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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company**	Contact **Ashley Maxwell**
Address **3401 E. 30th St., Farmington, NM 87402**	Telephone No. **505-324-5169**
Facility Name **Jillson Federal #1**	Facility Type **Salt Water Disposal**

Surface Owner Federal	Mineral Owner Federal	API No. **3003925465** Lease No. **SF - 080472**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	**08**	**024N**	**003W**	**2305'**	**North**	**2415'**	**West**	**Rio Arriba**

Latitude 36.3256700 ° N **Longitude-107.1801400 ° W**

RCVD NOV 21 '12
OIL CONS. DIV.
DIST. 3

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **5 BBL**	Volume Recovered **0 BBL**
Source of Release **Seal/Gasket**	Date and Hour of Occurrence **7/18/2012 after 5:25PM**	Date and Hour of Discovery **7/18/2012 after 5:25PM**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The hose off of the pump that ties onto the water truck tank came lose and caused a release of 5 BBL produced water. The release remained on location with 0 BBL produced water recovered. Raked the affected area.

Describe Area Affected and Cleanup Action Taken.*
The spill was limited to the offload lane and hillside on location. COPC will assess the soil and determine a path forward for clean-up, if necessary.
Analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases; therefore no further action is needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Ashley Maxwell		
Title: Environmental Specialist	Approval Date: 1/8/2014	Expiration Date:
E-mail Address: ashley.p.wethington@conocophillips.com	Conditions of Approval:	Attached ☐
Date: November 19, 2012 Phone: 505-324-5169		

* Attach Additional Sheets If Necessary

nJR1400841301

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

November 14, 2012

Ashley Maxwell
ConocoPhillips
San Juan Business Unit
Office 216-2
5525 Hwy 64
Farmington, New Mexico 87401

RE: Produced Water Release Report
Jillson Federal SWD
Rio Arriba County, New Mexico

Dear Ms. Maxwell:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with a five barrel (bbl) produced water release at the ConocoPhillips (CoP) Jillson Federal SWD, located in Rio Arriba County, New Mexico.

1.0 Site Information

1.1 Location

Site Name – Jillson Federal SWD
Legal Description – SE¼ NW¼, Section 8, T24N, R3W, Rio Arriba County, New Mexico
SWD Latitude/Longitude – N36.32567 and W107.18014, respectively
Release Latitude/Longitude – N36.32543 and W107.18049, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, August 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a C-144 form dated April 2011 reported the depth to groundwater as greater than 100 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. A drainage leading to Leeson Canyon is located on the northwest corner of the location. Based on this information, the location was assessed a ranking score of 20 per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

1.3 Produced Water Release Information

AES was initially contacted by Ashley Maxwell, CoP representative, on August 21, 2012, and on August 22, 2012, Tom Long of AES traveled to the location. AES personnel collected one 5-point composite soil sample from the offloading lane for confirmation laboratory analysis.

2.0 Soil Sampling

On August 22, 2012, AES personnel collected one 5-point composite soil sample SC-1 from approximately 0.25 feet bgs at the offloading lane and hillside. Soil sample SC-1 was submitted for confirmation laboratory analysis. The soil sample location is included on Figure 2.

2.1 Laboratory Analyses

The composite soil sample collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- Chloride per USEPA Method 300.0.

2.2 Laboratory Analytical Results

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 below the laboratory detection limits of 0.049 mg/kg and 0.25 mg/kg, respectively. TPH concentrations were reported less than 4.9 mg/kg GRO and less than 10 mg/kg DRO. The laboratory chloride concentration was reported at 190 mg/kg. Laboratory analytical

results are summarized in Table 1 and included on Figure 2. Laboratory analytical reports are attached.

Table 1. Soil Laboratory Analytical Results,
Jillson Federal SWD Produced Water Release, August 2012

Sample ID	*Date Sampled*	*Depth (ft)*	*Benzene (mg/kg)*	*BTEX (mg/kg)*	*TPH-GRO (mg/kg)*	*TPH-DRO (mg/kg)*	*Chlorides (mg/kg)*
NMOCD Action Level			***10***	***50***	***100****		***250***
SC-1	08/22/2012	0.25	<0.049	<0.25	<4.9	<10	190

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

3.0 Conclusions and Recommendations

NMOCD action levels for releases are specified in NMOCD's *Guidelines for Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 20. The benzene concentration in SC-1 was below the laboratory detection limit of 0.049 mg/kg, and total BTEX concentrations were below the NMOCD action level of 50 mg/kg. TPH concentrations as GRO/DRO were also below the NMOCD action level of 1,000 mg/kg. Chloride concentration for SC-1 was reported below the NMOCD action level of 250 mg/kg with 190 mg/kg.

Based on laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended. If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,

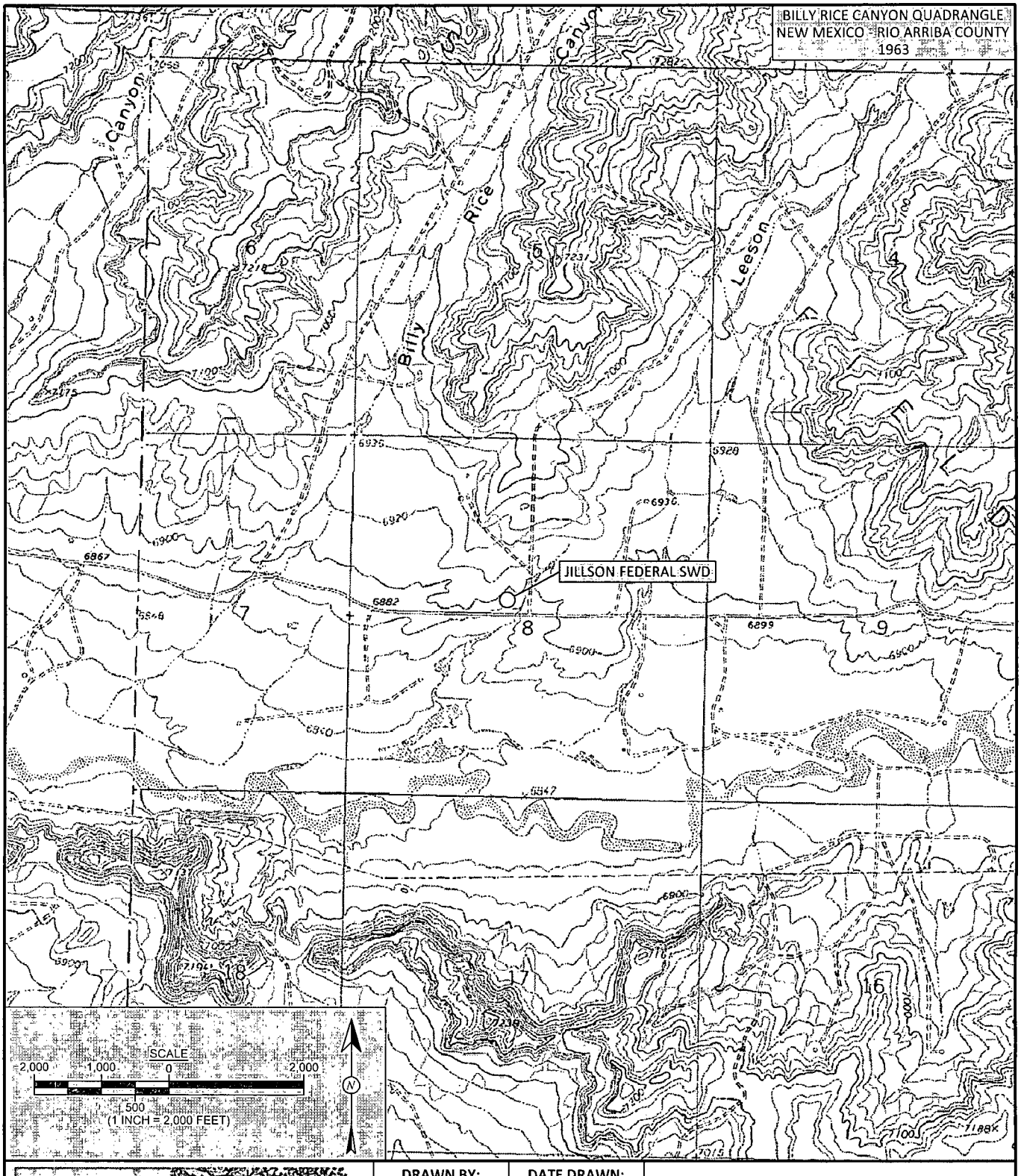
Kelsey Christiansen
Environmental Scientist

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, August 2012
Hall Analytical Report 1208B29

R:\Animas 2000\2012 Projects\Conoco Phillips\Jillson Federal SWD\Jillson Federal SWD Assessment Report 111412.docx

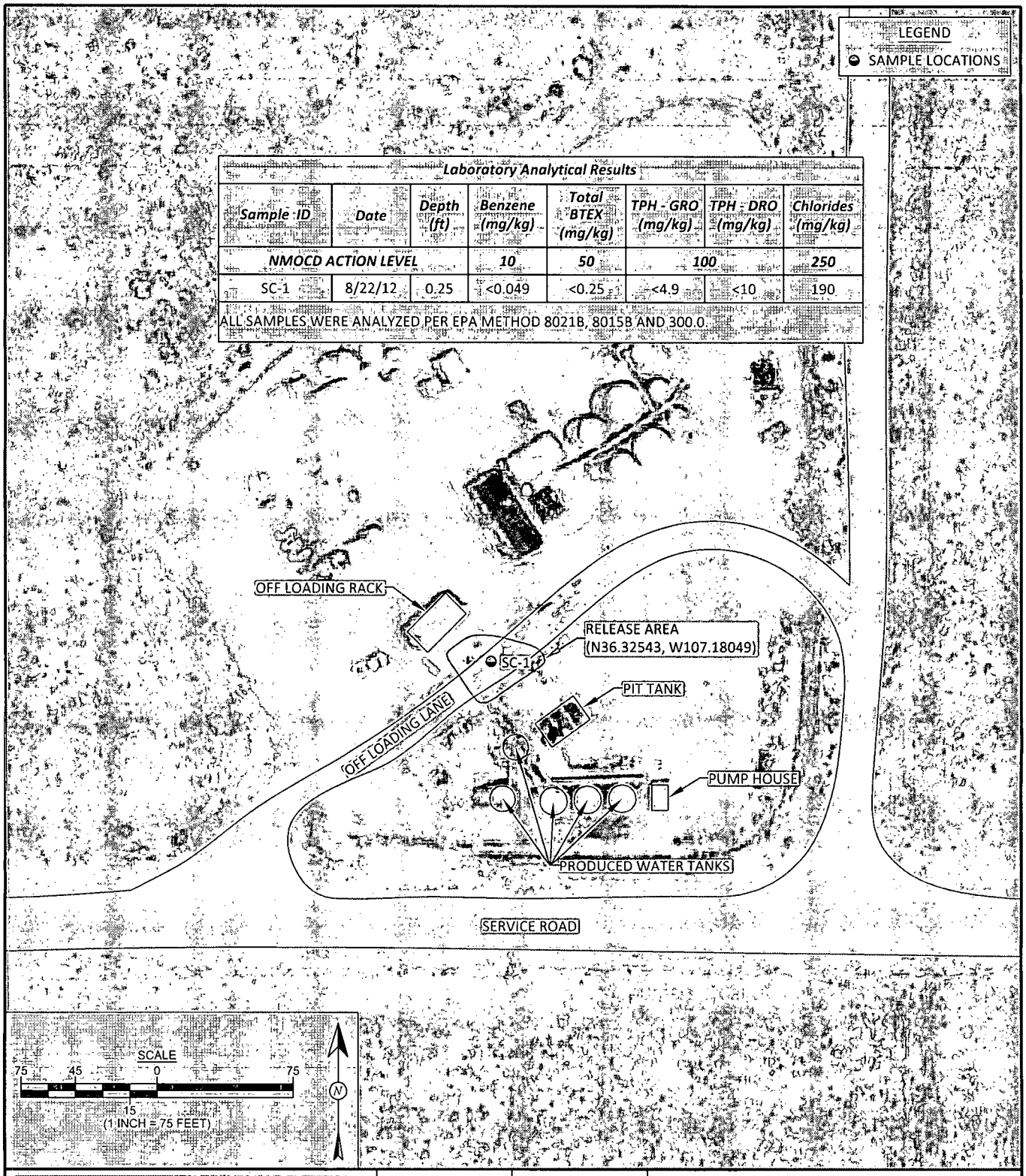


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** September 12, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** November 14, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** November 14, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** November 14, 2012

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ConocoPhillips
JILLSON FEDERAL SWD
RIO ARRIBA COUNTY, NEW MEXICO
SE¼ NW¼, SECTION 8, T24N, R3W
N36.32567, W107.18014



Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			10	50	100		250
SC-1	8/22/12	0.25	<0.049	<0.25	<4.9	<10	190

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** September 12, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** November 14, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** November 14, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** November 14, 2012

FIGURE 2

AERIAL SITE MAP
SAMPLE LOCATIONS AND RESULTS
AUGUST 2012
ConocoPhillips
JILLSON FEDERAL SWD
RIO ARRIBA COUNTY, NEW MEXICO
SE¼ NW¼, SECTION 8, T24N, R3W
N36.32543, W107.18049

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 30, 2012

Debbie Watson

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: CoP Jillson Federal SWD OrderNo.: 1208B29

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1208B29**
Date Reported: **8/30/2012**

CLIENT: -Animas Environmental Services
Project: CoP Jillson Federal SWD
Lab ID: 1208B29-001 **Matrix:** SOIL

Client Sample ID: SC-1 (offload lane)
Collection Date: 8/22/2012 1:40:00 PM
Received Date: 8/24/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/28/2012 2:24:55 PM
Surr: DNOP	107	77.6-140		%REC	1	8/28/2012 2:24:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/29/2012 2:02:50 PM
Surr: BFB	97.7	84-116		%REC	1	8/29/2012 2:02:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	8/29/2012 2:02:50 PM
Toluene	ND	0.049		mg/Kg	1	8/29/2012 2:02:50 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/29/2012 2:02:50 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/29/2012 2:02:50 PM
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	8/29/2012 2:02:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	190	30		mg/Kg	20	8/28/2012 3:17:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID	MB-3507	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	3507		RunNo:	5152				
Prep Date:	8/28/2012	Analysis Date:	8/28/2012		SeqNo:	146388	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-3507	SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS	Batch ID:	3507		RunNo:	5152				
Prep Date:	8/28/2012	Analysis Date:	8/28/2012		SeqNo:	146389	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Sample ID	1208B07-001AMS	SampType:	MS		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	3507		RunNo:	5152				
Prep Date:	8/28/2012	Analysis Date:	8/28/2012		SeqNo:	146391	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	32	15	15.00	19.96	81.8	64.4	117			

Sample ID	1208B07-001AMSD	SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	3507		RunNo:	5152				
Prep Date:	8/28/2012	Analysis Date:	8/28/2012		SeqNo:	146392	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	34	15	15.00	19.96	93.4	64.4	117	5.24	20	

Sample ID	1208C08-001AMS	SampType:	MS		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	3507		RunNo:	5190				
Prep Date:	8/28/2012	Analysis Date:	8/29/2012		SeqNo:	147612	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	7.5	15.00	0	99.4	64.4	117			

Sample ID	1208C08-001AMSD	SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	3507		RunNo:	5190				
Prep Date:	8/28/2012	Analysis Date:	8/29/2012		SeqNo:	147613	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	7.5	15.00	0	102	64.4	117	2.79	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **MB-3497**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **3497**	RunNo: **5130**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **145851** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		108	77.6	140			

Sample ID **LCS-3497**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **3497**	RunNo: **5130**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146003** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.4	52.6	130			
Surr: DNOP	4.3		5.000		86.4	77.6	140			

Sample ID **1208C15-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **3509**	RunNo: **5159**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **146661** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.149		85.9	77.6	140			

Sample ID **1208C15-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **3509**	RunNo: **5159**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147002** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		4.931		88.3	77.6	140	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **MB-3489**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145462** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID **LCS-3489**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145463** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID **LCSD-3489**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145464** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.52		0.5000		104	79.5	166	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146743** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.6	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146744** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	84	116			

Sample ID **1208C16-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146746** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	700		679.7		102	84	116			

Sample ID **1208C16-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146747** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	690		679.7		102	84	116	0	0	

Sample ID **MB-3494**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146758** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.4	84	116			

Sample ID **LCS-3494**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146759** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	74	117			
Surr: BFB	1000		1000		102	84	116			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **1208B01-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.74	0	90.6	70	130			
Surr: BFB	940		949.7		99.5	84	116			

Sample ID **1208B01-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.39	0	97.2	70	130	5.48	22.1	
Surr: BFB	940		935.5		100	84	116	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147866** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	19		20.00		96.1	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147868** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	21		20.00		103	69.8	119			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146803** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146804** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **1208C15-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146814** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.87		0.8373		104	80	120			

Sample ID **1208C15-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146828** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.88		0.8373		105	80	120	0	0	

Sample ID **MB-3494**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146847** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120			

Sample ID **LCS-3494**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146848** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	93.9	76.3	117			
Toluene	0.97	0.050	1.000	0	97.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	77	116			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services
Project: CoP Jillson Federal SWD

Sample ID **LCS-3494**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146848** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.0	0.10	3.000	0	99.3	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147892** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		96.7	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147893** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1208C71-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147898** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **1208C71-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147909** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120	0	0	

Sample ID **1208B46-004AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **3494**	RunNo: **5174**
Prep Date: **8/27/2012**	Analysis Date: **8/29/2012**	SeqNo: **147924** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.048	0.9634	0	94.4	67.2	113			
Toluene	0.91	0.048	0.9634	0	94.7	62.1	116			
Ethylbenzene	0.94	0.048	0.9634	0	97.9	67.9	127			
Xylenes, Total	2.9	0.096	2.890	0	98.6	60.6	134			
Surr: 4-Bromofluorobenzene	1.0		0.9634		104	80	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B29**

30-Aug-12

Client: Animas Environmental Services

Project: CoP Jillson Federal SWD

Sample ID **1208B46-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **3494**	RunNo: **5174**
Prep Date: **8/27/2012**	Analysis Date: **8/29/2012**	SeqNo: **147925** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.048	0.9634	0	95.7	67.2	113	1.34	14.3	
Toluene	0.95	0.048	0.9634	0	98.9	62.1	116	4.31	15.9	
Ethylbenzene	0.97	0.048	0.9634	0	101	67.9	127	3.25	14.4	
Xylenes, Total	2.9	0.096	2.890	0	102	60.6	134	3.33	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9634		108	80	120	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1208B29**

Received by/date: JM 08/24/12

Logged By: **Michelle Garcia** 8/24/2012 10:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 8/24/2012 4:25:19 PM Michelle Garcia

Reviewed By: 08/24/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✓
2.	Is Chain of Custody complete?	Yes ✓	No	Not Present
3.	How was the sample delivered?	Courier		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA
5.	Was an attempt made to cool the samples?	Yes ✓	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
7.	Sample(s) in proper container(s)?	Yes ✓	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✓	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
10.	Was preservative added to bottles?	Yes	No ✓	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✓
12.	Were any sample containers received broken?	Yes	No ✓	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✓	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✓	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E Comanche Farmington NM
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn Around Time:
☒ Standard ☐ Rush _____

Project Name: CoP Jillson Federal SWD

Project #:

Project Manager: D. Watson

Sampler: T. Long

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208R206	Analysis Request: 8015 TPH (GRO/DRO)	8021 BTEX	300.0 Chlorides	Air Bubbles (Y or N)
8-22-12	1340	Soil	SC-1 (offload lane)	1-4oz	—	-001	X	X	X	

Date: 8/23/12 Time: 1540 Relinquished by: [signature] Received by: [signature] Date: 8/23/12 Time: 1540

Date: 8/23/12 Time: 1637 Relinquished by: [signature] Received by: [signature] Date: 8/24/12 Time: 1000

Remarks: Bill to ConocoPhillips
WO: 91511 23 User ID: GARR ECD
area: SWD Ordered by: Ashley Maxwell
Supervisor: Robert Stuard

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.