5 - 29.5	4/8/2010	5.21	90.59
				6/9/2010	1.94	93.86
				9/20/2010	1.51	94.29
				12/16/2010	3.31	92.49
				3/16/2011	4.98	90.82
				6/22/2011	2.45	93.35
				10/12/2011	0(2)	95.80(2)
				12/14/2011	2.62	93.18
MW-2	30	95.8	4.5 - 29.5	4/8/2010	6.48	89.32
				6/9/2010	3.68	92.12
				9/20/2010	3.28	92.52
				12/16/2010	4.83	90.97
				3/16/2011	6.31	89.49
				6/22/2011	4.11	91.69
				10/12/2011	1.88	93.92
				12/14/2011	4.25	91.55
MW-3	30	96.32	4.5 - 29.5	4/8/2010	6.37	89.95
				6/9/2010	3.39	92.93
				9/20/2010	3.02	93.30
				12/16/2010	4.65	91.67
				3/16/2011	6.20	90.12
				6/22/2011	3.91	92.41
				10/12/2011	1.55	94.77
				12/14/2011	4.04	92.28
MW-4	35	98.7	9.5 - 34.5	4/8/2010	9.68(1)	89.02
				6/9/2010	4.41	94.29
				9/20/2010	3.78	94.92
				12/16/2010	5.70	93.00
				3/16/2011	7.44	91.26
				6/22/2011	4.81	93.89
				10/12/2011	2.05	96.65
				12/14/2011	5.01	93.69

Notes:
TOC = Top of casing
bgs = Below ground surface
* = Elevation relative to an arbitrary reference elevation of 100 feet
(1) = Anomalous data point
(2) = Water flowing up and out of well casing.

TABLE 3

GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Manganese (dissolved) (mg/L)	Total dissolved solids (TDS) (mg/L)
MW-1	MW-1	4/8/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	143	**879**	**3.03**	**1780**
	MW-1 Duplicate	4/8/2010	(Duplicate)	< 0.001	0.0011	< 0.001	0.001	--	--	--	--
	MW-1	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	26.9	375	**1.08**	**1190**
	MW-1 Duplicate	6/9/2010	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--	--
	MW-1	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	30.0	425	**0.933**	**1020**
	MW-1 Duplicate	9/20/2010	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--	--
	MW-1	12/16/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	381	**0.896**	**1010**
	MW-1 Duplicate	12/16/2010	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--	--
	MW-1	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	26.0	499	**2.36**	**1200**
	MW-1 Duplicate	3/16/2011	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.001	--	--	--	--
	GW-74937-062211-PG-04	6/22/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	21.6	585	**2.32**	**1100**
	GW-74937-062211-PG-05	6/22/2011	(Duplicate)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	--	--	--	--
	GW-074937-101211-CM-009	10/12/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.04**	939
	GW-074937-101211-CM-010	10/12/2011	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	--
	GW-074937-121411-CB-MW-1	12/14/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**0.972**	913
	GW-074937-121411-CB-DUP	12/14/2011	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--	--
MW-2	MW-2	4/8/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	27.7	533	**2.48**	**1120**
	MW-2	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	19.8	337	**1.66**	**1070**
	MW-2	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	20.4	304	**0.822**	**1130**
	MW-2	12/16/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	281	**1.37**	**1410**
	MW-2	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	20.1	280	**1.57**	858
	GW-74937-062211-PG-02	6/22/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	18.5	324	**1.51**	718
	GW-074937-101211-CM-007	10/12/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.49**	743
	GW-074937-121411-CB-MW-2	12/14/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.47**	812

TABLE 3

GROUNDWATER LABORATORY ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
WILMUTH NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Sample ID*	*Date*	*Sample Type*	*Benzene (mg/L)*	*Toluene (mg/L)*	*Ethylbenzene (mg/L)*	*Xylenes (total) (mg/L)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*Manganese (dissolved) (mg/L)*	*Total dissolved solids (TDS) (mg/L)*
MW-3	MW-3	4/8/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	19.2	259	**1.38**	930
	MW-3	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	18.5	241	**1.43**	769
	MW-3	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	20.3	271	**0.736**	830
	MW-3	12/16/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	265	**1.33**	**1200**
	MW-3	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	18.1	263	**1.57**	896
	GW-74937-062211-PG-01	6/22/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	19.2	324	**1.71**	726
	GW-074937-101211-CM-008	10/12/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.67**	716
	GW-074937-121411-CB-MW-3	12/14/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.56**	713
MW-4	MW-4	4/8/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	40	**918**	**3.94**	**1900**
	MW-4	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	29.6	542	**3.44**	**1380**
	MW-4	9/20/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	22.4	445	**2.59**	**1160**
	MW-4	12/16/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	464	**2.85**	**1350**
	MW-4	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	20.6	385	**2.18**	970
	GW-74937-062211-PG-03	6/22/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	22.1	408	**2.31**	814
	GW-074937-101211-CM-006	10/12/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**2.13**	779
	GW-074937-121411-CB-MW-4	12/14/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	**1.94**	776
NMWQCC Groundwater Quality Standards				**0.01**	**0.75**	**0.75**	**0.62**	**250**	**600**	**0.2**	**1000**

Notes:

MW = monitoring well

NMWQCC = New Mexico Water Quality Control Commission

Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards

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

< 1.0 = Below laboratory detection limit of 1.0 mg/L

-- = not analyzed

APPENDIX A

JUNE, OCTOBER, AND DECEMBER 2011
QUARTERLY GROUNDWATER SAMPLING FIELD FORMS

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmoth No1 JOB# 074937

SAMPLE ID: GW-74937-062211-PG-04 WELL# MW-1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.22.11	6.22.11	1820	3.68	11

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE	TEFLON/POLYPROPYLENE	
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 2.45 (feet) WELL ELEVATION 95.8 (feet)

WELL DEPTH (feet) GROUNDWATER ELEVATION 93.35 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
15.37 (°C)	7.22 (std)	(g/L)	3323 (µS/cm)	91.3 (mV)	10 (gal)
15.17 (°C)	7.23 (std)	(g/L)	3310 (µS/cm)	86.9 (mV)	165 (gal)
14.65 (°C)	7.19 (std)	(g/L)	3270 (µS/cm)	83.9 (mV)	11 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: tan SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS: Duplicate GW-74937-062211-PG-05 @ 1815

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE	PRINT	SIGNATURE
6.22.11	Cassie Brown	Cassie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmuth No. 1 JOB# 074937

SAMPLE ID: GW-074937-062211-RG-02 WELL# MW-2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6-22-11	6-22-11	1735	4.47	13.5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	B - PERISTALTIC PUMP C - BLADDER PUMP	E - PURGE PUMP F - DIPPER BOTTLE	H - WATERRA® X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	B - STAINLESS STEEL C - POLYPROPYLENE	E - POLYETHYLENE X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	B - TYGON C - ROPE	E - POLYETHYLENE F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 4.11 (feet) WELL ELEVATION 95.8 (feet)

WELL DEPTH (feet) GROUNDWATER ELEVATION 91.69 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
13.57 (°C)	7.14 (std)	(g/L)	2680 (µS/cm)	41.8 (mV)	12.5 (gal)
13.58 (°C)	7.07 (std)	(g/L)	2681 (µS/cm)	43.4 (mV)	13.0 (gal)
13.6 (°C)	7.03 (std)	(g/L)	2680 (µS/cm)	44.2 (mV)	13.5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: tan SHEEN Y/N

WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE	PRINT	SIGNATURE
6-22-11	Cabre Brown	Cabre Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: W. Lafa No. 1 JOB# 074937

SAMPLE ID: GW-074937-062211-PG-01 WELL# MW-3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.22.11	6.22.11	1730	4.55	13.67

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 3.91 (feet) WELL ELEVATION 96.32 (feet)

WELL DEPTH (feet) GROUNDWATER ELEVATION 92.41 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.36 (°C)	7.35 (std)	(g/L)	2748 (µS/cm)	-3.2 (mV)	12.0 (gal)
14.22 (°C)	7.17 (std)	(g/L)	2687 (µS/cm)	9.0 (mV)	12.5 (gal)
13.71 (°C)	7.09 (std)	(g/L)	2620 (µS/cm)	14.9 (mV)	13.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: Brown SHEEN Y/N

WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE 6.22.11 PRINT Cassie Brown SIGNATURE Cassie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: W. Inoth No. 1 JOB# 074937

SAMPLE ID: GW-074937-062211-PG-03 WELL# MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.22.11	6.22.11	1815	4.42	13

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 4.81 (feet) WELL ELEVATION 98.7 (feet)

WELL DEPTH (feet) GROUNDWATER ELEVATION 93.89 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
15.59 (°C)	7.61 (std)	(g/L)	3317 (µS/cm)	109.8 (mV)	12.0 (gal)
14.93 (°C)	7.37 (std)	(g/L)	3189 (µS/cm)	105.5 (mV)	12.5 (gal)
14.76 (°C)	7.24 (std)	(g/L)	3179 (µS/cm)	102.6 (mV)	13.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: brown SHEEN Y/N

WEATHER CONDITIONS: TEMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

6.22.11 Robbie Brown

DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmuth No. 1 JOB# 074937

SAMPLE ID: GW-074937-101211-CM-009 WELL# MW-1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
10.12.11	10.12.11	1250	4.8	14.5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER: 0.0* (feet) WELL ELEVATION: 95.80 (feet)

WELL DEPTH: 30.0 (feet) GROUNDWATER ELEVATION: 95.80* (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
16.39 (°C)	7.34 (std)	926 (g/L)	0.720 (µS/cm)	152.4 (mV)	13.5 (gal)
16.25 (°C)	7.35 (std)	929 (g/L)	0.725 (µS/cm)	150.1 (mV)	14.0 (gal)
16.18 (°C)	7.33 (std)	930 (g/L)	0.727 (µS/cm)	148.9 (mV)	14.5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: none COLOR: lt. brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~70° WINDY Y/(N) PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS:

Volume: 30 x .16 = 4.8 x 3 = 14.4 1255 - Duplicate - GW-074937-101211-CM-810

* H2O in well bubbling over top of casing actual well level is above TOC. Well vault filled w/ water and some vault water was in contact w/ bubbling GW.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.12.11 Jason Mays

DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmington | JOB# 074937

SAMPLE ID: GW-074937-101211-CM-007 | WELL# MW-2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
10-12-11	10-12-11	1215	4.82	14.5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y (N) (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED Y (N) (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER: 1.88 (feet) | WELL ELEVATION: 95.80 (feet)

WELL DEPTH: 32.0 (feet) | GROUNDWATER ELEVATION: 93.92 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.99 (°C)	7.81 (std)	0.595 (g/L)	741 (µS/cm)	126.9 (mV)	13.5 (gal)
14.88 (°C)	7.67 (std)	0.592 (g/L)	734 (µS/cm)	132.0 (mV)	14.0 (gal)
14.79 (°C)	7.57 (std)	0.591 (g/L)	732 (µS/cm)	134.5 (mV)	14.5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy | ODOR: none | COLOR: H. Brown | SHEEN Y/N (N)

WEATHER CONDITIONS: | TEMPERATURE ~70° | WINDY Y/N (N) | PRECIPITATION Y/N (N) IF Y TYPE:

SPECIFIC COMMENTS:

Volume: 32.12 X 1.6 = 4.82 X 3 = 14.46

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.12.11 | Jason [illegible] | [signature]

DATE | PRINT | SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wirth No.1 JOB# 074937

SAMPLE ID: GW-074937-101211-CM-008 WELL# MW-3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
10.12.11	10.12.11	1225	4.94	15.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER: 1.55 (feet) WELL ELEVATION: 96.32 (feet)

WELL DEPTH: 32.45 (feet) GROUNDWATER ELEVATION: 94.77 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.53 (°C)	7.49 (std)	0.584 (g/L)	719 (µS/cm)	141.3 (mV)	14.0 (gal)
14.64 (°C)	7.42 (std)	0.584 (g/L)	720 (µS/cm)	142.2 (mV)	14.5 (gal)
14.5 (°C)	7.41 (std)	0.585 (g/L)	719 (µS/cm)	141.9 (mV)	15.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: light brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~70° WINDY Y/(N) PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS:

Volume: 30.9 x .16 = 4.944 x 3 = 14.83

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10.12.11 Jason Hess

DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: W. Lmuth #1 JOB# 074937

SAMPLE ID: GW-074937-101211-CM-006 WELL# MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
10-12-11	10-12-11	1130	4.85	14.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED Y (N) (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	B - PERISTALTIC PUMP C - BLADDER PUMP	E - PURGE PUMP F - DIPPER BOTTLE	H - WATERRA® X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	B - STAINLESS STEEL C - POLYPROPYLENE	E - POLYETHYLENE X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	B - TYGON C - ROPE	E - POLYETHYLENE F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 2.05 (feet) WELL ELEVATION 98.70 (feet)

WELL DEPTH 32.36 (feet) GROUNDWATER ELEVATION 96.65 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
15.08 (°C)	6.92 (std)	~~797~~ CM 0.639 (g/L)	797 (µS/cm)	122.1 (mV)	13.75 (gal)
14.66 (°C)	6.98 (std)	0.630 (g/L)	777 (µS/cm)	123.3 (mV)	14.25 (gal)
14.74 (°C)	7.01 (std)	0.628 (g/L)	776 (µS/cm)	124.6 (mV)	14.75 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: light brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~70° WINDY Y/(N) PRECIPITATION Y/(N) IF Y TYPE)

SPECIFIC COMMENTS:

Volume: 30.31 x .16 = 4.85 x 3 = 14.55

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

10-12-11 Jason Hess

DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmuth No. 1 JOB# 07487

SAMPLE ID: GW-07487-121411-CB MW-1 WELL# MW-1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
12.14.11	12.14.11	1150	3.60	11.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 2.62 (feet) WELL ELEVATION 95.8 (feet)

WELL DEPTH 25.16 (feet) GROUNDWATER ELEVATION 93.18 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
(°C)	(std)	0.7 (g/L)	878 (µS/cm)	70.9 (mV)	(gal)
14.46 (°C)	7.09 (std)	0.779 (g/L)	954 (µS/cm)	82.7 (mV)	9.75 (gal)
14.23 (°C)	7.07 (std)	0.786 (g/L)	960 (µS/cm)	79.5 (mV)	10.25 (gal)
14.29 (°C)	7.08 (std)	0.786 (g/L)	961 (µS/cm)	77.0 (mV)	10.75 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: light brown SHEEN Y (N)

WEATHER CONDITIONS: TEMPERATURE ~35° WINDY Y (N) PRECIPITATION Y (N) (IF Y TYPE)

SPECIFIC COMMENTS:

3.60 x 3 = 10.81

Dup collected @ 1155

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

12.14.11 DATE | Chase Brown PRINT | SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

.TE/PROJECT NAME: Wilmuth No. 1 **JOB#** 074937

SAMPLE ID: GW-074937-121411-CB-MW-2 **WELL#** MW-2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
12-14-11	12-14-11	1055	4.41	13.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= ____ PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= ____ SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= ____ PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= ____ SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= ____ PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= ____ SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 4.25 (feet) WELL ELEVATION 95.8 (feet)

WELL DEPTH 31.87 (feet) GROUNDWATER ELEVATION 91.55 (feet)

TEMPERATURE (°C)	pH (std)	TDS (g/L)	CONDUCTIVITY (µS/cm)	ORP (mV)	VOLUME (gal)
12.86	6.88	0.737	872	69.8	12.25
12.93	6.89	0.745	883	70.7	13.0
12.94	6.90	0.751	889	71.9	13.75

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: brown SHEEN Y/N

WEATHER CONDITIONS: TEMPERATURE ~35° WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS:

4.41x3 = 13.25

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE 12-14-11 PRINT Carson Baum SIGNATURE Carson Baum

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Wilmette No. 1 JOB# 074937

SAMPLE ID: GW:074937-12-1411-GB-MW-3 WELL# MW-3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
12-14-11	12-14-11	1105	4.51	14

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 4.04 (feet) WELL ELEVATION 96.32 (feet)

WELL DEPTH 32.26 (feet) GROUNDWATER ELEVATION 92.28 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
13.16 (°C)	7.05 (std)	0.651 (g/L)	775 (µS/cm)	74.9 (mV)	12.5 (gal)
13.12 (°C)	7.00 (std)	0.651 (g/L)	774 (µS/cm)	74.3 (mV)	13.5 (gal)
13.08 (°C)	7.01 (std)	0.651 (g/L)	774 (µS/cm)	73.8 (mV)	14.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: Soft/Cloudy ODOR: No COLOR: brown SHEEN Y/N No

WEATHER CONDITIONS: TEMPERATURE ~35° WINDY (Y) N breezy PRECIPITATION Y (N) (IF Y TYPE)

SPECIFIC COMMENTS:

4.51x3 = 13.54

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

12-14-11 DATE | Jesse Braun PRINT | Jesse Braun SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

.TE/PROJECT NAME: Wilmuth No.1 **JOB#** 074937

SAMPLE ID: GW-074937-121411-CB-MW-4 **WELL#** MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
12·14·11	12·14·11	1135	4.36	13.25

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= ____ PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= ____ SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= ____ PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= ____ SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= ____ PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= ____ SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 5.01 (feet) WELL ELEVATION 98.7 (feet)

WELL DEPTH 32.30 (feet) GROUNDWATER ELEVATION 93.69 (feet)

TEMPERATURE (°C)	pH (std)	TDS (g/L)	CONDUCTIVITY (µS/cm)	ORP (mV)	VOLUME (gal)
12.72	7.21	0.734	864	82.3	12.0
13.06	7.11	0.698	830	76.5	12.75
13.05	7.07	0.699	830	73.7	13.25

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~35° WINDY (Y)/N breezy PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS:

4.36x3=13.0

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

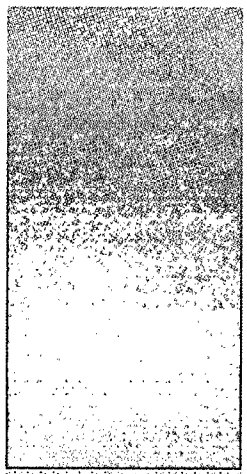
DATE 12·14·11 PRINT Case Brown SIGNATURE [signature]

APPENDIX B

JUNE, OCTOBER, DECEMBER 2011
QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORTS

Gulf Coast
ACCUTEST LABORATORIES

07/07/11



Technical Report for

Conoco Phillips

Wilmuth No 1

Wilmuth No 1

Accutest Job Number: T79588

Sampling Date: 06/22/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@craworld.com; christine.mathews@tetratech.com;
cassandre.brown@tetratech.com
ATTN: Kelly Blanchard

Total number of pages in report: **37**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

Sections:

Table of Contents

Accutest Laboratories

Sample Summary

Conoco Phillips

Job No: T79588

Wilmuth No 1
Project No: Wilmuth No 1

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T79588-1	06/22/11	17:30	06/24/11	AQ	Ground Water	GW-74937-062211-PG-01
T79588-1F	06/22/11	17:30	06/24/11	AQ	Ground Water	GW-74937-062211-PG-01 (DISSOLVED)
T79588-2	06/22/11	17:35	06/24/11	AQ	Ground Water	GW-74937-062211-PG-02
T79588-2F	06/22/11	17:35	06/24/11	AQ	Ground Water	GW-74937-062211-PG-02 (DISSOLVED)
T79588-3	06/22/11	18:15	06/24/11	AQ	Ground Water	GW-74937-062211-PG-03
T79588-3F	06/22/11	18:15	06/24/11	AQ	Ground Water	GW-74937-062211-PG-03 (DISSOLVED)
T79588-4	06/22/11	18:20	06/24/11	AQ	Ground Water	GW-74937-062211-PG-04
T79588-4F	06/22/11	18:20	06/24/11	AQ	Ground Water	GW-74937-062211-PG-04 (DISSOLVED)
T79588-5	06/22/11	18:15	06/24/11	AQ	Ground Water	GW-74937-062211-PG-05
T79588-6	06/22/11	00:00	06/24/11	AQ	Trip Blank Water	TRIP BLANK

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-01		
Lab Sample ID:	T79588-1	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035621.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	93%		75-121%
2037-26-5	Toluene-D8	114%		87-119%
460-00-4	4-Bromofluorobenzene	131%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-01		
Lab Sample ID:	T79588-1	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	19.2	0.50	mg/l	1	07/04/11 14:26	ES	EPA 300/SW846 9056
Solids, Total Dissolved	726	29	mg/l	1	06/28/11	BG	SM 2540C
Sulfate	324	10	mg/l	20	07/04/11 14:43	ES	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-01 (DISSOLVED)		
Lab Sample ID:	T79588-1F	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	1710	15	ug/l	1	06/27/11	06/30/11	NS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5870
(2) Prep QC Batch: MP15083

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-02		
Lab Sample ID:	T79588-2	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035622.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	94%		75-121%
2037-26-5	Toluene-D8	114%		87-119%
460-00-4	4-Bromofluorobenzene	128%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-02		
Lab Sample ID:	T79588-2	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	18.5	0.50	mg/l	1	07/04/11 15:00	ES	EPA 300/SW846 9056
Solids, Total Dissolved	718	25	mg/l	1	06/28/11	BG	SM 2540C
Sulfate	324	10	mg/l	20	07/04/11 15:17	ES	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-02 (DISSOLVED)		
Lab Sample ID:	T79588-2F	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	1510	15	ug/l	1	06/27/11	06/30/11	NS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5870
(2) Prep QC Batch: MP15083

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-03		
Lab Sample ID:	T79588-3	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035623.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	112%		87-119%
460-00-4	4-Bromofluorobenzene	125%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-03		
Lab Sample ID:	T79588-3	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	22.1	1.0	mg/l	2	07/04/11 15:34	ES	EPA 300/SW846 9056
Solids, Total Dissolved	814	20	mg/l	1	06/28/11	BG	SM 2540C
Sulfate	408	25	mg/l	50	07/05/11 11:27	ES	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-03 (DISSOLVED)		
Lab Sample ID:	T79588-3F	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	2310	15	ug/l	1	06/27/11	06/30/11	NS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5870
(2) Prep QC Batch: MP15083

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-04		
Lab Sample ID:	T79588-4	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035624.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	95%		75-121%
2037-26-5	Toluene-D8	110%		87-119%
460-00-4	4-Bromofluorobenzene	124%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-04		
Lab Sample ID:	T79588-4	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	216	1.0	mg/l	2	07/04/11 16:08	ES	EPA 300/SW846 9056
Solids, Total Dissolved	1100	14	mg/l	1	06/28/11	BG	SM 2540C
Sulfate	585	25	mg/l	50	07/05/11 12:18	ES	EPA 300/SW846 9056

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-04 (DISSOLVED)		
Lab Sample ID:	T79588-4F	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Wilmuth No 1		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	2320	15	ug/l	1	06/27/11	06/30/11	NS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5870
(2) Prep QC Batch: MP15083

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74937-062211-PG-05		
Lab Sample ID:	T79588-5	**Date Sampled:**	06/22/11
Matrix:	AQ - Ground Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035625.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	113%		87-119%
460-00-4	4-Bromofluorobenzene	128%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T79588-6	**Date Sampled:**	06/22/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/24/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Wilmuth No 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035626.D	1	06/28/11	AK	n/a	n/a	VF4316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	112%		87-119%
460-00-4	4-Bromofluorobenzene	125%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
10165 Harwin Drive, Suite 150, Houston, TX 77036
TEL.713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # T79588

3.1

Client / Reporting Information

- Company Name: ~~Tetra Tech, Inc.~~ CRA
- Street Address: 6121 Indian School Rd. NE, Ste. 200
- City: Albuquerque State: NM Zip: 87110
- Project Contact: Kelly Blanchard E-mail: kblanchard@craworld ~~tetratech.com~~
- Phone #: ~~505-237-8440~~ 505-884-0672 Fax #: 505-237-8656
- Sampler(s) Name(s): Cassie Brown Phone #:

Project Information

- Project Name: Wilmuth No 1
- Street:
- City: State:
- Project #:
- Client Purchase Order #:
- Project Manager:

Billing Information (If different from Report to)

- Company Name: ConocoPhillips
- Street Address: 1358 Phillips Bldg., 420 S. Keeler Ave.
- City: Bartlesville State: OK Zip: 74004
- Attention: Terry Lauck

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL - Sludge, SED-Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB-Field Blank

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	BTEX by 8260	Dissolved Mn	Chloride, Sulfate	TDS	LAB USE ONLY
1	GW-74937-062211-PG-01	6·22·11	1730	GW	6	✓					✓							X	X	X	X	
2	GW-74937-062211-PG-02	6·22·11	1735	GW	6	✓					✓							X	X	X	X	
3	GW-74937-062211-PG-03	6·22·11	1815	GW	6	✓					✓							X	X	X	X	
4	GW-74937-062211-PG-04	6·22·11	1820	GW	6	✓					✓							X	X	X	X	
5	GW-74937-062211-PG-05	6·22·11	1815	GW	3	✓												X				
6	trip blank	6·22·11	—	QC	2	✓												X				

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day RUSH
- [ ] 4 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3 & 4)
- [ ] REDT1 (Level 3 & 4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ______

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

~~(*Al, B, Z, As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn, Hg~~

Please filter & preserve metals @ lab

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Cassie Brown	6·22·11 1030	1	2 FedEx	6/24/11 1010	2 [signature]
3		3	4		4
5 Relinquished by:		5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐ On Ice ☑ Cooler Temp. — °C

T79588: Chain of Custody
Page 1 of 4

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: T79588 **Client:** CONOCO PHILLIPS **Project:** WILMUTH NO 1

Date / Time Received: 6/24/2011 **Delivery Method:** **Airbill #'s:** 486899904611

No. Coolers: 1 **Therm ID:** IRGUN4; **Temp Adjustment Factor:** -0.1;

Cooler Temps (Initial/Adjusted): #1: (5.1/5);

3.1

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)

Quality Control Preservation	Y or N	N/A	WTB	STB
1. Trip Blank present / cooler:	☑ ☐	☐	☑	☐
2. Trip Blank listed on COC:	☑ ☐	☐		
3. Samples preserved properly:	☑ ☐			
4. VOCs headspace free:	☑ ☐	☐		

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labelling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

6/24/11

Accutest Laboratories
V:713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77036
www.accutest.com

T79588: Chain of Custody
Page 2 of 4

Sample Receipt Log

Job #: T79588 **Date / Time Received:** 6/24/2011 10:10:00 AM **Initials:** EC

Client: CONOCO PHILLIPS

3.1

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79588-1	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-1	250 ml	2	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-1	500 ml	3	1BB	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-1	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-1	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-2	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-2	250 ml	2	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-2	500 ml	3	1BB	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-2	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-2	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-2	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-3	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-3	250 ml	2	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-3	500 ml	3	1BB	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-3	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-3	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-3	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-4	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-4	250 ml	2	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-4	500 ml	3	1BB	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.1	-0.1	5
1	T79588-4	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-4	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5

T79588: Chain of Custody
Page 3 of 4

ACCUTEST LABORATORIES

Sample Receipt Log

Job #: T79588 **Date / Time Received:** 6/24/2011 10:10:00 AM **Initials:** EC

Client: CONOCO PHILLIPS

3.1

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79588-4	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-5	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-5	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-5	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-6	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5
1	T79588-6	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.1	-0.1	5

T79588: Chain of Custody
Page 4 of 4

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T79588
Account: CONOCO Conoco Phillips
Project: Wilmuth No 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4316-MB	F035615.D	1	06/27/11	AK	n/a	n/a	VF4316

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79588-1, T79588-2, T79588-3, T79588-4, T79588-5, T79588-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%
2037-26-5	Toluene-D8	112%	87-119%
460-00-4	4-Bromofluorobenzene	127%	80-133%

Blank Spike Summary

Job Number: T79588
Account: CONOCO Conoco Phillips
Project: Wilmuth No 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4316-BS	F035613.D	1	06/27/11	AK	n/a	n/a	VF4316

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79588-1, T79588-2, T79588-3, T79588-4, T79588-5, T79588-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.0	96	76-118
100-41-4	Ethylbenzene	25	25.5	102	75-112
108-88-3	Toluene	25	25.8	103	77-114
1330-20-7	Xylene (total)	75	78.5	105	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%
2037-26-5	Toluene-D8	111%	87-119%
460-00-4	4-Bromofluorobenzene	121%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T79588
Account: CONOCO Conoco Phillips
Project: Wilmuth No 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79506-25MS	F035618.D	10	06/27/11	AK	n/a	n/a	VF4316
T79506-25MSD	F035619.D	10	06/27/11	AK	n/a	n/a	VF4316
T79506-25	F035617.D	10	06/27/11	AK	n/a	n/a	VF4316

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79588-1, T79588-2, T79588-3, T79588-4, T79588-5, T79588-6

CAS No.	Compound	T79506-25 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1350		250	1560	84	1530	72* a	2	76-118/16
100-41-4	Ethylbenzene	27.3		250	290	105	281	101	3	75-112/12
108-88-3	Toluene	53.5		250	323	108	315	105	3	77-114/12
1330-20-7	Xylene (total)	45.1		750	857	108	836	105	2	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79506-25	Limits
1868-53-7	Dibromofluoromethane	98%	99%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	95%	75-121%
2037-26-5	Toluene-D8	114%	113%	117%	87-119%
460-00-4	4-Bromofluorobenzene	124%	124%	128%	80-133%

(a) Outside control limits due to high level in sample relative to spike amount.

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

QC Batch ID: MP15083
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/27/11

Metal	RL	IDL	MDL	MB raw	MB final
Aluminum	200	16	17		
Antimony	5.0	2.3	3		
Arsenic	5.0	1.8	2		
Barium	200	.14	2.7		
Beryllium	5.0	.11	.2		
Boron	100	1.1	2.1		
Cadmium	4.0	.25	.3		
Calcium	5000	5.4	35		
Chromium	10	1.1	1.9		
Cobalt	50	.5	.8		
Copper	25	.58	5.9		
Iron	100	13	13		
Lead	3.0	1.6	1.7		
Magnesium	5000	6.7	7.8		
Manganese	15	.2	7.6	-0.080	<15
Molybdenum	10	.96	1.3		
Nickel	40	.95	3.2		
Potassium	5000	53	53		
Selenium	5.0	3.2	3.2		
Silver	10	.85	.8		
Sodium	5000	130	130		
Strontium	20	.17	.4		
Thallium	10	3.2	2.6		
Tin	20	1.8	2.9		
Titanium	20	.3	.3		
Vanadium	50	.6	.6		
Zinc	20	.49	4.1		

Associated samples MP15083: T79588-1F, T79588-2F, T79588-3F, T79588-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

5.1.1

5

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

QC Batch ID: MP15083
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/27/11 06/27/11

Metal	T79588-1F Original	DUP	RPD	QC Limits	T79588-1F Original	MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	1710	1660	3.0	0-20	1710	2110	400	100.0	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP15083: T79588-1F, T79588-2F, T79588-3F, T79588-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

QC Batch ID: MP15083
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/27/11

Metal	T79588-1F Original	MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	1710	2130	400	105.0	0.9	20
Molybdenum						
Nickel						
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP15083: T79588-1F, T79588-2F, T79588-3F, T79588-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

QC Batch ID: MP15083
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/27/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	422	400	105.5	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15083: T79588-1F, T79588-2F, T79588-3F, T79588-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

QC Batch ID: MP15083
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/27/11

Metal	T79588-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	1710	1720	0.5	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15083: T79588-1F, T79588-2F, T79588-3F, T79588-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP13744/GN32668	0.50	0.0	mg/l	10	9.37	93.7	90-110%
Solids, Total Dissolved	GN32476	10	0.0	mg/l	500	486	97.2	80-120%
Sulfate	GP13744/GN32668	0.50	0.0	mg/l	10	9.29	92.9	90-110%
Sulfate	GP13753/GN32677	0.50	0.0	mg/l	10	9.18	91.8	90-110%

Associated Samples:
Batch GN32476: T79588-1, T79588-2, T79588-3, T79588-4
Batch GP13744: T79588-1, T79588-2, T79588-3, T79588-4
Batch GP13753: T79588-3, T79588-4
(*) Outside of QC limits

6.1

6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP13744/GN32668	T79594-2	mg/l	66.9	66.7	0.3	0-20%
Solids, Total Dissolved	GN32476	T79399-1	mg/l	998	1000	0.2	0-5%
Sulfate	GP13744/GN32668	T79594-2	mg/l	164	169	3.0	0-20%
Sulfate	GP13753/GN32677	T79588-3	mg/l	408	404	1.0	0-20%

Associated Samples:
Batch GN32476: T79588-1, T79588-2, T79588-3, T79588-4
Batch GP13744: T79588-1, T79588-2, T79588-3, T79588-4
Batch GP13753: T79588-3, T79588-4
(*) Outside of QC limits

6.2

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79588
Account: CONOCO - Conoco Phillips
Project: Wilmuth No 1

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP13744/GN32668	T79594-2	mg/l	66.9	200	265	99.1	80-120%
Sulfate	GP13744/GN32668	T79594-2	mg/l	164	200	369	102.5	80-120%
Sulfate	GP13753/GN32677	T79588-3	mg/l	408	500	902	98.8	80-120%

Associated Samples:
Batch GP13744: T79588-1, T79588-2, T79588-3, T79588-4
Batch GP13753: T79588-3, T79588-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

6.3

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

October 25, 2011

Cassie Brown
COP Conestoga-Rovers & Associa

,

RE: Project: WILMUTH NO 1
Pace Project No.: 60108024

Dear Cassie Brown:
Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Anna Custer

Anna Custer

anna.custer@pacelabs.com
Project Manager

Enclosures

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

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

CERTIFICATIONS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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

SAMPLE SUMMARY

Project: WILMUTH NO 1
Pace Project No.: 60108024

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60108024001	GW-074937-101211-CM-006	Water	10/12/11 11:30	10/13/11 09:10
60108024002	GW-074937-101211-CM-007	Water	10/12/11 12:15	10/13/11 09:10
60108024003	GW-074937-101211-CM-008	Water	10/12/11 12:25	10/13/11 09:10
60108024004	GW-074937-101211-CM-009	Water	10/12/11 12:50	10/13/11 09:10
60108024005	GW-074937-101211-CM-010	Water	10/12/11 12:55	10/13/11 09:10
60108024006	TB-101211-001	Water	10/12/11 17:30	10/13/11 09:10

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

SAMPLE ANALYTE COUNT

Project: WILMUTH NO 1
Pace Project No.: 60108024

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60108024001	GW-074937-101211-CM-006	EPA 6010	JGP	1
		EPA 8260	PRG	9
		SM 2540C	KLB	1
60108024002	GW-074937-101211-CM-007	EPA 6010	JGP	1
		EPA 8260	PRG	9
		SM 2540C	KLB	1
60108024003	GW-074937-101211-CM-008	EPA 6010	JGP	1
		EPA 8260	PRG	9
		SM 2540C	KLB	1
60108024004	GW-074937-101211-CM-009	EPA 6010	JGP	1
		EPA 8260	PRG	9
		SM 2540C	KLB	1
60108024005	GW-074937-101211-CM-010	EPA 8260	PRG	9
60108024006	TB-101211-001	EPA 8260	PRG	9

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

PROJECT NARRATIVE

Project: WILMUTH NO 1
Pace Project No.: 60108024

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: October 25, 2011

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

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

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

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

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

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

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

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

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

Additional Comments:

Analyte Comments:

QC Batch: MPRP/15731

1e: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits. Sample result is greater than four tiems the spike value.

- MSD (Lab ID: 894055)
  - Manganese, Dissolved

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

PROJECT NARRATIVE

Project: WILMUTH NO 1
Pace Project No.: 60108024

Method: EPA 8260
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: October 25, 2011

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

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

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

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

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

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

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

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

QC Batch: MSV/41020

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

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

Additional Comments:

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

PROJECT NARRATIVE

Project: WILMUTH NO 1
Pace Project No.: 60108024

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: October 25, 2011

General Information:
4 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

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

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

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

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

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

Additional Comments:

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

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: GW-074937-101211-CM-006 **Lab ID: 60108024001** Collected: 10/12/11 11:30 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**2130**	ug/L	5.0	1	10/19/11 13:00	10/21/11 08:40	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 03:54	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 03:54	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 03:54	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 03:54	1330-20-7	
Dibromofluoromethane (S)	100	%	86-112	1		10/20/11 03:54	1868-53-7	
Toluene-d8 (S)	99	%	90-110	1		10/20/11 03:54	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-113	1		10/20/11 03:54	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	82-119	1		10/20/11 03:54	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 03:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**779**	mg/L	5.0	1		10/18/11 09:19		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: GW-074937-101211-CM-007 **Lab ID: 60108024002** Collected: 10/12/11 12:15 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**1490**	ug/L	5.0	1	10/19/11 13:00	10/21/11 08:43	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 04:08	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 04:08	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 04:08	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 04:08	1330-20-7	
Dibromofluoromethane (S)	101	%	86-112	1		10/20/11 04:08	1868-53-7	
Toluene-d8 (S)	101	%	90-110	1		10/20/11 04:08	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-113	1		10/20/11 04:08	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	82-119	1		10/20/11 04:08	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 04:08		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**743**	mg/L	5.0	1		10/18/11 09:20		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: GW-074937-101211-CM-008 **Lab ID: 60108024003** Collected: 10/12/11 12:25 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**1670**	ug/L	5.0	1	10/19/11 13:00	10/21/11 08:53	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 04:22	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 04:22	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 04:22	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 04:22	1330-20-7	
Dibromofluoromethane (S)	103	%	86-112	1		10/20/11 04:22	1868-53-7	
Toluene-d8 (S)	100	%	90-110	1		10/20/11 04:22	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-113	1		10/20/11 04:22	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	82-119	1		10/20/11 04:22	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 04:22		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**716**	mg/L	5.0	1		10/18/11 09:21		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: GW-074937-101211-CM-009 **Lab ID: 60108024004** Collected: 10/12/11 12:50 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Manganese, Dissolved	**1040**	ug/L	5.0	1	10/19/11 13:00	10/21/11 08:56	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 04:36	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 04:36	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 04:36	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 04:36	1330-20-7	
Dibromofluoromethane (S)	102	%	86-112	1		10/20/11 04:36	1868-53-7	
Toluene-d8 (S)	99	%	90-110	1		10/20/11 04:36	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-113	1		10/20/11 04:36	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	82-119	1		10/20/11 04:36	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 04:36		
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**939**	mg/L	5.0	1		10/18/11 09:21		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: GW-074937-101211-CM-010 **Lab ID: 60108024005** Collected: 10/12/11 12:55 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 04:51	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 04:51	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 04:51	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 04:51	1330-20-7	
Dibromofluoromethane (S)	101	%	86-112	1		10/20/11 04:51	1868-53-7	
Toluene-d8 (S)	101	%	90-110	1		10/20/11 04:51	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-113	1		10/20/11 04:51	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	82-119	1		10/20/11 04:51	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 04:51		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO 1
Pace Project No.: 60108024

Sample: TB-101211-001 **Lab ID: 60108024006** Collected: 10/12/11 17:30 Received: 10/13/11 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/20/11 05:05	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/20/11 05:05	100-41-4	
Toluene	ND	ug/L	1.0	1		10/20/11 05:05	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/20/11 05:05	1330-20-7	
Dibromofluoromethane (S)	100	%	86-112	1		10/20/11 05:05	1868-53-7	
Toluene-d8 (S)	100	%	90-110	1		10/20/11 05:05	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-113	1		10/20/11 05:05	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	82-119	1		10/20/11 05:05	17060-07-0	
Preservation pH	**1.0**		1.0	1		10/20/11 05:05		

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

QUALITY CONTROL DATA

Project: WILMUTH NO 1
Pace Project No.: 60108024

QC Batch: MPRP/15731 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004

METHOD BLANK: 894052 Matrix: Water
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	10/21/11 08:13	

LABORATORY CONTROL SAMPLE: 894053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	973	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 894054 894055

Parameter	Units	60108016001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	15600	1000	1000	16500	16300	90	65	75-125	2	20	1e

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: WILMUTH NO 1
Pace Project No.: 60108024

QC Batch: MSV/41020 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004, 60108024005, 60108024006

METHOD BLANK: 894192 Matrix: Water
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004, 60108024005, 60108024006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/20/11 03:25	
Ethylbenzene	ug/L	ND	1.0	10/20/11 03:25	
Toluene	ug/L	ND	1.0	10/20/11 03:25	
Xylene (Total)	ug/L	ND	3.0	10/20/11 03:25	
1,2-Dichloroethane-d4 (S)	%	99	82-119	10/20/11 03:25	
4-Bromofluorobenzene (S)	%	99	87-113	10/20/11 03:25	
Dibromofluoromethane (S)	%	101	86-112	10/20/11 03:25	
Toluene-d8 (S)	%	100	90-110	10/20/11 03:25	

LABORATORY CONTROL SAMPLE: 894193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.9	100	82-117	
Ethylbenzene	ug/L	20	20.1	101	79-121	
Toluene	ug/L	20	19.8	99	80-120	
Xylene (Total)	ug/L	60	59.9	100	79-120	
1,2-Dichloroethane-d4 (S)	%			97	82-119	
4-Bromofluorobenzene (S)	%			100	87-113	
Dibromofluoromethane (S)	%			102	86-112	
Toluene-d8 (S)	%			99	90-110	

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

QUALITY CONTROL DATA

Project: WILMUTH NO 1
Pace Project No.: 60108024

QC Batch: WET/31529 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004

METHOD BLANK: 893135 Matrix: Water
Associated Lab Samples: 60108024001, 60108024002, 60108024003, 60108024004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	10/18/11 09:17	

SAMPLE DUPLICATE: 893136

Parameter	Units	60108021008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2580	2640	2	17	

SAMPLE DUPLICATE: 893382

Parameter	Units	60108051003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1130	1120	1	17	

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: WILMUTH NO 1
Pace Project No.: 60108024

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

BATCH QUALIFIERS

Batch: MSV/41020

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

ANALYTE QUALIFIERS

1e Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits. Sample result is greater than four tiems the spike value.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WILMUTH NO 1
Pace Project No.: 60108024

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60108024001	**GW-074937-101211-CM-006**	EPA 3010	MPRP/15731	EPA 6010	ICP/13632
60108024002	**GW-074937-101211-CM-007**	EPA 3010	MPRP/15731	EPA 6010	ICP/13632
60108024003	**GW-074937-101211-CM-008**	EPA 3010	MPRP/15731	EPA 6010	ICP/13632
60108024004	**GW-074937-101211-CM-009**	EPA 3010	MPRP/15731	EPA 6010	ICP/13632
60108024001	**GW-074937-101211-CM-006**	EPA 8260	MSV/41020		
60108024002	**GW-074937-101211-CM-007**	EPA 8260	MSV/41020		
60108024003	**GW-074937-101211-CM-008**	EPA 8260	MSV/41020		
60108024004	**GW-074937-101211-CM-009**	EPA 8260	MSV/41020		
60108024005	**GW-074937-101211-CM-010**	EPA 8260	MSV/41020		
60108024006	**TB-101211-001**	EPA 8260	MSV/41020		
60108024001	**GW-074937-101211-CM-006**	SM 2540C	WET/31529		
60108024002	**GW-074937-101211-CM-007**	SM 2540C	WET/31529		
60108024003	**GW-074937-101211-CM-008**	SM 2540C	WET/31529		
60108024004	**GW-074937-101211-CM-009**	SM 2540C	WET/31529		

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical™ www.pacelabs.com

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

Page: of

Section A Required Client Information:

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

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Kelly Blanchard, Angela Bown
Purchase Order No.:	
Project Name:	Wilmuth No 1
Project Number:	074937

Section C Invoice Information:

Attention:	ENFOS
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Colleen Koporc
Pace Profile #:	5341, 4

REGULATORY AGENCY

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

Site Location STATE: NM

Requested Analysis Filtered (Y/N)

Section D Required Client Information

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

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

6010S024

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	8260 BTEX	2540 TDS	Dissolved Mn	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074937-101211-CM-006	WT	G			10.12.11	1130		5	X		X	X						X	X	X		BP3U BP3N 5 3(VG9H) 001
2	GW-074937-101211-CM-007	WT	G			10.12.11	1215		5	X		X	X						X	X	X		002
3	GW-074937-101211-CM-008	WT	G			10.12.11	1225		5	X		X	X						X	X	X		003
4	GW-074937-101211-CM-009	WT	G			10.12.11	1250		5	X		X	X						X	X	X		004
5	GW-074937-101211-CM-010	WT	G			10.12.11	1255		3				X						X				005
6	TB-101211-001	WT				10.12.11	1730		2				X						X				[illegible] 006
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Include MDLs on report - J-flag	Christine Mathews	10-12-11	1800	[signature]	10/13/11	0910	1.3	Y	Y	Y
*metals were filtered in the field										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Christine Mathews

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10-12-11

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

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

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

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt – ESI Tech Specs

Client Name: COP CRA NM Project #: 60165624

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

Optional
Proj Due Date: 10/25
Proj Name:

Tracking #: 8768 0357 6294 Pace Shipping Label Used? Yes ☐ No ☐

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

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

Thermometer Used: (T-191) / T-194 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.3

Date and initials of person examining contents: 10/13/11 bg

Temperature should be above freezing to 6°C

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: MW for ACM Date: 10/14/11

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

Start: 1045	Start:
End: 1050	End:
Temp:	Temp:

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

F-KS-C-004-Rev.0, 02February2011

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

December 28, 2011

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

RE: Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Anna Custer

anna.custer@pacelabs.com
Project Manager

Enclosures

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

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

CERTIFICATIONS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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

SAMPLE SUMMARY

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60112352001	GW-074937-121411-CB-MW-1	Water	12/14/11 11:50	12/16/11 09:00
60112352002	GW-074937-121411-CB-MW-2	Water	12/14/11 10:55	12/16/11 09:00
60112352003	GW-074937-121411-CB-MW-3	Water	12/14/11 11:03	12/16/11 09:00
60112352004	GW-074937-121411-CB-MW-4	Water	12/14/11 11:35	12/16/11 09:00
60112352005	GW-074937-121411-CB-DUP	Water	12/14/11 11:55	12/16/11 09:00
60112352006	TB-074937-121411-CB-TB1	Water	12/15/11 07:30	12/16/11 09:00

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

SAMPLE ANALYTE COUNT

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60112352001	GW-074937-121411-CB-MW-1	EPA 6010	JDH	1
		EPA 8260	RNS	9
		SM 2540C	BGM	1
60112352002	GW-074937-121411-CB-MW-2	EPA 6010	JDH	1
		EPA 8260	RNS	9
		SM 2540C	BGM	1
60112352003	GW-074937-121411-CB-MW-3	EPA 6010	JDH	1
		EPA 8260	RNS	9
		SM 2540C	BGM	1
60112352004	GW-074937-121411-CB-MW-4	EPA 6010	JDH	1
		EPA 8260	RNS	9
		SM 2540C	BGM	1
60112352005	GW-074937-121411-CB-DUP	EPA 8260	RNS	9
60112352006	TB-074937-121411-CB-TB1	EPA 8260	RNS	9

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

PROJECT NARRATIVE

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Method: EPA 6010
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: December 28, 2011

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

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

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

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

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

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

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

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

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

Additional Comments:

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

PROJECT NARRATIVE

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Method: EPA 8260
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: December 28, 2011

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

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

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

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

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

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

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

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

QC Batch: MSV/42582

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

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

Additional Comments:

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

PROJECT NARRATIVE

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: December 28, 2011

General Information:
4 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

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

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

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

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

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

Additional Comments:

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

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: GW-074937-121411-CB-MW-1 **Lab ID: 60112352001** Collected: 12/14/11 11:50 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese, Dissolved	**972**	ug/L	5.0	0.90	1	12/22/11 09:00	12/23/11 11:03	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 17:38	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 17:38	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 17:38	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 17:38	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	100	%	86-112		1		12/19/11 17:38	1868-53-7	
Toluene-d8 (S)	101	%	90-110		1		12/19/11 17:38	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-113		1		12/19/11 17:38	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	82-119		1		12/19/11 17:38	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 17:38		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**913**	mg/L	5.0	5.0	1		12/20/11 13:25		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: GW-074937-121411-CB-MW-2 **Lab ID: 60112352002** Collected: 12/14/11 10:55 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese, Dissolved	**1470**	ug/L	5.0	0.90	1	12/22/11 09:00	12/23/11 11:05	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 17:54	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 17:54	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 17:54	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 17:54	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99	%	86-112		1		12/19/11 17:54	1868-53-7	
Toluene-d8 (S)	100	%	90-110		1		12/19/11 17:54	2037-26-5	
4-Bromofluorobenzene (S)	103	%	87-113		1		12/19/11 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	82-119		1		12/19/11 17:54	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 17:54		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**812**	mg/L	5.0	5.0	1		12/20/11 13:26		

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: GW-074937-121411-CB-MW-3 **Lab ID: 60112352003** Collected: 12/14/11 11:03 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese, Dissolved	**1560**	ug/L	5.0	0.90	1	12/22/11 09:00	12/23/11 11:08	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 18:11	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 18:11	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 18:11	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 18:11	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	100	%	86-112		1		12/19/11 18:11	1868-53-7	
Toluene-d8 (S)	102	%	90-110		1		12/19/11 18:11	2037-26-5	
4-Bromofluorobenzene (S)	103	%	87-113		1		12/19/11 18:11	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	82-119		1		12/19/11 18:11	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 18:11		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**713**	mg/L	5.0	5.0	1		12/20/11 13:26		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: GW-074937-121411-CB-MW-4 **Lab ID: 60112352004** Collected: 12/14/11 11:35 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Manganese, Dissolved	**1940**	ug/L	5.0	0.90	1	12/22/11 09:00	12/23/11 11:10	7439-96-5	
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 18:27	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 18:27	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 18:27	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 18:27	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	97	%	86-112		1		12/19/11 18:27	1868-53-7	
Toluene-d8 (S)	102	%	90-110		1		12/19/11 18:27	2037-26-5	
4-Bromofluorobenzene (S)	103	%	87-113		1		12/19/11 18:27	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	82-119		1		12/19/11 18:27	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 18:27		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**776**	mg/L	5.0	5.0	1		12/20/11 13:26		

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: GW-074937-121411-CB-DUP **Lab ID: 60112352005** Collected: 12/14/11 11:55 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 18:43	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 18:43	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 18:43	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 18:43	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	102	%	86-112		1		12/19/11 18:43	1868-53-7	
Toluene-d8 (S)	104	%	90-110		1		12/19/11 18:43	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-113		1		12/19/11 18:43	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	82-119		1		12/19/11 18:43	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 18:43		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Sample: TB-074937-121411-CB-TB1 **Lab ID: 60112352006** Collected: 12/15/11 07:30 Received: 12/16/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.040	1		12/19/11 19:00	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.10	1		12/19/11 19:00	100-41-4	
Toluene	ND	ug/L	1.0	0.10	1		12/19/11 19:00	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.30	1		12/19/11 19:00	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99	%	86-112		1		12/19/11 19:00	1868-53-7	
Toluene-d8 (S)	102	%	90-110		1		12/19/11 19:00	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-113		1		12/19/11 19:00	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	82-119		1		12/19/11 19:00	17060-07-0	
Preservation pH	**1.0**		1.0	0.10	1		12/19/11 19:00		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

QC Batch: MPRP/16530 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004

METHOD BLANK: 930306 Matrix: Water
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	12/23/11 09:58	

LABORATORY CONTROL SAMPLE: 930307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	1000	992	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 930308 930309

Parameter	Units	60112207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese, Dissolved	ug/L	278	1000	1000	1260	1240	98	97	75-125	1	20	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

QC Batch: MSV/42582 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004, 60112352005, 60112352006

METHOD BLANK: 928969 Matrix: Water
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004, 60112352005, 60112352006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	0.079J	1.0	12/19/11 16:16	
Ethylbenzene	ug/L	ND	1.0	12/19/11 16:16	
Toluene	ug/L	ND	1.0	12/19/11 16:16	
1,2-Dichloroethane-d4 (S)	%	93	82-119	12/19/11 16:16	
4-Bromofluorobenzene (S)	%	104	87-113	12/19/11 16:16	
Dibromofluoromethane (S)	%	100	86-112	12/19/11 16:16	
Toluene-d8 (S)	%	101	90-110	12/19/11 16:16	

LABORATORY CONTROL SAMPLE: 928970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.0	100	82-117	
Ethylbenzene	ug/L	20	21.2	106	79-121	
Toluene	ug/L	20	20.3	102	80-120	
1,2-Dichloroethane-d4 (S)	%			93	82-119	
4-Bromofluorobenzene (S)	%			100	87-113	
Dibromofluoromethane (S)	%			97	86-112	
Toluene-d8 (S)	%			100	90-110	

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

QUALITY CONTROL DATA

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

QC Batch: WET/32666 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004

METHOD BLANK: 929282 Matrix: Water
Associated Lab Samples: 60112352001, 60112352002, 60112352003, 60112352004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	12/20/11 13:22	

SAMPLE DUPLICATE: 929283

Parameter	Units	60112159003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2320	2170	7	17	

SAMPLE DUPLICATE: 929284

Parameter	Units	60112290021 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2180	2100	4	17	

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

QUALIFIERS

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

BATCH QUALIFIERS

Batch: MSV/42582

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WILMUTH NO.1 (074937)
Pace Project No.: 60112352

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60112352001	**GW-074937-121411-CB-MW-1**	EPA 3010	MPRP/16530	EPA 6010	ICP/14221
60112352002	**GW-074937-121411-CB-MW-2**	EPA 3010	MPRP/16530	EPA 6010	ICP/14221
60112352003	**GW-074937-121411-CB-MW-3**	EPA 3010	MPRP/16530	EPA 6010	ICP/14221
60112352004	**GW-074937-121411-CB-MW-4**	EPA 3010	MPRP/16530	EPA 6010	ICP/14221
60112352001	**GW-074937-121411-CB-MW-1**	EPA 8260	MSV/42582		
60112352002	**GW-074937-121411-CB-MW-2**	EPA 8260	MSV/42582		
60112352003	**GW-074937-121411-CB-MW-3**	EPA 8260	MSV/42582		
60112352004	**GW-074937-121411-CB-MW-4**	EPA 8260	MSV/42582		
60112352005	**GW-074937-121411-CB-DUP**	EPA 8260	MSV/42582		
60112352006	**TB-074937-121411-CB-TB1**	EPA 8260	MSV/42582		
60112352001	**GW-074937-121411-CB-MW-1**	SM 2540C	WET/32666		
60112352002	**GW-074937-121411-CB-MW-2**	SM 2540C	WET/32666		
60112352003	**GW-074937-121411-CB-MW-3**	SM 2540C	WET/32666		
60112352004	**GW-074937-121411-CB-MW-4**	SM 2540C	WET/32666		

PaceAnalytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of

Section A Required Client Information:

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

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Kelly Blanchard, Angela Bown
Purchase Order No.:	4515956756
Project Name:	Wilmuth No 1
Project Number:	074937

Section C Invoice Information:

Attention:	ENFOS
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Tracy
Pace Profile #:	5514, 4

REGULATORY AGENCY

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

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

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

Requested Analysis Filtered (Y/N): EPA 6010 Dissolved Mn — Y

Pace Project No./ Lab I.D.: 6012352

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	8260 BTEX	SM 2540C TDS	EPA 6010 Dissolved Mn			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074937-121411-CB-MW-1	WT	G	—	—	12-14-11	1150		5	X		X	X		3	DG	9H		X	X	X	1BP2U	1BP3N	1.5	001
2	GW-074937-121411-CB-MW-2	WT	G	—	—	12-14-11	1055		5	X		X	X			↓			X	X	X	↓	↓		002
3	GW-074937-121411-CB-MW-3	WT	G	—	—	12-14-11	1103		5	X		X	X			↓			X	X	X	↓	↓		003
4	GW-074937-121411-CB-MW-4	WT	G	—	—	12-14-11	1135		5	X		X	X			↓			X	X	X	↓	↓		004
5	GW-074937-121411-CB-dup	WT	G	—	—	12-14-11	1155		3				X			↓			X						005
6	TB-074937-121411-CB-TB1	WT	G	—	—	12-15-11	0730		3				X			↓			X						006
7	Temp Blank	WT				—			1																
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Include MDLs on report - J-flag	Cassie Brown / CRA	12-16-11	0900	[signature]	12-16	0900	4.6	Y	Y	Y
#Note# Metals containers have been field filtered										
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12-15-11

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

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

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt – ESI Tech Specs

Client Name: CoP CRA NM Project #: 60172352

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

Optional
Proj Due Date: 12/29/11
Proj Name:

Tracking #: 8986 0891 3920 Pace Shipping Label Used? Yes ☑ No ☐

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

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

Thermometer Used: T-193 / T-194 **Type of Ice:** (Wet) Blue None (circle one) ☐ Samples received on ice, cooling process has begun.

Cooler Temperature: 4.6

Date and initials of person examining contents: PV 12-16-11

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
-Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.
Sample labels match COC:	☑Yes ☐No ☐N/A	
-Includes date/time/ID/analyses Matrix: WT		13.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	14.
Exceptions (VOA), coliform, TOC, O&G, WI-DRO (water), Phenolics PV 12-16-11	☑Yes ☐No	Initial when completed / Lot # of added preservative
Trip Blank present:	☑Yes ☐No ☐N/A	
Pace Trip Blank lot # (if purchased): 111411-3		15.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
		16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

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

Start: 1710	Start:
End: 1720	End:
Temp:	Temp:

Project Manager Review: 12/19/11 Date: 12/19/11

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

F-KS-C-004-Rev.0, 02February2011