J. Brady Crouch
ConocoPhillips Company
Risk Management & Remediation
Program Manager

600 N. Dairy Ashford
EC3-06-W056
Houston, TX 77079
Phone: 832-486-3016

ConocoPhillips

Mr. Randolph Bayliss, P. E.
District III & IV Hydrologist
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

March 21, 2017

Re: NMOCD Case No. 3R-468, 2016 Annual Groundwater Monitoring and Site Assessment Report

Dear Mr. Bayliss:

Enclosed is the 2016 Annual Groundwater Monitoring and Site Assessment Report for the State Com J6 site. This report, prepared by GHD Services, Inc., contains the results of groundwater monitoring and site assessment activities in 2016.

Please let me know if you have any questions.

Sincerely,

Joseph B. Crouch

J. Brady Crouch

Enc

2016 Well Installation and Groundwater Monitoring Report

State Com J6
San Juan County, New Mexico
NMOCD# 3R-468

ConocoPhillips Company

GHD | 6121 Indian School Rd NE Suite 200 Albuquerque NM 87110 USA

081773| 2AS00| Report No 4 | March 21, 2017

Table of Contents

Figure Index

Table Index

Appendix Index

1. Introduction

This report presents the results of monitoring well installation and quarterly groundwater monitoring events conducted in 2016 on behalf of ConocoPhillips Company (ConocoPhillips) by GHD Services, Inc. (GHD) at the State Com J6 site (hereafter referred to as the "Site") The Site is located on land controlled by the New Mexico State Land Office within Section 36, Township 31 North, Range 9 West San Juan County, New Mexico (Figure 1). The Site consists of the release area from the pipeline in a large wash between the State Com J6 natural gas wellhead and the State Com J6 Compressor site. A Site Detail Map is included as Figure 2.

2. Site History

GHD conducted soil and groundwater assessment at the Site in July 2013 after impacted soils were removed in response to the March 2013 release of produced water and natural gas condensate from a pipeline. The ConocoPhillips San Juan Business Unit (SJBU) removed 275 cubic yards of soil in an attempt to assess the extent of impacted soils.

In addition, 60 barrels of hydrocarbon impacted water were removed by SJBU from the excavation and disposed of off Site. Depth to groundwater during excavation was noted as 5 feet below ground surface (ft bgs).

In July 2013, GHD conducted additional assessment activities to further assess the extent of soil contamination. Hand auger boreholes were advanced in the wash in the area of the March 2013 release. Groundwater was encountered at 4 to 5 ft bgs in hand auger borings. 4 inches of light non aqueous phase liquid (LNAPL) above the groundwater were measured in one boring placed near the center of the wash.

Four groundwater recovery wells and one monitoring well were installed at the Site in early 2014. Three consecutive groundwater recovery events followed whereby commingled groundwater and natural gas condensate (free product or light non-aqueous phase liquid, LNAPL) was removed via vacuum truck for off-Site disposal. To more effectively recover hydrocarbons from the subsurface, mobile dual phase extraction (MDPE) events were conducted in August and November 2014 and April 2015. The MDPE events proved to be very productive with respect to mass removal of hydrocarbons, removing a combined total of 588 gallons of hydrocarbon from the three events. LNAPL, however, has continued to be present in the four recovery wells. Groundwater monitoring at the Site is on a quarterly monitoring schedule.

3. New Monitor Well Installation

The installation of monitor wells MW-2 and MW-3 was conducted on September 14, 2016, by National EWP and was overseen by GHD. Monitor well locations were proposed in a workplan submitted to both the New Mexico Oil Conservation Division and the federal New Mexico State

Land Office. A wetlands study was also conducted by a ConocoPhillips subcontractor so as to avoid placing the monitor wells in wetland vegetation.

Prior to initiation of monitor well installation activities, permits were submitted to and approved by the New Mexico Office of the State Engineer and a utility clearance protocol was completed. Borings were pre-drilled to a depth of 5 feet below ground surface (ft bgs) using hydro-excavation and/or hand augering. The boreholes were drilled using a CME-85 drill rig and hollow stem auger drilling equipment. Borings MW-2 and MW-3 encountered fine-grained silt/clay and sand to the total depth of exploration of 14.5 feet below ground surface (ft bgs). Groundwater was encountered at approximately 5 ft bgs, The Boring Log and Well Completion Forms are included as Appendix A.

Two-inch diameter, schedule 40 PVC monitoring wells were installed in each boring. The wells were installed to depths of 14.5 ft bgs and constructed with 10 ft of 2-inch diameter machine slot 0.02-inch PVC screen. The wells were completed with 2-inch PVC blank casing above the screened interval.

The annulus in each borehole was backfilled with a 10/20 silica sand pack from the bottom to approximately 2 feet above the well screen. A 2-foot thick seal of 3/8-inch hydrated bentonite chips was placed above the sand pack. The remainder of the borehole annulus in each borehole was filled with a high solids bentonite grout mix.

Surface completions consisted of a locking, stick-up well vault placed within a 2-foot by 2-foot by 4-inch thick concrete pad.

Well development was performed by bailing and surging the wells until turbidity visibly cleared and field parameters of pH, temperature, and conductivity stabilized (within a 10% margin). Well development water was placed in the produced water tank located at the adjacent State Com J6 compressor station.

4. Groundwater Monitoring

Monitor well MW-1 was sampled in March, September and December 2016. Monitor wells MW-2 and MW-3 were sampled in September and December 2016. Due to the continued presence of LNAPL in recovery wells, groundwater samples were not collected.

4.1 Groundwater Monitoring Methodology

Prior to collection of groundwater samples, depth to groundwater and/or LNAPL in each Site well was measured using an oil/water interface probe. Fluid levels and groundwater elevations are detailed in Table 1.

A groundwater potentiometric surface map was created using the December gauging data and is presented as Figure 3. Groundwater elevations for the recovery wells were corrected for the presence of LNAPL. Groundwater flow is to the southwest.

Site wells were purged of at least three casing volumes of groundwater using a 1.5 inch diameter, polyethylene, dedicated bailer prior to sampling. Groundwater quality parameters including pH, temperature, conductivity, dissolved oxygen, and oxidation reduction potential were collected using a multi parameter groundwater quality meter and are summarized on Table 2.

4.2 Groundwater Monitoring Analytical Results

The New Mexico Water Quality Control Commission (NMWQCC) regulates groundwater under Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC).

Results of the groundwater monitoring events are discussed below:

2016

- BTEX: The NMWQCC groundwater standards for benzene, toluene, ethylbenzene, and xylenes are 0.01 milligrams per liter (mg/L), 0.75 mg/L, 0.75 mg/L, and 0.62 mg/L, respectively. In May 2015, the groundwater sample from MW 1, MW 2 and MW 3 were under the NMWQCC limit for all sampled quarters

  Naphthalene: The NMWQCC groundwater standard for naphthalene is 0.03 mg/L. The groundwater sample from MW 1, MW 2 and MW 3 were under the NMWQCC limit for all sampled quarters.

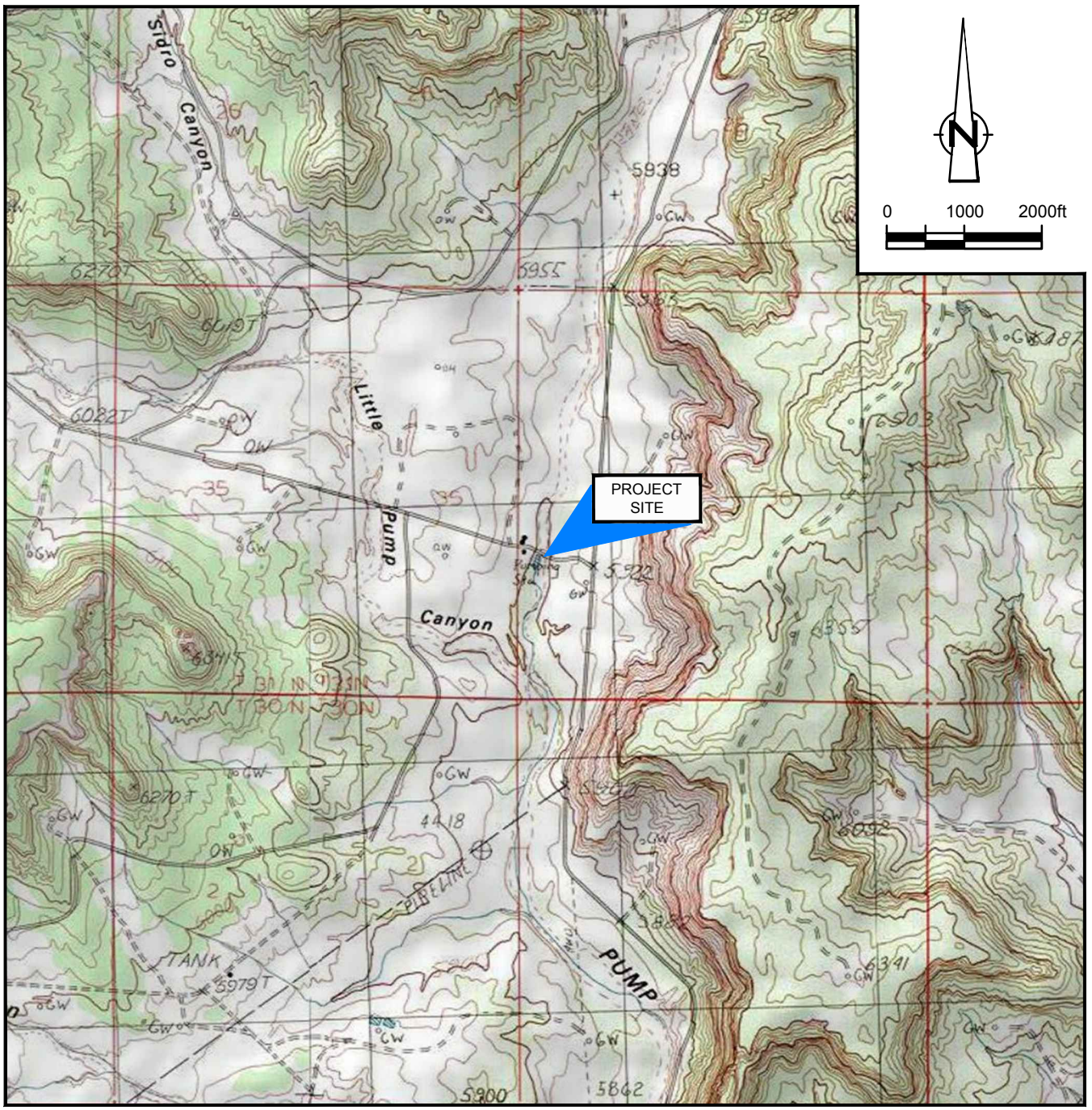
A summary of laboratory results is included as Table 3. Copies of Laboratory Analytical Reports for the 2015 groundwater sampling events are included in Appendix B.

5. Conclusion and Recommendations

A measurable thickness of LNAPL remains in Site recovery wells RW 1, RW 2, RW 3, and RW 4. Hydrocarbon absorbent socks were added to these wells in order to assist in LNAPL removal.

Additional MDPE is recommended to remove hydrocarbons from both vadose zone and groundwater at the Site. The continuation of quarterly groundwater monitoring is also recommended.

Figures



SOURCE: USGS 7.5 MINUTE QUAD
"ARCHULETA, NEW MEXICO"

LAT/LONG: 36.8524° NORTH, 107.7401° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO WEST

Figure 1

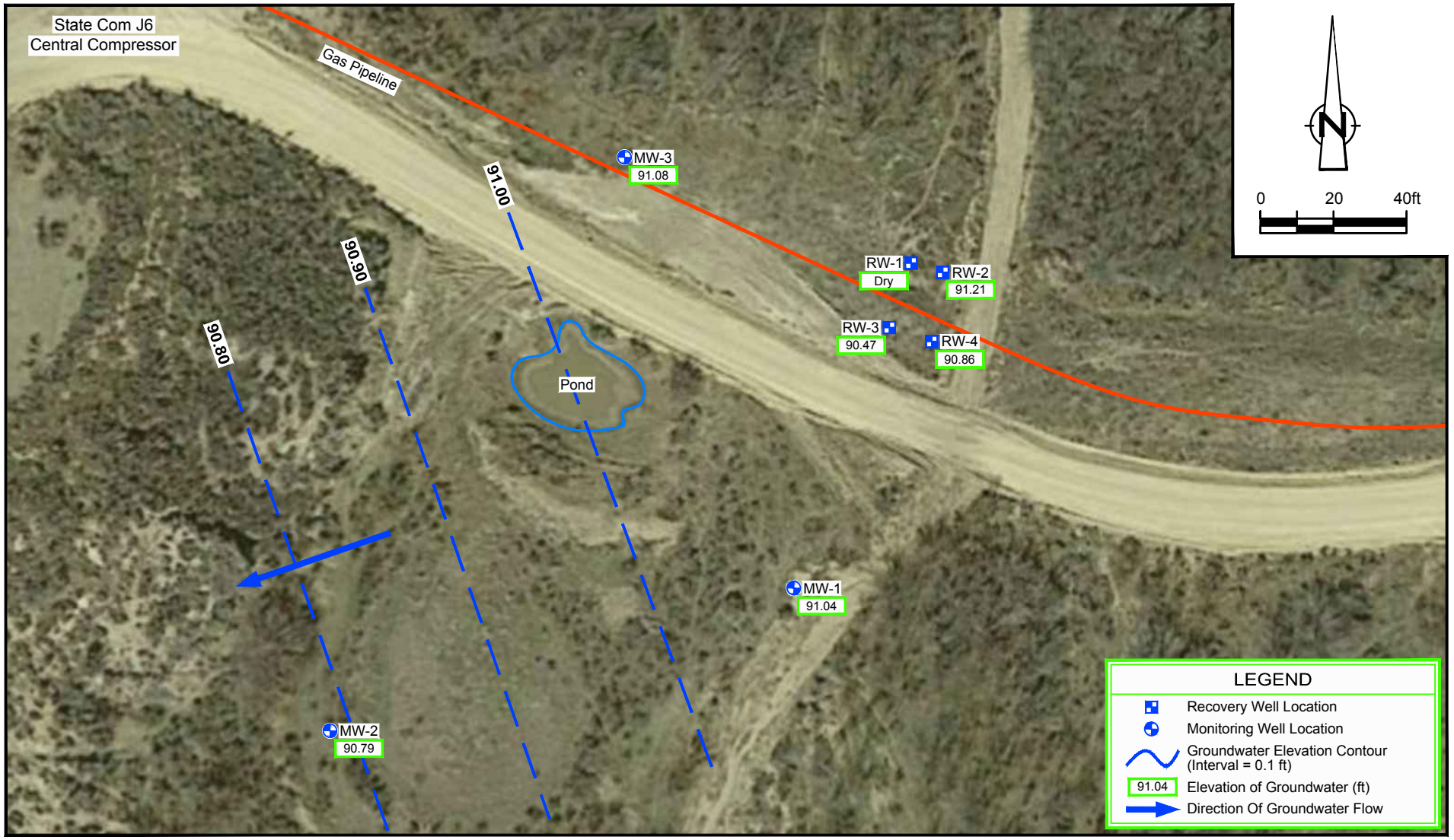
SITE LOCATION MAP
STATE COM J6
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

Source: Image © 2016 Google - Image Date: March 16, 2016.

LEGEND
Recovery Well Location
Monitoring Well Location

Figure 2

SITE DETAIL MAP
STATE COM J6
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

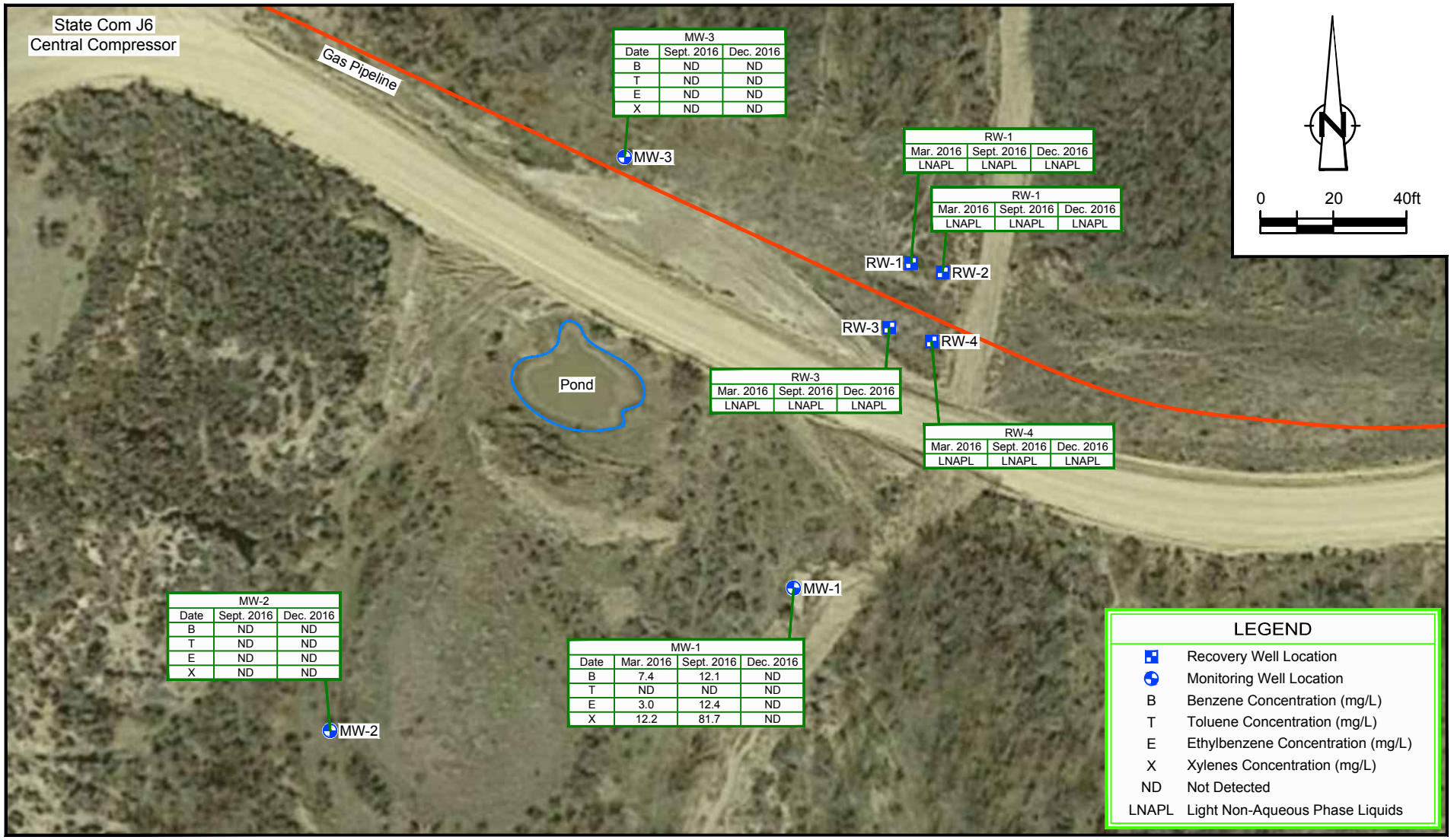


Source: Image © 2016 Google - Image Date: March 16, 2016.

Figure 3

GROUNDWATER POTENTIOMETRIC SURFACE MAP - DECEMBER 2016
STATE COM J6
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

GHD



MW-3		
Date	Sept. 2016	Dec. 2016
B	ND	ND
T	ND	ND
E	ND	ND
X	ND	ND

RW-1		
Mar. 2016	Sept. 2016	Dec. 2016
LNAPL	LNAPL	LNAPL

RW-1		
Mar. 2016	Sept. 2016	Dec. 2016
LNAPL	LNAPL	LNAPL

RW-3		
Mar. 2016	Sept. 2016	Dec. 2016
LNAPL	LNAPL	LNAPL

RW-4		
Mar. 2016	Sept. 2016	Dec. 2016
LNAPL	LNAPL	LNAPL

MW-2		
Date	Sept. 2016	Dec. 2016
B	ND	ND
T	ND	ND
E	ND	ND
X	ND	ND

MW-1			
Date	Mar. 2016	Sept. 2016	Dec. 2016
B	7.4	12.1	ND
T	ND	ND	ND
E	3.0	12.4	ND
X	12.2	81.7	ND

Source: Image © 2016 Google - Image Date: March 16, 2016.

Figure 4

GROUNDWATER CONCENTRATION MAP
STATE COM J6
SECTION 36, T31N, R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

GHD

081773-00(004)GN-DL001 FEB 13, 2017

Tables

Table 1

Fluid Levels and Groundwater Elevations
ConocoPhillips Company
State Com J6
San Juan County

Well	TOC Elevation (ft)	Sample Date	Depth to PSH (ft)	Depth to Water (ft)	PSH Thickness (ft)	GW Elevation (ft)
MW-1	100.00	5/12/2014	--	7.98	--	92.02
		5/20/2014	--	8.14	--	91.86
		5/27/2014	--	8.10	--	91.90
		12/17/2014	--	8.53	--	91.47
		4/21/2015	--	8.20	--	91.80
		5/14/2015	--	8.18	--	91.82
		9/22/2015	--	8.43	--	91.57
		12/2/2015	--	8.29	--	91.71
		3/30/2016	--	7.92	--	92.08
		9/8/2016	--	9.55		90.45
		12/1/2016	--	8.96	--	91.04
MW-2	99.36	12/1/2016	--	8.57	--	90.79
MW-3	99.59	12/1/2016	--	8.51	--	91.08
RW-1	100.30	5/12/2014	--	7.80	--	92.50
		5/20/2014	--	7.85	--	92.45
		5/27/2014	7.89	7.90	0.01	92.41
		12/17/2014	8.33	8.72	0.39	91.87
		5/14/2015	--	7.99	--	92.31
		6/17/2015	7.96	7.98	0.02	92.34
		9/22/2015	8.57	8.72	0.15	91.69
		12/2/2015	8.17	8.19	0.02	92.13
		9/14/2016	9.11	10.10	0.99	90.94
		12/1/2016	--	--	--	Dry
RW-2	99.96	5/12/2014	7.44	7.45	0.01	92.52
		5/20/2014	7.66	7.67	0.01	92.30
		5/27/2014	--	7.56	--	92.40
		12/17/2014	7.98	8.39	0.41	91.88
		5/14/2015	--	7.65	--	92.31
		6/17/2015	--	7.61	--	92.35
		9/22/2015	--	8.25	--	91.71
		12/2/2015	--	7.82	--	92.14
		9/14/2016	8.77	9.68	0.91	90.96
		12/1/2016	8.51	8.65	0.41	91.21
RW-3	99.84	5/12/2014	--	7.46	--	92.38
		5/20/2014	--	7.66	--	92.18
		5/27/2014	--	7.59	--	92.25
		8/26/2014	8.70	10.43	1.73	90.71
		11/11/2014	8.22	8.64	0.42	91.52
		12/17/2014	7.94	8.55	0.61	91.75
		5/14/2015	7.625	7.63	0.005	92.21
		6/17/2015	7.58	7.76	0.18	92.22
		9/22/2015	8.20	8.45	0.25	91.58
		12/2/2015	7.74	8.11	0.37	92.01
		9/14/2016	8.71	9.94	1.23	90.82
		12/1/2016	8.46	8.98	0.52	90.47
RW-4	99.67	5/12/2014	7.29	7.30	0.01	92.38
		5/20/2014	7.26	8.12	0.86	92.20
		5/27/2014	7.22	7.98	0.76	92.26
		8/25/2014	8.47	9.80	1.33	90.87
		11/10/2014	7.94	8.15	0.21	91.68
		12/17/2014	7.84	8.10	0.26	91.77
		4/20/2015	7.36	7.61	0.25	92.25
		5/14/2015	--	7.46	--	92.21
		6/17/2015	7.43	7.48	0.05	92.23
		9/22/2015	8.04	8.17	0.13	91.60
		12/2/2015	7.65	7.70	0.05	92.01
		9/14/2016	8.53	9.75	1.22	90.84
		12/1/2016	8.46	8.66	0.20	90.86

Notes:
ft = feet
GW Elevation datum established 12/17/2014. MW-1 top of casing = 100 ft.
DTW = Depth to water
NA = Not available
LNAPL = light non-aqueous phase liquid
When PSH present: GW Elevation = GW Elevation + (PSH Thickness X PSH Density [0.75])

Table 2

Field Parameters Summary
ConocoPhillips Company
State Com J6
San Juan County, New Mexico

Well ID	Sample Date	Temperature (°C)	pH	TDS (g/L)	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
MW-1	5/14/2015	11.68	7.52	3.221	4976	10.88	-205.0	1.50
	5/14/2015	11.32	7.35	3.309	5096	2.83	-205.0	1.75
	5/14/2015	11.34	7.28	3.341	5139	1.66	-204.0	2.25
	9/22/2015	16.41	7.01	1.164	1792	9.11	-117.5	3.00
	9/22/2015	16.42	6.98	1.177	1811	2.96	-117.6	3.50
	9/22/2015	16.43	6.99	1.152	1771	2.48	-117.0	4.00
	3/30/2016	10.36	7.48	1.200	1.92	5.62	-104.0	4.25
	9/8/2016	16.10	7.10	0.877	1353	1.52	-91.1	3.50
	12/1/2016	12.55	7.49	--	1.664	2.64	-110.6	3.50
MW-2	12/1/2016	9.75	8.11	--	0.198	6.29	-128.8	4.25
MW-3	12/1/2016	12.09	7.39	--	2.200	2.30	-53.7	4.50
RW-1	5/14/2015	11.76	7.21	1.938	2965	3.04	-234.9	6.00
	5/14/2015	11.56	7.23	1.928	2965	2.31	-293.0	8.00
	5/14/2015	11.48	7.25	1.962	3017	2.35	-319.1	9.50

Notes:
TDS = total dissolved solids
DO = dissolved oxygen
ORP = oxidation-reduction potential

Table 3

Groundwater Analytical Summary
State Com J6
San Juan County, New Mexico

Well ID	*Sample ID*	*Sample Date*	*Benzene (mg/L)*	*Toluene (mg/L)*	*Ethylbenzene (mg/L)*	*Xylenes (mg/L)*	*Naphthalene (mg/L)*
NMWQCC Groundwater Quality Standards			**0.01**	**0.75**	**0.75**	**0.62**	**0.03**
MW-1	GW-081773-051214-MW-1	5/12/2014	**0.0134**	0.0304	0.0152	0.228	0.0017
	GW-081773-092314-CB-MW-1	9/23/2014	**0.01**	< 0.001	0.0033	0.0233	< 0.0005
	GW-081773-121714-JW-MW-1	12/17/2014	**0.0252**	< 0.001	0.0121	0.0488	0.00085
	GW-081773-051415-CB-MW-1	5/14/2015	0.0041	< 0.001	0.0056	0.0121	< 0.00045
	GW-081773-092215-CB-MW-1	9/22/2015	**0.0463**	< 0.001	0.0214	0.115	0.0012
	GW-081773-092215-CB-DUP	9/22/2015	**0.0215**	< 0.001	0.0097	0.0521	--
	GW-081773-033016-CM-DUP	3/30/2016	0.0074	< 0.001	0.0030	0.0122	< 0.0005
	GW-081773-090816-SP-MW-1	9/8/2016	**0.0121**	< 0.001	0.0124	0.0817	0.001
	GW-081773-090816-SP-DUP	9/8/2016	0.0106	< 0.001	0.0109	0.0720	--
	GW-081773-120116-JK-MW-1	12/1/2016	<0.001	<0.001	<0.001	<0.003	<0.0005
MW-2	GW-081773-092616-JW-MW-2	9/26/2016	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-120116-JK-MW-2	12/1/2016	<0.001	<0.001	<0.001	<0.003	<0.0005
MW-3	GW-081773-092616-JW-MW-3	9/26/2016	<0.001	<0.001	<0.001	<0.003	<0.0005
	GW-081773-120116-JK-MW-3	12/1/2016	<0.001	<0.001	<0.001	<0.003	<0.0005
RW-1	GW-081773-051214-RW-1	5/12/2014	**1.88**	**6.27**	**0.567**	**8.96**	**0.109**
	GW-081773-051415-CB-RW-1	5/14/2015	**0.688**	**0.764**	0.388	**5.65**	**0.121**
	GW-081773-051415-CB-DUP	5/14/2015	**0.681**	**0.737**	0.383	**5.39**	--
RW-2		Not sampled due to presence of LNAPL					
RW-3	GW-081773-051214-RW-3	5/12/2014	**0.416**	**0.889**	0.153	**4.58**	**0.0596**
RW-4		Not sampled due to presence of LNAPL					

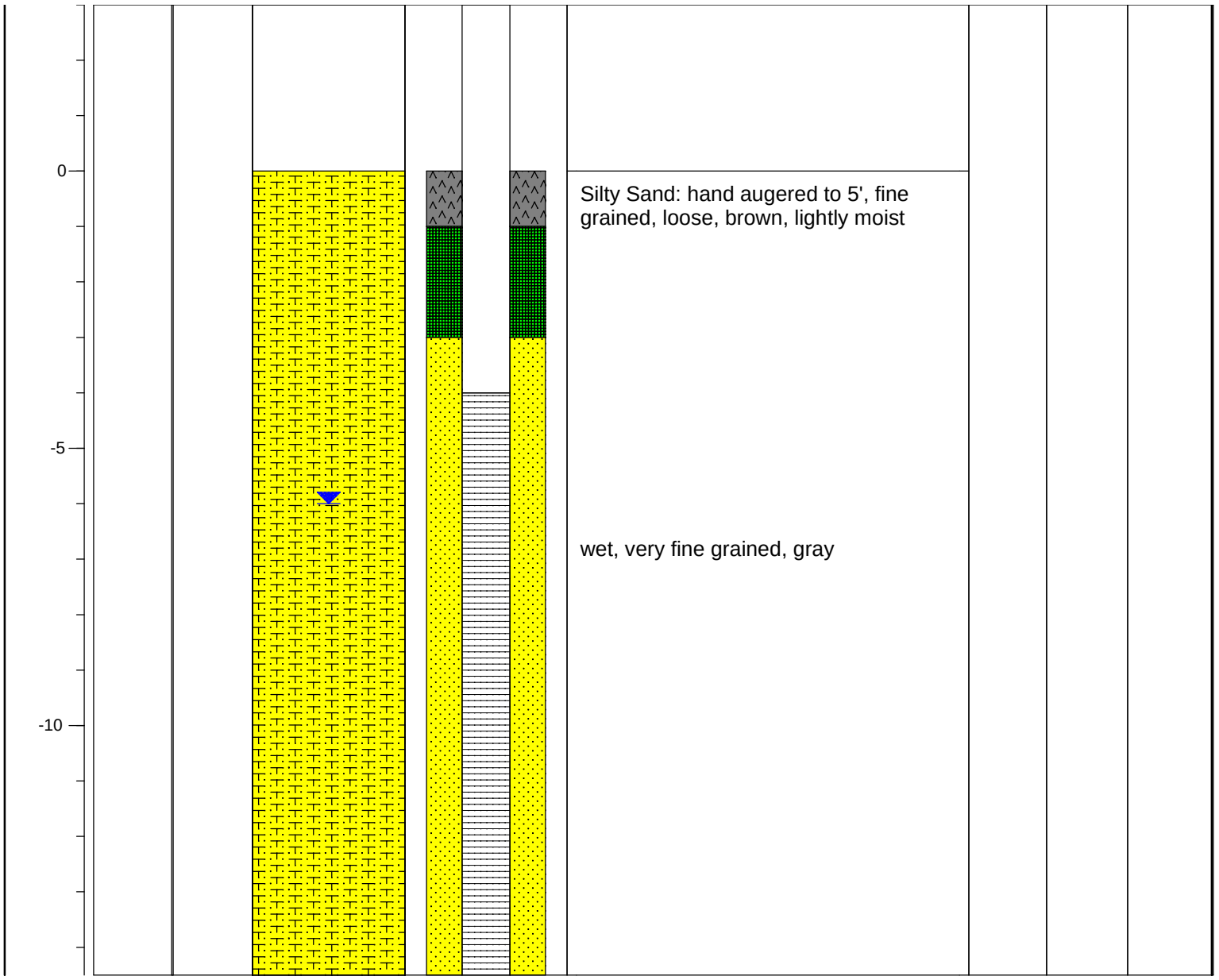
Notes:
LNAPL = light non-aqueous phase liquid
NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
< 0.001 = Below Laboratory Detection Limit of 0.001 mg/L
-- = Not Analyzed

Appendix A
Boring Log and Well Completion Forms

PROJECT NAME: State Com J6
LOCATION: Pump Canyon
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): N/A
GROUNDWATER ELEVATION (msl): 6' bgs
REMARKS: 2" diameter well
COORDINATES:

SOIL BORING NO: MW-2
DRILL TYPE: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: September 14, 2016 at 1400
DATE/TIME HOLE COMPLETED: September 14, 2016 at 1555

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	Total BTEX (mg/kg)	Total TPH (mg/kg)



TD = 14.5 feet

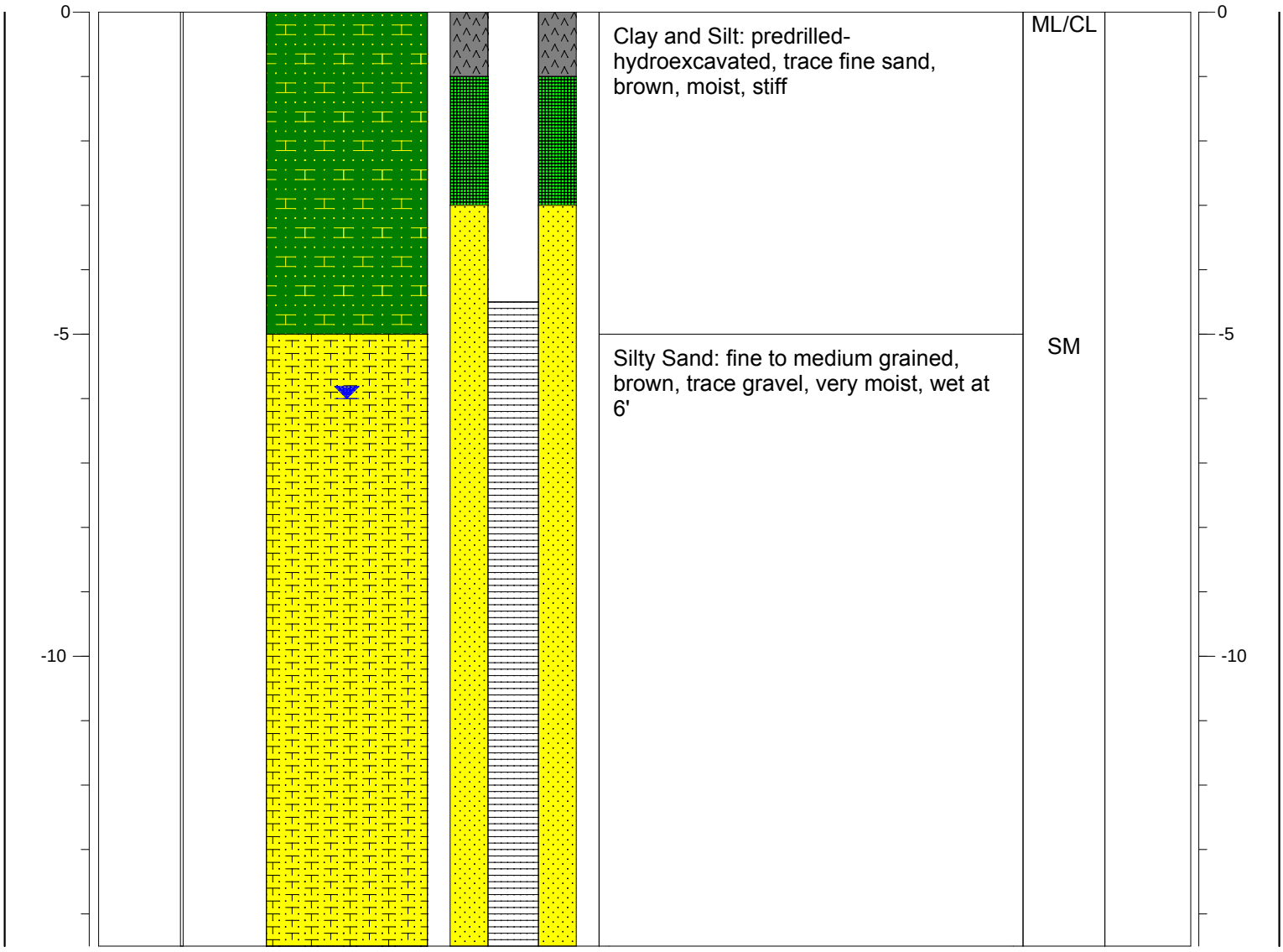
Services Inc.

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: State Com J6
LOCATION: Pump Canyon
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): N/A
GROUNDWATER ELEVATION: 6' bgs
REMARKS: 2" diameter well
COORDINATES: N 36 51.130', W 107 44.416'

SOIL BORING NO: MW-3
DRILL TYPE: Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: September 14, 2016 at 1200
DATE/TIME HOLE COMPLETED: September 14, 2016 at 1345

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS Symbol	Chloride (mg/kg)	DEPTH (bgs) - ft
0					Clay and Silt: predrilled-hydroexcavated, trace fine sand, brown, moist, stiff	ML/CL		0
-5					Silty Sand: fine to medium grained, brown, trace gravel, very moist, wet at 6'	SM		-5
-10								-10



TD = 14.5 feet

Services Inc.

BORING LOG AND WELL COMPLETION FORM

Appendix B
Analytical Laboratory Results

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

April 11, 2016

Jeffrey Walker
GHD Services, Inc
6121 Indian School Rd NE
Ste 200
Albuquerque, NM 87110

RE: Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Dear Jeffrey Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Cassie Brown, GHD Services, Inc,
Cale Kanack, GHD

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

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

SAMPLE SUMMARY

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60216020001	**GW-081773-033016-CM-MW-1**	Water	03/30/16 09:55	03/31/16 13:25
60216020002	**GW-081773-033016-CM-DUP**	Water	03/30/16 00:00	03/31/16 13:25
60216020003	**TB-081773-033016-CM-001**	Water	03/30/16 15:15	03/31/16 13:25

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

SAMPLE ANALYTE COUNT

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60216020001	**GW-081773-033016-CM-MW-1**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	JTK	8
60216020002	**GW-081773-033016-CM-DUP**	EPA 8260/OA1	JTK	8
60216020003	**TB-081773-033016-CM-001**	EPA 8260/OA1	JTK	8

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: April 11, 2016

General Information:
1 sample was analyzed for EPA 8270C by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

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

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

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

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

QC Batch: OEXT/53740

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

- BLANK (Lab ID: 1736389)
  - Terphenyl-d14 (S)
- GW-081773-033016-CM-MW-1 (Lab ID: 60216020001)
  - Terphenyl-d14 (S)

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

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

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

Additional Comments:

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

PROJECT NARRATIVE

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Method: **EPA 8260/OA1**
Description: 8260/OA1 UST, Water
Client: GHD Services_COP NM
Date: April 11, 2016

General Information:
3 samples were analyzed for EPA 8260/OA1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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

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

QC Batch: MSV/75077

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.

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

ANALYTICAL RESULTS

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Sample: GW-081773-033016-CM-MW-1 **Lab ID: 60216020001** Collected: 03/30/16 09:55 Received: 03/31/16 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.50	1	04/06/16 00:00	04/07/16 13:16	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	81	%	39-85	1	04/06/16 00:00	04/07/16 13:16	321-60-8	
Terphenyl-d14 (S)	102	%	48-95	1	04/06/16 00:00	04/07/16 13:16	1718-51-0	S3
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**7.4**	ug/L	1.0	1		04/08/16 16:33	71-43-2	
Toluene	ND	ug/L	1.0	1		04/08/16 16:33	108-88-3	
Ethylbenzene	**3.0**	ug/L	1.0	1		04/08/16 16:33	100-41-4	
Xylene (Total)	**12.2**	ug/L	3.0	1		04/08/16 16:33	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		04/08/16 16:33	2037-26-5	
4-Bromofluorobenzene (S)	97	%	77-130	1		04/08/16 16:33	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127	1		04/08/16 16:33	17060-07-0	
Preservation pH	**1.0**		0.10	1		04/08/16 16:33		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Sample: GW-081773-033016-CM-DUP **Lab ID: 60216020002** Collected: 03/30/16 00:00 Received: 03/31/16 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**8.1**	ug/L	1.0	1		04/08/16 17:17	71-43-2	
Toluene	ND	ug/L	1.0	1		04/08/16 17:17	108-88-3	
Ethylbenzene	**2.9**	ug/L	1.0	1		04/08/16 17:17	100-41-4	
Xylene (Total)	**11.1**	ug/L	3.0	1		04/08/16 17:17	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	1		04/08/16 17:17	2037-26-5	
4-Bromofluorobenzene (S)	96	%	77-130	1		04/08/16 17:17	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		04/08/16 17:17	17060-07-0	
Preservation pH	**1.0**		0.10	1		04/08/16 17:17		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Sample: TB-081773-033016-CM-001 **Lab ID: 60216020003** Collected: 03/30/16 15:15 Received: 03/31/16 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		04/08/16 17:32	71-43-2	
Toluene	ND	ug/L	1.0	1		04/08/16 17:32	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		04/08/16 17:32	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		04/08/16 17:32	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		04/08/16 17:32	2037-26-5	
4-Bromofluorobenzene (S)	99	%	77-130	1		04/08/16 17:32	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-127	1		04/08/16 17:32	17060-07-0	
Preservation pH	**1.0**		0.10	1		04/08/16 17:32		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

QC Batch: MSV/75077 Analysis Method: EPA 8260/OA1
QC Batch Method: EPA 8260/OA1 Analysis Description: 8260/OA1 UST-WATER
Associated Lab Samples: 60216020001, 60216020002, 60216020003

METHOD BLANK: 1736777 Matrix: Water
Associated Lab Samples: 60216020001, 60216020002, 60216020003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	04/08/16 12:35	
Ethylbenzene	ug/L	ND	1.0	04/08/16 12:35	
Toluene	ug/L	ND	1.0	04/08/16 12:35	
Xylene (Total)	ug/L	ND	3.0	04/08/16 12:35	
1,2-Dichloroethane-d4 (S)	%	100	81-127	04/08/16 12:35	
4-Bromofluorobenzene (S)	%	99	77-130	04/08/16 12:35	
Toluene-d8 (S)	%	100	80-120	04/08/16 12:35	

LABORATORY CONTROL SAMPLE: 1736778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.2	96	79-116	
Ethylbenzene	ug/L	20	19.8	99	81-110	
Toluene	ug/L	20	19.9	100	82-111	
Xylene (Total)	ug/L	60	58.9	98	80-111	
1,2-Dichloroethane-d4 (S)	%			100	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1736798 1736799

Parameter	Units	60216020001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	7.4	20	20	21.3	25.7	70	92	37-151	19	40	
Ethylbenzene	ug/L	3.0	20	20	16.1	19.8	65	84	29-151	21	45	
Toluene	ug/L	ND	20	20	13.3	17.3	67	86	37-147	26	43	
Xylene (Total)	ug/L	12.2	60	60	50.1	61.0	63	81	27-156	20	46	
1,2-Dichloroethane-d4 (S)	%						103	102	81-127			
4-Bromofluorobenzene (S)	%						96	97	77-130			
Toluene-d8 (S)	%						101	98	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

QC Batch: OEXT/53740
QC Batch Method: EPA 3510C
Analysis Method: EPA 8270C by SIM
Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60216020001

METHOD BLANK: 1736389 Matrix: Water
Associated Lab Samples: 60216020001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	04/07/16 12:41	
2-Fluorobiphenyl (S)	%	80	39-85	04/07/16 12:41	
Terphenyl-d14 (S)	%	97	48-95	04/07/16 12:41	S3

LABORATORY CONTROL SAMPLE: 1736390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	8.5	85	40-106	
2-Fluorobiphenyl (S)	%			77	39-85	
Terphenyl-d14 (S)	%			85	48-95	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1736391 1736392

Parameter	Units	60216020001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	ND	10	10	9.5	9.3	92	90	35-117	2	48	
2-Fluorobiphenyl (S)	%						81	80	39-85		78	
Terphenyl-d14 (S)	%						93	89	48-95		79	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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/75077

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

ANALYTE QUALIFIERS

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 081773 COP State Corm J-6
Pace Project No.: 60216020

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60216020001	**GW-081773-033016-CM-MW-1**	EPA 3510C	OEXT/53740	EPA 8270C by SIM	MSSV/17465
60216020001	**GW-081773-033016-CM-MW-1**	EPA 8260/OA1	MSV/75077		
60216020002	**GW-081773-033016-CM-DUP**	EPA 8260/OA1	MSV/75077		
60216020003	**TB-081773-033016-CM-001**	EPA 8260/OA1	MSV/75077		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60216020

60216020

Client Name: COP-GHD AM

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 6703 1640 6271 Pace Shipping Label Used? Yes ☒ No ☐

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.0 T-239 / CF 0.0 T-262 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 4-6

Date and initials of person examining contents: JJS 2/5/16 1445

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.
Sample labels match COC:	☑Yes ☐No ☐N/A	
Includes date/time/ID/analyses Matrix: water		13.
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed JJS / Lot # of added preservative
Trip Blank present: 020816-3	☑Yes ☐No ☑N/A	
Pace Trip Blank lot # (if purchased): TB 0216		15.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☑N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes ☐No ☑N/A	18.

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

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

Start: 1440	Start:
End: 1445	End:
Temp:	Temp:

Project Manager Review: AAF Date: 4/1/16

F-KS-C-004-Rev.4, 30June 2015

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services_COP NM	Report To:	Christine Mathews	Attention:	
Address:	6212 indian School Rd NE St2	Copy To:		Company Name:	
	Albuquerque, NM 87110			Address:	
Email:	christine.mathews@ghd.com	Purchase Order #:		Pace Quote:	
Phone:	505-884-0672 Fax:	Project Name:	081773 COP State Com J-6	Pace Project Manager:	alice.flanagan@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	8644, 29

Regulatory Agency	
State / Location	NM

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Other OT Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): 8260 BTEX	8270 PAH SIM Naphthalene	Residual Chlorine (Y/N)	60216
1	GW-081773-033016-CM-MW-1		WT	G			3:30.16	1955		10	4			6						X	X		(60mL) (40mL) 001
2	GW-081773-033016-CM-DUP		WT	G			3:30:16	—		3				3						X			3(40mL) 002
3	TB-081773-033016-CM-001		WT				3:30:16	1515		3				3						X			1 003
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Christine Mathews / GHD	3.30.16	1530		3/31/16	1525	4-8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: Christine Mathews DATE Signed: 3/30/16

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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

July 28, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110

RE: Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Dear Christine Mathews:
Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2016. 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 Spiller

Alice Spiller
alice.spiller@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Jeffrey Walker, GHD Services, Inc

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

CERTIFICATIONS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60223676001	**GW-081773-071416-JK-MW1**	Water	07/14/16 12:30	07/15/16 08:40
60223676002	**GW-081773-071416-JK-DUP**	Water	07/14/16 00:00	07/15/16 08:40
60223676003	**TB-081773-071416-JK-001**	Water	07/14/16 12:30	07/15/16 08:40

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60223676001	**GW-081773-071416-JK-MW1**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	JTK	8
60223676002	**GW-081773-071416-JK-DUP**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	JTK	8
60223676003	**TB-081773-071416-JK-001**	EPA 8260/OA1	JTK	8

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: July 28, 2016

General Information:
2 samples were analyzed for EPA 8270C by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

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

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

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

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

QC Batch: 439304

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

- BLANK (Lab ID: 1796720)
  - Terphenyl-d14 (S)

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

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

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

QC Batch: 439304

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

Additional Comments:

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: July 28, 2016

Analyte Comments:

QC Batch: 439304

1e: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- GW-081773-071416-JK-DUP (Lab ID: 60223676002)
  - Naphthalene
- GW-081773-071416-JK-MW1 (Lab ID: 60223676001)
  - Naphthalene

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Method: **EPA 8260/OA1**
Description: 8260/OA1 UST, Water
Client: GHD Services_COP NM
Date: July 28, 2016

General Information:
3 samples were analyzed for EPA 8260/OA1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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

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

QC Batch: 439530

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.

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Sample: GW-081773-071416-JK-MW1 **Lab ID: 60223676001** Collected: 07/14/16 12:30 Received: 07/15/16 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.45	1	07/20/16 00:00	07/22/16 15:20	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	69	%	39-85	1	07/20/16 00:00	07/22/16 15:20	321-60-8	
Terphenyl-d14 (S)	92	%	48-95	1	07/20/16 00:00	07/22/16 15:20	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**15.5**	ug/L	1.0	1		07/21/16 17:10	71-43-2	
Toluene	ND	ug/L	1.0	1		07/21/16 17:10	108-88-3	
Ethylbenzene	**2.8**	ug/L	1.0	1		07/21/16 17:10	100-41-4	
Xylene (Total)	**13.7**	ug/L	3.0	1		07/21/16 17:10	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		07/21/16 17:10	2037-26-5	
4-Bromofluorobenzene (S)	101	%	77-130	1		07/21/16 17:10	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127	1		07/21/16 17:10	17060-07-0	
Preservation pH	**1.0**		0.10	1		07/21/16 17:10		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Sample: GW-081773-071416-JK-DUP **Lab ID: 60223676002** Collected: 07/14/16 00:00 Received: 07/15/16 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**2.5**	ug/L	0.45	1	07/20/16 00:00	07/22/16 15:40	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	76	%	39-85	1	07/20/16 00:00	07/22/16 15:40	321-60-8	
Terphenyl-d14 (S)	91	%	48-95	1	07/20/16 00:00	07/22/16 15:40	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**11.3**	ug/L	1.0	1		07/21/16 17:25	71-43-2	
Toluene	ND	ug/L	1.0	1		07/21/16 17:25	108-88-3	
Ethylbenzene	**2.6**	ug/L	1.0	1		07/21/16 17:25	100-41-4	
Xylene (Total)	**11.0**	ug/L	3.0	1		07/21/16 17:25	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/21/16 17:25	2037-26-5	
4-Bromofluorobenzene (S)	102	%	77-130	1		07/21/16 17:25	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	1		07/21/16 17:25	17060-07-0	
Preservation pH	**1.0**		0.10	1		07/21/16 17:25		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Sample: TB-081773-071416-JK-001 **Lab ID: 60223676003** Collected: 07/14/16 12:30 Received: 07/15/16 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		07/21/16 17:40	71-43-2	
Toluene	ND	ug/L	1.0	1		07/21/16 17:40	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		07/21/16 17:40	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		07/21/16 17:40	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		07/21/16 17:40	2037-26-5	
4-Bromofluorobenzene (S)	101	%	77-130	1		07/21/16 17:40	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		07/21/16 17:40	17060-07-0	
Preservation pH	**1.0**		0.10	1		07/21/16 17:40		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

QC Batch: 439530 Analysis Method: EPA 8260/OA1
QC Batch Method: EPA 8260/OA1 Analysis Description: 8260/OA1 UST-WATER
Associated Lab Samples: 60223676001, 60223676002, 60223676003

METHOD BLANK: 1797671 Matrix: Water
Associated Lab Samples: 60223676001, 60223676002, 60223676003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	07/21/16 13:41	
Ethylbenzene	ug/L	ND	1.0	07/21/16 13:41	
Toluene	ug/L	ND	1.0	07/21/16 13:41	
Xylene (Total)	ug/L	ND	3.0	07/21/16 13:41	
1,2-Dichloroethane-d4 (S)	%	101	81-127	07/21/16 13:41	
4-Bromofluorobenzene (S)	%	102	77-130	07/21/16 13:41	
Toluene-d8 (S)	%	99	80-120	07/21/16 13:41	

LABORATORY CONTROL SAMPLE: 1797672

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.0	95	79-116	
Ethylbenzene	ug/L	20	18.8	94	81-110	
Toluene	ug/L	20	18.9	95	82-111	
Xylene (Total)	ug/L	60	57.0	95	80-111	
1,2-Dichloroethane-d4 (S)	%			99	81-127	
4-Bromofluorobenzene (S)	%			99	77-130	
Toluene-d8 (S)	%			101	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

QC Batch: 439304 Analysis Method: EPA 8270C by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60223676001, 60223676002

METHOD BLANK: 1796720 Matrix: Water
Associated Lab Samples: 60223676001, 60223676002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	07/22/16 11:08	
2-Fluorobiphenyl (S)	%	75	39-85	07/22/16 11:08	
Terphenyl-d14 (S)	%	97	48-95	07/22/16 11:08	S3

LABORATORY CONTROL SAMPLE: 1796721

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	7.3	73	40-106	
2-Fluorobiphenyl (S)	%			78	39-85	
Terphenyl-d14 (S)	%			80	48-95	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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: 439304

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

Batch: 439530

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

ANALYTE QUALIFIERS

1e A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60223676

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60223676001	**GW-081773-071416-JK-MW1**	EPA 3510C	439304	EPA 8270C by SIM	439631
60223676002	**GW-081773-071416-JK-DUP**	EPA 3510C	439304	EPA 8270C by SIM	439631
60223676001	**GW-081773-071416-JK-MW1**	EPA 8260/OA1	439530		
60223676002	**GW-081773-071416-JK-DUP**	EPA 8260/OA1	439530		
60223676003	**TB-081773-071416-JK-001**	EPA 8260/OA1	439530		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60223676

60223676

AFT

Client Name: GHD COP

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 6703 1644 5794 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF -0.1 T-239 / CF 0.0 T-262 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.7

Date and initials of person examining contents: JB 7/15

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☒Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☒Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☒Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	7.
Sufficient volume:	☒Yes ☐No ☐N/A	8.
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	9.
Containers intact:	☒Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	12.
Sample labels match COC: Includes date/time/ID/analyses Matrix: WT	☒Yes ☐No ☐N/A	13.
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	☒Yes ☐No	Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): 6/14/16	☒Yes ☐No ☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes ☐No ☒N/A	18.

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 7/15

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

Start: 1126	Start:
End: 1132	End:
Temp:	Temp:

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services_COP NM	Report To:	Christine Mathews	Attention:	
Address:	6212 Indian School Rd. NE St2	Copy To:		Company Name:	
	Albuquerque, NM 87110			Address:	
Email:	christine.mathews@ghd.com	Purchase Order #:		Pace Quote:	
Phone:	505-884-0672 Fax:	Project Name:	081773 COP State Com J-6	Pace Project Manager:	alice.flanagan@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	8644, 29

Regulatory Agency	State / Location
	NM

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N)	Analyses Test	8260 BTEX	8270 PAH SIM Naphthalene	Residual Chlorine (Y/N)	60223676
1	GW-081773-07146-JR-MW1	WT	G			7-14	1230		5	2			3										(3)DGAH (2)AGHA 001
2	GW-081773-07146-JR-DUP	WT	G			7-14			3	2			3										(3)DGAHTB 002
3	TB-081773-07146-JR-001	WT				-			3	-			3										003
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] GHD	7.14	1500	[signature]	7/15	0940	1.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	JOSHUA KIRCHNER	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER: [signature]	DATE Signed: 7.14.14				

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

September 23, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110

RE: Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Dear Christine Mathews:
Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2016. 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 Spiller

Alice Spiller
alice.spiller@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Jeffrey Walker, GHD Services, Inc

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

CERTIFICATIONS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60227325001	**GW-081773-090816-SP-MW-1**	Water	09/08/16 14:35	09/09/16 08:50
60227325002	**GW-081773-090816-SP-DUP**	Water	09/08/16 00:00	09/09/16 08:50
60227325003	**TRIP BLANK**	Water	09/08/16 00:00	09/09/16 08:50

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

SAMPLE ANALYTE COUNT

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60227325001	**GW-081773-090816-SP-MW-1**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	JTK	8
60227325002	**GW-081773-090816-SP-DUP**	EPA 8260/OA1	JTK	8

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: September 23, 2016

General Information:
1 sample was analyzed for EPA 8270C by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

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

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

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

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

QC Batch: 446245

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

- BLANK (Lab ID: 1824351)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)

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

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

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

Additional Comments:

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Method: **EPA 8260/OA1**
Description: 8260/OA1 UST, Water
Client: GHD Services_COP NM
Date: September 23, 2016

General Information:
2 samples were analyzed for EPA 8260/OA1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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

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

QC Batch: 446389

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.

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Sample: GW-081773-090816-SP-MW-1 **Lab ID: 60227325001** Collected: 09/08/16 14:35 Received: 09/09/16 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	**1.4**	ug/L	0.48	1	09/13/16 00:00	09/14/16 19:48	91-20-3	
Surrogates								
2-Fluorobiphenyl (S)	77	%	39-85	1	09/13/16 00:00	09/14/16 19:48	321-60-8	
Terphenyl-d14 (S)	91	%	48-95	1	09/13/16 00:00	09/14/16 19:48	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**12.1**	ug/L	1.0	1		09/13/16 22:36	71-43-2	
Toluene	ND	ug/L	1.0	1		09/13/16 22:36	108-88-3	
Ethylbenzene	**12.4**	ug/L	1.0	1		09/13/16 22:36	100-41-4	
Xylene (Total)	**81.7**	ug/L	3.0	1		09/13/16 22:36	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	80-120	1		09/13/16 22:36	2037-26-5	
4-Bromofluorobenzene (S)	102	%	77-130	1		09/13/16 22:36	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	1		09/13/16 22:36	17060-07-0	
Preservation pH	**1.0**		0.10	1		09/13/16 22:36		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Sample: GW-081773-090816-SP-DUP **Lab ID: 60227325002** Collected: 09/08/16 00:00 Received: 09/09/16 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	**10.6**	ug/L	1.0	1		09/13/16 22:50	71-43-2	
Toluene	ND	ug/L	1.0	1		09/13/16 22:50	108-88-3	
Ethylbenzene	**10.9**	ug/L	1.0	1		09/13/16 22:50	100-41-4	
Xylene (Total)	**72.0**	ug/L	3.0	1		09/13/16 22:50	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	1		09/13/16 22:50	2037-26-5	
4-Bromofluorobenzene (S)	102	%	77-130	1		09/13/16 22:50	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127	1		09/13/16 22:50	17060-07-0	
Preservation pH	**1.0**		0.10	1		09/13/16 22:50		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

QC Batch: 446389 Analysis Method: EPA 8260/OA1
QC Batch Method: EPA 8260/OA1 Analysis Description: 8260/OA1 UST-WATER
Associated Lab Samples: 60227325001, 60227325002

METHOD BLANK: 1824971 Matrix: Water
Associated Lab Samples: 60227325001, 60227325002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/13/16 19:53	
Ethylbenzene	ug/L	ND	1.0	09/13/16 19:53	
Toluene	ug/L	ND	1.0	09/13/16 19:53	
Xylene (Total)	ug/L	ND	3.0	09/13/16 19:53	
1,2-Dichloroethane-d4 (S)	%	98	81-127	09/13/16 19:53	
4-Bromofluorobenzene (S)	%	103	77-130	09/13/16 19:53	
Toluene-d8 (S)	%	98	80-120	09/13/16 19:53	

LABORATORY CONTROL SAMPLE: 1824972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.3	107	79-116	
Ethylbenzene	ug/L	20	19.5	98	81-110	
Toluene	ug/L	20	20.0	100	82-111	
Xylene (Total)	ug/L	60	55.9	93	80-111	
1,2-Dichloroethane-d4 (S)	%			95	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

QC Batch: 446245
QC Batch Method: EPA 3510C
Analysis Method: EPA 8270C by SIM
Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60227325001

METHOD BLANK: 1824351 Matrix: Water
Associated Lab Samples: 60227325001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	09/14/16 13:36	
2-Fluorobiphenyl (S)	%	91	39-85	09/14/16 13:36	S3
Terphenyl-d14 (S)	%	103	48-95	09/14/16 13:36	S3

LABORATORY CONTROL SAMPLE: 1824352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	9.8	98	40-106	
2-Fluorobiphenyl (S)	%			85	39-85	
Terphenyl-d14 (S)	%			85	48-95	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1824353 1824354

Parameter	Units	60227280014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Naphthalene	ug/L	1.6	10	10	8.9	10.2	73	86	35-117	14	48	
2-Fluorobiphenyl (S)	%						71	82	39-85		78	
Terphenyl-d14 (S)	%						70	72	48-95		79	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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: 446389

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

ANALYTE QUALIFIERS

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60227325

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60227325001	**GW-081773-090816-SP-MW-1**	EPA 3510C	446245	EPA 8270C by SIM	446538
60227325001	**GW-081773-090816-SP-MW-1**	EPA 8260/OA1	446389		
60227325002	**GW-081773-090816-SP-DUP**	EPA 8260/OA1	446389		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60227325

60227325

AFS

Client Name: GHD - Col NM

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 7044 6652 8061 Pace Shipping Label Used? Yes ☐ No ☒

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.1 T-266 / CF -0.1 T-239 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 3.0 **Corr. Factor** CF +1.1 CF -0.1 **Corrected** 4.1

Date and initials of person examining contents: JF 9/9/16 USP

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	
Containers intact:	☒Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: water	☐Yes ☐No ☒N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☒Yes ☐No ☐N/A	
Cyanide water sample checks: ☐ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☐N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: alice Date: 09/09/16

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

Start: 1035	Start:
End: 1045	End:
Temp:	Temp:

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical

Page : 1 Of 1

Section A — Required Client Information:

Company:	GHD Services_COP NM
Address:	6212 Indian School Rd. NE St2
	Albuquerque, NM 87110
Email:	christine.mathews@ghd.com
Phone:	505-884-0672
Fax:	
Requested Due Date:	

Section B — Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Cale Kanack
Purchase Order #:	
Project Name:	081773 COP State Com J-6
Project #:	

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	alice.spiller@pacelabs.com,
Pace Profile #:	8644, 29

Regulatory Agency	
State / Location	NM

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N)

6022 7325

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260 BTEX	8270 PAH SIM Naphthalene		Residual Chlorine (Y/N)	
1	GW-081773-090816-SP-MW-1	WT	G	9-8-16	1435				8										X	X	6(DL9H) 2(AZAU)		QA/QC sample collected 001
2	GW-081773-090816-SP-DUP	↓	↓	↓					3										X		3(DL9H)		002
3																					3(DL9H) TB		003
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Steven Perez	9-8-16	1626	[illegible] / Pace	9/9/16	850	4.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Steven Perez

SIGNATURE of SAMPLER: Steve Perez

DATE Signed: 9-8-16

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

October 04, 2016

Christine Mathews
GHD Services, Inc.
6212 Indian School Rd. NE St2
Albuquerque, NM 87110

RE: Project: 081773 State Com J-6
Pace Project No.: 60228835

Dear Christine Mathews:
Enclosed are the analytical results for sample(s) received by the laboratory on September 29, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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 Spiller

Alice Spiller
alice.spiller@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,
Jeffrey Walker, GHD Services, Inc

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

CERTIFICATIONS

Project: 081773 State Com J-6
Pace Project No.: 60228835

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 081773 State Com J-6
Pace Project No.: 60228835

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60228835001	**GW-081773-092616-JW-MW2**	Water	09/26/16 13:10	09/29/16 08:55
60228835002	**GW-081773-092616**	Water	09/26/16 13:25	09/29/16 08:55

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 081773 State Com J-6
Pace Project No.: 60228835

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60228835001	**GW-081773-092616-JW-MW2**	EPA 8270C by SIM	NAW	5
		EPA 8260/OA1	JTK	8
60228835002	**GW-081773-092616**	EPA 8270C by SIM	NAW	5
		EPA 8260/OA1	JTK	8

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

PROJECT NARRATIVE

Project: 081773 State Com J-6
Pace Project No.: 60228835

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: October 04, 2016

General Information:
2 samples were analyzed for EPA 8270C by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

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

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

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

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

QC Batch: 448654

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

- GW-081773-092616 (Lab ID: 60228835002)
  - Terphenyl-d14 (S)
- GW-081773-092616-JW-MW2 (Lab ID: 60228835001)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)

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

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

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

QC Batch: 448654

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: 081773 State Com J-6
Pace Project No.: 60228835

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: October 04, 2016

Analyte Comments:

QC Batch: 448654

1e: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- GW-081773-092616 (Lab ID: 60228835002)
  - 1-Methylnaphthalene
  - 2-Methylnaphthalene
  - Naphthalene
- GW-081773-092616-JW-MW2 (Lab ID: 60228835001)
  - 1-Methylnaphthalene
  - 2-Methylnaphthalene
  - Naphthalene

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

PROJECT NARRATIVE

Project: 081773 State Com J-6
Pace Project No.: 60228835

Method: **EPA 8260/OA1**
Description: 8260/OA1 UST, Water
Client: GHD Services_COP NM
Date: October 04, 2016

General Information:
2 samples were analyzed for EPA 8260/OA1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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

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

QC Batch: 448764

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.

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

ANALYTICAL RESULTS

Project: 081773 State Com J-6
Pace Project No.: 60228835

Sample: GW-081773-092616-JW-MW2 **Lab ID: 60228835001** Collected: 09/26/16 13:10 Received: 09/29/16 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
1-Methylnaphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 20:51	90-12-0	1e
2-Methylnaphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 20:51	91-57-6	1e
Naphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 20:51	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	87	%	39-85	1	09/30/16 00:00	10/03/16 20:51	321-60-8	S3
Terphenyl-d14 (S)	102	%	48-95	1	09/30/16 00:00	10/03/16 20:51	1718-51-0	S3
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		09/30/16 22:44	71-43-2	
Toluene	ND	ug/L	1.0	1		09/30/16 22:44	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		09/30/16 22:44	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		09/30/16 22:44	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		09/30/16 22:44	2037-26-5	
4-Bromofluorobenzene (S)	100	%	77-130	1		09/30/16 22:44	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	1		09/30/16 22:44	17060-07-0	
Preservation pH	**1.0**		0.10	1		09/30/16 22:44		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 State Com J-6
Pace Project No.: 60228835

Sample: GW-081773-092616 **Lab ID: 60228835002** Collected: 09/26/16 13:25 Received: 09/29/16 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
1-Methylnaphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 21:11	90-12-0	1e
2-Methylnaphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 21:11	91-57-6	1e
Naphthalene	ND	ug/L	0.50	1	09/30/16 00:00	10/03/16 21:11	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	85	%	39-85	1	09/30/16 00:00	10/03/16 21:11	321-60-8	
Terphenyl-d14 (S)	98	%	48-95	1	09/30/16 00:00	10/03/16 21:11	1718-51-0	S3
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		09/30/16 22:59	71-43-2	
Toluene	ND	ug/L	1.0	1		09/30/16 22:59	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		09/30/16 22:59	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		09/30/16 22:59	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		09/30/16 22:59	2037-26-5	
4-Bromofluorobenzene (S)	100	%	77-130	1		09/30/16 22:59	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127	1		09/30/16 22:59	17060-07-0	
Preservation pH	**1.0**		0.10	1		09/30/16 22:59		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 State Com J-6
Pace Project No.: 60228835

QC Batch: 448764 Analysis Method: EPA 8260/OA1
QC Batch Method: EPA 8260/OA1 Analysis Description: 8260/OA1 UST-WATER
Associated Lab Samples: 60228835001, 60228835002

METHOD BLANK: 1836389 Matrix: Water
Associated Lab Samples: 60228835001, 60228835002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/30/16 19:02	
Ethylbenzene	ug/L	ND	1.0	09/30/16 19:02	
Toluene	ug/L	ND	1.0	09/30/16 19:02	
Xylene (Total)	ug/L	ND	3.0	09/30/16 19:02	
1,2-Dichloroethane-d4 (S)	%	101	81-127	09/30/16 19:02	
4-Bromofluorobenzene (S)	%	102	77-130	09/30/16 19:02	
Toluene-d8 (S)	%	100	80-120	09/30/16 19:02	

LABORATORY CONTROL SAMPLE: 1836390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.0	105	79-116	
Ethylbenzene	ug/L	20	20.4	102	81-110	
Toluene	ug/L	20	20.4	102	82-111	
Xylene (Total)	ug/L	60	61.7	103	80-111	
1,2-Dichloroethane-d4 (S)	%			102	81-127	
4-Bromofluorobenzene (S)	%			101	77-130	
Toluene-d8 (S)	%			99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 081773 State Com J-6
Pace Project No.: 60228835

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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: 448654

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

Batch: 448764

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

ANALYTE QUALIFIERS

1e A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 081773 State Com J-6
Pace Project No.: 60228835

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228835001	**GW-081773-092616-JW-MW2**	EPA 3510C	448654	EPA 8270C by SIM	448908
60228835002	**GW-081773-092616**	EPA 3510C	448654	EPA 8270C by SIM	448908
60228835001	**GW-081773-092616-JW-MW2**	EPA 8260/OA1	448764		
60228835002	**GW-081773-092616**	EPA 8260/OA1	448764		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60228835

60228835

Client Name: GHD Pleo NM

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 7773 9145 3880 Pace Shipping Label Used? Yes ☐ No ☒

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

Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.1 T-266 / CF +0.7 T-239 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 1.7 **Corr. Factor** CF +1.1 CF +0.7 **Corrected** 2.6

Date and initials of person examining contents: 1030 7/29/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	only HCL vials received and
Pace containers used:	☑Yes ☐No ☐N/A	1-250mL amber unpreserved per sample
Containers intact:	☑Yes ☐No ☐N/A	7/29/16 KS
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: water	☐Yes ☐No ☒N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☒N/A	
Cyanide water sample checks: ☒N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☐Yes ☒No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 7/29/16

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

Start:	1025	Start:	
End:	1030	End:	
Temp:		Temp:	

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

1645241

Section A Required Client Information:

Company: GHD
Address: 6121 Indian Sch Rd Ste 200, Albuq, NM
Email To: jeff.walker@ghd.com
Phone: 505-884-0672 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Jeff Walker GHD
Copy To:
Purchase Order No.:
Project Name: State Com 36
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

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

Site Location STATE: NM

Section D Required Client Information

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

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX 8260	Naphthalenes									Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-081773-092616-JW-MW2			9/26	1310	—			3				X					X										30291H 001
2	"			"	"				1	X									X									
3																												
4	GW-081773092616			9/26	1325	—			3				X					X										30291H 002
5	"								1	X									X									
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please report 1-methyl	J Walker GHD	9/28/16	1330	[signature] Pace	9/29/16	855	2.6	Y	Y	Y
and 2-methyl naphthalenes										

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

ORIGINAL

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

F-ALL-Q-020rev.07, 15-May-2007

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

December 19, 2016

Jeffrey Walker
GHD Services, Inc
6121 Indian School Rd NE
Ste 200
Albuquerque, NM 87110

RE: Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Dear Jeffrey Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on December 03, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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 Spiller

Alice Spiller
alice.spiller@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, GHD Services, Inc,

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

CERTIFICATIONS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

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

SAMPLE SUMMARY

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60233548001	**GW-081773-120116-JK-MW-1**	Water	12/01/16 13:10	12/03/16 08:20
60233548002	**GW-081773-120116-JK-MW-2**	Water	12/01/16 13:00	12/03/16 08:20
60233548003	**GW-081773-120116-JK-MW-3**	Water	12/01/16 13:20	12/03/16 08:20
60233548004	**TRIP BLANK**	Water	12/01/16 13:00	12/03/16 08:20

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

SAMPLE ANALYTE COUNT

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60233548001	**GW-081773-120116-JK-MW-1**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	EAG	8
60233548002	**GW-081773-120116-JK-MW-2**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	EAG	8
60233548003	**GW-081773-120116-JK-MW-3**	EPA 8270C by SIM	NAW	3
		EPA 8260/OA1	EAG	8

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: December 19, 2016

General Information:
3 samples were analyzed for EPA 8270C by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

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

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

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

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

QC Batch: 458039

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- LCS (Lab ID: 1875198)
  - 2-Fluorobiphenyl (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples.
- GW-081773-120116-JK-MW-2 (Lab ID: 60233548002)
  - 2-Fluorobiphenyl (S)

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

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

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

QC Batch: 458039

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

Additional Comments:

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Method: **EPA 8270C by SIM**
Description: 8270 MSSV PAH by SIM
Client: GHD Services_COP NM
Date: December 19, 2016

Analyte Comments:

QC Batch: 458039

1e: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- GW-081773-120116-JK-MW-1 (Lab ID: 60233548001)
  - Naphthalene
- GW-081773-120116-JK-MW-2 (Lab ID: 60233548002)
  - Naphthalene
- GW-081773-120116-JK-MW-3 (Lab ID: 60233548003)
  - Naphthalene

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

PROJECT NARRATIVE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Method: **EPA 8260/OA1**
Description: 8260/OA1 UST, Water
Client: GHD Services_COP NM
Date: December 19, 2016

General Information:
3 samples were analyzed for EPA 8260/OA1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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

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

Additional Comments:

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

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Sample: GW-081773-120116-JK-MW-1 **Lab ID: 60233548001** Collected: 12/01/16 13:10 Received: 12/03/16 08:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.45	1	12/08/16 00:00	12/12/16 20:33	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	79	%	39-85	1	12/08/16 00:00	12/12/16 20:33	321-60-8	
Terphenyl-d14 (S)	65	%	48-95	1	12/08/16 00:00	12/12/16 20:33	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		12/14/16 07:30	71-43-2	
Toluene	ND	ug/L	1.0	1		12/14/16 07:30	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		12/14/16 07:30	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		12/14/16 07:30	1330-20-7	
Surrogates								
Toluene-d8 (S)	106	%	80-120	1		12/14/16 07:30	2037-26-5	
4-Bromofluorobenzene (S)	97	%	77-130	1		12/14/16 07:30	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-127	1		12/14/16 07:30	17060-07-0	
Preservation pH	**1.0**		0.10	1		12/14/16 07:30		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Sample: GW-081773-120116-JK-MW-2 **Lab ID: 60233548002** Collected: 12/01/16 13:00 Received: 12/03/16 08:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.45	1	12/08/16 00:00	12/12/16 20:53	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	94	%	39-85	1	12/08/16 00:00	12/12/16 20:53	321-60-8	S3
Terphenyl-d14 (S)	65	%	48-95	1	12/08/16 00:00	12/12/16 20:53	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		12/14/16 07:43	71-43-2	
Toluene	ND	ug/L	1.0	1		12/14/16 07:43	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		12/14/16 07:43	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		12/14/16 07:43	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	80-120	1		12/14/16 07:43	2037-26-5	
4-Bromofluorobenzene (S)	94	%	77-130	1		12/14/16 07:43	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-127	1		12/14/16 07:43	17060-07-0	
Preservation pH	**1.0**		0.10	1		12/14/16 07:43		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Sample: GW-081773-120116-JK-MW-3 **Lab ID: 60233548003** Collected: 12/01/16 13:20 Received: 12/03/16 08:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270C by SIM Preparation Method: EPA 3510C							
Naphthalene	ND	ug/L	0.45	1	12/08/16 00:00	12/12/16 21:13	91-20-3	1e
Surrogates								
2-Fluorobiphenyl (S)	80	%	39-85	1	12/08/16 00:00	12/12/16 21:13	321-60-8	
Terphenyl-d14 (S)	62	%	48-95	1	12/08/16 00:00	12/12/16 21:13	1718-51-0	
8260/OA1 UST, Water	Analytical Method: EPA 8260/OA1							
Benzene	ND	ug/L	1.0	1		12/14/16 07:57	71-43-2	
Toluene	ND	ug/L	1.0	1		12/14/16 07:57	108-88-3	
Ethylbenzene	ND	ug/L	1.0	1		12/14/16 07:57	100-41-4	
Xylene (Total)	ND	ug/L	3.0	1		12/14/16 07:57	1330-20-7	
Surrogates								
Toluene-d8 (S)	104	%	80-120	1		12/14/16 07:57	2037-26-5	
4-Bromofluorobenzene (S)	95	%	77-130	1		12/14/16 07:57	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-127	1		12/14/16 07:57	17060-07-0	
Preservation pH	**1.0**		0.10	1		12/14/16 07:57		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

QC Batch: 458753 Analysis Method: EPA 8260/OA1
QC Batch Method: EPA 8260/OA1 Analysis Description: 8260/OA1 UST-WATER
Associated Lab Samples: 60233548001, 60233548002, 60233548003

METHOD BLANK: 1878050 Matrix: Water
Associated Lab Samples: 60233548001, 60233548002, 60233548003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/14/16 03:32	
Ethylbenzene	ug/L	ND	1.0	12/14/16 03:32	
Toluene	ug/L	ND	1.0	12/14/16 03:32	
Xylene (Total)	ug/L	ND	3.0	12/14/16 03:32	
1,2-Dichloroethane-d4 (S)	%	98	81-127	12/14/16 03:32	
4-Bromofluorobenzene (S)	%	95	77-130	12/14/16 03:32	
Toluene-d8 (S)	%	105	80-120	12/14/16 03:32	

LABORATORY CONTROL SAMPLE: 1878051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.1	91	79-116	
Ethylbenzene	ug/L	20	19.0	95	81-110	
Toluene	ug/L	20	19.0	95	82-111	
Xylene (Total)	ug/L	60	59.1	99	80-111	
1,2-Dichloroethane-d4 (S)	%			97	81-127	
4-Bromofluorobenzene (S)	%			93	77-130	
Toluene-d8 (S)	%			103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1878052 1878053

Parameter	Units	60233901004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	20	20	19.4	19.2	97	96	37-151	1	40	
Ethylbenzene	ug/L	ND	20	20	21.4	21.0	107	105	29-151	2	45	
Toluene	ug/L	ND	20	20	20.7	20.6	103	103	37-147	0	43	
Xylene (Total)	ug/L	ND	60	60	64.6	64.1	108	107	27-156	1	46	
1,2-Dichloroethane-d4 (S)	%						96	96	81-127			
4-Bromofluorobenzene (S)	%						94	92	77-130			
Toluene-d8 (S)	%						105	103	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

QC Batch: 458039 Analysis Method: EPA 8270C by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270 Water PAH by SIM MSSV
Associated Lab Samples: 60233548001, 60233548002, 60233548003

METHOD BLANK: 1875197 Matrix: Water
Associated Lab Samples: 60233548001, 60233548002, 60233548003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Naphthalene	ug/L	ND	0.50	12/12/16 15:36	
2-Fluorobiphenyl (S)	%	84	39-85	12/12/16 15:36	
Terphenyl-d14 (S)	%	88	48-95	12/12/16 15:36	

LABORATORY CONTROL SAMPLE: 1875198

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	10	8.1	81	40-106	
2-Fluorobiphenyl (S)	%			90	39-85	S1
Terphenyl-d14 (S)	%			68	48-95	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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: 458039

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

ANALYTE QUALIFIERS

1e	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
S1	Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 081773 COP STATE COM J-6
Pace Project No.: 60233548

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60233548001	**GW-081773-120116-JK-MW-1**	EPA 3510C	458039	EPA 8270C by SIM	458605
60233548002	**GW-081773-120116-JK-MW-2**	EPA 3510C	458039	EPA 8270C by SIM	458605
60233548003	**GW-081773-120116-JK-MW-3**	EPA 3510C	458039	EPA 8270C by SIM	458605
60233548001	**GW-081773-120116-JK-MW-1**	EPA 8260/OA1	458753		
60233548002	**GW-081773-120116-JK-MW-2**	EPA 8260/OA1	458753		
60233548003	**GW-081773-120116-JK-MW-3**	EPA 8260/OA1	458753		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60233548

60233548

Client Name: GHD COP

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 7044 6656 7790 Pace Shipping Label Used? Yes ☐ No ☐

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

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +0.7 / CF -0.5 T-266 / T-239 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** 1.4 **Corr. Factor** CF +0.7 CF -0.5 **Corrected** 2.1

Date and initials of person examining contents: 12/3

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	
Samples arrived within holding time:	☒Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	
Sufficient volume:	☒Yes ☐No ☐N/A	
Correct containers used:	☒Yes ☐No ☐N/A	Some vials broken/ frozen,
Pace containers used:	☒Yes ☐No ☐N/A	1 of 3 DGAH MW-1 broken
Containers intact:	☐Yes ☒No ☐N/A	1 of 3 DGAH MW-2 broken 2 of 3 DGAHT broken
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☒N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	
Sample labels match COC: Date / time / ID / analyses	☒Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☒No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐Yes ☐No ☒N/A	
Cyanide water sample checks: ☒ N/A Lead acetate strip turns dark? (Record only) Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No ☐Yes ☐No	
Trip Blank present:	☒Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☒No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☒N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☒N/A	

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Alice Date: 12/05/16

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

Start: 1005	Start:
End: 1014	End:
Temp:	Temp:

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD Services_COP NM	Report To:	Christine Mathews	Attention:	
Address:	6212 Indian School Rd. NE St2	Copy To:	Jeff Walker, Cale Kanack	Company Name:	
	Albuquerque, NM 87110			Address:	
Email:	christine.mathews@ghd.com	Purchase Order #:	34006656	Pace Quote:	
Phone:	505-884-0672 Fax:	Project Name:	081773 COP State Com J-6	Pace Project Manager:	alice.spiller@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	8644, 29

Regulatory Agency	
State / Location	
NM	

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	8260 BTEX	8270 PAH SIM Naphthalene	Residual Chlorine (Y/N)	602733548
1	GW-081773-120116-JK-MW-1	WT	G	12-01-16	1310				5	2			3					X	X			(2)ACAH (2)DCAH aq
2	GW-081773-120116-JK-MW-2	WT	G	12-01-16	1300				5	2			3					X	X			(3)DCAH aq
3	GW-081773-120116-JK-MW-3	WT	G	12-01-16	1320				5	2			3					X	X			(1)DCAH TB aq
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Chris Mathews/GHD	12-02-16	1500		12/3	0820	2.1	Y	Y	N

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed:					