3R - 173 2013 GWMR **JUL 2013**



www.**CRA**world.com



Flora Vista No. 1 2012 Quarterly Groundwater Monitoring Report

API# 30-045-20073 NMOCD# 3R-173

Prepared for: ConocoPhillips Company Risk Management and Remediation

Conestoga-Rovers & Associates 6121 Indian School Road, NE Suite 200

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

July 2013 • #074926 Report Number:4

TABLE OF CONTENTS

1.0	INTRO 1.1	DDUCTION BACKGROUND	
2.0		NDWATER MONITORING SUMMARY, METHODOLOGY, ANALYTICAL RESULTS	2
	2.1	GROUNDWATER MONITORING SUMMARY	
	2.2	GROUNDWATER MONITORING METHODOLOGY	3
	2.3	GROUNDWATER MONITORING ANALYTICAL RESULTS	3
3.0	CONG	CLUSIONS AND RECOMMENDATIONS	6

LIST OF FIGURES

- FIGURE 1 SITE VICINITY MAP
- FIGURE 2 SITE PLAN
- FIGURE 3 GEOLOGICAL CROSS SECTION
- FIGURE 4 MARCH 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP
- FIGURE 5 JUNE 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP
- FIGURE 6 SEPTEMBER 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP
- FIGURE 7 DECEMBER 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP
- FIGURE 8 MARCH 2012 BENZENE CONCENTRATION MAP
- FIGURE 9 JUNE 2012 BENZENE CONCENTRATION MAP
- FIGURE 10 SEPTEMBER 2012 BENZENE CONCENTRATION MAP
- FIGURE 11 DECEMBER 2012 BENZENE CONCENTRATION MAP

LIST OF TABLES

- TABLE 1SITE HISTORY TIMELINE
- TABLE 2MONITOR WELL SPECIFICATIONS AND GROUNDWATERELEVATIONS
- TABLE 3
 GROUNDWATER ANALYTICAL RESULTS SUMMARY

LIST OF APPENDICES

- APPENDIX A 2012 QUARTERLY GROUNDWATER SAMPLING FIELD FORMS
- APPENDIX B 2012 QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORT

1.0 INTRODUCTION

This report presents the results of the quarterly groundwater monitoring events conducted by Conestoga-Rovers & Associates (CRA) during 2012 at the Flora Vista No. 1 natural gas well site (Site), operated by Burlington Resources Oil & Gas Company LP (Burlington), a wholly-owned subsidiary of ConocoPhillips Company (ConocoPhillips) (**Figure 1**). The Site is located on private property in Unit Letter F, Section 22, Township 30N, Range 12W, of San Juan County, New Mexico. The Site consists of a gas well and associated equipment and installations. A detailed Site layout map is provided as **Figure 2**.

1.1 <u>BACKGROUND</u>

A previous operator removed an earthen dehydrator pit from service in March 1994. Hydrocarbon impacted soil was subsequently excavated in April 1994 and again in November 1995. A pit closure report was submitted to New Mexico Oil Conservation Division (NMOCD) in August 1996 by El Paso Field Services. NMOCD issued a letter to El Paso Field Services on January 24, 1997 approving pit closure and remediation.

Burlington encountered hydrocarbon-impacted soil at the Site during a production facility resetting activity in early 2003. Burlington subsequently directed the excavation of approximately 9,443 cubic yards of soil in an attempt to remove it. Groundwater was observed in the bottom of the excavation at approximately 25 feet below the ground surface. Field screening was conducted during excavation to determine extent of impacted soil. To enhance the remediation of the remaining amounts of residual hydrocarbon contamination in the excavated area, approximately 80 barrels (bbls) of a potassium permanganate oxidizer solution was sprayed on the soil.

In September 2003, Envirotech installed a groundwater monitor well (MW-1) slightly downgradient from the center of the excavation (**Figure 2**). Subsequent monitoring during September 2003 included analyses for benzene, toluene, ethylbenzene, and total xylenes (BTEX), as well as total petroleum hydrocarbons (TPH). Groundwater analyses indicated the presence of benzene and total xylenes above regulatory standards. Monitor Wells MW-2, MW-3, and MW-4 were installed at the Site in August 2008 in response to an April 2008 request from NMOCD for Site characterization and enhanced laboratory analyses.

1

A generalized geologic cross section was prepared using boring logs from the August 2008 monitor well installation and is presented as **Figure 3**.

During the March 2012 groundwater sampling event it was discovered that well vault and concrete pad of Monitor Well MW-2 had been destroyed by heavy machinery. The well completion was repaired on April 25, 2012. The top of casing elevations for all Site monitor wells were re-surveyed during the June 2012 quarterly sampling event.

The Flora Vista No. 1 Site history is summarized in **Table 1**.

2.0 GROUNDWATER MONITORING SUMMARY, METHODOLOGY, AND ANALYTICAL RESULTS

2.1 <u>GROUNDWATER MONITORING SUMMARY</u>

During 2012 quarterly sampling events conducted on March 3, June 7, September 19, and December 13, groundwater elevation measurements were recorded in Monitor Wells MW-1, MW-2, MW-3, and MW-4 using an oil/water interface probe. Groundwater elevations are detailed in **Table 2**. Groundwater potentiometric surface maps created from 2012 data are presented as **Figures 4**, **5**, **6**, and **7**. Based on the 2012 monitoring events data, groundwater flow is to the southwest and is consistent with historic monitoring event records for this Site.

2.2 <u>GROUNDWATER MONITORING METHODOLOGY</u>

During monitoring events, at least three well volumes were purged from Site Monitor Wells with a dedicated polyethylene 1.5-inch disposable bailer prior to sampling. If three well volumes could not be purged, wells were purged until dry and allowed to recharge prior to sampling. Purge water generated during purging of Site monitor wells was placed in the on-Site produced water tank (**Figure 2**). 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. Samples were analyzed for the presence of BTEX by Environmental Protection Agency (EPA) Method 8260, and dissolved iron and dissolved manganese by EPA Method 6010. CRA groundwater sampling field forms are included as **Appendix A**.

Additionally, groundwater samples were collected from two downgradient domestic irrigation wells. Domestic irrigation well DW-1, located at 32 Road 3581, Flora Vista, NM, was sampled on July 27, 2012. Domestic irrigation well DW-2, located at 34 Road 3581, Flora Vista, NM was sampled on June 7, 2012. Groundwater samples collected from DW-1 and DW-2 were analyzed for the presence of BTEX by EPA Method 8260.

2.3 <u>GROUNDWATER MONITORING ANALYTICAL RESULTS</u>

Groundwater samples collected during 2012 quarterly sampling events from Monitor Wells MW-2 and MW-3 and domestic irrigation wells DW-1 and DW-2 did not exceed New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards for any target constituents. Groundwater collected from Monitor Wells MW-1 and MW-4 exceeded the NMWQCC standards for the following constituents:

March 2012

- **Benzene** The NMWQCC standard for benzene is 0.010 milligrams per liter (mg/L). The concentration of benzene found in the groundwater sample collected from MW-1 was 1.590 mg/L. The groundwater sample collected from MW-4, the downgradient well, contained benzene at a concentration of 0.0264 mg/L.
- **Xylenes** The NMWQCC standard for total xylenes is 0.620 mg/L. The concentration of xylenes found in groundwater sample collected from MW-1 was 5.040 mg/L.
- **Dissolved Iron** The NMWQCC standard for dissolved iron is 1 mg/L. The concentration of dissolved iron found in groundwater samples collected from MW-1 and MW-4 was 25.30 mg/L and 2.46 mg/L, respectively.
- **Dissolved Manganese** The NMWQCC standard for dissolved manganese is 0.2 mg/L. The concentration of dissolved manganese found in groundwater samples collected from MW-1 and MW-4 was 1.03 mg/L and 4.73 mg/L, respectively.

<u>June 2012</u>

- **Benzene** The concentration of benzene found in groundwater samples collected from MW-1 and MW-4 was 1.77 mg/L and 0.044 mg/L, respectively.
- **Xylenes** The concentration of xylenes found in the groundwater sample collected from MW-1 was 0.633 mg/L.
- **Dissolved Iron** The concentration of dissolved iron found in groundwater samples collected from MW-1 and MW-4 was 21.40 mg/L and 2.07 mg/L, respectively.
- **Dissolved Manganese** The concentration of dissolved manganese found in groundwater samples collected from MW-1 and MW-4 was 0.914 mg/L and 4.02 mg/L, respectively.

September 2012

- **Benzene** The concentration of benzene found in the groundwater sample collected from MW-1 was 1.52 mg/L.
- **Xylenes** The concentration of xylenes found in the groundwater sample collected from MW-1 was 2.49 mg/L.
- **Dissolved Iron** The concentration of dissolved iron found in groundwater samples collected from MW-1 and MW-4 was 19.0 mg/L and 1.93 mg/L, respectively.

• **Dissolved Manganese** – The concentration of dissolved manganese found in groundwater samples collected from MW-1 and MW-4 was 0.86 mg/L and 4.5 mg/L, respectively.

<u>December 2012</u>

- **Benzene** The concentration of benzene found in groundwater samples collected from MW-1 and MW-4 was 2.02 mg/L and 0.0941 mg/L, respectively.
- Ethylbenzene The NMWQCC standard for ethylbenzene is 0.75 mg/L. The concentration of ethylbenzene in groundwater collected from MW-1 was 0.809 mg/L.
- **Xylenes** The concentration of xylenes found in the groundwater sample collected from MW-1 was 5.02 mg/L.
- **Dissolved Iron** The concentrations of dissolved iron found in groundwater samples collected from MW-1 and MW-4 was 23.8 mg/L and 2.92 mg/L, respectively.
- **Dissolved Manganese** The concentration of dissolved manganese found in groundwater samples collected from MW-1 and MW-4 was 0.75 mg/L and 4.9 mg/L, respectively.

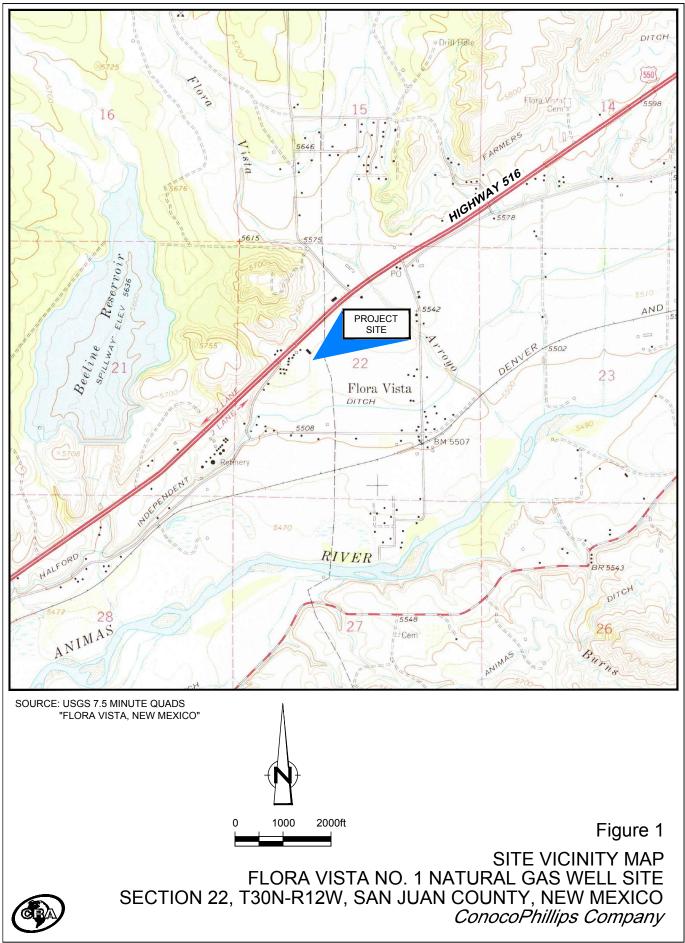
A summary of the historical groundwater laboratory analytical results is presented in **Table 3**. The 2012 laboratory analytical reports are included in **Appendix B**.

3.0 <u>CONCLUSIONS AND RECOMMENDATIONS</u>

Groundwater samples collected from MW-1 and MW-4 and have consistently exceeded NMWQCC groundwater quality standards for benzene, dissolved iron, and dissolved manganese from October 2008 through December 2012 and have intermittently exceeded the NMWQCC groundwater quality standard for dissolved iron. Groundwater samples from MW-1 have also historically exceeded the NMWQCC groundwater quality standard for xylenes and have intermittently exceeded the standard for ethylbenzene. BTEX constituent concentrations exhibit a decreasing trend over time in MW-1 and MW-4. Based on the historical groundwater quality data, groundwater samples collected from MW-2, MW-3, DW-1 and DW-2 have never exceeded NMWQCC groundwater quality standards for any target groundwater quality constituents.

CRA recommends the continuation of quarterly sampling of all Site monitor wells and periodic sampling of DW-1 and DW-2 in order to monitor ongoing natural attenuation at the Site. The next sampling event will take place in March 2013. CRA will collect samples for BTEX, dissolved iron, and dissolved manganese. The results of the monitoring for 2013 will be summarized in an annual report and submitted to the NMOCD during the first half of 2014.

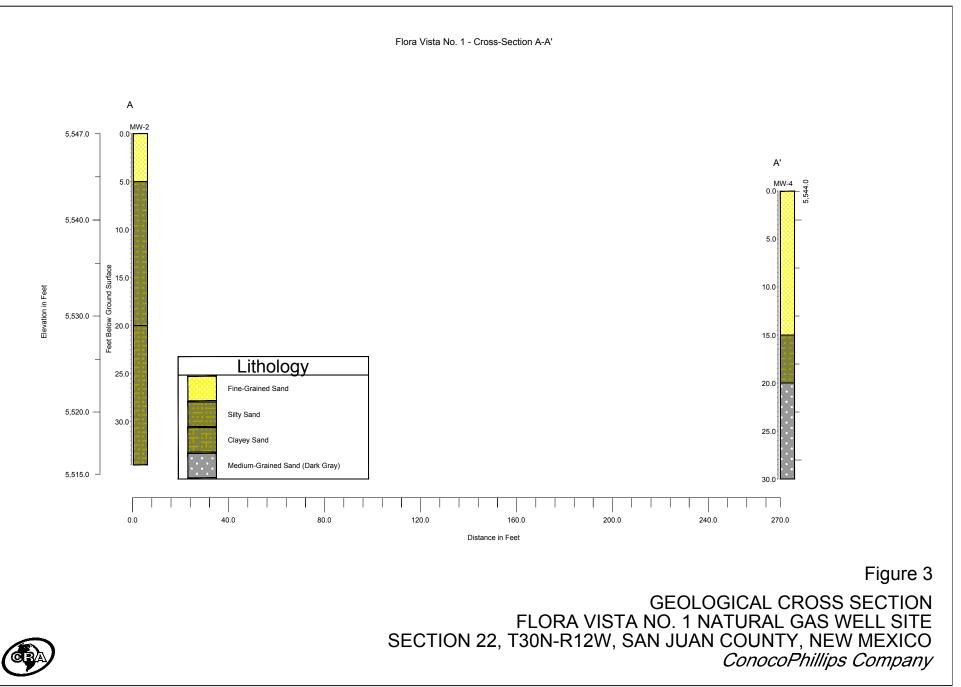
FIGURES



074926-95(004)GN-DL001_Topo JUL 27/2012



SITE PLAN FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*



074926-95(004)GN-DL003_X-sec JUL 27/2012

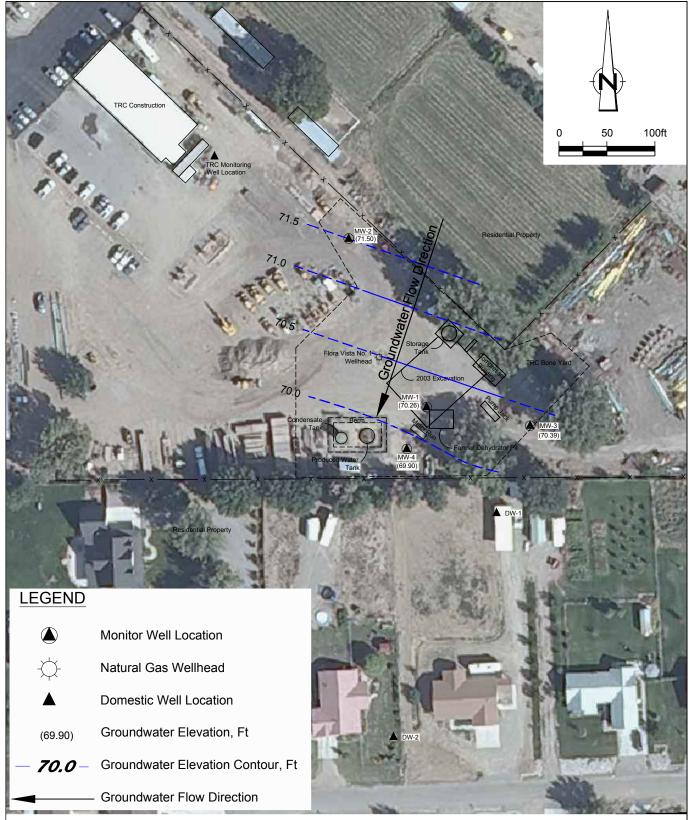


Figure 4

MARCH 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

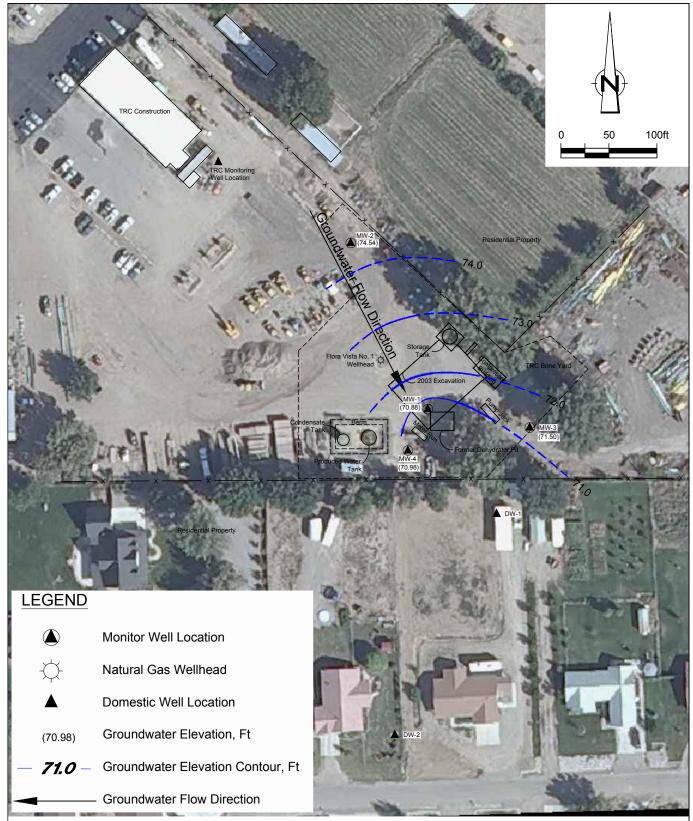


Figure 5

JUNE 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

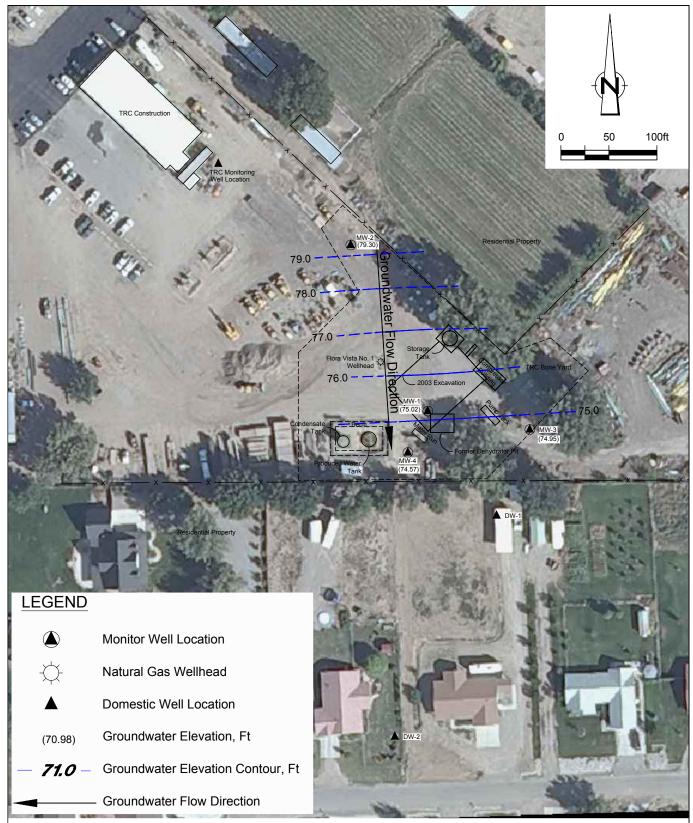


Figure 6

SEPTEMBER 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

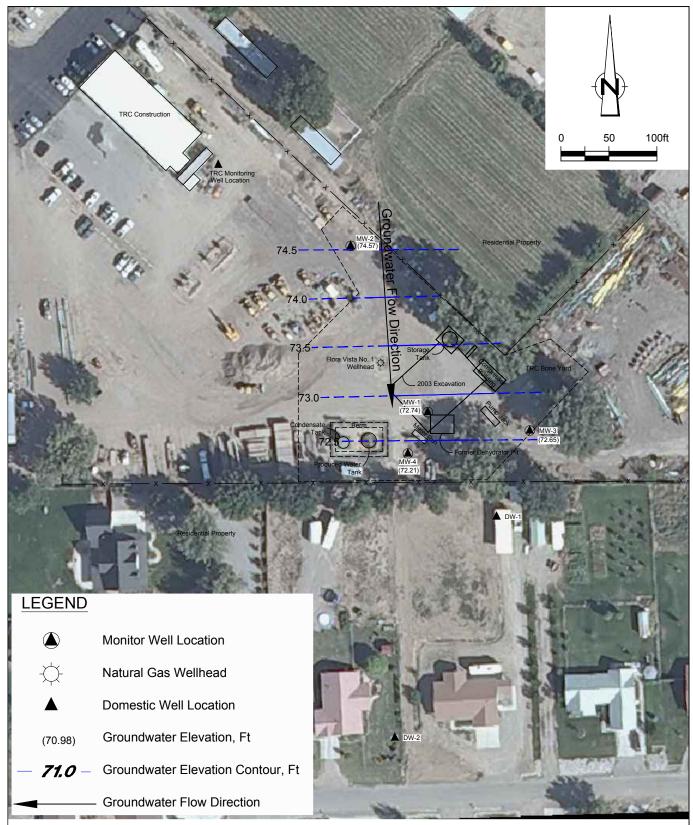
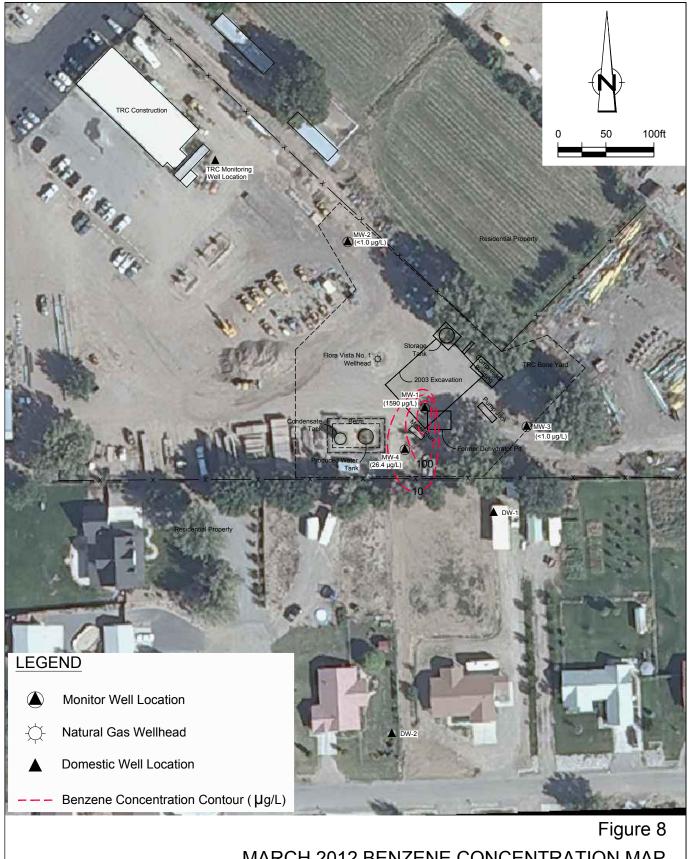


Figure 7

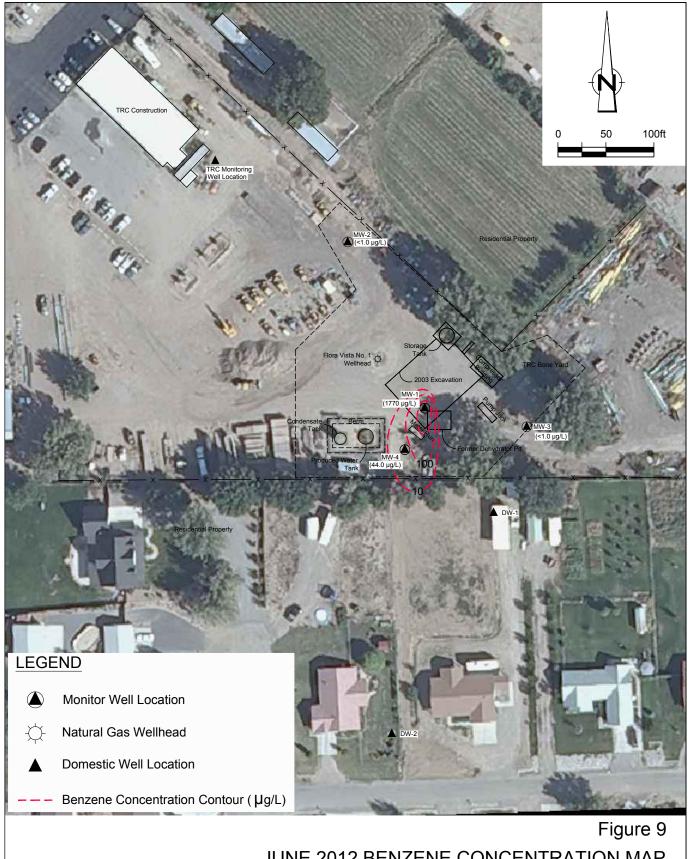
DECEMBER 2012 GROUNDWATER POTENTIOMETRIC SURFACE MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*





MARCH 2012 BENZENE CONCENTRATION MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

074926-95(004)GN-DL005_Benz JUL 27/2012



JUNE 2012 BENZENE CONCENTRATION MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

074926-95(004)GN-DL005_Benz JUL 30/2012



SEPTEMBER 2012 BENZENE CONCENTRATION MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*



DECEMBER 2012 BENZENE CONCENTRATION MAP FLORA VISTA NO. 1 NATURAL GAS WELL SITE SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO *ConocoPhillips Company*

SITE HISTORY TIMELINE CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Date/Time Period	Event/Action	Description/Comments
November 28, 1995	Pit Closure Activities	Philip Environmental excavated and removed approximatley 850 cubic yards of soil from the area where the Flora Vista No. 1 dehydrator pit was located. Excavation activities were stopped in the north and west directions due to the positions of the compressor and meter run equipment.
July and August 1996	Submital of Pit Closure	El Paso Field Services submits Pit Closure Reports to the New Mexico Oil Conservation Division outlining the excavation and closure of the dehydrator pit at the site.
January 24, 1997	Pit Closure Approval	El Paso Field Services receives approval of pit closure from the New Mexico Oil Conservation Division.
June and July 2003	Initial Site Assessment	Historical petroleum contaminated soil discovered during a production facility resetting activity. Environmental investigation began with the excavation of approximately 4,986 cubic yards of impacted soil and 4,446 cubic yards of clean soil. Groundwater was encountered at approximately 25 feet below the ground surface. The impacted soil was taken to a commercial landfill facility located on Crouch Mesa in Farmington, New Mexico. Approximately 80 bbls of potassium permanganate was sprayed on the soils to breakdown any minor amounts of residual petroleum contaminants. The excavation area was backfilled with clean soil.
September 2, 2003	Groundwater Monitor Well Installation	One ground water Monitor Well, MW-1, was installed slightly down-gradient from the center of the soil excavation by Envirotech. Total depth of well is 26 feet.
September of 2003 through December 13, 2006	Quarterly Groundwater Monitoring	Quarterly groundwater monitoring of MW-1 for analysis of BTEX constituents. MW-1 remained above standards for benzene, ethylbenzene, and total xylenes.
March 31, 2006	Site Transfer	ConocoPhillips Company completes acquisition of Burlington Resources.
March 2007 through January 2008	Consultant Change and Groundwater Monitoring	After the acquisition of Burlington Resources by ConocoPhillips, consulting responsibilities were transferred from Lode Star LLC of Farmington, NM to Tetra Tech of Albuquerque, NM. Tetra Tech began sampling the Flora Vista site quarterly in March of 2007. Four consecutive quarters of goundwater sampling were conducted at the Flora Vista site. Groundwater was sampled from MW-1 and was analyzed for BTEX constituents during all sampling events. MW-1 remained above standards for benzene, ethylbenzene, and total xylenes.
March 28, 2008	Reporting	Annual report for 2007 is submitted to the Oil Conservation Division of NM Energy, Minerals, and Resources Department (OCD).
April 1, 2008	Additional Monitoring Requested by OCD	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting with Glenn Von Gonten.
July 23, 2008	Groundwater Monitoring	Groundwater monitoring of MW-1. One sample and a duplicate were collected. Benzene and Xylenes are above NMWQCC standards.
August 12 and 13, 2008	Groundwater Monitor Well Installation and Groundwater Monitoring	Three additional groundwater Monitor Wells, MW-2, MW-3 and MW-4 were installed by WDC and overseen by Tetra Tech. MW-2 was installed upgradient of MW-1. Both MW-3 and MW-4 were installed downgradient of MW-1. Soil samples were collected from just above the groundwater interface for each boring location and sent to Southern Petroleum Laboratory for a baseline soil analysis. All wells were developed by purging approximately 80 gallons of fluid using a surge block and hand bailer/purge pump.

SITE HISTORY TIMELINE CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Date/Time Period	Event/Action	Description/Comments
October 21, 2008	Groundwater Monitoring	Third quarter 2008 groundwater monitoring was completed and was the first quarter of sampling to include all four monitor wells on site. A baseline suite was completed including major ions, total metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs) including BTEX, diesel range organics, and gasoline range organics. There were 3 constituents that returned results above NMWQCC limits, Benzene (MW-1 and MW-4), Total Xylenes (MW-1), and Sulfate (MW-1).
January 28, 2009	Groundwater Monitoring	Tetra Tech conducted fourth quarter 2008 groundwater monitoring at the site for BTEX constituents in all four monitor wells. Benzene (MW-1 and MW-4), Ethylbenzene (MW-1) and Xylenes (MW-1) were above NMWQCC standards.
March 1, 2009	Initiate Annual Sampling	The Flora Vista No. 1 site is put on an annual monitoring schedule. The next sampling event was scheduled for September 2009.
September 30, 2009	Groundwater Monitoring	Tetra Tech conducted 2009 annual groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1) and manganese (MW-1 and MW-4) were above NMWQCC standards.
December 16, 2009	Private Irrigation Well Sampling	Tetra Tech collected a groundwater sample from a domestic well (DW-1) located to the south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards.
May 14, 2010	Initiate Quarterly Sampling	The Flora Vista No. 1 site is put on a semi-annual monitoring schedule. Private domestic irrigation well sampling is also to be included in semi-annual sampling events.
June 10, 2010	Private Irrigation Well Sampling	Tetra Tech collected a groundwater sample from a second private down-gradient domestic well (DW-2) to be sampled for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards.
June 10 and 11, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1) and manganese (MW-1 and MW-4) were above NMWQCC standards.
September 27, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron and manganese (MW-1 and MW-4) were above NMWQCC standards.
December 14, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron and manganese (MW-1 and MW-4) were above NMWQCC standards.
March 17, 2011	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron, dissolved manganese, and sulfate. Groundwater collected from MW-1 exceeded the NMWQCC standards for benzene, xylenes, dissolved iron and dissolved manganese. Groundwater collected from MW-4 exceeded the NMWQCC standards
June 15, 2011	Transfer of Site Consulting Responsibilites	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.

SITE HISTORY TIMELINE CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Date/Time Period	Event/Action	Description/Comments
June 24, 2011		CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards. CRA also collected a groundwater sample from Domestic Well DW-1 located south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards in the domestic well sample.
September 29, 2011	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards.
December 14, 2011	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards.
March 9, 2012	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards. The well vault of MW-2 is found to be destroyed.
April 25, 2012	Well Pad Repair	CRA on site to oversee repair of MW-2.
June 7, 2012		CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards. CRA also collected a groundwater sample from Domestic Well DW-2 located south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards in the domestic well sample.
July 27, 2012	Private Irrigation Well Sampling	CRA collected a groundwater sample from Domestic Well DW-1 located south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards in the domestic well sample.
September 19, 2012	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1), xylenes (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards.
December 13, 2012	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1), xylenes (MW-1), ethylbenzene (MW-1), dissolved iron (MW-1 and MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards.

MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Well ID	Total Depth (ft below	Elevation*	Screen Interval	Date Measured	Depth to Groundwater (ft	Relative Water Level
	TOC)		(ft bgs)		below TOC)	
				6/20/2003	NM	NM
				9/23/2003	17.03	77.35
				12/16/2003	20.11	74.27
				3/16/2004	23.69	70.69
				6/21/2004	19.92	74.46
				9/30/2004	16.82	77.56
				12/13/2004	20.40	73.98
				3/22/2005	24.32	70.06
				6/22/2005	NM	NM
				10/24/2005	NM	NM
				12/13/2005	21.24	73.14
				3/22/2006	24.75	69.63
				6/22/2006	20.48	73.90
				10/20/2006	19.13	75.25
		94.38		12/13/2006	21.24	73.14
		91.00		11/9/2007	19.71	74.67
MW-1	26.02		11.02 - 26.02	1/15/2008	NM	NM
				3/19/2008	24.35	70.03
				7/23/2008	19.89	74.49
				10/21/2008	19.48	74.90
				1/28/2009	23.96	70.42
				9/30/2009	18.16	76.22
				6/10/2010	21.64	72.74
				9/27/2010	19.31	75.07
				12/14/2010	21.41	72.97
				3/17/2011	24.95	69.43
				6/24/2011	22.55	71.83
				9/29/2011	18.37	76.01
				12/14/2011	20.63	73.75
		93.96		3/9/2012	24.12	70.26
				6/7/2012	23.08	70.88
				9/19/2012	18.94	75.02
				12/13/2012	21.22	72.74
				10/21/2008	20.71	76.39
				1/28/2009	22.75	74.35
				9/30/2009	18.83	78.27
				6/11/2010	22.09	75.01
				9/27/2010	20.12	76.98
		97.1		12/14/2010	NM	NM
1.017.0	21.25		10.05 05.05	3/17/2011	NM	NM
MW-2	31.35		12.35 - 27.35	6/24/2011	22.50	74.60
				9/29/2011	18.95	75.43
				12/14/2011	21.79	75.31
				3/9/2012	25.60	71.50
			4 ł	6/7/2012	22.46	74.54
		97.00		9/19/2012	17.70	79.30
		27.00		12/13/2012	22.43	79.50

MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Well ID	Total Depth (ft below TOC)	Elevation*	Screen Interval (ft bgs)	Date Measured	Depth to Groundwater (ft below TOC)	Relative Water Level
				10/21/2008	17.92	74.98
				1/28/2009	21.53	71.37
				9/30/2009	16.43	76.47
				6/10/2010	19.71	73.19
				9/27/2010	17.81	75.09
		92.9		12/14/2010	19.61	73.29
NAMA 2	30.87		11.87 - 26.87	3/17/2011	23.32	69.58
MW-3	30.87		11.87 - 26.87	6/24/2011	20.55	72.35
				9/29/2011	16.84	77.54
		92.43		12/14/2011	19.13	73.77
				3/9/2012	22.51	70.39
				6/7/2012	20.93	71.50
				9/19/2012	17.48	74.95
				12/13/2012	19.78	72.65
				10/21/2008	18.06	75.54
				1/28/2009	24.55	69.05
				9/30/2009	17.89	75.71
				6/10/2010	21.02	72.58
				9/27/2010	18.93	74.67
		93.6		12/14/2010	21.04	72.56
				3/17/2011	24.58	69.02
MW-4	30.42		11.42 - 26.42	6/24/2011	21.80	71.80
				9/29/2011	17.94	76.44
				12/14/2011	20.28	73.32
				3/9/2012	23.70	69.90
			1	6/7/2012	22.19	70.98
		93.17		9/19/2012	18.60	74.57
				12/13/2012	20.96	72.21

Notes:

1. *Casing elevations are based on an arbitrary 100 ft relative surface elevation set at the gas well head

2. ft = Feet

3. TOC = Top of casing

4. bgs = below ground surface

5. NM = Not measured

GROUNDWATER ANALYTICAL RESULTS SUMMARY CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	Sulfate (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)
	MW-1	6/20/2003	(orig)	1.7	0.49	0.3	5.09			
	MW-1	9/23/2003	(orig)	7.5	0.66	0.02	9.22			
	MW-1	12/16/2003	(orig)	7.93	1.18	0.01	0.864			
	MW-1	3/16/2004	(orig)	6.86	1.16	ND	8.47			
	MW-1	6/21/2004	(orig)	4.14	0.43	ND	3.12			
	MW-1	9/30/2004	(orig)	9.08	1.41	0.03	9.98			
	MW-1	12/13/2004	(orig)	8.52	1.34	ND	9.39			
	MW-1	3/22/2005	(orig)	4.55	0.85	ND	5.95			
	MW-1	6/22/2005	(orig)			0.02188				
	MW-1	10/24/2005	(orig)	6.39	1.01	ND	7.416			
	MW-1	12/13/2005	(orig)	6.17	1.01	ND	7.57			
	MW-1	3/22/2006	(orig)	3.58	0.77	ND	5.84			
	MW-1	6/22/2006	(orig)	3.1	0.5	ND	3.5			
	MW-1	10/20/2006	(orig)	6.6	1.22	0.01	8.91			
	MW-1	12/13/2006	(orig)	4.23	1.09	0.01	8.13			
	MW-1	3/27/2007	(orig)	2.37	0.504	0.007	3.749			
-	MW-1	6/25/2007	(orig)	2.87	0.51	0.14	3.89			
-	MW-1	11/9/2007	(orig)	5.6	0.91	< 0.0007	6.8			
MW-1	MW-1	1/15/2008	(orig)	4.2	0.89	< 0.0007	5.7			
	MW-1	3/19/2008	(orig)	2.7	0.59	< 0.005	4.7			
	MW-1	7/23/2008	(orig)	2	0.38	< 0.005	1.4			
	MW-1	10/21/2008	(orig)	4.5	0.63	< 0.005	5.3			
	MW-1	1/28/2009	(orig)	4	0.88	< 0.005	8.7			
	MW-1	9/30/2009	(orig)	4.2	0.53	0.0016	5.1	11.7	2.08	1.09
	MW-1	6/10/2010	(orig)	1.7	0.33	0.0012	0.99	27	0.126	1.28
	MW-1	9/27/2010	(orig)	3.2	0.53	0.002	4.2016	1.8	7.73	1.19
	MW-1	12/14/2010	(orig)	3.2	0.62	0.0012	5.3016	1.03	4.13	0.888
	MW-1	3/17/2011	(orig)	1.7	0.48	0.0037	4.3092	2.27	1.11	1.07
	GW-74926-062411-PG-01	6/24/2011	(orig)	2.1	0.494	0.0025	2.03	18.4	< 0.1	0.894
	GW-74926-062411-PG-02	6/24/2011	(Duplicate)	1.97	0.458	0.0026	1.94			
	GW-074926-092911-CM-009	9/29/2011	(orig)	2.44	0.519	< 0.005	3.65	< 1.0	25.2	1.02
	GW-074926-121411-CB-MW-1	12/14/2011	(orig)	2.31	0.508	0.0055	3.93	13.2	25.4	0.945
	GW-074926-3912-CB-MW-1	3/9/2012	(orig)	1.59	0.636	< 0.001	5.04		25.3	1.03
	GW-074926-060712-CB-MW-1	6/7/2012	(orig)	1.77	0.182	0.127	0.633		25.5	0.914
	GW-074926-091912-JP-MW-1	9/19/2012	(orig)	1.52	0.414	<0.020	2.49		19.0	0.86
	GW-074926-121312-CM-MW-1	12/13/2012	(orig)	2.02	0.809	< 0.025	5.02		23.8	0.75
	MW-2	10/21/2008	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	115		
	MW-2	1/28/2009	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	ND	ND	ND
	MW-2	9/30/2009	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	123	0.0223	< 0.005
	MW-2	6/11/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	156	< 0.02	< 0.005
	MW-2	9/27/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	179	< 0.02	< 0.005
	GW-74926-062411-PG-05	6/24/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	176	0.191	< 0.015
MW-2	GW-074926-092911-CM-006	9/29/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	151	< 0.05	< 0.005
	GW-074926-121411-CB-MW-2	12/14/2011	(orig)	0.00031 J	0.0002 J	< 0.001	0.0022 J	135	0.0133 J	0.0022 J
	GW-074926-3912-CB-MW-2	3/9/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005
	GW-074926-060712-CB-MW-2	6/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		0.0822	0.0052
	GW-074926-091912-JP-MW-2	9/19/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005
	GW-074926-121312-CM-MW-2	12/13/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005

GROUNDWATER ANALYTICAL RESULTS SUMMARY CONOCOPHILLIPS COMPANY FLORA VISTA NO. 1 SAN JUAN COUNTY, NM

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	Sulfate (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)
	MW-3	10/21/2008	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	93		
	MW-3	1/28/2009	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	ND	ND	ND
	MW-3	9/30/2009	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	144	0.0543	< 0.005
	MW-3	6/10/2010	(orig)	< 0.0005	< 0.001	< 0.001	< 0.001	122	0.0425	< 0.005
	MW-3	9/27/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	170	< 0.02	< 0.005
	MW-3	12/14/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	142	< 0.02	< 0.005
MW-3	MW-3	3/17/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	119	< 0.02	< 0.005
11111 0	GW-74926-062411-PG-03	6/24/2011	(orig)	< 0.0010	< 0.0010	< 0.0010	< 0.0030	127	0.189	< 0.015
	GW-074926-092911-CM-007	9/29/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	160	< 0.05	0.0063
	GW-074926-121411-CB-MW-3	12/14/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	136	0.0288 J	0.0207
	GW-074926-3912-CB-MW-3	3/9/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005
	GW-074926-060712-CB-MW-3	6/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005
	GW-074926-091912-JP-MW-3	9/19/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		< 0.05	< 0.005
	GW-074926-121312-CM-MW-3	12/13/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003		0.0605	0.026
	MW-4	10/21/2008	(orig)	0.039	0.031	< 0.0005	0.18	90.1		
	MW-4	1/28/2009	(orig)	0.66	0.064	< 0.0005	0.583	ND	ND	ND
	MW-4	9/30/2009	(orig)	0.34	0.054	< 0.0005	0.572	48.9	0.148	4.48
	MW-4	6/10/2010	(orig)	0.14	0.027	< 0.001	0.252	53.3	0.0566	4.65
	MW-4	9/27/2010	(orig)	0.033	0.041	< 0.001	0.274	92.5	1.22	4.34
	MW-4	12/14/2010	(orig)	0.13	0.093	< 0.001	0.899	67.5	1.75	4.69
	MW-4	3/17/2011	(orig)	0.017	0.018	< 0.001	0.1966	83	0.0852	4.46
	GW-74926-062411-PG-04	6/24/2011	(orig)	0.0296	0.0371	< 0.0010	0.472	130	1.5	4.9
	GW-074926-092911-CM-008	9/29/2011	(orig)	0.0392	0.0039	< 0.001	0.0536	96.1	2.55	4.1
MW-4	GW-074926-092911-CM-010	9/29/2011	(Duplicate)	0.043	0.0035	< 0.001	0.0483			
IVI VV-4	GW-074926-121411-CB-MW-4	12/14/2011	(orig)	0.101	0.0443	< 0.001	0.378	81.2	2.62	4.58
	GW-074926-121411-CB-DUP	12/14/2011	(Duplicate)	0.104	0.0437	< 0.005	0.372			
	GW-074926-3912-CB-MW-4	3/9/2012	(orig)	0.0264	0.0066	< 0.001	0.0651		2.46	4.73
	GW-074926-3912-CB-DUP	3/9/2012	(Duplicate)	0.0234	0.0056	< 0.001	0.058			
	GW-074926-060712-CB-MW-4	6/7/2012	(orig)	0.044	0.0245	< 0.001	0.303		2.07	4.02
	GW-074926-060712-CB-DUP	6/7/2012	(Duplicate)	0.026	0.0124	< 0.001	0.155			
	GW-074926-091912-JP-MW-4	9/19/2012	(orig)	0.0029	0.0048	< 0.001	0.0576		1.93	4.5
	GW-074926-091912-JP-DUP	9/19/2012	(Duplicate)	0.0028	0.0045	< 0.001	0.0551			
	GW-074926-121312-CM-MW-4	12/13/2012	(orig)	0.0941	0.0399	< 0.002	0.385		2.92	4.9
	GW-074926-121312-CM-DUP	12/13/2012	(Duplicate)	0.197	0.0712	< 0.001	0.550			
	DW-1	12/16/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001			
DW-1	RS-74926-062411-CB-01	6/24/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003			
21	GW-074926-072712-JK-DW-17	7/27/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003			
	#34	6/10/10	(orig)	< 0.001	< 0.001	< 0.001	< 0.003			
DW-2	#34 Domestic #34	3/17/2011			< 0.001	< 0.001	< 0.001			
D77-2			(orig)	< 0.001	< 0.001					
	GW-074926-061712-CB-DW34	6/7/2012	(orig)	< 0.001		< 0.001	< 0.003			
	NMWQCC Groundwater Quali	ty Standards		0.01	0.75	0.75	0.62	600	1	0.2

Notes:

1. MW = monitoring well

2. NMWQCC = New Mexico Water Quality Control Commission

3. Constituents in BOLD are in excess of NMWQCC groundwater quality standards

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

5. < 1.0 = Below laboratory detection limit of 1.0 mg/L

6. ND = not detected

7. -- = not analyzed

APPENDIX A

2012

QUARTERLY GROUNDWATER SAMPLING FIELD FORMS

	WELL SAMPLING FIELD INFORMATION FORM
TE/PROJECT NAM	
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION WELL PURGING INFORMATION SAMPLE DATE (MM DD YY) WELL PURGING INFORMATION SAMPLE TIME (24 HOUR) WATER VOL IN CASING (GALLONS) CALCULATED (CALLONS) CALCULATED (CALLONS) CALLONS CALCULATED (CALLONS) CALCULAT
PURGING EQUIPMENTD	EDICATED Y N SAMPLING EQUIPMENTDEDICATED Y N (CIRCLE ONE)
PURGING DEVICE SAMPLING DEVICE	G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X= B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) G C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=
PURGING MATERIAL SAMPLING MATERIAL	Image: Sampling device other (specify) Image: Stainless steel D - PVC Image: Stainless steel E - POLYETHYLENE Image: C - POLYPROPYLENE X - OTHER Image: Stainless steel Sampling device other (specify) X - TEFLON D - PVC X = PURGING MATERIAL OTHER (SPECIFY) X - OTHER X - OTHER Sampling device other (specify) X =
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C - ROPE F - SILICONE X - OTHER X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
DEPTH TO WATE WELL DEPTH TEMPERATURE 	
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS: 100% 10 = I CERTIFY THAT SAMPLING 34'12 DATE	GING ODOR: HACK_SHEEN Y/N N TEMPERATURE GO WINDY Y/N N PRECIPITATION Y/N (IF Y TYPE) G3320 × 3 - GG FROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOGOLS BUG Bug PRINT SIGNATURE SIGNATURE

	WELL SAMPLING FIELD INFORMATION FORM	
ITE/PROJECT NAME		
<u>3 ~9 , 1 ~</u> PURGE DATE (MM DD YY)	WELL PURGING INFORMATION 3:9:12 1320 0:96 12:0 SAMPLE DATE (MM DD YY) SAMPLE TIME (24 HOUR) WATER VOL. IN CASING (GALLONS) ACTUAL VOL. PURGED (GALLONS)	<u></u>
PURGING EQUIPMENTDED	PURGING AND SAMPLING EQUIPMENT DICATED N SAMPLING EQUIPMENTDEDICATED N (CIRCLE ONE) (CIRCLE ONE)	
PURGING DEVICE	G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X= G B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) C BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=	
PURGING MATERIAL	E A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) E C - POLYPROPYLENE X - OTHER	
PURGE TUBING	C A - TEFLON D - POLYPROPYLENE G - COMBINATION X= C B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) C C - ROPE F - SILICONE X - OTHER X=	
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM	
DEPTH TO WATER WELL DEPTH TEMPERATURE [(°C) [(°C) [(°C) [(°C) [(°C)	FIELD MEASUREMENTS 25 60 (feet) WELL ELEVATION 97 (feet) 3 59 (feet) GROUNDWATER ELEVATION 71 (feet) pH TDS CONDUCTIVITY ORP VOLUME (g199 (std) 0.510 (g/L) (µS/cm) 78.5 (mV) 210 (ga (std) (g/L) (µS/cm) (mV) (ga (ga (g/L) (µS/cm) (mV) (ga (std) (g/L) (µS/cm) (mV) (ga (ga (std) (g/L) (µS/cm) (mV) (ga FIELD COMMENTS (mV) (ga (ga (ga	al) al) al)
WEATHER CONDITIONS: T SPECIFIC COMMENTS: $W:U$ Vail f_{av} $Sigg x \cdot 16 = 0$ WUU Day f_{c} i CERTIFY THAT SAMPLING PRO	COLOR: <u>tan</u> SHEEN Y/O TEMPERATURE <u>~677</u> WINDY YO PRECIPITATION Y/OUF Y TYPE) ad destroyed on arrival. Casing still accessible 296 X3= 2,88 ed dy (2,1.5 gallons, Blow recharge Deeplures were in accompance with applicable crapponetors.	
<u>39.12</u> DATE	PRINT SIGNATURE SIGNATURE	

	WELL SAMPLING FIE	LD INFORMA	ATION FOI	RM	
I _ ATE/PROJECT NAM	E: Flora Vista		JOB # <i>0</i> ⁺ 7	4926	
SAMPLE I	D: QW-074926.3912.	CB-MW-3 W	VELL#	lv-3	
2 9 77 PURGE DATE (MM DD YY) PURGING EQUIPMENTDE	SAMPLE DATE (MM DD YY) PURGING AN DICATED O	RGING INFORMATION	WATER VOL. IN CASH (GALLONS)	NG ACTUAL VC (GALL	ATED N
PURGING DEVICE		IFT PUMP G - BAILER)	ζ=	(CIRCLE ONE)
SAMPLING DEVICE	B - PERISTALTIC PUMP E - PURG C - BLADDER PUMP F - DIPPE	E PUMP H - WATERRA R BOTTLE X - OTHER		PURGING DEVICE OTH <= SAMPLING DEVICE OT	· · ·
PURGING MATERIAL	E A - TEFLON D - PVC		,	< <u> </u>	
SAMPLING MATERIAL	B - STAINLESS STEEL E - POLYI C - POLYPROPYLENE X - OTHE	ethylene R	>	PURGING MATERIAL C <=	
PURGE TUBING		PROPYLENE G - COMBINA THYLENE TEFLON/F	TION >	SAMI LING MATERIAL (=	
SAMPLING TUBING	C-ROPE F-SILICO		>	SAMPLING TUBING OT	
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE	B - PRESSURE C - VACU	JUM	SAMPLING I UDING UI	nek (Specifi)
	FIEL	O MEASUREMENTS			
DEPTH TO WATER WELL DEPTH TEMPERATURE $5.15.0^{\circ}$ (°C) $5.13.0^{\circ}$ (°C) $5.13.0^{\circ}$ (°C) $5.170.0^{\circ}$ (°C)	7,67 (std) 0,500 7,65 (std) 0.500 (std) (std)) GROUNDWATER ELEV CONDUCTIVI (g/L) <u>627</u> (g/L) <u>625</u> (g/L) <u>624</u> (g/L) <u>624</u>	ΔΤΙΟΝ ΤΥ (μS/cm)	92.90 0RP 222.2 (mV) 26.5 (mV) 30,2 (mV) (mV) (mV)	(feet) (feet) VOLUME $3_{\star} \circ$ (gal) $4_{\star} \circ$ (gal) (gal) (gal) (gal)
SPECIFIC COMMENTS:	cloudy ODOR: AND	WINDY Y/()		IEEN Y/ (f) ION Y/ (f) (IF Y TYPE)	

.

TE/PROJECT NAME: SAMPLE ID:	Flom Uista GW-074926-3912.CB-ML:	JOB#	074926 MW-4
PURGE DATE (MM DD YY)	3.4.12 Well PURGING INFO SAMPLE DATE 10.30 (MM DD YY) SAMPLE TIME PURGING AND SAMPLIN	RMATION $(C O')$ WATER VOL (GALL G EQUIPMENT	4 3,25 IN CASING ACTUAL VOL. PURGED
	(CIRCLE ONE) G A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP E - PURGE PUMP	G - BAILER H - WATERRA® (- OTHER	(CIRCLE ONE) X= PURGING DEVICE OTHER (SPECIFY) X=
PURGING MATERIAL	L A - TEFLON D - PVC B - STAINLESS STEEL E - POLYETHYLENE C - POLYPROPYLENE X - OTHER		X= PURGING MATERIAL OTHER (SPECIFY) X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	B - TYGON E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLE C - OTHER C - VACUUM	X=
DEPTH TO WATER WELL DEPTH TEMPERATURE $15 \cdot 64$ (°C) (C) (C) (C) (°C) (°C) (°C) (°C) (°	30 9 (feet) GROUNDWA pH TDS CO 0.78 (std) 0.620 (g/L) 6.75 (std) 0.626 (g/L) (std) 0.626 (g/L) (std) (g/L) (std) (g/L)	ELL ELEVATION	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
ресігіс сомментя: С, ЧД х , 16 = [_0	appendix accordance with applicable crap for $3 = 3.12$		CSHEEN Y (1) ECIPITATION Y (1) (IF Y TYPE)

W	ELL SAMPLING	FIELD INFOR	MATION FO	RM	
. <i>FE/PROJECT NAME:</i> SAMPLE ID:	HOVA VIZA	a NO.1 OTILYB. MULI	job# <u>()74</u> well# M	1926 1V-1	
PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	ELL PURGING INFORMA L OOO SAMPLE TIME (24 HOUR)	·		<u> </u>
PURGING EQUIPMENTDEDICA		NG AND SAMPLING EQ		EQUIPMENTDEDIC	CIRCLE ONE)
PURGING DEVICE	B - PERISTALTIC PUMP E	 G - GAS LIFT PUMP - PURGE PUMP - DIPPER BOTTLE X - OTH 	TERRA®	X= PURGING DEVICE OTH X= SAMPLING DEVICE OT	
PURGING MATERIAL	B - STAINLESS STEEL E) - PVC - POLYETHYLENE - OTHER		PURGING MATERIAL C	DTHER (SPECIFY)
PURGE TUBING	B-TYGON E C-ROPE F	- POLYETHYLENE TEFI - SILICONE X - OTH	ON/POLYPROPYLENE ER	X= PURGE TUBING OTHEI X= SAMPLING TUBING OT	R (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE		VACUUM		
DEPTH TO WATER WELL DEPTH TEMPERATURE	<u>13</u> 00 <u>16</u> 31 рн тоз	(feet) GROUNDWATER F	EVATION	93 96 70 88	(feet) (feet) VOLUME
	(std)	(g/L)	(μS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV) (mV)	(gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV)	(gal)
SAMPLE APPEARANCE: 51344 weather conditions: 51344 specific comments: $31247.16 - 0.51 \times 3 = ($	clordy odor: hy ERATURE85°	FIELD COMMENTS		HEEN Y/ (?) TION Y/ (?) JF Y TYPE)	
K Bai No Fi	eld Parameters du	- u u	olume.		
4.7.12	Cable Brown	SIGNATURE	Ham		

(

E.

WELL SAMPLING FIELD INFORMATION FORM
Image: Tepproject Name:
WELL PURGING INFORMATION WELL PURGING INFORMATION UNCLIN CASING ACTUAL VOL. PURGED (MM DD YY) (MM DD YY) (24 HOUR) (GALLONS) (GALLONS) (GALLONS)
PURGING EQUIPMENTDEDICATED Y N (CIRCLE ONE) CIRCLE ONE)
PURGING DEVICE Image: A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X= B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) SAMPLING DEVICE C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=
PURGING MATERIAL Image: A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) SAMPLING MATERIAL Image: C - POLYPROPYLENE X - OTHER SAMPLING MATERIAL Image: C - POLYPROPYLENE X - OTHER
PURGE TUBING A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) SAMPLING TUBING C - ROPE F - SILICONE X - OTHER X= FUNCTED A 45 F - SILICONE F - SILICONE X - OTHER Y=
FILTERING DEVICES 0.45 A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
FIELD MEASUREMENTS DEPTH TO WATER 11 40 (feet) WELL ELEVATION 97,00 (feet) WELL DEPTH 31 10 (feet) GROUNDWATER ELEVATION 74 54 (feet) TEMPERATURE pH TDS CONDUCTIVITY ORP VOLUME 14.6 (°C) 5.84 (std) $.548$ (g/L) 6.76 (µS/cm) 161.7 (mV) 3.50 (gal) 14.72 (°C) 5.81 (std) $.544$ (g/L) 6.77 (µS/cm) 161.7 (mV) 4.2° (gal) 14.72 (°C) 6.07 (µS/cm) 161.7 (mV) 4.5° (gal) (°C) (std) $.544$ (g/L) 6.772 (µS/cm) 161.7 (mV) 4.5° (gal) (°C) (std) (g/L) (g/L) (µS/cm) (mV) (gal) (°C) (std) (g/L) (µS/cm) (mV) (gal) (°C) (std) (FELD COMMENTS t< 4 (mV) <t< td=""></t<>
SAMPLE APPEARANCE: WEATHER CONDITIONS: TEMPERATURE SPECIFIC COMMENTS: 4. 7 x. 10 = 155 y3 = 6465 LUB COLOR: WINDY Y/N A PRECIPITATION Y/N (IF Y TYPE) 4. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 4. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 1. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 1. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 1. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 1. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: 1. 7 x. 10 = 155 y3 = 6465 LUB COMMENTS: LUB COMMENTS: 1. 7 y. 10 = 155 y3 = 6465 LUB COMMENTS: LUB COMMENT

. .

	WELL SAMPLING FIELD INFORMATION FORM
.TE/PROJECT NAN SAMPLE	
U, F.D. PURGE DATE (MM DD YY)	Well purging information Sample date Sample time (MM DD YY) C4 HOUR) Callons) Callons)
PURGING EQUIPMENTD	EDICATED Y N SAMPLING EQUIPMENT (CIRCLE ONE) (CIRCLE ONE)
PURGING DEVICE SAMPLING DEVICE	Image: Constraint of the problem in
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) C - POLYPROPYLENE X - OTHER X= SAMPLING MATERIAL OTHER (SPECIFY) SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) C - ROPE F - SILICONE X - OTHER X=
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
DEPTH TO WATEL WELL DEPTH TEMPERATURE 14.67 (°C) 14.71 (°C) 1	
I CERTIFY THAT SAMPLING I U 712 DATE	PROCEEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROFOCOLO ASSOCIATIONE PRINT SIGNATURE

	WELL SAMPLING FIELD INFORMATION FORM
.TE/PROJECT NAM SAMPLE	1E: <u>Flora Visda No 1</u> JOB# <u>074924</u>
U. Z. 12 PURGE DATE (MM DD YY) PURGING EQUIPMENTD	WELL PURGING INFORMATION WELL PURGING INFORMATION JO(5 SAMPLE DATE (MM DD YY) WATER VOL IN CASING (GALLONS) WATER VOL IN CASING (GALLONS) PURGING AND SAMPLING EQUIPMENT SAMPLING EQUIPMENTDEDICATED Y N (CIRCLE ONE)
PURGING DEVICE SAMPLING DEVICE	C = NUMP C = A - SUBMERSIBLE PUMP D = GAS LIFT PUMP G = BAILER X = B = PERISTALTIC PUMP E = PURGE PUMP H = WATERRA® PURGING DEVICE OTHER (SPECIFY) C = BLADDER PUMP F = DIPPER BOTTLE X = OTHER X = SAMPLING DEVICE OTHER (SPECIFY) X = SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL SAMPLING MATERIAL	A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) C - POLYPROPYLENE X - OTHER X= SAMPLING MATERIAL OTHER (SPECIFY) SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING SAMPLING TUBING FILTERING DEVICES 0.45	A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) C - ROPE F - SILICONE X - OTHER X= A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
DEPTH TO WATE WELL DEPTH TEMPERATURE 14, 96 (°C) 14, 85 (°C) 14, 96 (°C) 14, 96 (°C) (°C)	FIELD MEASUREMENTS FIELD MEASUREMENTS R 12 19 (feet) WELL ELEVATION 93 7 (feet) H D Get GROUNDWATER ELEVATION 70 98 (feet) pH TDS CONBUCTIVITY ORP VOLUME 6.67 (std) .567 (g/L) 10 (µS/cm) -862 (mV) 3, 75 (gal) 6.67 (std) .5972 (g/L) 738 (µS/cm) -117.7 (mV) 4,257 (gal) (std) (g/L) (uS/cm) (mV) (gal) (gal)
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS: G.490.10771107513771 CERTIFY THAT SAMPLING 1 $G.7.12DATE$	FIELD COMMENTS field contain color: drikg and sheed in 5 pointy, slight $field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain color: drikg and sheed in 5 pointy, slight field contain c$

	WELL SAMPLIN	G FIELD INFO	ORMATION F	ORM	
TE/PROJECT NAME	<u></u>	sta No. 1 -91912-JP-MIN-1	JOB#() Well#/	<u>74926</u> NW-1	
		WELL PURGING INFO			
<u>9.19.12</u> PURGE DATE (MM DD YY)	9.19.12 SAMPLE DATE (MM DD YY)		WATER VOL. IN GALLONS		DL PURGED LONS)
PURGING EQUIPMENTDEL		KGING AND SAWITLING		NG EQUIPMENTDEDIC	CATED Y N
	(CIRCLE ONE)			~	(CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP		- BAILER	χ=	
SAMPLING DEVICE	B - PERISTALTIC PUMP C - BLADDER PUMP		- WATERRA® - OTHER	PURGING DEVICE OTH X= SAMPLING DEVICE OT	· · ·
PURGING MATERIAL	A - TEFLON	D - PVC		X=	
SAMPLING MATERIAL	E B - STAINLESS STEEL C - POLYPROPYLENE	E - POLYETHYLENE X - OTHER		PURGING MATERIAL C X= SAMPLING MATERIAL	
PURGE TUBING	C. A - TEFLON	D - POLYPROPYLENE G	- COMBINATION	X=	OTHER (SPECIFT)
SAMPLING TUBING	C- ROPE	E - POLYETHYLENE F - SILICONE X	TEFLON/POLYPROPYLENE OTHER	PURGE TUBING OTHER	
FILTERING DEVICES 0.45	A - IN-LINE DISPOSA	BLE B - PRESSURE	C - VACUUM	SAMPLING TUBING OT	THER (SPECIFY)
	-	FIELD MEASUREM	ENTS		
DEPTH TO WATER	18_94	(feet) WE	LL ELEVATION	93 96	(feet)
WELL DEPTH	26 21	(feet) GROUNDWA	TER ELEVATION	75 02	(feet)
TEMPERATURE	pH	TDS CON	DUCTIVITY	ORP	VOLUME
[6.54](C) [5.98 (std) 0.	974 (g/L)		-90. Z (mV)	3 , 5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cm)	(mV)	(gal)
		FIELD COMMEN	TS 0 3		
SAMPLE APPEARANCE: 54 WEATHER CONDITIONS: 1 SPECIFIC COMMENTS:	Gill chily odor: EMPERATURE ~85	1	LOR: 5/14t gray	SHEENQ/N VX/y SLight, ITATION Y/N JFY TYPE)	spetty
Vd x3= 3,49				·····	
		······································			
i CERTIFY THAT SAMPLING PR	DCEDURESTWERE IN ACCORDANCE	WITH APPLICABLE CRAPROTE	COIS		
DATE S	PRINT WITH		URE		

I .TE/PROJECT NAM	IE: Florn Vista	Nol	JOB#	074926	
SAMPLE	ID: GU.074926.	091912-3P-MW-2	WELL#	Mbs-2	
		WELL PURGING INFORM	AATION		_
9.19.12	9.19.12	1430	2.7	27 17	0
PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOI (GALI		VOL. PURGED LLONS)
	-	JRGING AND SAMPLING H	-		
PURGING EQUIPMENTD	EDICATED Y N (CIRCLE ONE)		SAN	IPLING EQUIPMENTDED	ICATED (Y) N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP		AILER	X=	
SAMPLING DEVICE	B - PERISTALTIC PUMP C - BLADDER PUMP		VATERRA® OTHER	PURGING DEVICE O X=	THER (SPECIFY)
	L			SAMPLING DEVICE	OTHER (SPECIFY)
PURGING MATERIAL	A - TEFLON B - STAINLESS STEEL	D - PVC			OTUDD (OPCOMA
SAMPLING MATERIAL	E C-POLYPROPYLENE	E - POLYETHYLENE X - OTHER		PURGING MATERIAI X=	OTHER (SPECIFY)
				SAMPLING MATERIA	AL OTHER (SPECIFY)
PURGE TUBING	A - TEFLON B - TYGON		OMBINATION EFLON/POLYPROPYLE	X= PURGE TUBING OTH	ED (CDECIEVA
SAMPLING TUBING	C - ROPE		THER	X=	ER (SPECIFI)
	 			SAMPLING TUBING	OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSA	ABLE B - PRESSURE	C - VACUUM		
	وسيه وسعوره	FIELD MEASUREMEN	NTS	∠∂ ana	
DEPTH TO WATE		(feet) WELL	ELEVATION	91.00	(feet)
WELL DEPTH		(feet) GROUNDWATE	R ELEVATION	79 30	(feet)
TEMPERATURE	1 6.38 km 10	Name of 1 1 1 1 1) 159.0 (mV)	
	6, 8 (std) 0		7 (μS/cm 8 8(μS/cm		6.0 (ga
21.47 (°C)	6.34 (std) 0		121	21 -	(ga
		776 (g/L) 11	μS/cm		. 0 (ga
(°C)	(std)	(g/L)	(μS/cm		
(°C)	(std)	(g/L)	(μS/cm) (mV)	(ga
	1.	FIELD COMMENTS	s į		
SAMPLE APPEARANCE:	<u>cloudy</u> ODOR			SHEEN Y/100	······
WEATHER CONDITIONS: SPECIFIC COMMENTS:	TEMPERATURE ~85	WINDY Y	PR	ECIPITATION Y (TYPE) _	
Vo(X32 6.8(1000
	PROCEDURES WERE IN ACCORDANCE	WITH APPLICABLE CRA PROTOC	QLS		
9.19.12	clason 4 loss		v		

۶,

	WELL SAMPL	ING FIELD INI	FORMATION	FORM	
I <i>IE/PROJECT NA</i>	ME: Flora	vista # 1.	JOB#	074926	,
SAMPLE		091912-JP-MW-3	WELL#	MW-3	
PURGE DATE (MM DD YY)	(MM DD YY)	WELL PURGING INI SAMPLE TIM (24 HOUR) PURGING AND SAMPLI	E WATER VOI (GAL		5 OL. PURGED JLONS)
PURGING EQUIPMENT	DEDICATED N (CIRCLE ON			MPLING EQUIPMENTDEDI	CATED N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE P B - PERISTALTIC PU		G - BAILER H - WATERRA®	X= PURGING DEVICE OT	HER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X=	THER (SPECIFY)
PURGING MATERIAL	A - TEFLON B - STAINLESS STEE	D - PVC L E - POLYETHYLENE		X= PURGING MATERIAL	
SAMPLING MATERIAL	C - POLYPROPYLEN	E X - OTHER		X= SAMPLING MATERIA	L OTHER (SPECIFY)
PURGE TUBING	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLI	X= ENE PURGE TUBING OTHE	ER (SPECIFY)
SAMPLING TUBING	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING C	THER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DE	SPOSABLE B - PRESSURE	C - VACUUM		
DEPTH TO WATH WELL DEPT TEMPERATURE $15 \cdot 26$ (°C) $15 \cdot 26$ (°C) $15 \cdot 26$ (°C) $15 \cdot 26$ (°C) $15 \cdot 26$ (°C) (°C) (°C) SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS: $261 \times 3 = 5 \cdot 41$ I CERTIFY THAT SAMPLING 9/19/12	$\begin{array}{c c} & & & 2.9 \\ \hline & & & \\ \hline & & 7, & 0.4 \\ \hline & & 7, & 0.4 \\ \hline & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$	80 (feet) GROUND TDS (g/L)	COLOR: PI	$\begin{array}{c} n) \\ \hline \hline 7 \cdot (g \\ mV) \\ n) \\ \hline 1 \cdot O \\ mV \\ m \\ \hline mV \\ mV \\ \end{array}$	(feet) (feet) VOLUME (gal) (g. 7.5 (gal) (gal) (gal) (gal)
DAIM			VAPUKE	, - <i>17 1</i>	
	n _e Second second				

	WELL SAMPLING FIELD INFORMATION FORM
. FE/PROJECT NAM SAMPLE	
SAWPLE .	ID: (10-074926-0419/2-19-10-4 WELL# /MM-4
PURGE DATE (MM DD YY)	WELL PURGING INFORMATION WELL PURGING INFORMATION (A MPLE DATE (MM DD YY) WELL PURGING INFORMATION (24 HOUR) (24 HOUR) WATER VOL. IN CASING (GALLONS) (GALLONS) (GALLONS) CALLONS
PURGING EQUIPMENTD	EDICATED (Y) N SAMPLING EQUIPMENTDEDICATED (Y) N (CIRCLE ONE) (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X= B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	L A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	C - POLYPROPYLENE X - OTHER X - OTHER X =
PURGE TUBING	A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C - ROPE F - SILICONE X - OTHER X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
	FIELD MEASUREMENTS R 18.66 (feet) WELL ELEVATION 93.77 (feet)
DEPTH TO WATER WELL DEPTH	
TEMPERATURE	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
[5.6] (°C)	5.97 (std) 0.653 (g/L) 824 (µS/cm) -169.9 (mV) 5.5 (gal
(C)	S799 (std) O ₂ 653 (g/L) S19 (μS/cm) -170.0 (mV) 6.0 (gal (std) (g/L) (μS/cm) (mV) (mV) (gal
(°C)	. .
SAMPLE APPEARANCE: WEATHER CONDITIONS: SPECIFIC COMMENTS:	<u>clordy</u> odor: <u>hydroca.L.sn</u> color: <u>gray</u> sheer IN <u>Slight</u> <u>temperature</u> <u>~80°</u> <u>windy</u> /n <u>Lace</u> <u>y</u> precipitation y (Stifty type)
D.4	Q V625
I CERTIFY THAT SAMPLING I 9/14/02 DATE	PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOSOLS

	WELL SAMPLIN	NG FIELD INH	ORMATION	FORM		
SITE/PROJECT NAM		/ 1	IOB#	074926		
SAMPLE I	, <u> </u>	13-12 A 11- Mi.		Miu-1	2	
	U. GW-019416-	121317-CM-MW	_ <u></u>	70700-7		
UZ/13/12 PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WELL PURGING INF	WATER VOI (GAL	3 Z L. IN CASING LONS)	ACTUAL VOI (GALLO	L. PURGED
PURGING EQUIPMENTDE		URGING AND SAMPLI		MPLING EQUIPMEN		ATED (Y) N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMP	P D - GAS LIFT PUMP	G - BAILER	X=		· · · · · · · · · · · · · · · · · · ·
SAMPLING DEVICE	B - PERISTALTIC PUMP C - BLADDER PUMP	E - PURGE PUMP F - DIPPER BOTTLE	H - WATERRA® X - OTHER	X=	IG DEVICE OTHI	
PURGING MATERIAL	E A-TEFLON	D - PVC		SAMPLI X=	NG DEVICE OTH	iek (Specify)
SAMPLING MATERIAL	B - STAINLESS STEEL C - POLYPROPYLENE	E - POLYETHYLENE X - OTHER		X=	IG MATERIAL O	· · ·
PURGE TUBING	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLI	X=	NG MATERIAL C	OTHER (SPECIFY)
SAMPLING TUBING	C-ROPE	F - SILICONE	X - OTHER	X=	NG TUBING OTT	
FILTERING DEVICES 0.45	A - IN-LINE DISPOS	SABLE B - PRESSURE	C - VACUUM			
		FIELD MEASURE	EMENTS			
DEPTH TO WATER	212	C (feet) V	VELL ELEVATION	93	96	(feet)
WELL DEPTH	263	3 (feet) GROUNE	WATER ELEVATION	72	74.	(feet)
TEMPERATURE	pH		ONDUCTIVITY	ORP	* * 1	VOLUME
(C)	6,87 (std) 0	. 740 (g/L)	004 (µS/cr		(mV)	Z.25 (gal)
(°C)	(std)	(g/L)	(μS/cr	n)	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cr	n) .	(mV)	(gal)
(°C)	(std)	(g/L)	μS/cr	n) <u></u>	(mV)	(gal)
(°C)	(std)	(g/L)	(μS/cr	n) 🦿 🔜 👏	(mV)	(gal)
- , · · · · ·		FIELD COMM	P	x''		
SAMPLE APPEARANCE:	000	R:	COLOR:	SHEEN Y/N		
WEATHER CONDITIONS:	TEMPERATURE	WINDY Y/N	PI	RECIPITATION Y/N (I	FY TYPE)	
SPECIFIC COMMENTS:			. ²		-4-	
	~					
I CENTIFY THAT SAMPLINGP	ROGEDURESIWERE IN ACCORDANC	E WITH APPLICABLE CRA PR	TOCOLS I I A A	Ation		
2.1312 DATE	Myistive Math	eus Cf	LECTOR OLNYA	<u>ando</u>		

Δ.

1

,	WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAME SAMPLE ID	
12/13/12 FURGE DATE (MM DD YY)	WELL PURGING INFORMATION VELL PURGING INFORMATION VELL PURGING INFORMATION VELL PURGING INFORMATION SAMPLE DATE (MM DD YY) VICAL WATER VOL. IN CASING (GALLONS) CALLONS) PURGING AND SAMPLING EQUIPMENT
PURGING EQUIPMENTDED	
PURGING DEVICE	A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X= B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X=
PURGING MATERIAL	E A - TEFLON D - PVC X= B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) C - POLYPROPYLENE X - OTHER X=
PURGE TUBING	C A - TEFLON D - POLYPROPYLENE G - COMBINATION X= B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE Y= C C - ROPE F - SILICONE X - OTHER X= SAMPLING MATERIAL OTHER (SPECIFY) X - OTHER X= SAMPLING TUBING OTHER (SPECIFY) X= SAMPLING TUBING OTHER (SPECIFY)
	FIELD MEASUREMENTS
DEPTH TO WATER WELL DEPTH TEMPERATURE 16.57 (°C) [19.24 (°C) [19.25 (°C) [(°C) [(°C) [2.2.43 (feet) WELL ELEVATION 97.00 (feet) 31.89 (feet) GROUNDWATER ELEVATION 74.57 (feet) pH TDS CONDUCTIVITY ORP VOLUME 7.15 (std) 0.647 (g/L) 883 (µS/cm) -26.8 (mV) 3.5 (gal) 7.13 (std) 0.6445 (g/L) 883 (µS/cm) -10.7 (mV) 4.5 (gal) 7.13 (std) 0.6445 (g/L) 882 (µS/cm) -10.7 (mV) 4.5 (gal) (std) (g/L) (g/L) (µS/cm) (mV) (gal) (std) (g/L) (µS/cm) (mV) (gal) (std) (g/L) (µS/cm) (mV) (gal) FIELD COMMENTS FIELD COMMENTS FIELD COMMENTS FIELD COMMENTS
SAMPLE APPEARANCE:	ODOR: COLOR: SHEEN Y/N EMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)
I CERTIFY THAT SAMPLING PRO	CEDURES WERE IN ACCORDANCE WITH APPLICABLE CRAPRCTOCOLS PRINT PRINT

٢	WELL SAMPLING FIELD INFORMATION FORM
SITE/PROJECT NAME	
SAMPLE ID	: Gw-074926-121312- CM-MU-3 WELL# MW-3
UNC / 13/12 PURGE DATE (MM DD YY)	WELL PURGING INFORMATION U2/13/12 U005 U005 U005 U005 U.50 U.50 ACTUAL VOL, PURGED (GALLONS) (GALLONS)
PURGING EQUIPMENTDED	PURGING AND SAMPLING EQUIPMENT ICATED N SAMPLING EQUIPMENTDEDICATED (Y) N (CIRCLE ONE) (CIRCLE ONE)
PURGING DEVICE	G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X =
SAMPLING DEVICE	B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING DEVICE OTHER (SPECIFY) C - BLADDER PUMP F - DIPPER BOTTLE X - OTHER X =
PURGING MATERIAL	E A-TEFLON D-PVC X=
SAMPLING MATERIAL	B - STAINLESS STEEL E - POLYETHYLENE PURGING MATERIAL OTHER (SPECIFY) C - POLYPROPYLENE X - OTHER X = SAMPLING MATERIAL OTHER (SPECIFY) SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C A - TEFLON D - POLYPROPYLENE G - COMBINATION X=
SAMPLING TUBING	B - TYGON E - POLYETHYLENE TEFLON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY) C - ROPE F - SILICONE X - OTHER X = SAMPLING TUBING OTHER (SPECIFY) SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM
	FIELD MEASUREMENTS
DEPTH TO WATER	978 (feet) WELL ELEVATION 972, 43 (feet)
WELL DEPTH	24 75 (feet) GROUNDWATER ELEVATION 72 65 (feet)
TEMPERATURE	PH TDS CONDUCTIVITY ORP VOLUME
13.50 (0)	6.97 (std) 6.623 (g/L) 749 (µS/cm) 45.6 (mV) 375 (gal)
15.35 (°C)	6.99 (std) 6.647 (g/L) 806 (µS/cm) 30.1 (mV) 4.25 (gal)
15.51 (°C)	6.99 (std) 0.635 (g/L) 801 (µS/cm) 0.70 (mV) 4.75 (gal)
(°C)	(std) (g/L) (µS/cm) (mV) (gal)
(°C)	(g/L) (µS/cm) (mV) (gal)
	FIELD COMMENTS
	ODOR: COLOR: SHEEN Y/N EMPERATURE WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)
SPECIFIC COMMENTS:	
i certify that sampling pro	CEPURES WERE IN ACCORDANCE WITH APPLICABLE CHAPROTOCOLS

SITE/PROJECT NAME:	Flora Vista	JOB# 674926
SAMPLE ID:	666-074426-121312. cm- MW-4	WELL# Mbv-4
URGE DATE (MM DD YY)	WELL PURGING INFORMAT WELL PURGING INFORMAT U 02.5 SAMPLE DATE (MM DD YY) C24 HOUR) PURGING AND SAMPLING EQU	WATER VOL. IN CASING (GALLONS) (GALLONS) UIPMENT
PURGING EQUIPMENTDEDICAT	ED (CIRCLE ONE)	SAMPLING EQUIPMENTDEDICATED (Y N (CIRCLE ONE)
PURGING DEVICE	A - SUBMERSIBLE PUMPD - GAS LIFT PUMPG - BAILB - PERISTALTIC PUMPE - PURGE PUMPH - WATC - BLADDER PUMPF - DIPPER BOTTLEX - OTHI	TERRA® PURGING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	A - TEFLOND - PVCB - STAINLESS STEELE - POLYETHYLENEC - POLYPROPYLENEX - OTHER	X= PURGING MATERIAL OTHER (SPECIFY) X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING		ABINATION X= LON/POLYPROPYLENE PURGE TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45	A - IN-LINE DISPOSABLE B - PRESSURE C -	VACUUM
15.80 (°C) 6	ZO 96 (feet) WELL EL 30 40 (feet) GROUNDWATER pH TDS CONDUC :99 (std) 0.732 (g/L) 9/8 .93 (std) 0.743 (g/L) 9/9 .64d (g/L) 9/9 9 9	CTIVITY ORP VOLUME \mathcal{B} (µS/cm) $-\mathcal{B}\mathcal{G}, \mathcal{F}$ (mV) \mathcal{F}, \mathcal{F} (gal) \mathcal{U} (µS/cm) $-\mathcal{I}\mathcal{I}\mathcal{B}, \mathcal{B}$ (mV) \mathcal{U}, \mathcal{O} (gal)
	FIELD COMMENTS	
SAMPLE APPEARANCE: WEATHER CONDITIONS: TEMPE SPECIFIC COMMENTS: Dop @ 1030	ODOR: COLOR:	SHEEN Y/N PRECIPITATION Y/N (IF Y TYPE)

APPENDIX B

2012

QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORTS



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

March 23, 2012

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

RE: Project: FLORA VISTA NO. 1 (074926) Pace Project No.: 60117008

Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on March 10, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

alice Fracy

Alice Tracy

alice.tracy@pacelabs.com Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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

Page 1 of 19



CERTIFICATIONS

Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

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

REPORT OF LABORATORY ANALYSIS

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

Page 2 of 19



SAMPLE SUMMARY

Project:FLORA VISTA NO. 1 (074926)Pace Project No.:60117008

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60117008001	GW-074926-3912-CB-MW-1	Water	03/09/12 14:15	03/10/12 09:00
60117008002	GW-074926-3912-CB-MW-2	Water	03/09/12 13:20	03/10/12 09:00
60117008003	GW-074926-3912-CB-MW-3	Water	03/09/12 11:30	03/10/12 09:00
60117008004	GW-074926-3912-CB-MW-4	Water	03/09/12 10:30	03/10/12 09:00
60117008005	GW-074926-3912-CB-DUP	Water	03/09/12 10:35	03/10/12 09:00
60117008006	TRIP BLANK	Water	03/09/12 15:00	03/10/12 09:00

REPORT OF LABORATORY ANALYSIS

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

Page 3 of 19



SAMPLE ANALYTE COUNT

Project:FLORA VISTA NO. 1 (074926)Pace Project No.:60117008

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60117008001	GW-074926-3912-CB-MW-1	EPA 6010	JGP	2
		EPA 8260	RNS	9
60117008002	GW-074926-3912-CB-MW-2	EPA 6010	JGP	2
		EPA 8260	RNS	9
60117008003	GW-074926-3912-CB-MW-3	EPA 6010	JGP	2
		EPA 8260	RNS	9
60117008004	GW-074926-3912-CB-MW-4	EPA 6010	JGP	2
		EPA 8260	RNS	9
60117008005	GW-074926-3912-CB-DUP	EPA 8260	RNS	9
60117008006	TRIP BLANK	EPA 8260	RNS	9

REPORT OF LABORATORY ANALYSIS

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

Page 4 of 19



PROJECT NARRATIVE

Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Method: EPA 6010

Description:6010 MET ICP, DissolvedClient:COP Conestoga-Rovers & Associates, Inc. NMDate:March 23, 2012

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:

REPORT OF LABORATORY ANALYSIS

Page 5 of 19

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



PROJECT NARRATIVE

Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Method: EPA 8260

Description:8260 MSV UST, WaterClient:COP Conestoga-Rovers & Associates, Inc. NMDate:March 23, 2012

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/44314

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

QC Batch: MSV/44384

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

QC Batch: MSV/44403

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:

REPORT OF LABORATORY ANALYSIS

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

Page 6 of 19



PROJECT NARRATIVE

Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Method: Description: Client: Date:	EPA 8260 8260 MSV UST, Water COP Conestoga-Rovers & Associates, Inc. NM March 23, 2012
Analyte Com	nents:
QC Batch: M	SV/44314
B: An	alyte was detected in the associated method blank.
• (W-074926-3912-CB-DUP (Lab ID: 60117008005)
	Toluene
• (W-074926-3912-CB-MW-1 (Lab ID: 60117008001) • Toluene
• (W-074926-3912-CB-MW-2 (Lab ID: 60117008002)

Toluene

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

REPORT OF LABORATORY ANALYSIS

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

Page 7 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: GW-074926-3912-CB-MW-	1 Lab ID:	60117008001	Collected	d: 03/09/12	2 14:15	Received: 03/	10/12 09:00 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepar	ation Methe	od: EPA	3010			
Iron, Dissolved	25300 ug	g/L	50.0	6.0	1	03/14/12 16:35	03/20/12 12:36	7439-89-6	
Manganese, Dissolved	1030 ug	g/L	5.0	0.90	1	03/14/12 16:35	03/20/12 12:36	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	1590 ug	g/L	50.0	2.0	50		03/22/12 11:35	71-43-2	
Ethylbenzene	636 ug	g/L	50.0	5.0	50		03/22/12 11:35	100-41-4	
Toluene	0.87J ug	g/L	1.0	0.10	1		03/20/12 11:46	108-88-3	В
Xylene (Total)	5040 ug	g/L	150	15.0	50		03/22/12 11:35	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	98 %	D	86-112		1		03/20/12 11:46	1868-53-7	
Toluene-d8 (S)	104 %	D	90-110		1		03/20/12 11:46	2037-26-5	
4-Bromofluorobenzene (S)	100 %	D	87-113		1		03/20/12 11:46	460-00-4	
1,2-Dichloroethane-d4 (S)	96 %	D	82-119		1		03/20/12 11:46	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		03/20/12 11:46		

REPORT OF LABORATORY ANALYSIS

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

Page 8 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: GW-074926-3912-CB-MW-2	2 Lab ID:	60117008002	Collected	d: 03/09/12	2 13:20	Received: 03/	10/12 09:00 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepar	ation Methe	od: EPA	3010			
Iron, Dissolved	ND u	g/L	50.0	6.0	1	03/14/12 16:35	03/20/12 12:40	7439-89-6	
Manganese, Dissolved	2.3J u	g/L	5.0	0.90	1	03/14/12 16:35	03/20/12 12:40	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	0.32J u	g/L	1.0	0.040	1		03/20/12 12:21	71-43-2	
Ethylbenzene	0.34J u	g/L	1.0	0.10	1		03/20/12 12:21	100-41-4	
Toluene	0.14J u	g/L	1.0	0.10	1		03/20/12 12:21	108-88-3	В
Xylene (Total)	ND u	g/L	3.0	0.30	1		03/21/12 15:54	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	99 %	6	86-112		1		03/20/12 12:21	1868-53-7	
Toluene-d8 (S)	99 %	6	90-110		1		03/20/12 12:21	2037-26-5	
4-Bromofluorobenzene (S)	100 %	6	87-113		1		03/20/12 12:21	460-00-4	
1,2-Dichloroethane-d4 (S)	95 %	6	82-119		1		03/20/12 12:21	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		03/20/12 12:21		

REPORT OF LABORATORY ANALYSIS

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

Page 9 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: GW-074926-3912-CB-MW-3	3 Lab ID:	60117008003	Collected	1: 03/09/12	2 11:30	Received: 03/	10/12 09:00 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical I	Method: EPA 6	010 Prepar	ation Methe	od: EPA	3010			
Iron, Dissolved	27.7J ug	j/L	50.0	6.0	1	03/14/12 16:35	03/20/12 12:44	7439-89-6	
Manganese, Dissolved	2.5J ug	J/L	5.0	0.90	1	03/14/12 16:35	03/20/12 12:44	7439-96-5	
8260 MSV UST, Water	Analytical I	Method: EPA 8	260						
Benzene	0.13J ug	j/L	1.0	0.040	1		03/20/12 12:39	71-43-2	
Ethylbenzene	ND ug	J∕L	1.0	0.10	1		03/20/12 12:39	100-41-4	
Toluene	ND ug	g∕L	1.0	0.10	1		03/20/12 12:39	108-88-3	
Xylene (Total)	ND ug	J∕L	3.0	0.30	1		03/20/12 12:39	1330-20-7	
Surrogates	-								
Dibromofluoromethane (S)	98 %		86-112		1		03/20/12 12:39	1868-53-7	
Toluene-d8 (S)	99 %		90-110		1		03/20/12 12:39	2037-26-5	
4-Bromofluorobenzene (S)	99 %		87-113		1		03/20/12 12:39	460-00-4	
1,2-Dichloroethane-d4 (S)	93 %		82-119		1		03/20/12 12:39	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		03/20/12 12:39		

REPORT OF LABORATORY ANALYSIS

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

Page 10 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: GW-074926-3912-CB-MW-4	Lab ID:	60117008004	Collected	I: 03/09/12	2 10:30	Received: 03/	10/12 09:00 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepara	ation Meth	od: EPA	3010			
Iron, Dissolved	2460 u	g/L	50.0	6.0	1	03/14/12 16:35	03/20/12 12:47	7439-89-6	
Manganese, Dissolved	4730 u	g/L	5.0	0.90	1	03/14/12 16:35	03/20/12 12:47	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	26.4 u	g/L	1.0	0.040	1		03/20/12 12:56	71-43-2	
Ethylbenzene	6.6 u	g/L	1.0	0.10	1		03/20/12 12:56	100-41-4	
Toluene	ND u	g/L	1.0	0.10	1		03/20/12 12:56	108-88-3	
Xylene (Total)	65.1 u	g/L	3.0	0.30	1		03/20/12 12:56	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	98 %	D	86-112		1		03/20/12 12:56	1868-53-7	
Toluene-d8 (S)	99 %	D	90-110		1		03/20/12 12:56	2037-26-5	
4-Bromofluorobenzene (S)	103 %	D	87-113		1		03/20/12 12:56	460-00-4	
1,2-Dichloroethane-d4 (S)	94 %	D	82-119		1		03/20/12 12:56	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		03/20/12 12:56		

REPORT OF LABORATORY ANALYSIS

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

Page 11 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: GW-074926-3912-CB-DUP	Lab ID	: 60117008005	Collected	d: 03/09/12	2 10:35	Received: 03	B/10/12 09:00 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytica	al Method: EPA 8	3260						
Benzene	23.4	ug/L	5.0	0.20	5		03/20/12 13:14	71-43-2	
Ethylbenzene	5.6	ug/L	5.0	0.50	5		03/20/12 13:14	100-41-4	
Toluene	0.54J	ug/L	5.0	0.50	5		03/20/12 13:14	108-88-3	В
Xylene (Total)	58.0	ug/L	15.0	1.5	5		03/20/12 13:14	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	96	%	86-112		5		03/20/12 13:14	1868-53-7	
Toluene-d8 (S)	100	%	90-110		5		03/20/12 13:14	2037-26-5	
4-Bromofluorobenzene (S)	100	%	87-113		5		03/20/12 13:14	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	82-119		5		03/20/12 13:14	17060-07-0	
Preservation pH	1.0		1.0	0.10	5		03/20/12 13:14		

REPORT OF LABORATORY ANALYSIS

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

Page 12 of 19



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

Sample: TRIP BLANK	Lab ID:	60117008006	Collected	1: 03/09/12	2 15:00	Received: 03	B/10/12 09:00 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	0.052J ເ	ıg/L	1.0	0.040	1		03/20/12 13:31	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.10	1		03/20/12 13:31	100-41-4	
Toluene	ND u	ıg/L	1.0	0.10	1		03/20/12 13:31	108-88-3	
Xylene (Total)	ND u	ig/L	3.0	0.30	1		03/20/12 13:31	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	96 %	6	86-112		1		03/20/12 13:31	1868-53-7	
Toluene-d8 (S)	97 %	6	90-110		1		03/20/12 13:31	2037-26-5	
4-Bromofluorobenzene (S)	103 %	6	87-113		1		03/20/12 13:31	460-00-4	
1,2-Dichloroethane-d4 (S)	94 %	6	82-119		1		03/20/12 13:31	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		03/20/12 13:31		

REPORT OF LABORATORY ANALYSIS

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

Page 13 of 19



Project: FLORA VISTA NO. 1 (074926)

	Pace Pro	ject No.:	60117008
--	----------	-----------	----------

QC Batch: MPR	RP/17310		Analysi	s Method:	EF	PA 6010						
QC Batch Method: EPA	3010		Analysi	s Descript	ion: 60	010 MET Dis	ssolved					
Associated Lab Samples:	60117008001, 60	117008002,	601170080	03, 60117	008004							
METHOD BLANK: 96510	2		N	latrix: Wat	er							
Associated Lab Samples:	60117008001, 60	117008002,	601170080	03, 60117	008004							
			Blank	Re	eporting							
Parameter		Units	Result		Limit	Analyz	ed	Qualifiers				
Iron, Dissolved	ug/L		4	1.8J	50.0	03/20/12						
Manganese, Dissolved	ug/L			ND	5.0	03/20/12	11:47					
LABORATORY CONTROL	SAMPLE: 96510	3	0	1.00		1.00	0/ D					
Parameter		Units	Spike Conc.	LCS Resu		LCS % Rec	% Rec Limits		ualifiers			
Гагапісісі		Offits	00110.	- Resu	it i	/0 1100	Linito		anners	_		
Inc. D'exclused			40000		0000	400		400				
Iron, Dissolved Manganese, Dissolved	ug/L ug/L		10000 1000	1	0000 1000	100 100		-120 -120				
	0			1				-				
Manganese, Dissolved	ug/L	E: 96510	1000	1				-				
Manganese, Dissolved	ug/L	E: 96510 [,]	1000	1 MSD	1000			-				
Manganese, Dissolved	ug/L SPIKE DUPLICATE	E: 965104 17005001	1000		1000			-	% Rec		Max	
Manganese, Dissolved	ug/L SPIKE DUPLICATE		1000 4 MS	MSD	1000 965105	100	80	-120	% Rec Limits	RPD	Max RPD	Qua
Manganese, Dissolved	ug/L SPIKE DUPLICATE 601	17005001	1000 4 MS Spike	MSD Spike	1000 965105 MS	100 MSD	80 MS	-120 MSD			RPD	Qua

REPORT OF LABORATORY ANALYSIS

Page 14 of 19

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



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

QC Batch: MSV/44314 QC Batch Method: EPA 8260 Analysis Method:

Analysis Description: 8260 MSV UST-WATER

EPA 8260

Associated Lab Samples: 60117008001, 60117008002, 60117008003, 60117008004, 60117008005, 60117008006

METHOD BLANK: 967867

Matrix: Water

Associated Lab Samples: 60117008001, 60117008002, 60117008003, 60117008004, 60117008005, 60117008006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	03/20/12 10:01	
Ethylbenzene	ug/L	ND	1.0	03/20/12 10:01	
Toluene	ug/L	0.14J	1.0	03/20/12 10:01	
Xylene (Total)	ug/L	ND	3.0	03/20/12 10:01	
1,2-Dichloroethane-d4 (S)	%	96	82-119	03/20/12 10:01	
4-Bromofluorobenzene (S)	%	102	87-113	03/20/12 10:01	
Dibromofluoromethane (S)	%	97	86-112	03/20/12 10:01	
Toluene-d8 (S)	%	100	90-110	03/20/12 10:01	

LABORATORY CONTROL SAMPLE: 967868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.8	104	82-117	
Ethylbenzene	ug/L	20	20.5	102	79-121	
Toluene	ug/L	20	20.3	102	80-120	
Xylene (Total)	ug/L	60	64.1	107	79-120	
1,2-Dichloroethane-d4 (S)	%			95	82-119	
4-Bromofluorobenzene (S)	%			100	87-113	
Dibromofluoromethane (S)	%			99	86-112	
Toluene-d8 (S)	%			100	90-110	

REPORT OF LABORATORY ANALYSIS

Page 15 of 19

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



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

QC Batch:	MSV/44384

QC Batch: MSV/44384		Analysis Metl	hod: El	PA 8260	
QC Batch Method: EPA 8260		Analysis Des	Analysis Description: 8260 MSV UST-WATER		ER
Associated Lab Samples: 6011	7008002				
METHOD BLANK: 969122		Matrix:	Water		
Associated Lab Samples: 6011	7008002				
		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Xylene (Total)	ug/L	ND	3.0	03/21/12 14:44	
1,2-Dichloroethane-d4 (S)	%	94	82-119	03/21/12 14:44	
4-Bromofluorobenzene (S)	%	100	87-113	03/21/12 14:44	
Dibromofluoromethane (S)	%	98	86-112	03/21/12 14:44	

LABORATORY CONTROL SAMPLE: 969123

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	60	62.8	105	79-120	
1,2-Dichloroethane-d4 (S)	%			95	82-119	
4-Bromofluorobenzene (S)	%			99	87-113	
Dibromofluoromethane (S)	%			98	86-112	
Toluene-d8 (S)	%			100	90-110	

REPORT OF LABORATORY ANALYSIS

Page 16 of 19

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



Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

QC Batch:	MSV/44403	Analysis Method:	EPA 8260	
QC Batch Method	EPA 8260	Analysis Description:	8260 MSV UST-WATER	
Associated Lab Sa	amples: 60117008001			
METHOD BLANK	: 969461	Matrix: Water		
Associated Lab Sa	amples: 60117008001			
		Plank Banartir	a	

Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
ug/L	ND	1.0	03/22/12 11:00	
ug/L	ND	1.0	03/22/12 11:00	
ug/L	ND	3.0	03/22/12 11:00	
%	95	82-119	03/22/12 11:00	
%	102	87-113	03/22/12 11:00	
%	96	86-112	03/22/12 11:00	
%	98	90-110	03/22/12 11:00	
	ug/L ug/L ug/L % % %	Units Result ug/L ND ug/L ND % 95 % 102 % 96	Units Result Limit ug/L ND 1.0 ug/L ND 1.0 ug/L ND 3.0 % 95 82-119 % 102 87-113 % 96 86-112	Units Result Limit Analyzed ug/L ND 1.0 03/22/12 11:00 ug/L ND 1.0 03/22/12 11:00 ug/L ND 3.0 03/22/12 11:00 % 95 82-119 03/22/12 11:00 % 102 87-113 03/22/12 11:00 % 96 86-112 03/22/12 11:00

LABORATORY CONTROL SAMPLE: 969462

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.6	103	82-117	
Ethylbenzene	ug/L	20	21.2	106	79-121	
Xylene (Total)	ug/L	60	66.5	111	79-120	
1,2-Dichloroethane-d4 (S)	%			91	82-119	
4-Bromofluorobenzene (S)	%			100	87-113	
Dibromofluoromethane (S)	%			96	86-112	
Toluene-d8 (S)	%			98	90-110	

REPORT OF LABORATORY ANALYSIS

Page 17 of 19

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



QUALIFIERS

Project: FLORA VISTA NO. 1 (074926)

Pace Project No.: 60117008

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/44314

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

Batch: MSV/44384

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

Batch: MSV/44403

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

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

Page 18 of 19

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:FLORA VISTA NO. 1 (074926)Pace Project No.:60117008

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60117008001	GW-074926-3912-CB-MW-1	EPA 3010	MPRP/17310	EPA 6010	ICP/14765
60117008002	GW-074926-3912-CB-MW-2	EPA 3010	MPRP/17310	EPA 6010	ICP/14765
60117008003	GW-074926-3912-CB-MW-3	EPA 3010	MPRP/17310	EPA 6010	ICP/14765
60117008004	GW-074926-3912-CB-MW-4	EPA 3010	MPRP/17310	EPA 6010	ICP/14765
60117008001	GW-074926-3912-CB-MW-1	EPA 8260	MSV/44314		
60117008001	GW-074926-3912-CB-MW-1	EPA 8260	MSV/44403		
60117008002	GW-074926-3912-CB-MW-2	EPA 8260	MSV/44314		
60117008002	GW-074926-3912-CB-MW-2	EPA 8260	MSV/44384		
60117008003	GW-074926-3912-CB-MW-3	EPA 8260	MSV/44314		
60117008004	GW-074926-3912-CB-MW-4	EPA 8260	MSV/44314		
60117008005	GW-074926-3912-CB-DUP	EPA 8260	MSV/44314		
60117008006	TRIP BLANK	EPA 8260	MSV/44314		

REPORT OF LABORATORY ANALYSIS

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

Page 19 of 19



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

Section A Required Client Information:	Section B Required Project Information:	C forms			Page: of (
	Report To: Christine Mathews	Attention: ENFOS			
E, Ste 200	Copy To: Kelly Blanchard, Angela Bown	Company Name:	REGUI	REGULATORY AGENCY	
Albequerque, NM 87110		Address:	L L	NPDES F GROUND WATER	WATER P DRINKING WATER
cmathews@craworld.com	Purchase Order No.: 4515860224	Pace Quote Reference:	L UST	T L RCRA	KOTHER WICH
(505)884-0672 Fax: (505)884-4932 Pr	Project Name: Flora Vista No. 1	Pace Project Alice Tracy Manager:	Site L	Site Location	
Requested Due Date/TAT: standard	Project Number: 074926	Pace Profile # 5514, 5		STATE:	
			Requested Analysis Filtered (Y/N)	s Filtered (Y/N)	
	(fiel of	Preservatives			
3 WATER WATER XT LID	2 COMPOSITE COMPOSITE COMPOSITE ENDIGRAB COMPOSITE ENDIGRAB		nM & 9 ⁻	······	(N/A)
SAMPLE ID WIFE WP AR (A-Z, 0-9 /) AR AR Sample IDs MUST BE UNIQUE TISSUE TS	CODE ^{(a}	ε,	i bəvlved I		
		Officer Methan NacU HCI HCO HNO3 H2C4 H2C4 H2C4 H2C4 H2C4 H2C4 H2C4	8 0910 D		Contract Con
-W 157 4926, 3912 12 . M. W-	wr6 29.01		X 3DG	94 1RP3~ MS	
5	076 39.0		1 <u></u> 1	2	Dal I
5112	11 SM	30 4 XX			D3
Jur 074926 312 CR MW-4	5		XX	>	hæ
074426 3112 CBido	W15	369 Z X X	X	· · · · · · · · · · · · · · · · · · ·	ðý
		oo z X	7 X		D lo
ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE TIME ACCEPTED BY AFFILIATION		DATE TIME	SAMPLE CONDITIONS
methors undre field filtered	(COESIC BOUN/ORH 34	3.6.17 1200 D/1000	5	5-10-12 09-05 7	2-5 X X X
	SAMPLER NAME AND SIGNATUR PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	signature sampler: CASS/CEDUA sampler: COSSIO D'DUA	DATE Signed 39		Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) (Y/N)
ant Note: By signing this form you are accepting Pac	*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	per month for any invoices not paid within 30 days.		ц	F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical www.pacelabs.com	lition Upon Receipt –	ESI Tech Specs	
Client Name: <u>CRA</u>		Project #:_	10117008
Courier: Fed Ex 🗗 UPS 🗆 USPS 🗆 Client I	Commercial Pace	Other D	Optional Proj Due Date: 2/1/2/1/
Tracking #: <u>\$98638321810</u>	Pace Shipping Label Used	d? Yes 🗆 No 🖊	Proj Name:
Custody Seal on Cooler/Box Present: Yes 💋	No 🗆 Seals intact: Yes		
Packing Material: Bubble Wrap Bubble	Bags D Foam	None 🗆 🛛	Dther □
Thermometer Used: $(\underline{T-191}) / \underline{T-194}$			eceived on ice, cooling process has begun.
Cooler Temperature: <u>2-5</u>	(circle on	Date	e and initials of person examining tents:
Temperature should be above freezing to 6°C			
Chain of Custody present:	ZYes □No □N/A 1.		
Chain of Custody filled out:	/ ØYes □No □N/A 2.		
Chain of Custody relinquished:	<u> </u>		
Sampler name & signature on COC:	ØYes □No □N/A 4,		MM10.1111
Samples arrived within holding time:	Yes No N/A 5.		
Short Hold Time analyses (<72hr):	□Yes INO □N/A 6.		
Rush Turn Around Time requested:	TYes No DNA 7.		
Sufficient volume:	ZYes DNO DN/A 8.	·	
Correct containers used:			
-Pace containers used:	ZYes □No □N/A 9.		
Containers intact:	Yes DNO DN/A 10).	
Unpreserved 5035A soils frozen w/in 48hrs?	□Yes □No ZN/A 11	1.	
Filtered volume received for dissolved tests?	DYes DNo DN/A 12	2.	
Sample labels match COC:	ZYes □No □N/A	—	
-Includes date/time/ID/analyses Matrix:	INT 13	3	
All containers needing preservation have been checked.			
All containers needing preservation are found to be in		4	
compliance with EPA recommendation. Exceptions: VOA coliform, TOC, O&G, WI-DRO (water Phenolics), / Ini	+. itial when ompleted	Lot # of added preservative
Trip Blank present:	Yes No N/A		
Pace Trip Blank lot # (if purchased): 02.13.12	<u>-3 ′</u> 15	5	
Headspace in VOA vials (>6mm):	□Yes □No □N/A		
	16	6.	
Project sampled in USDA Regulated Area:		7. List State:	p
Client Notification/ Resolution: Cop	by COC to Client? Y $/(N)$) Field Data Requ	
Person Contacted:	Date/Time:		Temp Log: Record start and finish times when unpacking cooler, if >20 min,
Comments/ Resolution:	·		recheck sample temps.
			Start: /245 Start:
		71.10	End: 1250 End:
Project Manager Review:	Da	ate: 3/2/12	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

A4



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

June 19, 2012

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

RE: Project: FLORA VISTA NO 1 Pace Project No.: 60122944

Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on June 08, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alice Flanazan

Alice Flanagan

alice.flanagan@pacelabs.com Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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

Page 1 of 22



CERTIFICATIONS

Project: FLORA VISTA NO 1

Pace Project No.: 60122944

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

REPORT OF LABORATORY ANALYSIS

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

Page 2 of 22



SAMPLE SUMMARY

Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60122944001	GW-074926-060712-CB-MW-1	Water	06/07/12 10:00	06/08/12 08:45
60122944002	GW-074926-060712-CB-MW-2	Water	06/07/12 09:40	06/08/12 08:45
60122944003	GW-074926-060712-CB-MW-3	Water	06/07/12 09:50	06/08/12 08:45
60122944004	GW-074926-060712-CB-MW-4	Water	06/07/12 10:15	06/08/12 08:45
60122944005	GW-074926-060712-CB-DUP	Water	06/07/12 10:05	06/08/12 08:45
60122944006	GW-074926-060712-CB-DW34	Water	06/07/12 11:20	06/08/12 08:45
60122944007	TRIP BLANK	Water	06/07/12 00:00	06/08/12 08:45

REPORT OF LABORATORY ANALYSIS

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

Page 3 of 22



SAMPLE ANALYTE COUNT

Project: FLORA VISTA NO 1 Pace Project No.: 60122944

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60122944001	GW-074926-060712-CB-MW-1	EPA 6010	JDH	2
		EPA 8260	PRG	9
60122944002	GW-074926-060712-CB-MW-2	EPA 6010	JDH	2
		EPA 8260	PRG	9
60122944003	GW-074926-060712-CB-MW-3	EPA 6010	JDH	2
		EPA 8260	PRG	9
60122944004	GW-074926-060712-CB-MW-4	EPA 6010	JDH	2
		EPA 8260	PRG	9
60122944005	GW-074926-060712-CB-DUP	EPA 8260	RNS	9
60122944006	GW-074926-060712-CB-DW34	EPA 8260	HNS, PRG	9
60122944007	TRIP BLANK	EPA 8260	PRG	9

REPORT OF LABORATORY ANALYSIS

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

Page 4 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Method: EPA 6010

Description:6010 MET ICP, DissolvedClient:COP Conestoga-Rovers & Associates, Inc. NMDate:June 19, 2012

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/18387

- B: Analyte was detected in the associated method blank.
 - GW-074926-060712-CB-MW-1 (Lab ID: 60122944001) • Manganese, Dissolved
 - GW-074926-060712-CB-MW-4 (Lab ID: 60122944004)
 - Manganese, Dissolved

REPORT OF LABORATORY ANALYSIS

Page 5 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Method: EPA 8260

Description:8260 MSV UST, WaterClient:COP Conestoga-Rovers & Associates, Inc. NMDate:June 19, 2012

General Information:

7 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/46221

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

QC Batch: MSV/46307

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

QC Batch: MSV/46343

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:

Batch Comments:

• QC Batch: MSV / 46346

REPORT OF LABORATORY ANALYSIS

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

Page 6 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Method:	EPA 8260
Description:	8260 MSV UST, Water
Client:	COP Conestoga-Rovers & Associates, Inc. NM
Date:	June 19, 2012

Analyte Comments:

QC Batch: MSV/46221

B: Analyte was detected in the associated method blank.

- GW-074926-060712-CB-MW-1 (Lab ID: 60122944001) • Toluene
- GW-074926-060712-CB-MW-2 (Lab ID: 60122944002) • Toluene
- GW-074926-060712-CB-MW-3 (Lab ID: 60122944003)

Toluene

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

REPORT OF LABORATORY ANALYSIS

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

Page 7 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- MW-1	Lab ID:	60122944001	Collected	d: 06/07/12	2 10:00	Received: 06/	08/12 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	I Method: EPA 6	010 Prepa	ration Meth	od: EP/	A 3010			
Iron, Dissolved	21400 ເ	ug/L	50.0	17.2	1	06/15/12 15:55	06/18/12 12:05	7439-89-6	
Manganese, Dissolved	914 ι	ug/L	5.0	0.60	1	06/15/12 15:55	06/18/12 12:05	7439-96-5	В
8260 MSV UST, Water	Analytical	I Method: EPA 8	260						
Benzene	1770 ι	ug/L	50.0	2.5	50		06/13/12 01:24	71-43-2	
Ethylbenzene	182 ι	ug/L	50.0	4.0	50		06/13/12 01:24	100-41-4	
Toluene	127 ເ	ug/L	50.0	3.5	50		06/13/12 01:24	108-88-3	В
Xylene (Total)	633 ι	ug/L	150	9.0	50		06/13/12 01:24	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	104 %	%	86-112		50		06/13/12 01:24	1868-53-7	
Toluene-d8 (S)	99 %	%	90-110		50		06/13/12 01:24	2037-26-5	
4-Bromofluorobenzene (S)	102 9	%	87-113		50		06/13/12 01:24	460-00-4	
1,2-Dichloroethane-d4 (S)	100 %	%	82-119		50		06/13/12 01:24	17060-07-0	
Preservation pH	1.0		1.0	0.10	50		06/13/12 01:24		

REPORT OF LABORATORY ANALYSIS

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

Page 8 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- MW-2	Lab ID:	60122944002	Collected	d: 06/07/12	2 09:40	Received: 06/	08/12 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Iron, Dissolved	82.2 ເ	ıg/L	50.0	17.2	1	06/18/12 16:40	06/19/12 10:28	7439-89-6	
Manganese, Dissolved	5.2 υ	ıg/L	5.0	0.60	1	06/18/12 16:40	06/19/12 10:28	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	ND ι	ıg/L	1.0	0.050	1		06/13/12 01:38	71-43-2	
Ethylbenzene	ND u	ıg/L	1.0	0.080	1		06/13/12 01:38	100-41-4	
Toluene	ND ι	ıg/L	1.0	0.070	1		06/13/12 01:38	108-88-3	В
Xylene (Total)	ND u	ıg/L	3.0	0.18	1		06/13/12 01:38	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	101 %	6	86-112		1		06/13/12 01:38	1868-53-7	
Toluene-d8 (S)	103 %	6	90-110		1		06/13/12 01:38	2037-26-5	
4-Bromofluorobenzene (S)	107 %	6	87-113		1		06/13/12 01:38	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %	6	82-119		1		06/13/12 01:38	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/13/12 01:38		

REPORT OF LABORATORY ANALYSIS

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

Page 9 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- MW-3	Lab ID: 6	60122944003	Collected	: 06/07/12	2 09:50	Received: 06/	08/12 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical N	Method: EPA 6	010 Prepara	ation Meth	od: EPA	3010			
Iron, Dissolved	ND ug	/L	50.0	17.2	1	06/15/12 15:55	06/18/12 12:10	7439-89-6	
Manganese, Dissolved	ND ug	/L	5.0	0.60	1	06/15/12 15:55	06/18/12 12:10	7439-96-5	
8260 MSV UST, Water	Analytical N	Method: EPA 8	260						
Benzene	ND ug	/L	1.0	0.050	1		06/13/12 01:53	71-43-2	
Ethylbenzene	ND ug	/L	1.0	0.080	1		06/13/12 01:53	100-41-4	
Toluene	ND ug	/L	1.0	0.070	1		06/13/12 01:53	108-88-3	В
Xylene (Total)	ND ug	/L	3.0	0.18	1		06/13/12 01:53	1330-20-7	
Surrogates	-								
Dibromofluoromethane (S)	100 %		86-112		1		06/13/12 01:53	1868-53-7	
Toluene-d8 (S)	101 %		90-110		1		06/13/12 01:53	2037-26-5	
4-Bromofluorobenzene (S)	102 %		87-113		1		06/13/12 01:53	460-00-4	
1,2-Dichloroethane-d4 (S)	100 %		82-119		1		06/13/12 01:53	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/13/12 01:53		

REPORT OF LABORATORY ANALYSIS

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

Page 10 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- MW-4	Lab ID: 601	22944004	Collecte	d: 06/07/12	2 10:15	Received: 06/	08/12 08:45 Ma	atrix: Water	
		F	leport						
Parameters	Results L	Jnits	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Met	hod: EPA 601	0 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	2070 ug/L		50.0	17.2	1	06/15/12 15:55	06/18/12 12:12	7439-89-6	
Manganese, Dissolved	4020 ug/L		5.0	0.60	1	06/15/12 15:55	06/18/12 12:12	7439-96-5	В
8260 MSV UST, Water	Analytical Met	hod: EPA 826	60						
Benzene	44.0 ug/L		1.0	0.050	1		06/13/12 17:57	71-43-2	
Ethylbenzene	24.5 ug/L		1.0	0.080	1		06/13/12 17:57	100-41-4	
Toluene	ND ug/L		1.0	0.070	1		06/13/12 17:57	108-88-3	
Xylene (Total)	303 ug/L		3.0	0.18	1		06/13/12 17:57	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	103 %		86-112		1		06/13/12 17:57	1868-53-7	
Toluene-d8 (S)	107 %		90-110		1		06/13/12 17:57	2037-26-5	
4-Bromofluorobenzene (S)	103 %		87-113		1		06/13/12 17:57	460-00-4	
1,2-Dichloroethane-d4 (S)	97 %		82-119		1		06/13/12 17:57	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/13/12 17:57		

REPORT OF LABORATORY ANALYSIS

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

Page 11 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- DUP	Lab ID: 601229	44005 Collected	d: 06/07/12	2 10:05	Received: 06	6/08/12 08:45 M	atrix: Water	
Parameters	Results Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method	: EPA 8260						
Benzene	26.0 ug/L	2.0	0.080	2		06/15/12 02:40	71-43-2	
Ethylbenzene	12.4 ug/L	2.0	0.20	2		06/15/12 02:40	100-41-4	
Toluene	ND ug/L	2.0	0.20	2		06/15/12 02:40	108-88-3	
Xylene (Total) <i>Surrogates</i>	155 ug/L	6.0	0.60	2		06/15/12 02:40	1330-20-7	
Dibromofluoromethane (S)	96 %	86-112		2		06/15/12 02:40	1868-53-7	
Toluene-d8 (S)	103 %	90-110		2		06/15/12 02:40	2037-26-5	
4-Bromofluorobenzene (S)	98 %	87-113		2		06/15/12 02:40	460-00-4	
1,2-Dichloroethane-d4 (S)	93 %	82-119		2		06/15/12 02:40	17060-07-0	
Preservation pH	1.0	1.0	0.10	2		06/15/12 02:40		

REPORT OF LABORATORY ANALYSIS

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

Page 12 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: GW-074926-060712-CB- DW34	Lab ID: 601229440	06 Collecte	d: 06/07/12	2 11:20	Received: 06	6/08/12 08:45 M	atrix: Water	
Parameters	Results Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EP	A 8260						
Benzene	ND ug/L	1.0	0.050	1		06/13/12 18:26	71-43-2	
Ethylbenzene	ND ug/L	1.0	0.080	1		06/13/12 18:26	100-41-4	
Toluene	ND ug/L	1.0	0.070	1		06/13/12 18:26	108-88-3	
Xylene (Total)	ND ug/L	3.0	0.12	1		06/14/12 19:43	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100 %	86-112		1		06/13/12 18:26	1868-53-7	
Toluene-d8 (S)	100 %	90-110		1		06/13/12 18:26	2037-26-5	
4-Bromofluorobenzene (S)	105 %	87-113		1		06/13/12 18:26	460-00-4	
1,2-Dichloroethane-d4 (S)	100 %	82-119		1		06/13/12 18:26	17060-07-0	
Preservation pH	1.0	1.0	0.10	1		06/13/12 18:26		

REPORT OF LABORATORY ANALYSIS

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

Page 13 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

Sample: TRIP BLANK	Lab ID:	60122944007	Collecte	d: 06/07/12	2 00:00	Received: 06	/08/12 08:45 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical	I Method: EPA 8	260						
Benzene	ND u	ıg/L	1.0	0.050	1		06/13/12 16:17	71-43-2	
Ethylbenzene	ND ι	ıg/L	1.0	0.080	1		06/13/12 16:17	100-41-4	
Toluene	ND ι	Jg/L	1.0	0.070	1		06/13/12 16:17	108-88-3	
Xylene (Total)	ND u	ug/L	3.0	0.18	1		06/13/12 16:17	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	102 9	%	86-112		1		06/13/12 16:17	1868-53-7	
Toluene-d8 (S)	99 %	%	90-110		1		06/13/12 16:17	2037-26-5	
4-Bromofluorobenzene (S)	102 %	%	87-113		1		06/13/12 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %	%	82-119		1		06/13/12 16:17	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		06/13/12 16:17		

REPORT OF LABORATORY ANALYSIS

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

Page 14 of 22



Project:	FLORA VIS	STA NO 1											
Pace Project No.:	60122944												
QC Batch:	MPRP/18	3387		Analysi	s Method:	E	PA 6010						
QC Batch Method:	EPA 3010)		Analysi	s Descript	ion: 6	010 MET Dis	ssolved					
Associated Lab San	nples: 60	122944001, 60	122944003	, 601229440	004								
METHOD BLANK:	1014959			M	latrix: Wat	er							
Associated Lab San	nples: 60	122944001, 60	122944003	, 601229440	004								
				Blank	R	eporting							
Paran	neter		Units	Result		Limit	Analyz	ed	Qualifiers				
Iron, Dissolved		ug/L			ND	50.0	06/18/12	11:47					
Manganese, Dissolv	ved	ug/L			11.2	5.0	0 06/18/12	11:47					
LABORATORY CON	NTROL SAM	IPLE: 10149	60										
_				Spike	LCS		LCS	% Red					
Paran	neter		Units	Conc.	Resu	lt	% Rec	Limits	QQ	ualifiers	_		
Iron, Dissolved		ug/L		10000	1	0100	101		-120				
Manganese, Dissolv	ved	ug/L		1000		934	93	80	-120				
MATRIX SPIKE & M			E: 10149	61		1014962							
			10145	MS	MSD	1014302							
		601	22912001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Мах	
		Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD		Qual
Paramet	er	Units	Result	CONC.	Conc.	rtooun	rtooun	/01100					Quui
Paramet Iron, Dissolved	er	ug/L	20.1J	10000	10000	9880		99	100			20	

Date: 06/19/2012 05:43 PM

REPORT OF LABORATORY ANALYSIS

Page 15 of 22



Project:	FLORA VIS	TA NO 1											
Pace Project No .:	60122944												
QC Batch:	MPRP/184	413		Analysi	s Method:	E	PA 6010						
QC Batch Method:	EPA 3010			Analysi	s Descript	ion: 60	010 MET Di	ssolved					
Associated Lab Sam	ples: 601	22944002											
METHOD BLANK:	1016073			M	atrix: Wat	er							
Associated Lab Sam	ples: 601	22944002											
				Blank	R	eporting							
Param	neter	(Units	Result		Limit	Analyz	zed	Qualifiers				
Iron, Dissolved		ug/L			ND	50.0		-					
Manganese, Dissolv	ed	ug/L			ND	5.0	06/19/12	10:24					
LABORATORY CON	ITROL SAM	PLE: 10160	74										
				Spike	LCS		LCS	% Rec	;				
Param	neter	I	Units	Conc.	Resu	lt	% Rec	Limits	Qu	ualifiers			
Iron, Dissolved		ug/L		10000		9640	96	80	-120				
Manganese, Dissolv	ed	ug/L		1000		969	97	80	-120				
MATRIX SPIKE & M	ATRIX SPIK		: 10160	75		1016076							
				MS	MSD								
		601	22948001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramet	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Iron, Dissolved		ug/L	30.7J	10000	10000	8200	9630	82	96	75-125	-	20	
Manganese, Dissolv	ed	ug/L	17.5	1000	1000	819	951	80	93	75-125	15	20	

REPORT OF LABORATORY ANALYSIS

Page 16 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

QC Batch:	MSV/46221	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
Associated Lab Sam	ples: 60122944001, 60122944002, 6	60122944003	

METHOD BLANK: 1012036

Matrix: Water

Associated Lab Samples: 60122944001, 60122944002, 60122944003

		Blank	Reporting		0 ""
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/12/12 21:06	
Ethylbenzene	ug/L	ND	1.0	06/12/12 21:06	
Toluene	ug/L	ND	1.0	06/12/12 21:06	
Xylene (Total)	ug/L	ND	3.0	06/12/12 21:06	
1,2-Dichloroethane-d4 (S)	%	99	82-119	06/12/12 21:06	
4-Bromofluorobenzene (S)	%	100	87-113	06/12/12 21:06	
Dibromofluoromethane (S)	%	99	86-112	06/12/12 21:06	
Toluene-d8 (S)	%	100	90-110	06/12/12 21:06	

LABORATORY CONTROL SAMPLE: 1012037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.6	103	82-117	
Ethylbenzene	ug/L	20	20.2	101	79-121	
Toluene	ug/L	20	20.9	105	80-120	
Xylene (Total)	ug/L	60	61.2	102	79-120	
1,2-Dichloroethane-d4 (S)	%			105	82-119	
4-Bromofluorobenzene (S)	%			103	87-113	
Dibromofluoromethane (S)	%			103	86-112	
Toluene-d8 (S)	%			103	90-110	

REPORT OF LABORATORY ANALYSIS

Page 17 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

QC Batch:	MSV	/46307	Analysis Method:	EPA 8260
QC Batch Method:	EPA	8260	Analysis Description:	8260 MSV UST-WATER
QC Batch Method: EPA 8260 Associated Lab Samples: 60122944004, 60122944006, 60		0122944007		

METHOD BLANK: 1013449

Matrix: Water

Associated Lab Samples: 60122944004, 60122944006, 60122944007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/13/12 15:34	
Ethylbenzene	ug/L	ND	1.0	06/13/12 15:34	
Toluene	ug/L	ND	1.0	06/13/12 15:34	
Xylene (Total)	ug/L	ND	3.0	06/13/12 15:34	
1,2-Dichloroethane-d4 (S)	%	98	82-119	06/13/12 15:34	
4-Bromofluorobenzene (S)	%	101	87-113	06/13/12 15:34	
Dibromofluoromethane (S)	%	99	86-112	06/13/12 15:34	
Toluene-d8 (S)	%	101	90-110	06/13/12 15:34	

LABORATORY CONTROL SAMPLE: 1013450

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.8	104	82-117	
Ethylbenzene	ug/L	20	20.0	100	79-121	
Toluene	ug/L	20	20.7	103	80-120	
Xylene (Total)	ug/L	60	61.9	103	79-120	
1,2-Dichloroethane-d4 (S)	%			102	82-119	
4-Bromofluorobenzene (S)	%			102	87-113	
Dibromofluoromethane (S)	%			103	86-112	
Toluene-d8 (S)	%			98	90-110	

REPORT OF LABORATORY ANALYSIS

Page 18 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

QC Batch: MSV/463	43	Analysis Metl	hod: EF	PA 8260	
QC Batch Method: EPA 8260)	Analysis Des	cription: 82	260 MSV UST-WAT	ER
Associated Lab Samples: 60	122944006				
METHOD BLANK: 1014000		Matrix:	Water		
Associated Lab Samples: 60	122944006				
		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Xylene (Total)	ug/L	ND	3.0	06/14/12 18:22	
1,2-Dichloroethane-d4 (S)	%	85	82-119	06/14/12 18:22	
4-Bromofluorobenzene (S)	%	103	87-113	06/14/12 18:22	
Dibromofluoromethane (S)	%	101	86-112	06/14/12 18:22	
Toluene-d8 (S)	%	98	90-110	06/14/12 18:22	

LABORATORY CONTROL SAMPLE: 1014001

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	60	67.9	113	79-120	
1,2-Dichloroethane-d4 (S)	%			86	82-119	
4-Bromofluorobenzene (S)	%			102	87-113	
Dibromofluoromethane (S)	%			104	86-112	
Toluene-d8 (S)	%			98	90-110	

REPORT OF LABORATORY ANALYSIS

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

Page 19 of 22



Project: FLORA VISTA NO 1

Pace Project No.: 60122944

QC Batch:	MSV/46346		Analysis Met	hod: E	PA 8260	
QC Batch Method:	EPA 8260		Analysis Des	cription: 8	260 MSV UST-WAT	ER
Associated Lab Sar	mples: 60122944005					
METHOD BLANK:	1014006		Matrix:	Water		
Associated Lab Sar	mples: 60122944005					
			Blank	Reporting		
Parar	meter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L		ND	1.0	06/14/12 21:38	
Ethylbenzene	ug/L		ND	1.0	06/14/12 21:38	

Ethylbenzene	ug/L	ND	1.0	06/14/12 21:38	
Toluene	ug/L	ND	1.0	06/14/12 21:38	
Xylene (Total)	ug/L	ND	3.0	06/14/12 21:38	
1,2-Dichloroethane-d4 (S)	%	95	82-119	06/14/12 21:38	
4-Bromofluorobenzene (S)	%	100	87-113	06/14/12 21:38	
Dibromofluoromethane (S)	%	97	86-112	06/14/12 21:38	
Toluene-d8 (S)	%	101	90-110	06/14/12 21:38	

LABORATORY CONTROL SAMPLE: 1014007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.0	100	82-117	
Ethylbenzene	ug/L	20	18.3	91	79-121	
Toluene	ug/L	20	19.1	96	80-120	
Xylene (Total)	ug/L	60	55.4	92	79-120	
I,2-Dichloroethane-d4 (S)	%			93	82-119	
1-Bromofluorobenzene (S)	%			99	87-113	
Dibromofluoromethane (S)	%			96	86-112	
Toluene-d8 (S)	%			100	90-110	

			MS	MSD								
	60	122831003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Benzene	ug/L	ND	100	100	95.1	111	92	109	58-139	16	21	
Ethylbenzene	ug/L	29.9	100	100	113	127	83	97	56-138	12	19	
Toluene	ug/L	ND	100	100	89.2	106	85	102	59-140	17	19	
Xylene (Total)	ug/L	ND	300	300	249	295	83	98	52-146	17	19	
1,2-Dichloroethane-d4 (S)	%						96	96	82-119			
4-Bromofluorobenzene (S)	%						101	102	87-113			
Dibromofluoromethane (S)	%						99	98	86-112			
Toluene-d8 (S)	%						101	100	90-110			
Preservation pH		1.0			1.0	1.0				0		

Date: 06/19/2012 05:43 PM

REPORT OF LABORATORY ANALYSIS

Page 20 of 22



QUALIFIERS

Project: FLORA VISTA NO 1

Pace Project No.: 60122944

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/46221

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

Batch: MSV/46307

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

Batch: MSV/46343

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

Batch: MSV/46346

[1]

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

REPORT OF LABORATORY ANALYSIS

Page 21 of 22



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FLORA VISTA NO 1 Pace Project No.: 60122944

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60122944001	GW-074926-060712-CB-MW-1	EPA 3010	MPRP/18387	EPA 6010	ICP/15405
60122944002	GW-074926-060712-CB-MW-2	EPA 3010	MPRP/18413	EPA 6010	ICP/15419
60122944003 60122944004	GW-074926-060712-CB-MW-3 GW-074926-060712-CB-MW-4	EPA 3010 EPA 3010	MPRP/18387 MPRP/18387	EPA 6010 EPA 6010	ICP/15405 ICP/15405
60122944001 60122944002 60122944003	GW-074926-060712-CB-MW-1 GW-074926-060712-CB-MW-2 GW-074926-060712-CB-MW-3	EPA 8260 EPA 8260 EPA 8260	MSV/46221 MSV/46221 MSV/46221		
60122944004 60122944005	GW-074926-060712-CB-MW-4 GW-074926-060712-CB-DUP	EPA 8260 EPA 8260	MSV/46307 MSV/46346		
60122944006	GW-074926-060712-CB-DW34	EPA 8260	MSV/46307		
60122944006	GW-074926-060712-CB-DW34	EPA 8260	MSV/46343		
60122944007	TRIP BLANK	EPA 8260	MSV/46307		

REPORT OF LABORATORY ANALYSIS

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

Page 22 of 22

San	nple Co	ondition	Upon Receipt		
Face Analytical [®] Client Name:		CRA	NM	Project #	60122944
		mmercial Label Use Seals	□Pace □Other_ d? □ Yes X intact: ØYes □	110 1 -	nal Due Date: U(70 Name: U(70
Packing Material: Bubble Wrap Bubble E	Bags	Foam	None Dther		
Thermometer Used:/ T-191/	Type of	Ice: AF	Blue None	Samples on ice, o	cooling process has begun
Cooler Temperature: 2-2 Temperature should be above freezing to 6°C			Comments:	Date and Initials contents:	of person examining
Chain of Custody present:	Ø¥Yes □	<u> </u>	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 [5.		
Short Hold Time analyses (<72hr):	🗆 Yes 🌶		6.		
Rush Turn Around Time requested:	🛛 Yes 🕤	ZNo □N/A	7.		
Sufficient volume:	Ø¥Yes [□No □N/A	8.		
Correct containers used:	Pryes []No □N/A	9.		
-Pace containers used:	Yes [□No □N/A			
Containers intact:	ØYes []No □N/A	10.		
Unpreserved 5035A soils frozen w/in 48hrs?	□Yes [11.		
Filtered volume received for dissolved tests	□Yes □	∃no Øn/a	12.		
Sample labels match COC:	🗷 Yes 🗌	∃No □N/A	13.		
-Includes date/time/ID/analyses Matrix:	eter	·		a 180.00	
All containers needing preservation have been checked.	□Yes [∃no ¦∕ 2n/a	14.		
All containers needing preservation are found to be in compliance with EPA recommendation.	□Yes [∃no ⊠n/a			
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	∰Yes [∃No	Initial when completed	Lot # of added preservative	
Trip Blank present:	∰Yes []No []N/A	1		
Pace Trip Blank lot # (if purchased):52\\2 -3					
Headspace in VOA vials (>6mm):	□Yes ቓ	ZNo □N/A	16.		
Project sampled in USDA Regulated Area:	□Yes □]n₀ F an/a	17. List State:		W
Client Notification/ Resolution: Copy Copy	COC to Cli	ent?	Y / (N)	Field Data Requir	ed? Y / N
Person Contacted:		Date/	Time: 🗸		
Comments/ Resolution:					
		- 9	<u></u>		
and an and the second				1. W. W. M.	
Project Manager Review:				Date:	11112

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



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

										ġ		1200	50	ड	20	ab CS								(N/X)		
			3 WATER						нц	Pace Project No./ Lab I.D.	3(23-21) - (() (() () () () () () ()								lons				ntact	i səld	meS	2007
٥			DRINKING WATER	OTHER					hn622/00)	Project N	au)"ta			≥	3(DC9H)	_ - >			SAMPLE CONDITIONS	7			beled (NV)	yer (Y	olsu) Do)	8, 12-Oct-;
-			۲. ۲	L					(((Pace	300				30				SAMP	7	-			bəviə: 1\Y) ə		F-ALL-Q-020rev.08, 12-Oct-2007
Page:		×	GROUND WATER		5	~			al Chlorine (Y/N)	ubisəЯ										2-2			р.	uị du	Tei	F-ALL-0
		AGENC	GROL	RCRA	NIN		(N/A) pa		·····									 	TIME	645					2	
		REGULATORY AGENCY	NPDES	UST	Site Location	STATE:	Requested Analysis Filtered (Y/N)												DATE	6/6/2	5				1740	•
[REG	L	L	Site	1	ted Analy												- - -						200 parts	
							Reques		TEX issolved Fe & Mn	8260 B	XX	XX	XХ	XX	×	××	Ł		ACCEPTED BY / AFFILIATION	a					DATE Signed	
								† N /A	tisa⊺ sis/	Ofher									TED BY //	he. A	4		,)	
					racy			atives		HO ₅ S ₂ 6N O ₂ S ₂ 6N									ACCE	Sheer /			1997 - 1997 - 1997 1997 - 1997 1997 - 1997 - 1997 - 1997	KY X	Such	n 30 days.
ation:	ENFOS	me:			Alice Tracy	5514, 5		Preservatives		HCI HNO ³	XX	XX	ХX	ХX	X	× ×			-					$\frac{1}{2}$	C B	not paid withi
Section C Invoice Information:	Attention ⁻	Company Name:	Address:	ace Quote eference:	Pace Project Manager:	Pace Profile #:			NATAINERS	H ^s SO [¢] Nublese	4	~	4	4	r	en			TIME	1620				10000	(lak	1.5% per month for any invoices not paid within 30 days.
ΝĿ	¥		×	ă œ	άΣ				TEMP AT COLLECTION		8	6	20	5	Ś				DATE	7/12			IGNATURE	AMPLER:	AMPLER:	er month for
								0	END/GRAB	TIME	2 12	1209.	1409	1310	1210	12 1122			+	19]		SAMPLER NAME AND SIGNATURE	PRINT Name of SAMPLER:	SIGNATURE of SAMPLER:	ges of 1.5% p
		Bown						COLLECTED	85	E DATE	1401	1/9	1-1-0	619	le H	1	₹- 5		IATION	1004			IPLER NA	PRINT	SIGNA	g to late chan
	swe	Kelly Blanchard, Angela Bown		4515860224	a No. 1			8	START	E TIME	╀╋					$\frac{1}{1}$			RELINQUISHED BY / AFFILIATION	HRW I			SAN			and agreeing
formation:	ine Mathe	Slanchard			Flora Vista No. 1	074926		(dW)		DATE DATE			Г. л		5	- T 1			QUISHED	N O	1					iyment terms
Section B Required Project Information:	Report To: Christine Mathews			Purchase Order No.:		Project Numher: 0		(jisi o	CODE (see valid codes to	XIATAM	Sub S	L'WC	<u>J</u>	1525	6wig	two Ca	5			(have						VET 30 day pi
Section B Required P	Report .	Copy To.		Purchas	Project Name:	Project		x Codes CODE			1	0-19	10,3	MUL4	200	134						Jest 1				"Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of
		Ste 200			34-4932			Valid Matrix Codes	DRINKING WATER WATER WATER PRODUCT SOILSOLID OIL MIPE AIR OTHER TISSUE		re. NU	0-010-12-MW-0	149210-000126 R. MW	268	CB'	(B.T					1075	H IN				you are accel
		6121 Indian School Rd NE, Ste 200	87110	orld.com	Fax: (505)884-4932	standard					12100	1010	2008	2007	NOTIZ.CB.	1100			DMMENTS	-	12 P	Jul				ing this form
.m		lian Scho	Albequerque, NM 87110	cmathews@craworld.com				formation	SAMPLE ID (A-Z, 0-9 / ;-) bie IDs MUST BE UN		Maryo	0.0116		49210	074220	120.01			ADDITIONAL COMMENTS	- tiag	R W	een 1				Nate: By sign
Section A Required Client Information:	CRA	6121 Inc	Albeque	cmathev	(505)884-0672	Requested Due Date/TAT:		Section D Required Client Information	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		JUN STUTION ON ALTO UN	10/07/11	10.014	WW.B. J. I. O. M. O. O. D. C. B. MU	5W-074	4.2.014920-000112.CB.S			UUV	m report of	No.	p				*Important
Section A Required Clier	Company:	Address:		Email To:	Phone: (505	quested Dr		Sect	0	# MƏTI	Ĵ	+	14		$+ \simeq$			 9 F	12	and works on report	N.C.	5	Pac	ka	ge 2	24 of 2
s s	ပိ	PA		ង្រី	녑	Re		L				.1		1		L			_	_ 	₩-	I]			

5



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

August 03, 2012

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

RE: Project: FLORA VISTA NO 1 074926 Pace Project No.: 60126059

Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on July 28, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alice Flanazan

Alice Flanagan

alice.flanagan@pacelabs.com Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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

Page 1 of 10



CERTIFICATIONS

Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219 A2LA Certification #: 2456.01 Arkansas Certification #: 12-019-0 Illinois Certification #: 002885 Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-12-3 Utah Certification #: KS000212012-2

REPORT OF LABORATORY ANALYSIS

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

Page 2 of 10



SAMPLE SUMMARY

Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60126059001	GW-074926-072712-JK-DW-17	Water	07/27/12 09:00	07/28/12 08:30
60126059002	GW-074926-072712-JK-DW-DUP	Water	07/27/12 09:00	07/28/12 08:30

REPORT OF LABORATORY ANALYSIS

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

Page 3 of 10



SAMPLE ANALYTE COUNT

Project:FLORA VISTA NO 1074926Pace Project No.:60126059

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60126059001	GW-074926-072712-JK-DW-17	EPA 5030B/8260	JDM	9
60126059002	GW-074926-072712-JK-DW-DUP	EPA 5030B/8260	JDM	9

REPORT OF LABORATORY ANALYSIS

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

Page 4 of 10



Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

Method: EPA 5030B/8260

Description:8260 MSVClient:COP Conestoga-Rovers & Associates, Inc. NMDate:August 03, 2012

General Information:

2 samples were analyzed for EPA 5030B/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/47455

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

Page 5 of 10



Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

Sample: GW-074926-072712-JK 17	-DW- Lab ID:	60126059001	Collected	d: 07/27/12	09:00	Received: 07	7/28/12 08:30 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 5	030B/8260						
Benzene	ND ug	g/L	1.0	0.070	1		08/01/12 12:24	71-43-2	
Ethylbenzene	ND ug	g/L	1.0	0.078	1		08/01/12 12:24	100-41-4	
Toluene	ND ug	g/L	1.0	0.064	1		08/01/12 12:24	108-88-3	
Xylene (Total)	ND ug	g/L	3.0	0.15	1		08/01/12 12:24	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95 %		80-120		1		08/01/12 12:24	460-00-4	
Dibromofluoromethane (S)	97 %		80-120		1		08/01/12 12:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	99 %		80-120		1		08/01/12 12:24	17060-07-0	
Toluene-d8 (S)	91 %		80-120		1		08/01/12 12:24	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		08/01/12 12:24		

REPORT OF LABORATORY ANALYSIS

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

Page 6 of 10



Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

Sample: GW-074926-072712-JK DUP	C-DW- Lab ID:	60126059002	Collecte	d: 07/27/12	2 09:00	Received: 07	7/28/12 08:30 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Method: EPA		·					
0200 WISV	Analytical	Method. EFA:	00300/0200						
Benzene	ND u	g/L	1.0	0.070	1		08/01/12 12:40	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.078	1		08/01/12 12:40	100-41-4	
Toluene	ND u	g/L	1.0	0.064	1		08/01/12 12:40	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.15	1		08/01/12 12:40	1330-20-7	
Surrogates		-							
4-Bromofluorobenzene (S)	99 %	/ 0	80-120		1		08/01/12 12:40	460-00-4	
Dibromofluoromethane (S)	99 %	/ 0	80-120		1		08/01/12 12:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	106 %	/ 0	80-120		1		08/01/12 12:40	17060-07-0	
Toluene-d8 (S)	101 %	0	80-120		1		08/01/12 12:40	2037-26-5	
Preservation pH	1.0		0.10	0.10	1		08/01/12 12:40		

REPORT OF LABORATORY ANALYSIS

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

Page 7 of 10



EPA 5030B/8260

8260 MSV Water 10 mL Purge

Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

QC Batch:	MSV/47455
OC Batch Method:	

METHOD BLANK: 1037919

QC Batch Method:EPA 5030B/8260Associated Lab Samples:60126059001, 60126059002

Matrix: Water

Analysis Description:

Analysis Method:

Associated Lab Samples: 60126059001, 60126059002

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	08/01/12 10:35	
Ethylbenzene	ug/L	ND	1.0	08/01/12 10:35	
Toluene	ug/L	ND	1.0	08/01/12 10:35	
Xylene (Total)	ug/L	ND	3.0	08/01/12 10:35	
1,2-Dichloroethane-d4 (S)	%	106	80-120	08/01/12 10:35	
4-Bromofluorobenzene (S)	%	97	80-120	08/01/12 10:35	
Dibromofluoromethane (S)	%	104	80-120	08/01/12 10:35	
Toluene-d8 (S)	%	98	80-120	08/01/12 10:35	

LABORATORY CONTROL SAMPLE: 1037920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.2	91	74-123	
Ethylbenzene	ug/L	20	21.0	105	76-123	
Toluene	ug/L	20	18.1	90	75-123	
Xylene (Total)	ug/L	60	57.1	95	76-123	
1,2-Dichloroethane-d4 (S)	%			112	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Dibromofluoromethane (S)	%			105	80-120	
Toluene-d8 (S)	%			95	80-120	

Date: 08/03/2012 10:56 AM

REPORT OF LABORATORY ANALYSIS

Page 8 of 10



QUALIFIERS

Project: FLORA VISTA NO 1 074926

Pace Project No.: 60126059

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/47455

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

REPORT OF LABORATORY ANALYSIS

Page 9 of 10



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:FLORA VISTA NO 1074926Pace Project No.:60126059

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60126059001 60126059002	GW-074926-072712-JK-DW-17 GW-074926-072712-JK-DW-DUP	EPA 5030B/8260 EPA 5030B/8260	MSV/47455 MSV/47455		

REPORT OF LABORATORY ANALYSIS

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

Page 10 of 10

	& ASSUCIALES	Phone:	C Install	Fax:	TOUL OUT 10	US Later and	pampatrie bas del.	(See Rev	(See Reverse Side for Instructions)
Project No/ Phase/Task Code:	100° (CIRLING), VI	Labor	Laboratory Name:	E Avalution	10(1) DIE (Lab Location:	9	Neve SSO	SSOW ID:
Project Name: Flora Visra 1	ana mana	Lab C	Lab Contact:		uter telur	Lab Quote No.	Lab Quote No: 4 SO96 290 2		Cooler No:
Project Location:		SAMPLE TYPE	日本市	CONTAINER QUANTITY PRESERVATION	117 & V	ANAL)	Aval vsis Requested See Back of COC for Definitions)	Carrier:	er: D
Chemistry Contact:	req erantitutiens ladut	d files	12		5-92	(98			Airbill No: 80069518-3291
Sampler(s): SKIRCHNEIS	a particular and a	ck of COC) or Com) srved aloric Acid	cld (HNO ₃) Acid (H ₂ Sa Hydroxide VVater (2	x 1, cyc - cyc, a 2, cyc - c 2, cyc - cyc	* 3	te réquirentés (se rojensist for in	D Request	Date Shipped:
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd//vv)	175	Unprese	Sulfuric Sodium (HO&N)	Other:	2421	stunder) (ertil	Hora	COMMENTS/ SPECIAL INSTRUCTIONS:
T. 1. 10. 11 - 0126-0121 - 014. 01. 17-	42	3	* 1	upping counts	the des	× 30	3069H	ad Tapat	al
Gw of the start.						2			er
	<u> </u>								
	ALC: N		Troba Ma					Physics.	
	and benefician	Here a			The state	AL IN		Here Weight	wolf , 1-1 duty -
	The second second	Langer -	AL.			8		and ship	310 1 010
	La contra da la contra d	March 1	No. 10 No.					141 1 1 1 1 1	
abara	num 1 pinggit) elitig	w-ime	5940					a manual m	tree
	alyned also in ann	pring to 2	÷ B		APA APA			1-10,000	ALL ALL ALL
		(and a second	1921				E		
The second s									
	emet 0	1912							- B -
and the second second	John no beginning	in cond	ATT: C		Line .			a longer a	10 10 2 m
	Control Internation				The second				
5 TAT Romitred in husiness dave /use senarate COCs for different TATs)	trate COCs for different	TATs)		Total Number of Containers:	tainers:	Notes/ Specia	Notes/ Special Requirements:	1	
☐ ☐ 1 Day □ 2 Days □ 3 Days □ 1 Wee	1 Week 2 Week Other:		All Samples in	ples in Cooler must be on COC	be on COC	11 31			
RELINGUISHED BY	COMPANY	DATE	TIME		RECEIVED BY	X	COMPANY	E	DATE TIME
TT w malack	ula	しき-2-1	r (500	4	Bruckett		Pare y	12 .0.	38/12 0830
	The line of the local	HIN	ALC: NO SA	2					2 - <u>magna</u>
1.	And the state	tolarda -	1111	¢			A REAL PROPERTY AND A REAL	The second	- 1840 Common III

Pace Analytical Sample Condit	tion Upon Re	ceipt – E	SI Tech Spe	cs	
Client Namelop CR A NM			Project #		6059
Courier: Fed Ex D UPS D USPS D Client D					Optional Proj Due Date: %/g
	Pace Shipping L			¥	Proj Name:
Custody Seal on Cooler/Box Present: Yes A No Packing Material: Bubble Wrap 🗆 Bubble B		act: Yes ☑ Foam □	No 🗆 None 🗆	Other 🗆 🔔	
Thermometer Used: T-191 T-194 Cooler Temperature: Y-0 Temperature should be above freezing to 6°C	Type of Ice: W	et Blue N (circle one)			e, cooling process has be s of person examining BII2
Chain of Custody present:	Pres INo				
	Dyes DNo				
Chain of Custody filled out:					
Chain of Custody relinquished					
Sampler name & signature on COC:	Yes No				
Samples arrived within holding time:	Pres INo				
Short Hold Time analyses (<72hr):	Yes 10				
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 INo	□N/A 10.			
Unpreserved 5035A soils frozen w/in 48hrs?	□Yes □No	DN/A 11.			
Filtered volume received for dissolved tests?	□Yes □No	12.			
Sample labels match COC:	Ves No				
-Includes date/time/ID/analyses Matrix:	-	13.			
All containers needing preservation have been checked.	Yes No				
All containers needing preservation are found to be in	Yes No	-			
compliance with EPA recommendation. Exceptions: VOA, coliform, TOC, 0&G, WI-DRO (water),		-	Iwhen	Lot # (of added
Phenolics Trip Blank present:	TYes No		pleted	preser	vative
	□Yes □ No				
Pace Trip Blank lot # (if purchased): Headspace in VOA vials (>6mm):		15.			
	DYes DNo	LIN/A 16.			
Project sampled in USDA Regulated Area:	□Yes □No	/	List State:		A
Client Notification/ Resolution: Copy	COC to Client?	Y / N	Field Data R	equired? Y	/ N
	Date/Time:	0		Temp Log when unpa	: Record start and finish t cking cooler, if >20 min,
Comments/ Resolution: CMNSHILL Mailfull	5				mple temps.
				Start: C	
- Nava			That	End: 09	
Project Manager Review: KR		Date	1	Temp:	
Note: Whenever there is a discrepancy affecting North Ca			1		



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

October 04, 2012

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

RE: Project: 074926 FLORA VISTA NO 1 Pace Project No.: 60129621

Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on September 22, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alice Flanazan

Alice Flanagan

alice.flanagan@pacelabs.com Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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

Page 1 of 16



CERTIFICATIONS

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219 A2LA Certification #: 2456.01 Arkansas Certification #: 12-019-0 Illinois Certification #: 002885 Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-12-3 Utah Certification #: KS000212012-2

REPORT OF LABORATORY ANALYSIS

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

Page 2 of 16



SAMPLE SUMMARY

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60129621001	GW-074926-091912-JP-MW-1	Water	09/19/12 14:25	09/22/12 08:50
60129621002	GW-074926-091912-JP-MW-2	Water	09/19/12 14:30	09/22/12 08:50
60129621003	GW-074926-091912-JP-MW-3	Water	09/19/12 16:30	09/22/12 08:50
60129621004	GW-074926-091912-JP-MW-4	Water	09/19/12 16:20	09/22/12 08:50
60129621005	GW-074926-091912-JP-MW-DUP	Water	09/19/12 16:25	09/22/12 08:50
60129621006	TB-074926-091912	Water	09/19/12 00:00	09/22/12 08:50

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.. Page 3 of 16



SAMPLE ANALYTE COUNT

 Project:
 074926 FLORA VISTA NO 1

 Pace Project No.:
 60129621

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60129621001	 GW-074926-091912-JP-MW-1	EPA 6010	SMW	2
		EPA 8260	PRG	9
60129621002	GW-074926-091912-JP-MW-2	EPA 6010	SMW	2
		EPA 8260	PRG	9
60129621003	GW-074926-091912-JP-MW-3	EPA 6010	SMW	2
		EPA 8260	PRG	9
60129621004	GW-074926-091912-JP-MW-4	EPA 6010	SMW	2
		EPA 8260	PRG	9
60129621005	GW-074926-091912-JP-MW-DUP	EPA 8260	PRG	9
60129621006	TB-074926-091912	EPA 8260	PRG	9

REPORT OF LABORATORY ANALYSIS

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

Page 4 of 16



PROJECT NARRATIVE

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Method: EPA 6010

Description:6010 MET ICP, DissolvedClient:COP Conestoga-Rovers & Associates, Inc. NMDate:October 04, 2012

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.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

Page 5 of 16



PROJECT NARRATIVE

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Method: EPA 8260

Description:8260 MSV UST, WaterClient:COP Conestoga-Rovers & Associates, Inc. NMDate:October 04, 2012

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/48823

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.. Page 6 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: GW-074926-091912-JP- MW-1	Lab ID: 6	0129621001	Collecte	d: 09/19/12	2 14:25	Received: 09/	22/12 08:50 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical M	lethod: EPA 6	010 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	19000 ug/	L	50.0	17.2	1	09/24/12 13:45	09/26/12 15:17	7439-89-6	
Manganese, Dissolved	0.86 mg/	/L	0.0050	0.00060	1	09/24/12 13:45	09/26/12 15:17	7439-96-5	
8260 MSV UST, Water	Analytical M	lethod: EPA 8	260						
Benzene	1520 ug/	L	20.0	2.0	20		10/01/12 03:44	71-43-2	
Ethylbenzene	414 ug/	L	20.0	4.6	20		10/01/12 03:44	100-41-4	
Toluene	ND ug/	L	20.0	3.0	20		10/01/12 03:44	108-88-3	
Xylene (Total)	2490 ug/	L	60.0	8.2	20		10/01/12 03:44	1330-20-7	
Surrogates	-								
Dibromofluoromethane (S)	113 %		80-120		20		10/01/12 03:44	1868-53-7	
Toluene-d8 (S)	106 %		80-120		20		10/01/12 03:44	2037-26-5	
4-Bromofluorobenzene (S)	97 %		80-120		20		10/01/12 03:44	460-00-4	
1,2-Dichloroethane-d4 (S)	117 %		80-120		20		10/01/12 03:44	17060-07-0	
Preservation pH	1.0		1.0	0.10	20		10/01/12 03:44		

REPORT OF LABORATORY ANALYSIS

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

Page 7 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: GW-074926-091912-JP- MW-2	Lab ID:	60129621002	Collecte	d: 09/19/12	2 14:30	Received: 09/	22/12 08:50 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	A 3010			
Iron, Dissolved	ND u	g/L	50.0	17.2	1	09/24/12 13:45	09/26/12 15:27	7439-89-6	
Manganese, Dissolved	ND m	ig/L	0.0050	0.00060	1	09/24/12 13:45	09/26/12 15:27	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	ND u	g/L	1.0	0.098	1		10/01/12 03:59	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.23	1		10/01/12 03:59	100-41-4	
Toluene	ND u	g/L	1.0	0.15	1		10/01/12 03:59	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.41	1		10/01/12 03:59	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	114 %	D	80-120		1		10/01/12 03:59	1868-53-7	
Toluene-d8 (S)	105 %	D	80-120		1		10/01/12 03:59	2037-26-5	
4-Bromofluorobenzene (S)	99 %	D	80-120		1		10/01/12 03:59	460-00-4	
1,2-Dichloroethane-d4 (S)	117 %	D	80-120		1		10/01/12 03:59	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/01/12 03:59		

REPORT OF LABORATORY ANALYSIS

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

Page 8 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: GW-074926-091912-JP- MW-3	Lab ID: 6012962	21003 Collecte	ed: 09/19/12	2 16:30	Received: 09/	22/12 08:50 Ma	atrix: Water	
		Report						
Parameters	Results Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method:	EPA 6010 Prepa	aration Meth	od: EP/	A 3010			
Iron, Dissolved	ND ug/L	50.0	17.2	1	09/24/12 13:45	09/26/12 15:30	7439-89-6	
Manganese, Dissolved	ND mg/L	0.0050	0.00060	1	09/24/12 13:45	09/26/12 15:30	7439-96-5	
8260 MSV UST, Water	Analytical Method:	EPA 8260						
Benzene	ND ug/L	1.0	0.098	1		10/01/12 04:14	71-43-2	
Ethylbenzene	ND ug/L	1.0	0.23	1		10/01/12 04:14	100-41-4	
Toluene	ND ug/L	1.0	0.15	1		10/01/12 04:14	108-88-3	
Xylene (Total)	ND ug/L	3.0	0.41	1		10/01/12 04:14	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	109 %	80-120		1		10/01/12 04:14	1868-53-7	
Toluene-d8 (S)	108 %	80-120		1		10/01/12 04:14	2037-26-5	
4-Bromofluorobenzene (S)	96 %	80-120		1		10/01/12 04:14	460-00-4	
1,2-Dichloroethane-d4 (S)	115 %	80-120		1		10/01/12 04:14	17060-07-0	
Preservation pH	1.0	1.0	0.10	1		10/01/12 04:14		

REPORT OF LABORATORY ANALYSIS

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

Page 9 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: GW-074926-091912-JP- MW-4	Lab ID: 60129	621004 Collecte	ed: 09/19/12	2 16:20	Received: 09/	/22/12 08:50 Ma	atrix: Water	
		Report						
Parameters	Results Uni	ts Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Metho	d: EPA 6010 Prepa	aration Meth	od: EP/	A 3010			
Iron, Dissolved	1930 ug/L	250	86.0	5	09/24/12 13:45	09/28/12 11:31	7439-89-6	
Manganese, Dissolved	4.5 mg/L	0.0050	0.00060	1	09/24/12 13:45	09/26/12 15:34	7439-96-5	
8260 MSV UST, Water	Analytical Metho	d: EPA 8260						
Benzene	2.9 ug/L	1.0	0.098	1		10/01/12 04:29	71-43-2	
Ethylbenzene	4.8 ug/L	1.0	0.23	1		10/01/12 04:29	100-41-4	
Toluene	ND ug/L	1.0	0.15	1		10/01/12 04:29	108-88-3	
Xylene (Total)	57.6 ug/L	3.0	0.41	1		10/01/12 04:29	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	110 %	80-120		1		10/01/12 04:29	1868-53-7	
Toluene-d8 (S)	114 %	80-120		1		10/01/12 04:29	2037-26-5	
4-Bromofluorobenzene (S)	109 %	80-120		1		10/01/12 04:29	460-00-4	
1,2-Dichloroethane-d4 (S)	116 %	80-120		1		10/01/12 04:29	17060-07-0	
Preservation pH	1.0	1.0	0.10	1		10/01/12 04:29		

REPORT OF LABORATORY ANALYSIS

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

Page 10 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: GW-074926-091912-JP- MW-DUP	Lab ID: 60 [.]	129621005	Collected	d: 09/19/12	16:25	Received: 09	/22/12 08:50 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Me	thod: EPA 82	260						
Benzene	2.8 ug/L		1.0	0.098	1		10/01/12 04:43	71-43-2	
Ethylbenzene	4.5 ug/L		1.0	0.23	1		10/01/12 04:43	100-41-4	
Toluene	ND ug/L		1.0	0.15	1		10/01/12 04:43	108-88-3	
Xylene (Total)	55.1 ug/L		3.0	0.41	1		10/01/12 04:43	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109 %		80-120		1		10/01/12 04:43	1868-53-7	
Toluene-d8 (S)	113 %		80-120		1		10/01/12 04:43	2037-26-5	
4-Bromofluorobenzene (S)	109 %		80-120		1		10/01/12 04:43	460-00-4	
1,2-Dichloroethane-d4 (S)	118 %		80-120		1		10/01/12 04:43	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/01/12 04:43		

REPORT OF LABORATORY ANALYSIS

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

Page 11 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Sample: TB-074926-091912	Lab ID	60129621006	Collecte	d: 09/19/12	2 00:00	Received: 09/	/22/12 08:50 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytica	al Method: EPA 8	3260						
Benzene	ND	ug/L	1.0	0.098	1		10/01/12 04:58	71-43-2	
Ethylbenzene	ND	ug/L	1.0	0.23	1		10/01/12 04:58	100-41-4	
Toluene	ND	ug/L	1.0	0.15	1		10/01/12 04:58	108-88-3	
Xylene (Total)	ND	ug/L	3.0	0.41	1		10/01/12 04:58	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	109	%	80-120		1		10/01/12 04:58	1868-53-7	
Toluene-d8 (S)	106	%	80-120		1		10/01/12 04:58	2037-26-5	
4-Bromofluorobenzene (S)	98	%	80-120		1		10/01/12 04:58	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	80-120		1		10/01/12 04:58	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		10/01/12 04:58		

REPORT OF LABORATORY ANALYSIS

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

Page 12 of 16



-,	074926 FLORA V	'ISTA NO 1											
Pace Project No .:	60129621												
QC Batch:	MPRP/19623			Analysis	Method:	EF	PA 6010						
QC Batch Method:	EPA 3010			Analysis	Descripti	on: 60	10 MET Dis	ssolved					
Associated Lab Sam	ples: 60129621	1001, 601296	21002, 60 ⁻	12962100	03, 60129	621004							
METHOD BLANK:	1066229			Ma	atrix: Wate	er							
Associated Lab Sam	ples: 60129621	1001, 601296	21002, 60 [.]	12962100	03, 60129	621004							
				Blank		porting							
Param	eter	Units		Result		Limit	Analyz	ed	Qualifiers				
Iron, Dissolved		ug/L			ND	50.0	09/26/12	-					
Manganese, Dissolv	ed	mg/L			ND	0.0050	09/26/12 ⁻	14:46					
LABORATORY CON	TROL SAMPLE:	1066230											
			5	Spike	LCS		LCS	% Rec					
Param	eter	Units	C	Conc.	Resul	t o	% Rec	Limits	Qu	alifiers			
Iron, Dissolved		ug/L		10000		9850	98	80	-120				
Manganese, Dissolv	ed	mg/L		1		1.0	102	80	-120				
MATRIX SPIKE & M	ATRIX SPIKE DUI	PLICATE:	1066231			1066232							
			N	٨S	MSD								
		6012962	7003 Sp	oike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er l	Jnits Re	sult Co	onc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Iron, Dissolved	ug/L		ND 1	10000	10000	9560	9630	96	96	75-125	1	20	
Manganese, Dissolv	ed mg/	LC	.054	1	1	1.1	1.1	100	101	75-125	0	20	

Date: 10/04/2012 02:20 PM

REPORT OF LABORATORY ANALYSIS

Page 13 of 16



Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

METHOD BLANK: 1069198

•

QC Batch:MSV/48823Analysis Method:QC Batch Method:EPA 8260Analysis Description:

s Description: 8260 MSV UST-WATER

EPA 8260

Associated Lab Samples: 60129621001, 60129621002, 60129621003, 60129621004, 60129621005, 60129621006

Matrix: Water

Associated Lab Samples: 60129621001, 60129621002, 60129621003, 60129621004, 60129621005, 60129621006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/01/12 03:00	
Ethylbenzene	ug/L	ND	1.0	10/01/12 03:00	
Toluene	ug/L	ND	1.0	10/01/12 03:00	
Xylene (Total)	ug/L	ND	3.0	10/01/12 03:00	
1,2-Dichloroethane-d4 (S)	%	118	80-120	10/01/12 03:00	
4-Bromofluorobenzene (S)	%	98	80-120	10/01/12 03:00	
Dibromofluoromethane (S)	%	111	80-120	10/01/12 03:00	
Toluene-d8 (S)	%	105	80-120	10/01/12 03:00	

LABORATORY CONTROL SAMPLE: 1069199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.8	94	74-123	
Ethylbenzene	ug/L	20	19.0	95	76-123	
Toluene	ug/L	20	18.4	92	75-123	
Xylene (Total)	ug/L	60	56.5	94	76-123	
1,2-Dichloroethane-d4 (S)	%			114	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Dibromofluoromethane (S)	%			112	80-120	
Toluene-d8 (S)	%			101	80-120	

Date: 10/04/2012 02:20 PM

REPORT OF LABORATORY ANALYSIS

Page 14 of 16



QUALIFIERS

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/48823

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

REPORT OF LABORATORY ANALYSIS

Page 15 of 16



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074926 FLORA VISTA NO 1

Pace Project No.: 60129621

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60129621001	GW-074926-091912-JP-MW-1	EPA 3010	MPRP/19623	EPA 6010	ICP/16167
60129621002	GW-074926-091912-JP-MW-2	EPA 3010	MPRP/19623	EPA 6010	ICP/16167
60129621003	GW-074926-091912-JP-MW-3	EPA 3010	MPRP/19623	EPA 6010	ICP/16167
60129621004	GW-074926-091912-JP-MW-4	EPA 3010	MPRP/19623	EPA 6010	ICP/16167
60129621001	GW-074926-091912-JP-MW-1	EPA 8260	MSV/48823		
60129621002	GW-074926-091912-JP-MW-2	EPA 8260	MSV/48823		
60129621003	GW-074926-091912-JP-MW-3	EPA 8260	MSV/48823		
60129621004	GW-074926-091912-JP-MW-4	EPA 8260	MSV/48823		
60129621005	GW-074926-091912-JP-MW-DUP	EPA 8260	MSV/48823		
60129621006	TB-074926-091912	EPA 8260	MSV/48823		

REPORT OF LABORATORY ANALYSIS

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

Page 16 of 16

	ical	1000
	てて	the second second
	Anah	and a second
7	ace	
ò	7	1

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

Page: of		NCY	GROUND WATER T DRINKING WATER	RCRA L OTHER		NM				Residual Chlorin (CUL) A (P) R Pace Project No. Lab I.D.	BA 1/2 113 13 13 1.5 30 Galt a/		C3	V ay	Con and a second	V Cub						SAMPLE CONDITIONS		Y Y Y Y			(N/) (N/) (N/)	Y) 19I	oeA ol olsuO ooO ooO
		REGULATORY AGENCY		LUST L RC	Site Location	STATE:	Requested Analysis Filtered (Y/N)															DATE		6-33-17 8-29			-		21/12/60
							Requested A	▲ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	· · · · · · · · · · · · · · · · · · ·	eeT sisylsnA↓ X∃T8 0858 bevlossi0 0108	×	XX	XX	XX	×	×						ACCEPTED RY / AFEII IATION		E					DATE Signed (MM/DD/YY):
lation	ENFOS	ne.			Alice Flanagan	5514, 5		Preservatives		Other Methanol NaOH HCI HCO HUO3		13	13	3	n N	3						ACCEPTED		Hull Che			Č	1055	-
Section C invoice information	Attention	Company Name:	Address	Pace Quote	Pace Project	Pace Profile #				semple temp at c # OF CONTAINER Unpreserved H ₂ SO ₄	5	4	4	4	3	2							+	1200			ATURE	LER:	LER
			-	STILLAR	1 1 1 1 1 1			TED	COMPOSITE END/GRAB	DATE	-	9-19-17 1-130	1	-	9.19.12 1625	0011 ZIA				_		The second		12/6			SAMPLER NAME AND SIGNATURE	PRINT Name of SAMPLER:	SIGNATURE of SAMPLER:
	lews	Kelly Blanchard, Angela Bown	-	4515860224 45	-			COLLECTED	COMPOSITE START			9	6	6	6	0-							KELING JISHEU BT / AFFILIA ION	LCRA			SAMPLER	R	SIC
Section B Required Project Information.	Report To Christine Mathews			Purchase Order No : 4515	ame: Flora Vista No.	mber: 074926			I seboo bild codes I		C	1	w7-6	WTG	WTG	WT G						DELEMONIE	RECINAVIONED	- Ken					
Section B Required P	Report Tc	Ste 200 Copy To:		Purchase	1-4932 Project Name:	Project Number.		Valid Matrix Codes MATRIX CODE	VIG WATER E WATER JCT OLID	WIPE WIP AIR AR CTHER AR TISSUE TS	JP- 445-1	0	0	2	ł														
Section A Required Client Information:	CRA	6121 Indian School Rd NE, Ste 200	Albequerque, NM 87110	cmathews@craworld.com	(505)884-0672 Fax (505)884-4932	ue Date/TAT: standard		Section D Required Client Information		SAMPLE ID WIN (A-Z, 0-9 / -) OF Sample IDS MUST BE UNIQUE TIS	-014926-091412-	- Mala 17	-216160-926610-01	96-21926-091910-02	-216160-02426-091912-	S-074926-091912							ADDITIONAL COMMENTS						
Section A Required Clier	Company	Address		Email To:	Phone (505	Requested Due Date/TAT:		Sect		# MƏT I	Š	1			5 64	6	7	œ	σ	9	11	12		F	ace	Pa	acka	age	e 17

Sam	ple Condition	Upon Receipt	
Pace Analytical Client Name:	CRA N	<u>m</u>	Project #
Courier: Fed Ex UPS USPS Client Tracking #: 8004 9527 2410 Pace Custody Seal on Cooler/Box Present: Yes	Shipping Label Use	□Pace ☑Other d? □ Yes ☑ s intact: ☑ Yes □	No Proj. Due Date: (6 or Proj. Name: No
Packing Material: Bubble Wrap Bubble B	Bags ⊡Foam	None Dther	ZPLC
Thermometer Used: / T-194	Type of Ice: We	Blue None	Samples on ice, cooling process has begun
Cooler Temperature: ? Temperature should be above freezing to 6°C		Comments:	Date and Initials of person examining contents: <u>9- </u>
Chain of Custody present:	Vives DNO DN/A	1	
Chain of Custody filled out:		2.	
Chain of Custody relinquished		3.	
Sampler name & signature on COC:	Yes No N/A	4.	
Samples arrived within holding time:		5.	
Short Hold Time analyses (<72hr):	Yes No N/A	6.	
Rush Turn Around Time requested:	Yes DNo N/A	7.	
Sufficient volume:		8,	
Correct containers used:		9.	
-Pace containers used:	ØYes □No □N/#	×	
Containers intact:		10,	
Unpreserved 5035A soils frozen w/in 48hrs?		11.	
Filtered volume received for dissolved tests	Yes No N/	12.	
Sample labels match COC:		13.	
-Includes date/time/ID/analyses Matrix:	Г		
All containers needing preservation have been checked		14.	
All containers needing preservation are found to be in compliance with EPA recommendation	Yes No N/	A	
Exceptions (VOA) coliform, TOC, O&G, WI-DRO (water), Phenolics	Yes INO	Initial when completed	Lot # of added preservative
Trip Blank present:	Yes No N/	15.	
Pace Trip Blank lot # (if purchased): 080412-3			
Headspace in VOA vials (>6mm);	□Yes ⊡No □N/	16.	
Project sampled in USDA Regulated Area:		A 17. List State:	(h
Client Notification/ Resolution: Copy	COC to Client?	Y / N)	Field Data Required? Y / N
Person Contacted:	Date	/Time.	
Comments/ Resolution:			
· · · · · · · · · · · · · · · · · · ·			
	·		
MAE			alauth
Project Manager Review:			Date:

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



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

December 27, 2012

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

RE: Project: Flora Vista No. 1 Pace Project No.: 60135440

Dear Christine Matthews:

Enclosed are the analytical results for sample(s) received by the laboratory on December 14, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alice Glanazan

Alice Flanagan

alice.flanagan@pacelabs.com Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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

Page 1 of 18



CERTIFICATIONS

Project: Flora Vista No. 1

Pace Project No.: 60135440

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219 A2LA Certification #: 2456.01 Arkansas Certification #: 12-019-0 Illinois Certification #: 002885 Iowa Certification #: 118 Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212008A Oklahoma Certification #: 9205/9935 Texas Certification #: T104704407-12-3 Utah Certification #: KS000212012-2

REPORT OF LABORATORY ANALYSIS

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

Page 2 of 18



SAMPLE SUMMARY

Project:Flora Vista No. 1Pace Project No.:60135440

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60135440001	GW-074926-121312-CM-MW-1	Water	12/13/12 10:55	12/14/12 08:30
60135440002	GW-074926-121312-CM-MW-2	Water	12/13/12 10:45	12/14/12 08:30
60135440003	GW-074926-121312-CM-MW-3	Water	12/13/12 10:05	12/14/12 08:30
60135440004	GW-074926-121312-CM-MW-4	Water	12/13/12 10:25	12/14/12 08:30
60135440005	GW-074926-121312-CM-DUP	Water	12/13/12 10:30	12/14/12 08:30
60135440006	TB-074926-121312-CM-001	Water	12/13/12 14:30	12/14/12 08:30

REPORT OF LABORATORY ANALYSIS

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

Page 3 of 18



SAMPLE ANALYTE COUNT

Project:Flora Vista No. 1Pace Project No.:60135440

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60135440001	GW-074926-121312-CM-MW-1	EPA 6010	JGP	2
		EPA 8260	PRG	9
60135440002	GW-074926-121312-CM-MW-2	EPA 6010	JGP	2
		EPA 8260	PRG	9
60135440003	GW-074926-121312-CM-MW-3	EPA 6010	JGP	2
		EPA 8260	PRG	9
60135440004	GW-074926-121312-CM-MW-4	EPA 6010	JGP	2
		EPA 8260	PRG	9
60135440005	GW-074926-121312-CM-DUP	EPA 8260	JTK, SDR	9
60135440006	TB-074926-121312-CM-001	EPA 8260	JTK	9

REPORT OF LABORATORY ANALYSIS

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

Page 4 of 18



PROJECT NARRATIVE

Project: Flora Vista No. 1 Pace Project No.: 60135440

Method: EPA 6010

Description:6010 MET ICP, DissolvedClient:COP Conestoga-Rovers & Associates, Inc. NMDate:December 27, 2012

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.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

Page 5 of 18



PROJECT NARRATIVE

Project: Flora Vista No. 1

Pace Project No.: 60135440

Method: EPA 8260

Description:8260 MSV UST, WaterClient:COP Conestoga-Rovers & Associates, Inc. NMDate:December 27, 2012

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/50943

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

QC Batch: MSV/50967

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

QC Batch: MSV/50978

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.. Page 6 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: GW-074926-121312-CM- MW-1	Lab ID: 0	60135440001	Collecte	d: 12/13/12	2 10:55	Received: 12/	14/12 08:30 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical M	Method: EPA 6	010 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	23800 ug	ı/L	50.0	17.2	1	12/19/12 14:45	12/26/12 16:41	7439-89-6	
Manganese, Dissolved	0.75 mg	g/L	0.0050	0.00060	1	12/19/12 14:45	12/26/12 16:41	7439-96-5	
8260 MSV UST, Water	Analytical N	Method: EPA 8	260						
Benzene	2020 ug	ı/L	25.0	2.4	25		12/22/12 06:57	71-43-2	
Ethylbenzene	809 ug	ı/L	25.0	5.8	25		12/22/12 06:57	100-41-4	
Toluene	ND ug	J/L	25.0	3.8	25		12/22/12 06:57	108-88-3	
Xylene (Total)	5020 ug	ı/L	75.0	10.2	25		12/22/12 06:57	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	96 %		80-120		25		12/22/12 06:57	1868-53-7	
Toluene-d8 (S)	107 %		80-120		25		12/22/12 06:57	2037-26-5	
4-Bromofluorobenzene (S)	99 %		80-120		25		12/22/12 06:57	460-00-4	
1,2-Dichloroethane-d4 (S)	103 %		80-120		25		12/22/12 06:57	17060-07-0	
Preservation pH	1.0		1.0	0.10	25		12/22/12 06:57		

REPORT OF LABORATORY ANALYSIS

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

Page 7 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: GW-074926-121312-CM- MW-2	Lab ID:	60135440002	Collecte	d: 12/13/12	2 10:45	Received: 12/	14/12 08:30 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical	Method: EPA 6	010 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	ND u	g/L	50.0	17.2	1	12/19/12 14:45	12/26/12 16:44	7439-89-6	
Manganese, Dissolved	ND n	ng/L	0.0050	0.00060	1	12/19/12 14:45	12/26/12 16:44	7439-96-5	
8260 MSV UST, Water	Analytical	Method: EPA 8	260						
Benzene	ND u	g/L	1.0	0.098	1		12/22/12 07:11	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.23	1		12/22/12 07:11	100-41-4	
Toluene	ND u	g/L	1.0	0.15	1		12/22/12 07:11	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.41	1		12/22/12 07:11	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	99 %	6	80-120		1		12/22/12 07:11	1868-53-7	
Toluene-d8 (S)	105 %	6	80-120		1		12/22/12 07:11	2037-26-5	
4-Bromofluorobenzene (S)	100 %	6	80-120		1		12/22/12 07:11	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %	6	80-120		1		12/22/12 07:11	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		12/22/12 07:11		

REPORT OF LABORATORY ANALYSIS

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

Page 8 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: GW-074926-121312-CM- MW-3	Lab ID:	60135440003	Collecte	d: 12/13/12	2 10:05	Received: 12/	14/12 08:30 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytica	I Method: EPA 6	010 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	60.5 ເ	ug/L	50.0	17.2	1	12/19/12 14:45	12/26/12 16:47	7439-89-6	
Manganese, Dissolved	0.026 r	mg/L	0.0050	0.00060	1	12/19/12 14:45	12/26/12 16:47	7439-96-5	
8260 MSV UST, Water	Analytica	I Method: EPA 8	260						
Benzene	ND u	ug/L	1.0	0.098	1		12/22/12 07:26	71-43-2	
Ethylbenzene	ND ι	ug/L	1.0	0.23	1		12/22/12 07:26	100-41-4	
Toluene	ND ι	ug/L	1.0	0.15	1		12/22/12 07:26	108-88-3	
Xylene (Total)	ND u	ug/L	3.0	0.41	1		12/22/12 07:26	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	105 9	%	80-120		1		12/22/12 07:26	1868-53-7	
Toluene-d8 (S)	102 9	%	80-120		1		12/22/12 07:26	2037-26-5	
4-Bromofluorobenzene (S)	101 9	%	80-120		1		12/22/12 07:26	460-00-4	
1,2-Dichloroethane-d4 (S)	97 9	%	80-120		1		12/22/12 07:26	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		12/22/12 07:26		

REPORT OF LABORATORY ANALYSIS

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

Page 9 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: GW-074926-121312-CM- MW-4	Lab ID: 60	0135440004	Collecte	d: 12/13/12	2 10:25	Received: 12/	14/12 08:30 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical M	ethod: EPA 60	010 Prepa	ration Meth	od: EPA	3010			
Iron, Dissolved	2920 ug/L	_	50.0	17.2	1	12/19/12 14:45	12/26/12 16:51	7439-89-6	
Manganese, Dissolved	4.9 mg/	L	0.0050	0.00060	1	12/19/12 14:45	12/26/12 16:51	7439-96-5	
8260 MSV UST, Water	Analytical M	ethod: EPA 82	260						
Benzene	94.1 ug/L	_	2.0	0.20	2		12/22/12 07:40	71-43-2	
Ethylbenzene	39.9 ug/L	_	2.0	0.46	2		12/22/12 07:40	100-41-4	
Toluene	ND ug/L	_	2.0	0.30	2		12/22/12 07:40	108-88-3	
Xylene (Total)	385 ug/L	_	6.0	0.82	2		12/22/12 07:40	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	104 %		80-120		2		12/22/12 07:40	1868-53-7	
Toluene-d8 (S)	107 %		80-120		2		12/22/12 07:40	2037-26-5	
4-Bromofluorobenzene (S)	111 %		80-120		2		12/22/12 07:40	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120		2		12/22/12 07:40	17060-07-0	
Preservation pH	1.0		1.0	0.10	2		12/22/12 07:40		

REPORT OF LABORATORY ANALYSIS

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

Page 10 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: GW-074926-121312-CM- DUP	Lab ID: 6013544000	05 Collecte	d: 12/13/12	2 10:30	Received: 12	2/14/12 08:30 M	atrix: Water	
Parameters	Results Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EP	4 8260						
Benzene	197 ug/L	1.0	0.12	1		12/21/12 01:19	71-43-2	
Ethylbenzene	71.2 ug/L	1.0	0.060	1		12/21/12 01:19	100-41-4	
Toluene	ND ug/L	1.0	0.054	1		12/21/12 01:19	108-88-3	
Xylene (Total) <i>Surrogates</i>	550 ug/L	15.0	0.60	5		12/21/12 20:18	1330-20-7	
Dibromofluoromethane (S)	99 %	80-120		1		12/21/12 01:19	1868-53-7	
Toluene-d8 (S)	113 %	80-120		1		12/21/12 01:19	2037-26-5	
4-Bromofluorobenzene (S)	106 %	80-120		1		12/21/12 01:19	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %	80-120		1		12/21/12 01:19	17060-07-0	
Preservation pH	1.0	1.0	0.10	1		12/21/12 01:19		

REPORT OF LABORATORY ANALYSIS

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

Page 11 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

Sample: TB-074926-121312-CM-001	Lab ID:	60135440006	Collected	d: 12/13/12	2 14:30	Received: 12/	14/12 08:30 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
	Analytical	Method: EPA 8		·			- <u> </u>		
Benzene	ND u	g/L	1.0	0.12	1		12/21/12 01:35	71-43-2	
Ethylbenzene	ND u	g/L	1.0	0.060	1		12/21/12 01:35	100-41-4	
Toluene	ND u	g/L	1.0	0.054	1		12/21/12 01:35	108-88-3	
Xylene (Total)	ND u	g/L	3.0	0.67	1		12/21/12 01:35	1330-20-7	
Surrogates		-							
Dibromofluoromethane (S)	101 %	, 0	80-120		1		12/21/12 01:35	1868-53-7	
Toluene-d8 (S)	98 %	, 0	80-120		1		12/21/12 01:35	2037-26-5	
4-Bromofluorobenzene (S)	99 %	, D	80-120		1		12/21/12 01:35	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %	, D	80-120		1		12/21/12 01:35	17060-07-0	
Preservation pH	1.0		1.0	0.10	1		12/21/12 01:35		

REPORT OF LABORATORY ANALYSIS

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

Page 12 of 18



Project:	Flora Vista No.	. 1											
Pace Project No .:	60135440												
QC Batch:	MPRP/20910)		Analys	s Method:	E	PA 6010						
QC Batch Method:	EPA 3010			Analysi	s Descript	ion: 60	010 MET Dis	ssolved					
Associated Lab Sam	ples: 60135	440001, 60	135440002	60135440	003, 60135	5440004							
METHOD BLANK:	1117297			N	latrix: Wat	er							
Associated Lab Sam	ples: 60135	440001, 60	135440002	60135440	003, 60135	5440004							
				Blank	Re	eporting							
Param	eter	I	Units	Result		Limit	Analyz	ed	Qualifiers				
Iron, Dissolved		ug/L			ND	50.0	12/26/12	15:46		_			
Manganese, Dissolv	ed	mg/L			ND	0.0050	12/26/12	15:46					
LABORATORY CON	TROL SAMPLI	E: 111729	98										
				Spike	LCS		LCS	% Rec	;				
Param	eter	l	Units	Conc.	Resu	lt	% Rec	Limits	Qı	alifiers			
Iron, Dissolved		ug/L		10000		8950	90	80	-120		-		
Manganese, Dissolv	ed	mg/L		1		1.0	101	80	-120				
MATRIX SPIKE & M	ATRIX SPIKE [DUPLICATE	: 111729	9		1117300							
				MS	MSD								
		601	35324001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramete	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Iron, Dissolved		ıg/L	ND	10000	10000	8880	8820	89	88	75-125	1	20	
Manganese, Dissolv	ed r	ng/L	979 ug/L	1	1	2.0	1.9	97	94	75-125	1	20	

REPORT OF LABORATORY ANALYSIS

Page 13 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

QC Batch: MSV/50943

QC Batch Method: EPA 8260 Analysis Method:

Matrix: Water

Analysis Description:

EPA 8260

8260 MSV UST-WATER

Associated Lab Samples: 60135440005, 60135440006

METHOD BLANK: 1117987

Associated Lab Samples: 60135440005, 60135440006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/21/12 00:17	
Ethylbenzene	ug/L	ND	1.0	12/21/12 00:17	
Toluene	ug/L	ND	1.0	12/21/12 00:17	
Xylene (Total)	ug/L	ND	3.0	12/21/12 00:17	
1,2-Dichloroethane-d4 (S)	%	101	80-120	12/21/12 00:17	
4-Bromofluorobenzene (S)	%	100	80-120	12/21/12 00:17	
Dibromofluoromethane (S)	%	97	80-120	12/21/12 00:17	
Toluene-d8 (S)	%	101	80-120	12/21/12 00:17	

LABORATORY CONTROL SAMPLE: 1117988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.2	96	74-123	
Ethylbenzene	ug/L	20	20.6	103	76-123	
Toluene	ug/L	20	19.9	99	75-123	
Xylene (Total)	ug/L	60	61.8	103	76-123	
1,2-Dichloroethane-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			95	80-120	
Dibromofluoromethane (S)	%			101	80-120	
Toluene-d8 (S)	%			100	80-120	

Date: 12/27/2012 05:12 PM

REPORT OF LABORATORY ANALYSIS

Page 14 of 18

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

Pace Package 14 of 20



Project: Flora Vista No. 1

Pace Project No.: 60135440

QC Batch:	MSV/50967	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
Associated Lab Sam	ples: 60135440001,	0135440002, 60135440003, 60135440004	4

METHOD BLANK: 1118524

Matrix: Water

Associated Lab Samples: 60135440001, 60135440002, 60135440003, 60135440004

		Blank	Reporting		o ""
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/22/12 05:30	
Ethylbenzene	ug/L	ND	1.0	12/22/12 05:30	
Toluene	ug/L	ND	1.0	12/22/12 05:30	
Xylene (Total)	ug/L	ND	3.0	12/22/12 05:30	
1,2-Dichloroethane-d4 (S)	%	101	80-120	12/22/12 05:30	
4-Bromofluorobenzene (S)	%	100	80-120	12/22/12 05:30	
Dibromofluoromethane (S)	%	96	80-120	12/22/12 05:30	
Toluene-d8 (S)	%	104	80-120	12/22/12 05:30	

LABORATORY CONTROL SAMPLE: 1118525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.9	105	74-123	
Ethylbenzene	ug/L	20	23.0	115	76-123	
Toluene	ug/L	20	23.1	116	75-123	
Xylene (Total)	ug/L	60	67.8	113	76-123	
1,2-Dichloroethane-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Dibromofluoromethane (S)	%			102	80-120	
Toluene-d8 (S)	%			105	80-120	

Date: 12/27/2012 05:12 PM

REPORT OF LABORATORY ANALYSIS

Page 15 of 18



Project: Flora Vista No. 1

Pace Project No.: 60135440

QC Batch: MSV/50978	MSV/50978		hod: El	PA 8260			
QC Batch Method: EPA 8260	EPA 8260 bles: 60135440005 1118686 bles: 60135440005 eter Units ug/L 4 (S) % le (S) % le (S) %	Analysis Des	cription: 82	260 MSV UST-WAT	ER		
Associated Lab Samples: 6013	5440005						
METHOD BLANK: 1118686		Matrix:	Water				
Associated Lab Samples: 6013	5440005						
		Blank	Reporting				
Parameter	Units	Result	Limit	Analyzed	Qualifiers		
Xylene (Total)	ug/L	ND	3.0	12/21/12 20:02			
1,2-Dichloroethane-d4 (S)	%	100	80-120	12/21/12 20:02			
4-Bromofluorobenzene (S)	%	102	80-120	12/21/12 20:02			
Dibromofluoromethane (S)	%	97	80-120	12/21/12 20:02			
Toluene-d8 (S)	%	98	80-120	12/21/12 20:02			

LABORATORY CONTROL SAMPLE: 1118687

Parameter			LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	60	64.6	108	76-123	
1,2-Dichloroethane-d4 (S)	%			103	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Dibromofluoromethane (S)	%			97	80-120	
Toluene-d8 (S)	%			99	80-120	

REPORT OF LABORATORY ANALYSIS

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

Page 16 of 18



QUALIFIERS

Project: Flora Vista No. 1 Pace Project No.: 60135440

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/50943

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume. Batch: MSV/50967

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

Batch: MSV/50978

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

REPORT OF LABORATORY ANALYSIS

Page 17 of 18



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:	Flora Vista No. 1
Pace Project No .:	60135440

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60135440001	GW-074926-121312-CM-MW-1	EPA 3010	MPRP/20910	EPA 6010	ICP/16950
60135440002	GW-074926-121312-CM-MW-2	EPA 3010	MPRP/20910	EPA 6010	ICP/16950
60135440003	GW-074926-121312-CM-MW-3	EPA 3010	MPRP/20910	EPA 6010	ICP/16950
60135440004	GW-074926-121312-CM-MW-4	EPA 3010	MPRP/20910	EPA 6010	ICP/16950
60135440001	GW-074926-121312-CM-MW-1	EPA 8260	MSV/50967		
60135440002	GW-074926-121312-CM-MW-2	EPA 8260	MSV/50967		
60135440003	GW-074926-121312-CM-MW-3	EPA 8260	MSV/50967		
60135440004	GW-074926-121312-CM-MW-4	EPA 8260	MSV/50967		
60135440005	GW-074926-121312-CM-DUP	EPA 8260	MSV/50943		
60135440005	GW-074926-121312-CM-DUP	EPA 8260	MSV/50978		
60135440006	TB-074926-121312-CM-001	EPA 8260	MSV/50943		

REPORT OF LABORATORY ANALYSIS

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

Page 18 of 18



Sample Condition Upon Receipt

WO#:60135440

Client Name:CRA_NM					Optional
Courier: Fed Ex 🖉 UPS 🗆 USPS 🗆 Client 🗆 Comm	nercial	🗆 Pa	ce 🗆 Other		Proj Due Date:
Tracking #: 6022 4457 9929 Pace Sh	ipping	Label U	sed? Yes 🗆	No 🗡	Proj Name:
Custody Seal on Cooler/Box Present: Yes 🕅 No 🗆 Si	eals int	tact: Y	es)⊠⁄No⊡]	<u> </u>
Packing Material: Bubble Wrap Bubble Bags		Foam [None None	Other	
Thermometer Used: 1-199/ T-194 Type of le	ce: M			Samples receive	ed on ice, cooling process has begun.
Cooler Temperature:		(circle	one)		initials of person examining
Temperature should be above freezing to 6°C				contents:	THE 12/14/12 1145
Chain of Custody present:	No	□n/A	1.		
Chain of Custody filled out:	□No	□n/A	2.		
Chain of Custody relinquished:	□No	□n/A	3.		
Sampler name & signature on COC:	□No	□n/A	4.		
Samples arrived within holding time:	□No	□n/A	5.		
Short Hold Time analyses (<72hr):	No	□n/A	6.		
Rush Turn Around Time requested:	No	□n/A	7.		
Sufficient volume:	□No	□n/A	8.		
Correct containers used:	□No	□n/A			
Pace containers used: Ares	□No	□n/A	9.		
Containers intact:	□No	□n/A	10.		
Unpreserved 5035A soils frozen w/in 48hrs?	□No	∑⁄2 N/A	11.		
Filtered volume received for dissolved tests?	□No	₽ MA	12.		
Sample labels match COC:	□No	□n/A			
Includes date/time/ID/analyses Matrix:			13.		
All containers needing preservation have been checked.	□No	□n/A			
All containers needing preservation are found to be in compliance with EPA recommendation.	□No	□n/A	14.		
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	□No		Initial when completed	Tho	Lot # of added preservative
Trip Blank present:	□No	₩ MA		<u></u>	
Pace Trip Blank lot # (if purchased):		/	15.		
Headspace in VOA vials (>6mm): (□ _{Yes}	□No				
		'	16		
Project sampled in USDA Regulated Area:	□No		17. List State:		
Client Notification/ Resolution: Copy COC to Cli	ient?	Y 1/1	Field I	Data Required?	Y / N
Person Contacted: Date/Time	ə:	C			
Comments/ Resolution:					
				1	
Project Manager Review:		(Date: 121	1/2	

Face Analytical

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

Page: of	CY DUND WATER ["DRI DUND WATER ["DRI			10135440 8	nitolit) Isubis	Pace Project No./ Lab	1-	22	1 04	3(0644) 002	d dol					TIME SAMPLE CONDITIONS	1.6			p	(N/ (N/ (N/Y)	Samples Cooler Cooler (Y) Cooler (Y)	-					
		REGULATORY AGENCY	L NPDES	L UST	Site Location	STATE:	Requested Analysis Filtered (Y/N)														DAFE		1				nzici	1 to they
Section C Invoice Information: Amonton: ENLEOC		Company Name:	ss	Duote nce:	Project Alice Flanagan	Pace Profile #: 5514, 5		Preservatives		thanol SS2O3 HO I						X					TIME ACCEPTED AY / AFHLIATION	A A	and the fait			5 L. 1980 - 19	A MUSTIN HAHAW	VIVAN AN I RIVAVORIA MIMINIA
		Kelly Blanchard. Angela Bown, Cassie Brown Comp	Address	Pace Quote	-	Pace F		COLLECTED			TIME	H GCII DI GAL	11 VVVI 412121	1 SW 2 82	1215/1/30 3	12.12.1430 3	2				CATE	1 12.21 CI DC				SCAPLER NAME AND SIGNATURE	PRINT Name of SAMPLEP	
Section B Required Project Information:	Report To. Christine Mathews	Copy To: Kelly Blanchard, A		Purchase Order No :	Project Name: Flora Vista No.	Project Number. 074926		(yer (පුළුළු ශ ශ න seboo bilæv ee රට≃ට සAਸව	ראוא CODE (a		2-1 W145	10		XIN AI							A KIT A LAN THIN	A COUNTRATION					
A Client Information:	CRA	6121 Indian School Rd NE, Ste 200	Albequerque, NM 87110	cmathews@craworld.com	(505)884-0672 Fax: (505)884-4932	Requested Due Date/TAT: standard		Section D Valid Matrix Codes Required Clent Information MATRIX CODE		SAMPLE ID WIPE (A.Z. 0-9 /) OTHER Sample IDS MUST BE UNIQUE TISSUE	DAIN C	ローンチントロ	10 m	W -UZICI-700	A-W-	5-074926-12042-0M-C		17) A				AUDI I NUAL COMMENTS		-				
Section , Required	Company:	Audress:		Email To:	Phone: (Requester				# W	ИЭТІ	-		-	4 V	9	7	80 07	10	ŧ	12		Pa	ace	Pac	ka	ge 20) c