OIL CONS. DIV DIST. 3

JUN 20 2016

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: BP America Production Company	Contact: Steve Moskal
Address: 200 Energy Court Farmington, NM 87401	Telephone No.: 505-326-9497
Facility Name: NEBU 454A Water Valve Can	Facility Type: 2" CBM Produced Water Gathering line

Surface Owner: Federal; BLM/BOR	Mineral Owner: Federal; BLM	API No. 30-045-33195

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	33	31N	7W					San Juan

Latitude: 36.854181 **Longitude**: -107.575170

NATURE OF RELEASE

Type of Release: Produced Water Spill	Volume of Release ~200 BBl	Volume Recovered 3 BBL
Source of Release: Crack in 1" piping at a 1" valve in water valve can due to freezing.	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 2/20/2016, 1:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Contacted OCD: Cory Smith, BLM Katherina Diemer, Jerry Tensfield, BOR, Allen Atkins, State Park	
By Whom? Jake Nossaman - Assistant Forman; Devon Energy	Date and Hour 2/20/2016 Phone 2:00 PM	Email- 9:30 PM
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. 200 BBL	

If a Watercourse was Impacted, Describe Fully.
The release went from the pipeline right of way to a drainage that carried the Produced water approximately 3500' down to Navajo Lake.
Drainage impacts: Visible salt and mineral staining on edge of drainage and rocks in drainage.

Describe Cause of Problem and Remedial Action Taken.*
Freezing caused a 1" riser to crack at the threads underneath a 1" valve in water can. The failed piping at the valve caused a ~200 BBL release from the pipeline onto the right of way flowing to a drainage that carried the produced water approximately 3,500' down to Navajo Lake.
Remedial Actions Taken: Valves and piping were replaced and stored in the closed position. Accessible pools of produced water were pumped out or soaked up with absorbent pads. Soil sampling and water testing were conducted to determine remedial actions for clean-up via EPA Methods 8015 for hydrocarbons (soil), 8021 for BTEX (soil and water), 300.0 for cation/anion (soil and water) and 8260 for volatile organic (water). Results of the soil and water sampling were below the NMOCD/NMED closure standards for all constituents with the exception of chloride, boron and iron in the water samples. Note, the background for iron was elevated. Subsequent water sampling demonstrated a significant decrease in contaminants of concern, with all values below the NMOCD and NMED closure standards.

Describe Area Affected and Cleanup Action Taken.*
Clean-up actions taken: Recovered produced water from small pools in drainage where safely accessible and in the water can. Soil and water samples were collected and submitted for laboratory analysis to determine concentration of THP, BTEX, chloride and general chemistry of water impacts. A field report and laboratory results are attached. Gypsum was raked into the soil of the upper impact zone, approximately the first 300 feet, to help reduce chloride concentrations. Subsequent visual monitoring was performed with the NMOCD and BLM on June 9, 2016. The entire spill path was observed for impacts and staining. The site visit concluded with the agreement that no further action or monitoring is required as no significant impacts were found.

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	
Printed Name: Steve Moskal	Approved by Environmental Specialist:	
Title: Field Environmental Coordinator	Approval Date: 8/25/14	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached ☐
Date: June 16, 2016 Phone: (505) 326-9497		

* Attach Additional Sheets If Necessary #nCS 1610505082

(81)

envirotech

April 5, 2016

Project Number 01058-0239

Mr. Steve Moskal
BP America
200 Energy Court
Farmington, NM 87401

Phone: (505) 330-9179
Phone: (505) 326-9262

RE: EMERGENCY SPILL ASSESSMENT AND SAMPLING ACTIVITIES FOR THE NEBU 454A WELL SITE TIE-IN, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Moskal,

Enclosed please find the Emergency Spill Assessment and Sampling Report detailing spill assessment and sampling activities at the NEBU 454A pipeline tie-in, located in Section 33, Township 31 North, Range 7 West, San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Falynn Burns
Environmental Field Technician
fburns@envirotech-inc.com

Enclosure: Spill Assessment and Sampling

Cc: Client File No. 01058

EMERGENCY SPILL ASSESSMENT AND SAMPLING REPORT

LOCATION:
NEBU 454A
SECTION 33, TOWNSHIP 31 NORTH, RANGE 7 WEST
SAN JUAN COUNTY, NEW MEXICO

CONTRACTED BY:
BP AMERICA/DEVON ENERGY
MR. STEVEN MOSKAL
200 ENERGY COURT
FARMINGTON, NM 87401

PROJECT NUMBER 01058-0239
FEBRUARY 2016

DEVON ENERGY/BP AMERICA
EMERGENCY SPILL ASSESSMENT AND SAMPLING
LOCATED NEAR NEBU #454A
SECTION 33, TOWNSHIP 31N, RANGE 7W
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted by BP America/Devon Energy to provide spill assessment and sampling activities for a produced water release that occurred near the NEBU 454A well site (Site), located in Section 33, Township 31N, Range 7W, San Juan County, New Mexico; see ***Figure 1, Vicinity Map***. A leak in the pipeline tie-in caused approximately 200 barrels (bbl) of produced water to be released. The released water traveled downhill and into Navajo Lake. Activities included site assessment, sampling, documentation, and reporting.

ACTIVITIES PERFORMED

On February 20, 2016, Envirotech was contacted with an emergency request to respond to a spill at the above referenced location. Due to Navajo Lake being less than 200 feet from the spill path, closure was determined to be 100 ppm Total Petroleum Hydrocarbons (TPH), and 10 ppm benzene and 50 ppm BTEX, pursuant to the New Mexico Oil and Gas Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases,* and for all other constituents of concern, pursuant with the December 2014 New Mexico Environmental Department (NMED) *Water Quality Control Commission* (WQCC) *Human Health Standards.*

Envirotech personnel arrived on-site on February 21, 2016 and a brief site assessment was conducted. Mr. Jake Nossaman and Mr. Gilbert Monroe, Devon Energy representatives; Mr. Steve Moskal, BP America environmental representative; and NMOCD representative Mr. Cory Smith were also present.

Produced water was released from the Site and migrated approximately 3,000 feet in a south/southeasterly direction, into Navajo Lake; see enclosed ***Figure 1, Vicinity Map, Figure 2, Site Map - Water Analysis***, ***Figure 3, Site Map - Soil Analysis***. All present personnel assessed the entirety of the spill path, from the source of the release to the bank of Navajo Lake.

Water Sampling Activities

Five (5) composite water samples were collected from the spill path: *Source*, *Mid-Point*, *¾ Point*, and *End-Point*. A background water sample was also collected from Navajo Lake, *Lake BG*, to the northeast of the *End-Point* sampling location; see enclosed ***Figure 2, Site Map - Water Analysis*** and ***Appendix B, Field Notes***. The samples were collected into 250 milliliter (mL) poly containers and 125 mL amber glass containers, transported on ice under chain of custody to Envirotech's Analytical Laboratory to be analyzed for General Water Chemistry and Volatile

Organic Compounds (VOCs) by USEPA Method 8260B. The samples returned results below NMOCD and NMED WQCC standards for all constituents analyzed, except for Total Dissolved Solids (TDS), boron, and iron. The *Source-Water*, *Mid-Point-Water*, *¾ Point-Water*, and *End-Point-Water* samples returned results of 13,900 mg/L, 8,320 mg/L, 12,000 mg/L, and 7,510 mg/L for TDS, respectively. The *Source-Water* and *¾ Point-Water* samples returned results of 2.29 mg/L and 2.38 mg/L for Boron, respectively. The *Source- Water*, *¾ Point-Water*, *End-Point-Water*, and *Lake BG* samples returned results of 2.19 mg/L, 1.19 mg/L, 24.3 mg/L, and 2.01 mg/L for Iron, respectively. Additionally, the *Source-Water*, *Mid-Point-Water*, *¾ Point-Water*, and *End-Point-Water* samples returned results for chloride of 3,250 mg/L, 2,510 mg/L, 2,690 mg/L, and 1,780 mg/L, respectively; see enclosed ***Table 1, Summary of Analytical Results – Water***, and ***Appendix A, Analytical Results***.

Soil Sampling Activities

Under the direction of NMOCD representative, Cory Smith, three (3) five (5)-point composite soil samples and three (3) background soil samples were collected during the assessment from various locations along the spill path. The soil samples and their associated background samples were collected from the *Source*, *Mid-Point*, and *End-Point*; see enclosed ***Figure 3, Site Map – Soil Analysis*** and ***Appendix B, Field Notes***. The samples were collected into four (4) ounce glass jars, capped headspace-free, and transported on ice, under chain of custody to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015D, BTEX using USEPA Method 8021B, and chlorides using USEPA Method 300. The samples returned results below detection limits for all constituents analyzed, aside from Diesel Range Organics (DRO) and chlorides. The *Soil BG* sample returned a result of 25.5 mg/kg mg/kg for DRO. The samples collected from the impacted areas along the spill path showed levels of chlorides that were elevated in comparison to their associated background samples. The *Source-Soil*, *Mid-Point-Soil*, and *End Point-Soil* samples returned results of 868 mg/kg, 604 mg/kg, 610 mg/kg for chlorides, respectively; see enclosed ***Table 2, Summary of Analytical Results – Soil*** and ***Appendix A, Analytical Results***.

SUMMARY AND CONCLUSIONS

Site assessment and sampling activities were performed for a release of produced water from a pipeline tie-in near the NEBU 454A well site, in San Juan County, New Mexico. In concurrence with the NMOCD, Envirotech recommends periodic monitoring of the soil and any free-standing

water in the spill path.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed the spill assessment and sampling activities near the NEBU 454A well site, located in Section 33, Township 31N, Range 7W, San Juan County, New Mexico. The work and services provided by Envirotech were in accordance with the NMOCD and NMED standards. All observations and conclusions provided here are based on the information and current site conditions found at the site of the incident.

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry and hydrogeology.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

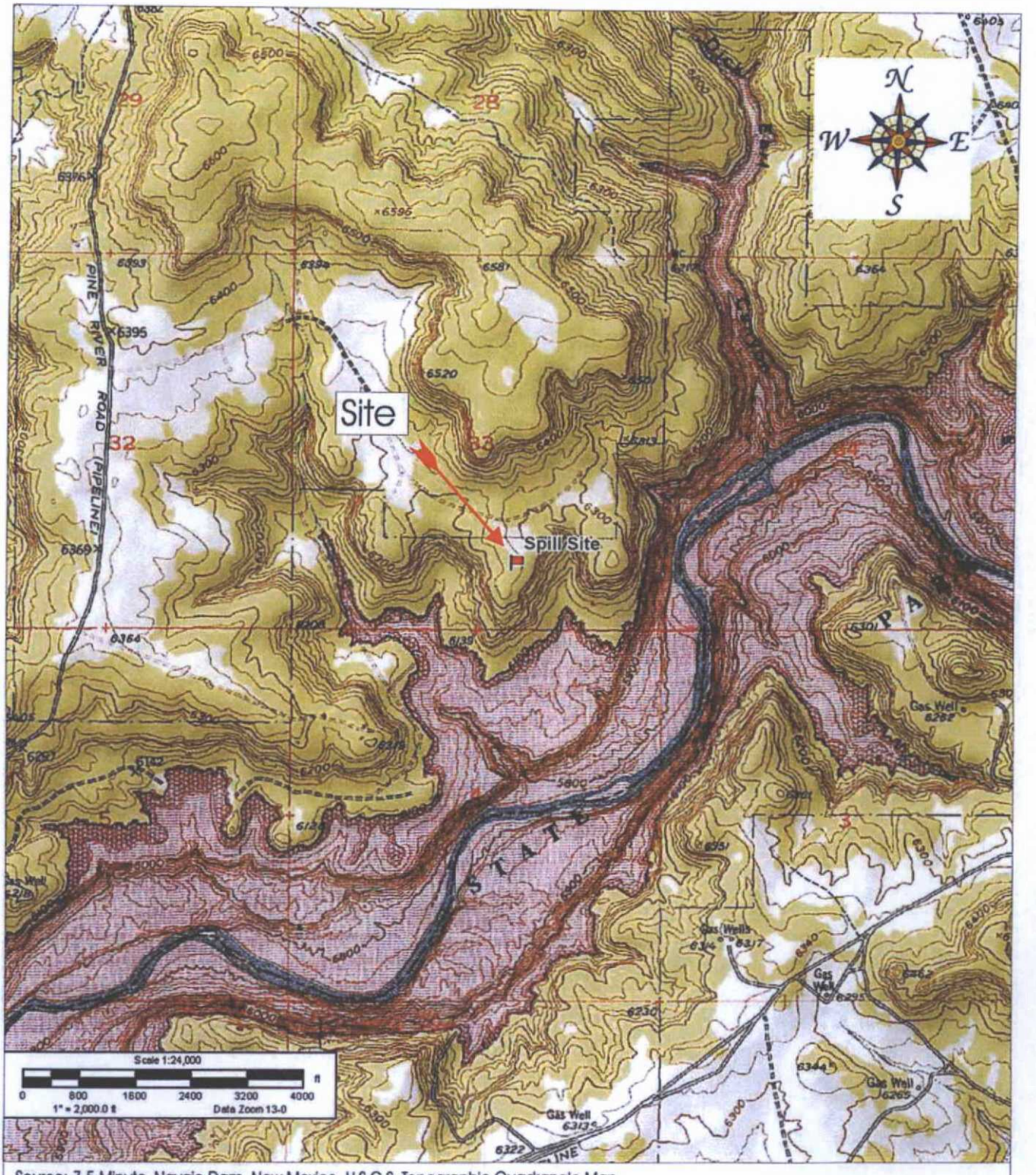
Respectfully Submitted,
ENVIROTECH INC.

Falynn Burns
Environmental Field Technician
fburns@envirotech-inc.com

Reviewed by:

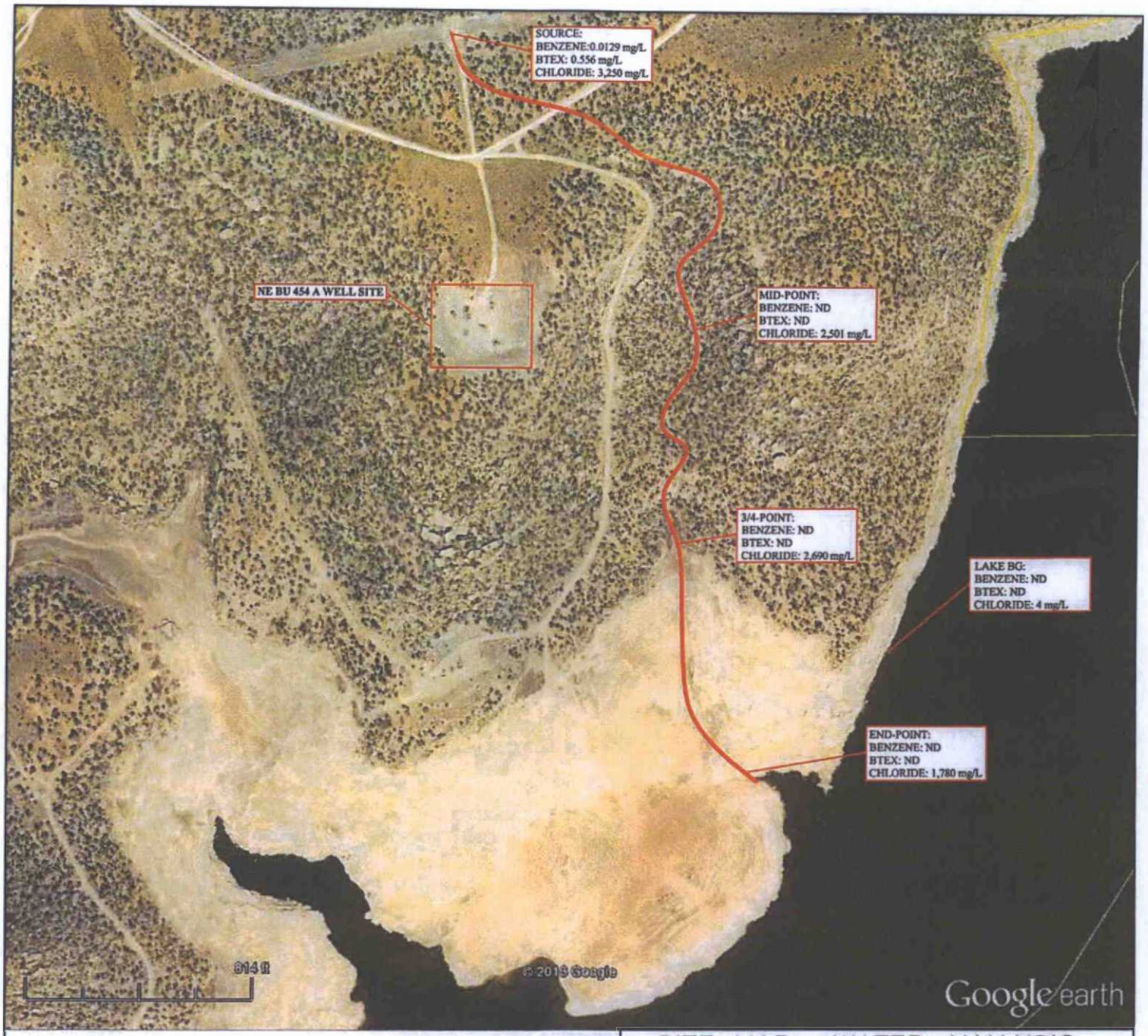
Felipe Aragon, CES
Environmental Project Manager
faragon@envirtoech-inc.com

FIGURES



Source: 7.5 Minute, Navajo Dam, New Mexico U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Devon Energy NEBU 454A Section 33, Township 31N, Range 7W San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure #1
Project Number:01058-0239 / Date Drawn: 3/7/16		DRAWN BY: Falynn Burns / PROJECT MANAGER: Greg Crabtree



LEGEND

Spill Path

SITE MAP– WATER ANALYSIS
Devon Energy
NEBU 454A
SECTION 33, TWP 31 NORTH, RANGE 7W WEST
SAN JUAN COUNTY, NEW MEXICO

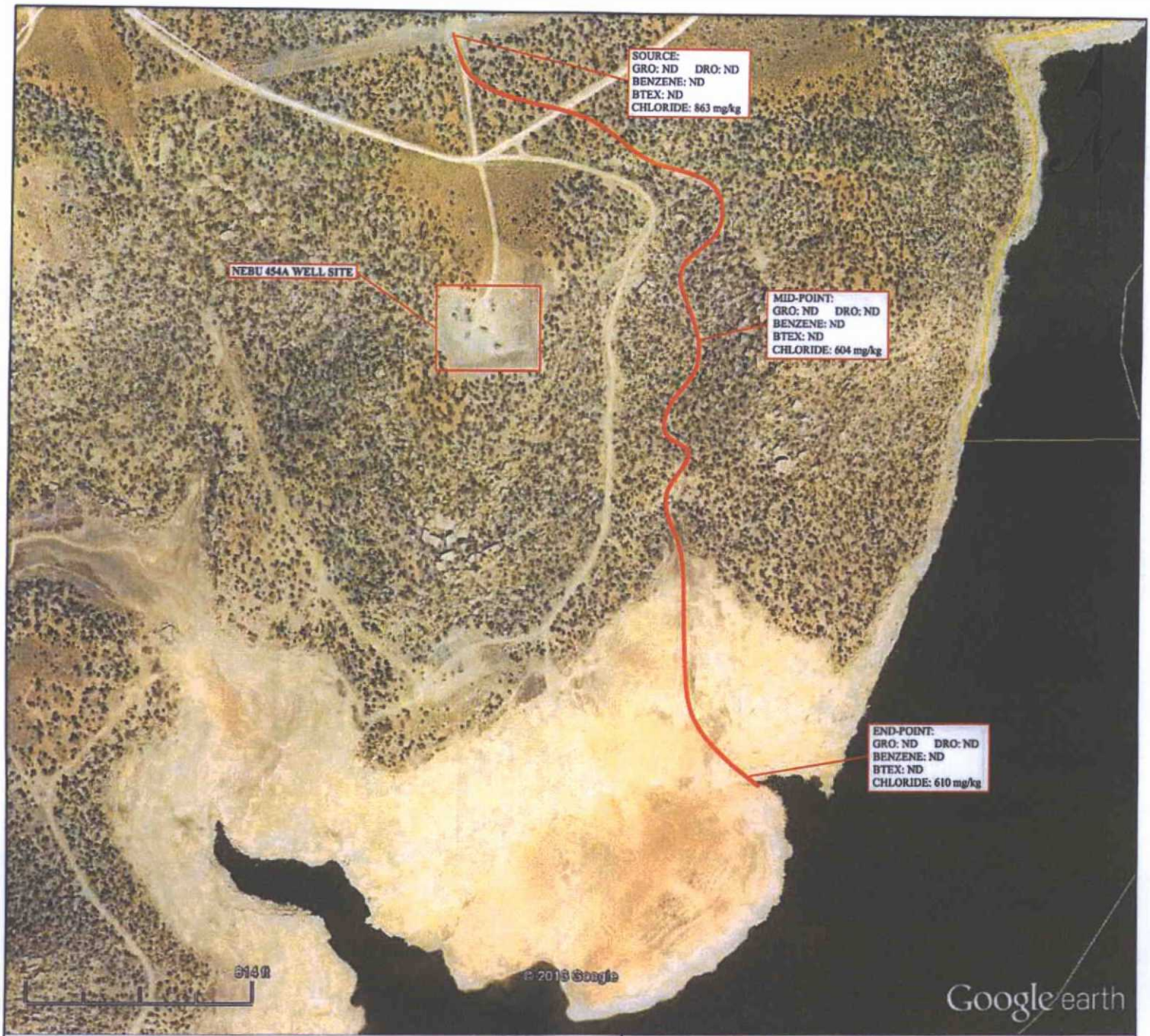
SCALE: NTS	FIGURE NO. 2	REV
PROJECT NOD1058–0239		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	FLB	3/24/16	BASE DRWN		3/24/16

envirotech
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615



LEGEND

Spill Path

SITE MAP– SOIL ANALYSIS
Devon Energy
NEBU 454A
SECTION 33, TWP 31 NORTH, RANGE 7W WEST
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 3	REV
PROJECT NOD1058–0239		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	FLB	3/24/16	BASE DRWN		3/24/16

envirotech
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

TABLES

Table 1, Summary of Analytical Results - Water
BP America/Devon Energy
NEBU 454A
February 2016
Revised March 1, 2016

Analyte*	NMED Regulatory Standard (mg/L)	Sample Description				
		Source- Water	Mid-Point- Water	3/4 Point- Water	End-Point- Water	Lake BG
Chloride	NA	3,250	2,510	2,690	1,780	4
pH	6pH-9pH	7.98	7.09	8.62	8.74	8.75
Conductivity (mS)	NA	17.89	11.2	15.55	10.17	0.207
Total Alkalinity (as CaCO3)	NA	6,900	3,510	6,300	3,870	98
Total Dissolved Solids (TDS)	1,000	**13,900**	**8,320**	**12,000**	**7,510**	144
Nitrate	NA	4.681	0.131	3.66	0.094	0.062
Flouride	1.6	ND	0.045	ND	ND	0.155
Sulfate	600	ND	4.31	2.423	17.256	29.143
Nitrite	NA	ND	ND	ND	ND	0.107
Bromide	NA	ND	ND	ND	7.749	ND
O-phosphate P	NA	ND	0.111	ND	0.181	0.067
Calcium	NA	21.96	218	19.8	27.5	26.4
Magnesium	NA	121.72	58.1	23.4	20.4	4.14
Potassium	NA	118	45.6	84.7	62.1	0.805
Sodium	NA	3,374	2,160	3,070	2,200	15
Boron	0.75	**2.29**	0.83	**2.38**	0.885	ND
Cadmium	0.01	ND	ND	ND	ND	ND
Iron- Dis	NA	0.64	0.025	0.34	0.671	0.061
Iron- Total	1.00	**2.19**	0.209	**1.19**	**24.3**	**2.01**
Lead	0.05	ND	ND	ND	ND	ND
Manganese- Dis	NA	0.017	0.06	0.007	0.289	ND
Manganese- Total	0.2	0.027	0.07	0.017	0.806	0.062
Mercury	0.002	ND	ND	ND	ND	ND
Selenium	0.05	ND	ND	ND	ND	ND
Silica	NA	10.8	9.34	13.2	85.3	11.4
Vanadium	NA	ND	0.004	ND	0.0574	0.002
Benzene (8260)	0.01	0.0129	ND	ND	ND	ND
Ethylbenzene (8260)	0.75	0.0252	ND	ND	ND	ND
Toluene (8260)	0.75	0.319	ND	ND	ND	ND
Xylenes- Total (8260)	0.62	0.199	ND	ND	ND	ND
Tetrachloroethene (8260)	NA	0.00272	ND	ND	ND	ND
1,2,3-Trimethylbenzene (8260)	NA	0.00106	ND	ND	ND	ND
1,3,5-Trimethylbenzene (8260)	NA	0.00153	ND	ND	ND	ND

ND - Non-Detect
NA- Not Applicable
*All other 8260 analytes ND

Table 2, Summary of Analytical Results - Soil
BP America/Devon Energy
NEBU 464A
February 2016
Revised March 1, 2016

Analyte	NMOCD Regulatory Standard (mg/kg)	Sample Description					
		Source-Soil	Source- BG	Mid-Point-Soil	Mid-Point- BG	End-Point- Soil	End-Point- BG
Gasoline Range Organics (GRO) (8015)	100	ND	ND	ND	ND	ND	ND
Diesel Range Organics (DRO) (8015)	100	ND	25.5	ND	ND	ND	ND
BTEX (8021)	50	ND	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND	ND
Chloride	TBD by NMOCD	863	ND	604	ND	610	ND

ND- Non-Detect

February 24, 2016

Mr. Steve Moskal
BP America
200 Energy Court
Farmington, NM 87401

Phone: (505) 330-9179
Fax: (505) 326-9262

RE: SPILL ASSESSMENT AND SAMPLING ACTIVITIES FOR THE NEBU 454A WELL SITE TIE-IN, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Moskal,

Enclosed please find the *Vicinity Map, Site Maps,* and *Summary of Analytical Results*, for sampling activities performed at the NEBU 454A well site tie-in (Site) located in Section 33, Township 31N, Range 7W, San Juan County, New Mexico.

Envirotech, Inc. (Envirotech) was contacted by Devon Energy on February 20, 2016, with a request to perform sampling activities at the NEBU 454A well site tie-in due to a produced water release. Sampling was scheduled to take place the following morning.

Envirotech personnel arrived on-site on February 21, 2016 and a brief site assessment was conducted. Jake Nossaman and a field safety representative from Devon Energy, Steve Moskal from BP America, and New Mexico Oil and Gas Conservation (NMOCD) representative Cory Smith were also present.

Produced water was released from the Site and migrated approximately 3,000 feet in a south/southeasterly direction, into Navajo Lake; see enclosed ***Vicinity Map.*** All present personnel assessed the entirety of the spill path, from the source of the release to the bank of the Navajo Lake. Three (3) five (5)-point composite soil samples, three (3) background soil samples, and five (5) water samples were collected during the assessment from various locations along the spill path, under the direction of NMOCD representative Cory Smith. The soil samples and their associated background samples were collected from the *Source*, *Mid-Point*, and *End-Point*. The water samples were collected from the *Source*, *Mid-Point*, *¾ Point*, and *End-Point*. A background water sample was also collected from Navajo Lake, *Lake BG*, to the northeast of the *End-Point*; see enclosed ***Site Maps***.

The samples were transported on ice, under chain of custody to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 (soil), BTEX using USEPA Method 8021 (soil), chlorides using USEPA Method 300 (soil), General Chemistry (water), and Volatile Organic Compounds using USEPA Method 8260B; see enclosed Summary of Analytical Results.

The remaining final laboratory reports will be submitted as soon as they become available. We appreciate the opportunity to be of service. Should you have any questions or require any additional information, please contact our office at (505) 632-0615.

Respectfully submitted,

Falynn Burns
Environmental Field Technician
fburns@envirotech-inc.com

A subsequent sampling event was conducted on February 29, 2016 with supervision by the NMOCD. A water sample was collected from the lake inlet, immediately below the spill path and another sample was collected to confirm background concentrations near the lake background sampling location sampled on February 21, 2016. The results of the samples collected on February 29, 2016 demonstrated that the chloride and TDS concentration fell below levels of concern in the lake inlet.

Summary of Analytical Results - Water
Devon Energy/BP America
NEBU 454A
February 2016
Revised March 1, 2016

Analyte	Regulatory Standard (mg/L)	Sample Description				
		Source- Water	Mid-Point- Water	3/4 Point- Water	End-Point- Water	Lake BG
Chloride		3,250	2,501	2,690	1,780	4
pH	6pH-9pH	7.98	7.09	8.62	8.74	8.75
Conductivity (mS)	NA	17.89	11.2	15.55	10.17	0.207
Total Alkalinity (as CaCO3)	NA	6,900	3,500	6,300	3,870	98
Total Dissolved Solids (TDS)	1,000	**13,900**	**8,320**	**13,00**	**7,510**	144
Nitrate	NA	4.681	0.131	3.66	0.094	0.062
Flouride	1.6	ND	0.045	ND	ND	0.155
Sulfate	600	ND	4.305	2.423	17.256	29.143
Nitrite	NA	ND	ND	ND	ND	0.107
Bromide	NA	ND	ND	ND	7.749	ND
O-phosphate P	NA	ND	0.111	ND	0.181	0.067
Calcium	NA	21.96	218	19.8	27.5	26.4
Magnesium	NA	121.72	58.1	23.4	20.4	4.14
Potassium	NA	118	45.6	84.7	62.1	0.805
Sodium	NA	3,374	2,160	3,070	2,200	15
Boron	0.75	**2.29**	0.862	**2.38**	0.885	ND
Cadmium	0.01	ND	ND	ND	ND	ND
Iron- Dis	NA	0.64	0.025	0.34	0.671	0.061
Iron- Total	1	**2.19**	0.209	**1.19**	**24.3**	**2.01**
Lead	0.05	ND	ND	ND	ND	ND
Manganese- Dis	NA	0.017	0.098	0.007	0.289	ND
Manganese- Total	0.2	0.027	0.066	0.017	0.806	0.062
Mercury	0.002	ND	ND	ND	ND	ND
Selenium	0.05	ND	ND	ND	ND	ND
Silica	NA	10.8	9.34	13.2	85.3	11.4
Vanadium	NA	ND	0.004	ND	0.0574	0.002
Benzene (8260)	0.01	0.0129	ND	ND	ND	ND
Ethylbenzene (8260)	0.75	0.0252	ND	ND	ND	ND
Toluene (8260)	0.75	0.319	ND	ND	ND	ND
Xylenes- Total (8260)	0.62	0.199	ND	ND	ND	ND
Tetrachloroethene (8260)	NA	0.00272	ND	ND	ND	ND
1,2,3-Trimethylbenzene (8260)	NA	0.00106	ND	ND	ND	ND
1,3,5-Trimethylbenzene (8260)	NA	0.00153	ND	ND	ND	ND

ND - Non-Detect
NA- Not Applicable
All other 8260 analytes ND

Summary of Analytical Results - Soil
Devon Energy/BP America
NEBU 464A
Revised March 1, 2016

Analyte	Regulatory Standard	Sample Description					
		Source-Soil	Source- BG	Mid-Point-Soil	Mid-Point- BG	End-Point- Soil	End-Point- BG
Gasoline Range Organics (GRO) (8015)	100	ND	ND	ND	ND	ND	ND
Diesel Range Organics (DRO) (8015)	100	ND	25.5	ND	ND	ND	ND
BTEX (8021)	50	ND	ND	ND	ND	ND	ND
Benzene	10	ND	ND	ND	ND	ND	ND
Chloride	TBD by NMOCD	863	ND	604	ND	122	ND

ND- Non-Detect

DeLorme

DeLorme Topo USA® 7.0

TN

MN (9.2°E)

LEGEND

Spill Path

SITE MAP – SITE ASSESSMENT
Devon Energy
NEBU 454A/Soil Analysis
SEC 33 TWN 31N RNG 7W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 1	REV
PROJECT NO.		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	FRA	2/23/16	BASE DRWN		

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

LEGEND

Spill Path

SITE MAP – SITE ASSESSMENT
Devon Energy
NEBU 454A/Water Analysis
SEC 33 TWN 31N RNG 7W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 1	REV
PROJECT NO.		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	FRA	2/23/16	BASE DRWN		

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

Photo of the NEBU 454A valve in the valve can that is the source of the spill.

Photo of the spill site near the valve can, located just left of the pipeline riser in the photo.

Photo of the spill path on the sandstone surface.

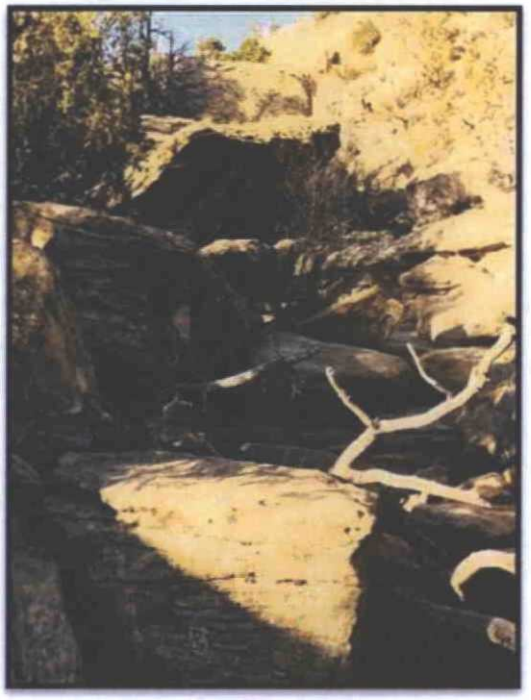


Photo of the NEBU 454 A spill path along the rugged canyon.

Photo of the liner and berms installed at the lake inlet. The liner and berms were removed on 2/29/2016.

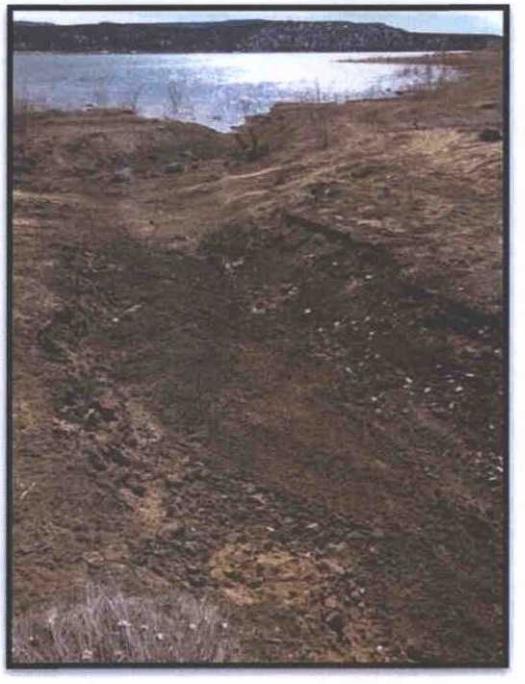


Photo of the lake inlet after removal of liner and berms and the application and raking of gypsum.

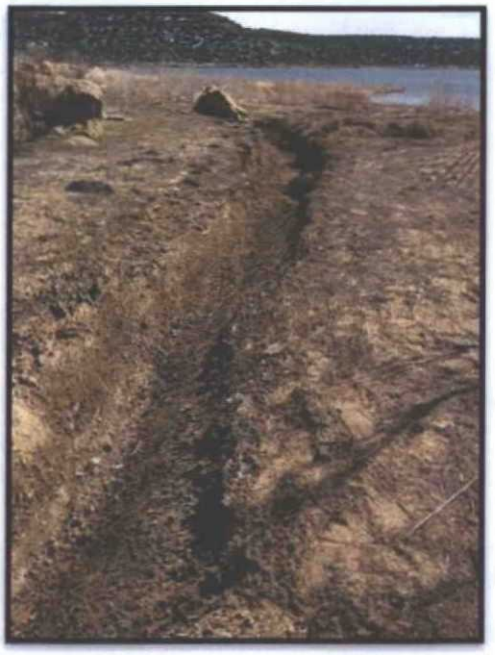


Photo of the lake inlet channel after the application of gypsum.

Photo of drainage channel above the lake inlet channel after the application of gypsum.

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Devon Energy

Chain Of Custody Number:

Samples Received: 2/22/2016 12:56:00PM

Job Number: 01058-0007

Work Order: P602024

Project Name/Location: NEBU 454 A - Spill Sampling

Entire Report Reviewed By: _____ Date: 2/29/16

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 2/26/16 1:39 pm

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Source Water	P602024-01A	Water	02/21/16	02/22/16	Poly 250mL
	P602024-01B	Water	02/21/16	02/22/16	Amber Glass, 125mL
Source Soil	P602024-02A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
Source BG	P602024-03A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
Mid Point Water	P602024-04A	Water	02/21/16	02/22/16	Poly 250mL
	P602024-04B	Water	02/21/16	02/22/16	Amber Glass, 125mL
Mid Point Soil	P602024-05A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
Mid Point BG	P602024-06A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
3/4 Point Water	P602024-07A	Water	02/21/16	02/22/16	Poly 250mL
	P602024-07B	Water	02/21/16	02/22/16	Amber Glass, 125mL
End Point Water	P602024-08A	Water	02/21/16	02/22/16	Poly 250mL
	P602024-08B	Water	02/21/16	02/22/16	Poly 250mL
	P602024-08C	Water	02/21/16	02/22/16	Amber Glass, 125mL
End Point Soil	P602024-09A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
End Point BG	P602024-10A	Soil	02/21/16	02/22/16	Glass Jar, 4 oz.
Lake BG Water	P602024-11A	Water	02/21/16	02/22/16	Poly 250mL
	P602024-11B	Water	02/21/16	02/22/16	Poly 250mL
	P602024-11C	Water	02/21/16	02/22/16	Amber Glass, 125mL

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Source Water

P602024-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by 6010									
Boron	**2.29**	0.06	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Iron	**2.19**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Lead	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.03**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Selenium	ND	0.05	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Silicon	**10.8**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Vanadium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Dissolved Metals by 6010									
Iron	**0.64**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.02**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cation/Anion Analysis									
pH @18.1°C	**7.98**		pH Units	1	1609004	02/22/16 14:00	02/22/16 14:00	9040C/4500 H	H1
Electrical Conductivity	**17900**		umhos/cm	1	1609004	02/22/16 14:00	02/22/16 14:00	9050A/2510	H1
Total Dissolved Solids	**13900**	10.0	mg/L	1	1609006	02/23/16	02/23/16	160.1/2540C	
Sodium Absorption Ratio	**221**		N/A	1	1609015	02/25/16	02/25/16	[CALC]	
Total Alkalinity as CaCO3	**6900**	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Nitrate-N	**4.68**	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 22:37	EPA 300.0	
Nitrite-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 22:37	EPA 300.0	
Chloride	**3250**	20.0	mg/L	10	1609010	02/22/16	02/26/16	EPA 300.0	
Fluoride	ND	0.25	mg/L	1	1609010	02/22/16	02/22/16	EPA 300.0	
o-Phosphate-P	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 22:37	EPA 300.0	
Sulfate	ND	2.00	mg/L	1	1609010	02/22/16	02/22/16	EPA 300.0	
Iron	**0.64**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Calcium	**22.0**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Magnesium	**14.7**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Source Water

P602024-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
Potassium	**111**	5.00	mg/L	10	1609002	02/23/16	02/23/16	EPA 6010C	
Sodium	**5460**	20.0	mg/L	10	1609002	02/23/16	02/23/16	EPA 6010C	
Total Mercury by EPA 7470A									
Mercury	ND	0.0002	mg/L	1	1609001	02/23/16	02/23/16	EPA 7470A	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Source Soil

P602024-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.8 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Surrogate: n-Nonane		*97.5 %*		*50-200*	*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.3 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**863**	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Source BG

P602024-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*101 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	**37.8**	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	**25.5**	25.0	mg/kg	1	1610006	02/23/16	02/25/16	EPA 8015D	A-01a
Surrogate: n-Nonane		*92.3 %*	*50-200*		*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: n-Nonane		*114 %*	*50-200*		*1610006*	*02/23/16*	*02/25/16*	*EPA 8015D*	*A-01a*
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.3 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Mid Point Water

P602024-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by 6010									
Boron	**0.83**	0.06	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Lead	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.07**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Selenium	ND	0.05	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Silicon	**9.34**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Vanadium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Dissolved Metals by 6010									
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.06**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cation/Anion Analysis									
pH @17.8°C	**7.09**		pH Units	1	1609004	02/22/16 14:00	02/22/16 14:00	9040C/4500 H	H1
Electrical Conductivity	**11200**		umhos/cm	1	1609004	02/22/16 14:00	02/22/16 14:00	9050A/2510	H1
Total Dissolved Solids	**8320**	10.0	mg/L	1	1609006	02/23/16	02/23/16	160.1/2540C	
Sodium Absorption Ratio	**46.3**		N/A	1	1609015	02/25/16	02/25/16	[CALC]	
Total Alkalinity as CaCO3	**3510**	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Nitrate-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 23:41	EPA 300.0	
Nitrite-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 23:41	EPA 300.0	
Chloride	**2510**	20.0	mg/L	10	1609010	02/22/16	02/26/16	EPA 300.0	
Fluoride	ND	0.25	mg/L	1	1609010	02/22/16	02/22/16	EPA 300.0	
o-Phosphate-P	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/22/16 23:41	EPA 300.0	
Sulfate	**4.31**	2.00	mg/L	1	1609010	02/22/16	02/22/16	EPA 300.0	
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Calcium	**218**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Magnesium	**58.1**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Mid Point Water

P602024-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
Potassium	**40.8**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Sodium	**2980**	20.0	mg/L	10	1609002	02/23/16	02/23/16	EPA 6010C	
Total Mercury by EPA 7470A									
Mercury	ND	0.0002	mg/L	1	1609001	02/23/16	02/23/16	EPA 7470A	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Mid Point Soil

P602024-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.7 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Surrogate: n-Nonane		*96.1 %*	*50-200*		*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.8 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**604**	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Mid Point BG

P602024-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.4 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	**52.7**	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1610006	02/23/16	02/25/16	EPA 8015D	A-01a
Surrogate: n-Nonane		*92.6 %*		*50-200*	*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: n-Nonane		*108 %*		*50-200*	*1610006*	*02/23/16*	*02/25/16*	*EPA 8015D*	*A-01a*
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.0 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

3/4 Point Water

P602024-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by 6010									
Boron	**2.38**	0.06	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Iron	**1.19**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Lead	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.02**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Selenium	ND	0.05	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Silicon	**13.2**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Vanadium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Dissolved Metals by 6010									
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cation/Anion Analysis									
pH @17.5°C	**8.62**		pH Units	1	1609004	02/22/16 14:00	02/22/16 14:00	9040C/4500 H	H1
Electrical Conductivity	**15600**		umhos/cm	1	1609004	02/22/16 14:00	02/22/16 14:00	9050A/2510	H1
Total Dissolved Solids	**12000**	10.0	mg/L	1	1609006	02/23/16	02/23/16	160.1/2540C	
Sodium Absorption Ratio	**175**		N/A	1	1609015	02/25/16	02/25/16	[CALC]	
Total Alkalinity as CaCO3	**6300**	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Nitrate-N	**3.66**	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:03	EPA 300.0	
Nitrite-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:03	EPA 300.0	
Chloride	**2690**	200	mg/L	100	1609010	02/22/16	02/26/16	EPA 300.0	
Fluoride	ND	0.25	mg/L	1	1609010	02/22/16	02/23/16	EPA 300.0	
o-Phosphate-P	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:03	EPA 300.0	
Sulfate	**2.42**	2.00	mg/L	1	1609010	02/22/16	02/23/16	EPA 300.0	
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Calcium	**19.8**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Magnesium	**23.5**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

3/4 Point Water

P602024-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
Potassium	**71.6**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Sodium	**4860**	20.0	mg/L	10	1609002	02/23/16	02/23/16	EPA 6010C	
Total Mercury by EPA 7470A									
Mercury	ND	0.0002	mg/L	1	1609001	02/23/16	02/23/16	EPA 7470A	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

End Point Water

P602024-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by 6010									
Boron	**0.88**	0.06	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Iron	**24.3**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Lead	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.81**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Selenium	ND	0.05	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Silicon	**85.3**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Vanadium	**0.06**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Dissolved Metals by 6010									
Iron	**0.67**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.29**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cation/Anion Analysis									
pH @17°C	**8.74**		pH Units	1	1609004	02/22/16 14:00	02/22/16 14:00	9040C/4500 H	H1
Electrical Conductivity	**10200**		umhos/cm	1	1609004	02/22/16 14:00	02/22/16 14:00	9050A/2510	H1
Total Dissolved Solids	**7510**	10.0	mg/L	1	1609006	02/23/16	02/23/16	160.1/2540C	
Sodium Absorption Ratio	**109**		N/A	1	1609015	02/25/16	02/25/16	[CALC]	
Total Alkalinity as CaCO3	**3870**	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Nitrate-N	ND	2.50	mg/L	10	1609010	02/22/16 16:00	02/23/16 14:25	EPA 300.0	H2
Nitrite-N	ND	2.50	mg/L	10	1609010	02/22/16 16:00	02/23/16 14:25	EPA 300.0	H2
Chloride	**1780**	20.0	mg/L	10	1609010	02/22/16	02/23/16	EPA 300.0	
Fluoride	ND	2.50	mg/L	10	1609010	02/22/16	02/23/16	EPA 300.0	
o-Phosphate-P	ND	2.50	mg/L	10	1609010	02/22/16 16:00	02/23/16 14:25	EPA 300.0	H2
Sulfate	**23.8**	20.0	mg/L	10	1609010	02/22/16	02/23/16	EPA 300.0	
Iron	**0.67**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Calcium	**27.5**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Magnesium	**20.4**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

End Point Soil

P602024-09 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Surrogate: n-Nonane		*91.2 %*	*50-200*		*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*89.8 %*	*50-150*		*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**610**	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

End Point BG

P602024-10 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*99.8 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1609011	02/22/16	02/23/16	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1609012	02/22/16	02/23/16	EPA 8015D	
Surrogate: n-Nonane		*88.5 %*		*50-200*	*1609012*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.1 %*		*50-150*	*1609011*	*02/22/16*	*02/23/16*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	ND	20.0	mg/kg	1	1609013	02/22/16	02/23/16	EPA 300.0	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Lake BG Water

P602024-11 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Metals by 6010									
Boron	ND	0.06	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cadmium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Iron	**2.01**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Lead	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	**0.06**	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Selenium	ND	0.05	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Silicon	**11.4**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Vanadium	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Dissolved Metals by 6010									
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Manganese	ND	0.01	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Cation/Anion Analysis									
pH @17.7°C	**8.75**		pH Units	1	1609004	02/22/16 14:00	02/22/16 14:00	9040C/4500 H	H1
Electrical Conductivity	**207**		umhos/cm	1	1609004	02/22/16 14:00	02/22/16 14:00	9050A/2510	H1
Total Dissolved Solids	**144**	10.0	mg/L	1	1609006	02/23/16	02/23/16	160.1/2540C	
Sodium Absorption Ratio	**0.721**		N/A	1	1609015	02/25/16	02/25/16	[CALC]	
Total Alkalinity as CaCO3	**98.0**	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1609005	02/23/16	02/23/16	Hach Method 8203	
Nitrate-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:46	EPA 300.0	
Nitrite-N	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:46	EPA 300.0	
Chloride	**3.95**	2.00	mg/L	1	1609010	02/22/16	02/23/16	EPA 300.0	
Fluoride	ND	0.25	mg/L	1	1609010	02/22/16	02/23/16	EPA 300.0	
o-Phosphate-P	ND	0.25	mg/L	1	1609010	02/22/16 16:00	02/23/16 00:46	EPA 300.0	
Sulfate	**29.1**	2.00	mg/L	1	1609010	02/22/16	02/23/16	EPA 300.0	
Iron	ND	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Calcium	**26.4**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Magnesium	**4.14**	0.20	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Lake BG Water

P602024-11 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
Potassium	**0.85**	0.50	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Sodium	**15.1**	2.00	mg/L	1	1609002	02/23/16	02/23/16	EPA 6010C	
Total Mercury by EPA 7470A									
Mercury	ND	0.0002	mg/L	1	1609001	02/23/16	02/23/16	EPA 7470A	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609011 - Purge and Trap EPA 5030A										
Blank (1609011-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*0.160*		"	*0.160*		*99.8*	*50-150*			
LCS (1609011-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.7	0.10	mg/kg	10.0		117	70-130			
Toluene	11.7	0.10	"	10.0		117	70-130			
Ethylbenzene	11.8	0.10	"	10.0		118	70-130			
p,m-Xylene	23.5	0.20	"	20.0		118	70-130			
o-Xylene	11.5	0.10	"	10.0		115	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*0.162*		"	*0.160*		*101*	*50-150*			
Matrix Spike (1609011-MS1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.2	0.10	mg/kg	10.0	ND	112	54.3-133			
Toluene	11.1	0.10	"	10.0	ND	111	61.4-130			
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133			
p,m-Xylene	22.4	0.20	"	20.0	ND	112	63.3-131			
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*0.161*		"	*0.160*		*101*	*50-150*			
Matrix Spike Dup (1609011-MSD1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Benzene	11.1	0.10	mg/kg	10.0	ND	112	54.3-133	0.193	20	
Toluene	11.1	0.10	"	10.0	ND	111	61.4-130	0.199	20	
Ethylbenzene	11.2	0.10	"	10.0	ND	112	61.4-133	0.100	20	
p,m-Xylene	22.3	0.20	"	20.0	ND	112	63.3-131	0.149	20	
o-Xylene	10.9	0.10	"	10.0	ND	109	63.3-131	0.129	20	
Surrogate: 4-Bromochlorobenzene-PID	*0.161*		"	*0.160*		*101*	*50-150*			

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609011 - Purge and Trap EPA 5030A										
Blank (1609011-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.145*		"	*0.160*		*90.5*	*50-150*			
LCS (1609011-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	123	20.0	mg/kg	106		116	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.143*		"	*0.160*		*89.2*	*50-150*			
Matrix Spike (1609011-MS1)	**Source: P602024-02**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	120	20.0	mg/kg	106	ND	114	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.147*		"	*0.160*		*91.7*	*50-150*			
Matrix Spike Dup (1609011-MSD1)	**Source: P602024-02**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Gasoline Range Organics (C6-C10)	120	20.0	mg/kg	106	ND	114	70-130	0.0832	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*0.147*		"	*0.160*		*92.0*	*50-150*			

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609012 - DRO Extraction EPA 3550M										
Blank (1609012-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*47.0*		"	*50.0*		*93.9*	*50-200*			
LCS (1609012-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	440	25.0	mg/kg	500		88.1	38-132			
Surrogate: n-Nonane	*47.2*		"	*50.0*		*94.3*	*50-200*			
Matrix Spike (1609012-MS1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500	ND	94.2	38-132			
Surrogate: n-Nonane	*44.3*		"	*50.0*		*88.6*	*50-200*			
Matrix Spike Dup (1609012-MSD1)		**Source: P602024-02**		Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500	ND	95.7	38-132	1.61	20	
Surrogate: n-Nonane	*48.6*		"	*50.0*		*97.2*	*50-200*			

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Total Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609002 - Metal Water Digestion EPA 3015A										
Blank (1609002-BLK1)				Prepared & Analyzed: 23-Feb-16						
Boron	ND	0.06	mg/L							
Cadmium	ND	0.01	"							
Iron	ND	0.50	"							
Lead	ND	0.01	"							
Manganese	ND	0.01	"							
Selenium	ND	0.05	"							
Silicon	ND	0.20	"							
Vanadium	ND	0.01	"							
LCS (1609002-BS1)				Prepared & Analyzed: 23-Feb-16						
Boron	0.93	0.06	mg/L	1.00		93.1	80-120			
Cadmium	0.94	0.01	"	1.00		94.1	80-120			
Iron	99.6	0.50	"	100		99.6	80-120			
Lead	0.92	0.01	"	1.00		91.5	80-120			
Manganese	0.98	0.01	"	1.00		97.8	80-120			
Selenium	0.93	0.05	"	1.00		92.7	80-120			
Silicon	1.90	0.20	"	2.00		94.8	80-120			
Vanadium	0.99	0.01	"	1.00		98.7	80-120			
Matrix Spike (1609002-MS1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Boron	0.87	0.06	mg/L	1.00	ND	86.6	75-125			
Cadmium	0.94	0.01	"	1.00	ND	94.0	75-125			
Iron	96.4	0.50	"	100	2.01	94.4	75-125			
Lead	0.90	0.01	"	1.00	ND	89.8	75-125			
Manganese	0.97	0.01	"	1.00	0.06	90.5	75-125			
Selenium	0.92	0.05	"	1.00	ND	91.7	75-125			
Silicon	6.33	0.20	"	2.00	11.4	NR	75-125			SPK1
Vanadium	0.98	0.01	"	1.00	ND	97.5	75-125			
Matrix Spike Dup (1609002-MSD1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Boron	0.87	0.06	mg/L	1.00	ND	87.2	75-125	0.614	20	
Cadmium	0.95	0.01	"	1.00	ND	94.5	75-125	0.566	20	
Iron	93.3	0.50	"	100	2.01	91.3	75-125	3.29	20	
Lead	0.91	0.01	"	1.00	ND	90.5	75-125	0.776	20	
Manganese	0.97	0.01	"	1.00	0.06	91.2	75-125	0.733	20	
Selenium	0.94	0.05	"	1.00	ND	93.8	75-125	2.20	20	
Silicon	6.41	0.20	"	2.00	11.4	NR	75-125	1.38	20	SPK1
Vanadium	0.98	0.01	"	1.00	ND	98.2	75-125	0.647	20	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Dissolved Metals by 6010 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609002 - Metal Water Digestion EPA 3015A										
Blank (1609002-BLK1)				Prepared & Analyzed: 23-Feb-16						
Iron	ND	0.50	mg/L							
Manganese	ND	0.01	"							
LCS (1609002-BS1)				Prepared & Analyzed: 23-Feb-16						
Iron	99.6	0.50	mg/L	100		99.6	80-120			
Manganese	0.98	0.01	"	1.00		97.8	80-120			
Matrix Spike (1609002-MS1)	**Source: P602024-11**			Prepared & Analyzed: 23-Feb-16						
Iron	96.4	0.50	mg/L	100	ND	96.4	75-125			
Manganese	0.97	0.01	"	1.00	ND	96.7	75-125			
Matrix Spike Dup (1609002-MSD1)	**Source: P602024-11**			Prepared & Analyzed: 23-Feb-16						
Iron	93.3	0.50	mg/L	100	ND	93.3	75-125	3.29	20	
Manganese	0.97	0.01	"	1.00	ND	97.4	75-125	0.733	20	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609002 - Metal Water Digestion EPA 3015A										
Blank (1609002-BLK1)				Prepared & Analyzed: 23-Feb-16						
Iron	ND	0.50	mg/L							
Calcium	ND	0.50	"							
Magnesium	ND	0.20	"							
Potassium	ND	0.50	"							
Sodium	ND	2.00	"							
LCS (1609002-BS1)				Prepared & Analyzed: 23-Feb-16						
Iron	99.6	0.50	mg/L	100		99.6	80-120			
Calcium	101	0.50	"	100		101	80-120			
Magnesium	95.5	0.20	"	100		95.5	80-120			
Potassium	1.11	0.50	"	1.00		111	80-120			
Sodium	99.8	2.00	"	100		99.8	80-120			
Matrix Spike (1609002-MS1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Iron	96.4	0.50	mg/L	100	ND	96.4	75-125			
Calcium	123	0.50	"	100	26.4	96.6	75-125			
Magnesium	96.9	0.20	"	100	4.14	92.8	75-125			
Potassium	2.23	0.50	"	1.00	0.85	138	75-125			SPK1
Sodium	118	2.00	"	100	15.1	102	75-125			
Matrix Spike Dup (1609002-MSD1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Iron	93.3	0.50	mg/L	100	ND	93.3	75-125	3.29	20	
Calcium	121	0.50	"	100	26.4	94.4	75-125	1.82	20	
Magnesium	94.3	0.20	"	100	4.14	90.2	75-125	2.77	20	
Potassium	2.28	0.50	"	1.00	0.85	143	75-125	2.51	20	SPK1
Sodium	120	2.00	"	100	15.1	105	75-125	1.78	20	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609010 - Anion Extraction EPA 300.0										
Blank (1609010-BLK1)				Prepared & Analyzed: 22-Feb-16						
Nitrate-N	ND	0.25	mg/L							
Nitrite-N	ND	0.25	"							
Chloride	ND	2.00	"							
Fluoride	ND	0.25	"							
o-Phosphate-P	ND	0.25	"							
Sulfate	ND	2.00	"							
LCS (1609010-BS1)				Prepared & Analyzed: 22-Feb-16						
Nitrate-N	4.83	0.25	mg/L	5.00		96.6	90-110			
Nitrite-N	5.33	0.25	"	5.00		107	90-110			
Chloride	48.3	2.00	"	50.0		96.6	90-110			
Fluoride	5.37	0.25	"	5.00		107	90-110			
o-Phosphate-P	24.4	0.25	"	25.0		97.7	90-110			
Sulfate	47.9	2.00	"	50.0		95.8	90-110			
Matrix Spike (1609010-MS1)	**Source: P602024-01**			Prepared & Analyzed: 22-Feb-16						
Nitrate-N	6.64	0.25	mg/L	5.00	4.68	39.2	80-120			SPK1
Nitrite-N	ND	0.25	"	5.00	ND		80-120			A-01, SPK1
Chloride	2980	2.00	"	50.0	3250	NR	80-120			SPK1
Fluoride	5.90	0.25	"	5.00	ND	118	80-120			
o-Phosphate-P	20.8	0.25	"	25.0	ND	83.3	80-120			
Sulfate	43.7	2.00	"	50.0	ND	87.5	80-120			
Matrix Spike Dup (1609010-MSD1)	**Source: P602024-01**			Prepared & Analyzed: 22-Feb-16						
Nitrate-N	6.68	0.25	mg/L	5.00	4.68	40.0	80-120	0.585	20	SPK1
Nitrite-N	ND	0.25	"	5.00	ND		80-120		20	A-01, SPK1
Chloride	2970	2.00	"	50.0	3250	NR	80-120	0.158	20	SPK1
Fluoride	5.99	0.25	"	5.00	ND	120	80-120	1.36	20	
o-Phosphate-P	21.7	0.25	"	25.0	ND	86.8	80-120	4.14	20	
Sulfate	44.5	2.00	"	50.0	ND	89.1	80-120	1.84	20	

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609013 - Anion Extraction EPA 300.0										
Blank (1609013-BLK1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	ND	20.0	mg/kg							
LCS (1609013-BS1)				Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	504	20.0	mg/kg	500		101	90-110			
Matrix Spike (1609013-MS1)	**Source: P602024-03**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	500	20.0	mg/kg	500	ND	100	80-120			
Matrix Spike Dup (1609013-MSD1)	**Source: P602024-03**			Prepared: 22-Feb-16 Analyzed: 23-Feb-16						
Chloride	500	20.0	mg/kg	500	ND	100	80-120	0.0740	20	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Total Mercury by EPA 7470A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1609001 - Mercury Water/TCLP Digestion KMNO4										
Blank (1609001-BLK1)				Prepared & Analyzed: 23-Feb-16						
Mercury	ND	0.0002	mg/L							
LCS (1609001-BS1)				Prepared & Analyzed: 23-Feb-16						
Mercury	0.003	0.0002	mg/L	0.00229		111	80-120			
Matrix Spike (1609001-MS1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Mercury	0.003	0.0002	mg/L	0.00229	ND	112	75-125			
Matrix Spike Dup (1609001-MSD1)		**Source: P602024-11**		Prepared & Analyzed: 23-Feb-16						
Mercury	0.003	0.0002	mg/L	0.00229	ND	112	75-125	0.513	15	

envirotech
Analytical Laboratory

Devon Energy	Project Name:	NEBU 454 A - Spill Sampling	
PO Box 6459	Project Number:	01058-0007	**Reported:**
Navajo Dam NM, 87419	Project Manager:	Greg Cragbtree	29-Feb-16 13:33

Notes and Definitions

SPK1	The spike recovery is outside of quality control limits.
H2	Sample was analyzed after regulatory hold-time exceeded for target analyte.
H1	Sample was received after regulatory hold-time exceeded for target analyte.
A-01a	SiO2 Cleanup.
A-01	ND due to overlapping chloride peak.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Client: Devon

Project: NEBU 454 A - Spill Sampling

Sampler: Falynn Burns

Phone: (505) 947-9179

Email(s): Falynn, Greg, Felipe

Project Manager: Greg Crabtree

RUSH? ✓ 1d ☐ 3d

Page 1 of 2

Lab Use Only	
Lab WO#	P 602029
Job Number	01058-0007

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	GW Suite					Lab Number	Correct Cont/Prsrv (s) Y/N
Source - Water	2-21-16	9:35	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					1	Y
Source - Soil	2-21-16	9:42	S	1-4oz/g/cool	X	X		X						2	
Source - BG	2-21-16	9:45	S	1-4oz/g/cool	X	X		X						3	
Mid-Point - Water	2-21-16	10:00	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					4	
Mid-Point - Soil	2-21-16	10:09	S	1-4oz/g/cool	X	X		X						5	
Mid-Point - BG	2-21-16	10:10	S	1-4oz/g/cool	X	X		X						6	
3/4 Point - Water	2-21-16	10:40	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					7	
3/4 Point - Soil	2-21-16	10:44	S	1-4oz/g/cool	X	X		X						8	
3/4 Point - BG	2-21-16	10:48	S	1-4oz/g/cool	X	X		X						9	
End Point - Water	2-21-16	11:01	Aq	2-250mL/poly/cool 1-100mL/ag/cool					X					10	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Falynn Burns	2-22-16	12:56		2/22/16	12:56
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only

**Received on Ice (Y) / N

T1_____ T2_____ T3_____

AVG Temp °C_____

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com laboratory@envirotech-inc.com

Client: Devon

Project: NEBU 464 A-Spill Sampling

Sampler: Falynn Burns

Phone: (505)947-9179

Email(s): falynn, Greg, Felipe

Project Manager: Greg Crabtree

RUSH? ☑ 1d ☐ 3d

Lab Use Only
Lab WO# P602023
Job Number 01058-0007

Page 2 of 2

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	GW Suite					Lab Number	Correct Cont/Prsrv (s) Y/N
					Analysis and Method									lab Only	
End Point - Soil	2-21-16	11:11	S	1-4oz/g/cool	X	X		X						11	Y
End Point - BG	2-21-16	11:15	S	1-4oz/g/cool	X	X		X						12	Y
Lake BG - Water	2-21-16	11:26	Aq	2-250mL/poly/cool 1-100mL/ag/cool					X					13	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Falynn Burns	2-22-16	12:56	Hannah Mays	2/22/16	12:56
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
**Received on Ice (Y) / N
T1_____ T2_____ T3_____
AVG Temp °C_____

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com

Client: Devon

Project: NEBU 454 A - Spill Sampling

Sampler: Falynn Burns

Phone: (505) 947-9179

Email(s): Falynn, Greg, Felipe

Project Manager: Greg Crabtree

RUSH? ☑ 1d ☐ 3d

Page 1 of 2

Lab Use Only	
Lab WO#	P602023
Job Number	01058-0007

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	GW Suite					Lab Number	Correct Cont/Prsrv (s) Y/N
Source - Water	2-21-16	9:35	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					1	Y
Source - Soil	2-21-16	9:42	S	1-4oz/g/cool	X	X		X						2	
Source - BG	2-21-16	9:45	S	1-4oz/g/cool	X	X		X						3	
Mid-Point - Water	2-21-16	10:00	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					4	
Mid-Point - Soil	2-21-16	10:09	S	1-4oz/g/cool	X	X		X						5	
Mid-Point - BG	2-21-16	10:10	S	1-4oz/g/cool	X	X		X						6	
3/4 Point - Water	2-21-16	10:40	Aq	1-250mL/poly/cool 1-100mL/ag/cool					X					7	
~~3/4 Point - Soil~~	~~2-21-16~~	~~10:44~~	~~S~~	~~1-4oz/g/cool~~	~~X~~	~~X~~		~~X~~						~~8~~	
~~3/4 Point - BG~~	~~2-21-16~~	~~10:48~~	~~S~~	~~1-4oz/g/cool~~	~~X~~	~~X~~		~~X~~	Cancel per Falynn 2/22/16					~~9~~	
End Point - Water	2-21-16	11:01	Aq	2-250mL/poly/cool 1-100mL/ag/cool					X				8	10	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Falynn Burns	2-22-16	12:56		2/22/16	12:56
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only

**Received on Ice (Y) / N

T1_____ T2_____ T3_____

AVG Temp °C_____

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing Info:

envirotech Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com laboratory@envirotech-inc.com

Client: Devon

Project: NEBU 454 A-Spill Sampling

Sampler: Falynn Burns

Phone: (505)947-9179

Email(s): falynn, Greg, Felipe

Project Manager: Greg Crabtree

RUSH? ✓ 1d ☐ 3d

Lab Use Only
Lab WO# P P662029
Job Number 01058-0007

Page 2 of 2

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	GW Suite					Lab Number	Correct Cont/Prsrv (s) Y/N
					Analysis and Method									lab Only	
End Point - Soil	2-21-16	11:11	S	1-4oz/g/cool	X	X		X					9	H	Y
End Point - BG	2-21-16	11:15	S	1-4oz/g/cool	X	X		X					10	K	Y
Lake BG - Water	2-21-16	11:26	Ag	2-250mL/poly/cool 1-100mL/ag/cool					X				11	B	Y

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Falynn Burns	2-22-16	12:56	Hannah Mayer	2/22/16	12:56
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
**Received on Ice (Y) N
T1_____ T2_____ T3_____
AVG Temp °C_____

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
Laboratory@envirotech-inc.com

ESC LAB SCIENCES
YOUR LAB OF CHOICE

ANALYTICAL REPORT

February 23, 2016

myESC
REAL TIME DATA ACCESS

EnviroTech- NM

Sample Delivery Group:	L819267
Samples Received:	02/23/2016
Project Number:	NEBU454A
Description:	NEBU 454 A Spill Sampling
Report To:	Faylynn Burns 5796 US. Highway 64 Farmington, NM 87401

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

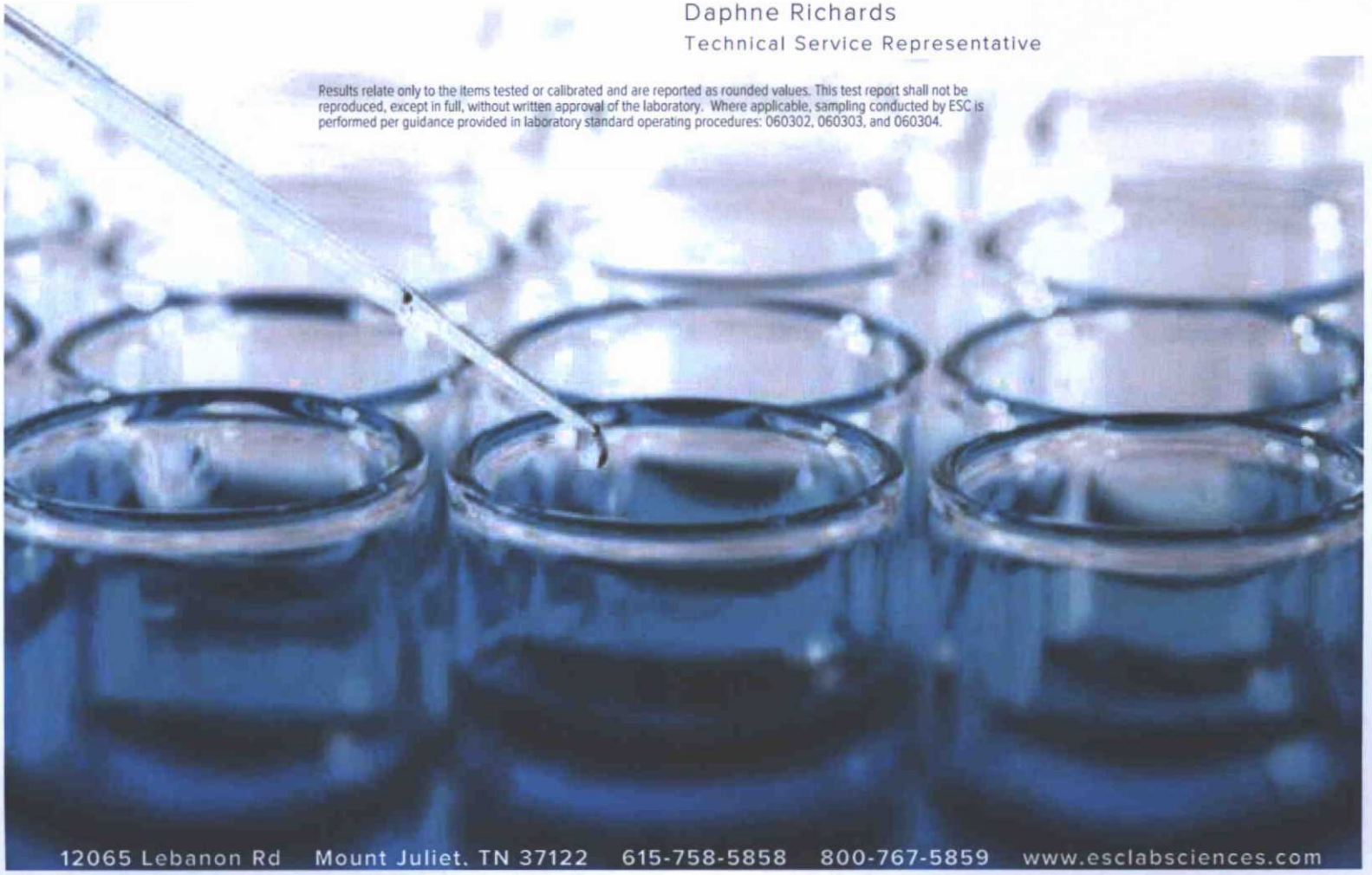


TABLE OF CONTENTS

ONE LAB. NATIONWIDE.

SOURCE WATER L819267-01 GW

Collected by: F. Burns | Collected date/time: 02/21/16 09:35 | Received date/time: 02/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	1	02/23/16 12:36	02/23/16 12:36	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	5	02/23/16 15:08	02/23/16 15:08	DWR

MID-POINT-WATER L819267-02 GW

Collected by: F. Burns | Collected date/time: 02/21/16 10:00 | Received date/time: 02/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	1	02/23/16 12:58	02/23/16 12:58	DWR

3/4 POINT-WATER L819267-03 GW

Collected by: F. Burns | Collected date/time: 02/21/16 10:40 | Received date/time: 02/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	1	02/23/16 13:20	02/23/16 13:20	DWR

END POINT-WATER L819267-04 GW

Collected by: F. Burns | Collected date/time: 02/21/16 11:01 | Received date/time: 02/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	1	02/23/16 13:41	02/23/16 13:41	DWR

LAKE BG-WATER L819267-05 GW

Collected by: F. Burns | Collected date/time: 02/21/16 11:26 | Received date/time: 02/23/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851480	1	02/23/16 14:03	02/23/16 14:03	DWR

1 Cp
2 Tc
3 Ss
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne R Richards

Daphne Richards
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2016 12:36	WG851480
Acrolein	ND		0.0500	1	02/23/2016 12:36	WG851480
Acrylonitrile	ND		0.0100	1	02/23/2016 12:36	WG851480
Benzene	0.0129		0.00100	1	02/23/2016 12:36	WG851480
Bromobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
Bromodichloromethane	ND		0.00100	1	02/23/2016 12:36	WG851480
Bromoform	ND		0.00100	1	02/23/2016 12:36	WG851480
Bromomethane	ND		0.00500	1	02/23/2016 12:36	WG851480
n-Butylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
sec-Butylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
tert-Butylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
Carbon tetrachloride	ND		0.00100	1	02/23/2016 12:36	WG851480
Chlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
Chlorodibromomethane	ND		0.00100	1	02/23/2016 12:36	WG851480
Chloroethane	ND		0.00500	1	02/23/2016 12:36	WG851480
2-Chloroethyl vinyl ether	ND	J4	0.0500	1	02/23/2016 12:36	WG851480
Chloroform	ND		0.00500	1	02/23/2016 12:36	WG851480
Chloromethane	ND		0.00250	1	02/23/2016 12:36	WG851480
2-Chlorotoluene	ND		0.00100	1	02/23/2016 12:36	WG851480
4-Chlorotoluene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2016 12:36	WG851480
1,2-Dibromoethane	ND		0.00100	1	02/23/2016 12:36	WG851480
Dibromomethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
Dichlorodifluoromethane	ND		0.00500	1	02/23/2016 12:36	WG851480
1,1-Dichloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,2-Dichloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1-Dichloroethene	ND		0.00100	1	02/23/2016 12:36	WG851480
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 12:36	WG851480
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,2-Dichloropropane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1-Dichloropropene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,3-Dichloropropane	ND		0.00100	1	02/23/2016 12:36	WG851480
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 12:36	WG851480
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 12:36	WG851480
2,2-Dichloropropane	ND		0.00100	1	02/23/2016 12:36	WG851480
Di-isopropyl ether	ND		0.00100	1	02/23/2016 12:36	WG851480
Ethylbenzene	0.0252		0.00100	1	02/23/2016 12:36	WG851480
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2016 12:36	WG851480
Isopropylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
p-Isopropyltoluene	ND		0.00100	1	02/23/2016 12:36	WG851480
2-Butanone (MEK)	ND		0.0100	1	02/23/2016 12:36	WG851480
Methylene Chloride	ND		0.00500	1	02/23/2016 12:36	WG851480
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2016 12:36	WG851480
Methyl tert-butyl ether	ND		0.00100	1	02/23/2016 12:36	WG851480
Naphthalene	ND		0.00500	1	02/23/2016 12:36	WG851480
n-Propylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
Styrene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
Tetrachloroethene	0.00272		0.00100	1	02/23/2016 12:36	WG851480
Toluene	0.319		0.0250	5	02/23/2016 15:08	WG851480
1,2,3-Trichlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2016 12:36	WG851480
Trichloroethene	ND		0.00100	1	02/23/2016 12:36	WG851480
Trichlorofluoromethane	ND		0.00500	1	02/23/2016 12:36	WG851480
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2016 12:36	WG851480
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2016 12:36	WG851480
1,2,3-Trimethylbenzene	0.00106		0.00100	1	02/23/2016 12:36	WG851480
1,3,5-Trimethylbenzene	0.00153		0.00100	1	02/23/2016 12:36	WG851480
Vinyl chloride	ND		0.00100	1	02/23/2016 12:36	WG851480
Xylenes, Total	0.199		0.00300	1	02/23/2016 12:36	WG851480
1-Methylnaphthalene	ND		0.0100	1	02/23/2016 12:36	WG851480
2-Methylnaphthalene	ND		0.0100	1	02/23/2016 12:36	WG851480
(S) Toluene-d8	*106*		*90.0-115*		*02/23/2016 12:36*	WG851480
(S) Dibromofluoromethane	*107*		*79.0-121*		*02/23/2016 12:36*	WG851480
(S) 4-Bromofluorobenzene	*98.0*		*80.1-120*		*02/23/2016 12:36*	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2016 12:58	WG851480
Acrolein	ND		0.0500	1	02/23/2016 12:58	WG851480
Acrylonitrile	ND		0.0100	1	02/23/2016 12:58	WG851480
Benzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Bromobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Bromodichloromethane	ND		0.00100	1	02/23/2016 12:58	WG851480
Bromoform	ND		0.00100	1	02/23/2016 12:58	WG851480
Bromomethane	ND		0.00500	1	02/23/2016 12:58	WG851480
n-Butylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
sec-Butylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
tert-Butylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Carbon tetrachloride	ND		0.00100	1	02/23/2016 12:58	WG851480
Chlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Chlorodibromomethane	ND		0.00100	1	02/23/2016 12:58	WG851480
Chloroethane	ND		0.00500	1	02/23/2016 12:58	WG851480
2-Chloroethyl vinyl ether	ND	J4	0.0500	1	02/23/2016 12:58	WG851480
Chloroform	ND		0.00500	1	02/23/2016 12:58	WG851480
Chloromethane	ND		0.00250	1	02/23/2016 12:58	WG851480
2-Chlorotoluene	ND		0.00100	1	02/23/2016 12:58	WG851480
4-Chlorotoluene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2016 12:58	WG851480
1,2-Dibromoethane	ND		0.00100	1	02/23/2016 12:58	WG851480
Dibromomethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Dichlorodifluoromethane	ND		0.00500	1	02/23/2016 12:58	WG851480
1,1-Dichloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,2-Dichloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1-Dichloroethene	ND		0.00100	1	02/23/2016 12:58	WG851480
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 12:58	WG851480
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,2-Dichloropropane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1-Dichloropropene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,3-Dichloropropane	ND		0.00100	1	02/23/2016 12:58	WG851480
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 12:58	WG851480
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 12:58	WG851480
2,2-Dichloropropane	ND		0.00100	1	02/23/2016 12:58	WG851480
Di-isopropyl ether	ND		0.00100	1	02/23/2016 12:58	WG851480
Ethylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2016 12:58	WG851480
Isopropylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
p-Isopropyltoluene	ND		0.00100	1	02/23/2016 12:58	WG851480
2-Butanone (MEK)	ND		0.0100	1	02/23/2016 12:58	WG851480
Methylene Chloride	ND		0.00500	1	02/23/2016 12:58	WG851480
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2016 12:58	WG851480
Methyl tert-butyl ether	ND		0.00100	1	02/23/2016 12:58	WG851480
Naphthalene	ND		0.00500	1	02/23/2016 12:58	WG851480
n-Propylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Styrene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
Tetrachloroethene	ND		0.00100	1	02/23/2016 12:58	WG851480
Toluene	ND		0.00500	1	02/23/2016 12:58	WG851480
1,2,3-Trichlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2016 12:58	WG851480
Trichloroethene	ND		0.00100	1	02/23/2016 12:58	WG851480
Trichlorofluoromethane	ND		0.00500	1	02/23/2016 12:58	WG851480
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2016 12:58	WG851480
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,2,3-Trimethylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2016 12:58	WG851480
Vinyl chloride	ND		0.00100	1	02/23/2016 12:58	WG851480
Xylenes, Total	ND		0.00300	1	02/23/2016 12:58	WG851480
1-Methylnaphthalene	ND		0.0100	1	02/23/2016 12:58	WG851480
2-Methylnaphthalene	ND		0.0100	1	02/23/2016 12:58	WG851480
(S) Toluene-d8	*106*		*90.0-115*		*02/23/2016 12:58*	WG851480
(S) Dibromofluoromethane	*110*		*79.0-121*		*02/23/2016 12:58*	WG851480
(S) 4-Bromofluorobenzene	*96.3*		*80.1-120*		*02/23/2016 12:58*	WG851480

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2016 13:20	WG851480
Acrolein	ND		0.0500	1	02/23/2016 13:20	WG851480
Acrylonitrile	ND		0.0100	1	02/23/2016 13:20	WG851480
Benzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Bromobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Bromodichloromethane	ND		0.00100	1	02/23/2016 13:20	WG851480
Bromoform	ND		0.00100	1	02/23/2016 13:20	WG851480
Bromomethane	ND		0.00500	1	02/23/2016 13:20	WG851480
n-Butylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
sec-Butylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
tert-Butylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Carbon tetrachloride	ND		0.00100	1	02/23/2016 13:20	WG851480
Chlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Chlorodibromomethane	ND		0.00100	1	02/23/2016 13:20	WG851480
Chloroethane	ND		0.00500	1	02/23/2016 13:20	WG851480
2-Chloroethyl vinyl ether	ND	J4	0.0500	1	02/23/2016 13:20	WG851480
Chloroform	ND		0.00500	1	02/23/2016 13:20	WG851480
Chloromethane	ND		0.00250	1	02/23/2016 13:20	WG851480
2-Chlorotoluene	ND		0.00100	1	02/23/2016 13:20	WG851480
4-Chlorotoluene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2016 13:20	WG851480
1,2-Dibromoethane	ND		0.00100	1	02/23/2016 13:20	WG851480
Dibromomethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Dichlorodifluoromethane	ND		0.00500	1	02/23/2016 13:20	WG851480
1,1-Dichloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,2-Dichloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1-Dichloroethene	ND		0.00100	1	02/23/2016 13:20	WG851480
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 13:20	WG851480
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,2-Dichloropropane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1-Dichloropropene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,3-Dichloropropane	ND		0.00100	1	02/23/2016 13:20	WG851480
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 13:20	WG851480
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 13:20	WG851480
2,2-Dichloropropane	ND		0.00100	1	02/23/2016 13:20	WG851480
Di-isopropyl ether	ND		0.00100	1	02/23/2016 13:20	WG851480
Ethylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2016 13:20	WG851480
Isopropylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
p-Isopropyltoluene	ND		0.00100	1	02/23/2016 13:20	WG851480
2-Butanone (MEK)	ND		0.0100	1	02/23/2016 13:20	WG851480
Methylene Chloride	ND		0.00500	1	02/23/2016 13:20	WG851480
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2016 13:20	WG851480
Methyl tert-butyl ether	ND		0.00100	1	02/23/2016 13:20	WG851480
Naphthalene	ND		0.00500	1	02/23/2016 13:20	WG851480
n-Propylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Styrene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
Tetrachloroethene	ND		0.00100	1	02/23/2016 13:20	WG851480
Toluene	ND		0.00500	1	02/23/2016 13:20	WG851480
1,2,3-Trichlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2016 13:20	WG851480
Trichloroethene	ND		0.00100	1	02/23/2016 13:20	WG851480
Trichlorofluoromethane	ND		0.00500	1	02/23/2016 13:20	WG851480
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2016 13:20	WG851480
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,2,3-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:20	WG851480
Vinyl chloride	ND		0.00100	1	02/23/2016 13:20	WG851480
Xylenes, Total	ND		0.00300	1	02/23/2016 13:20	WG851480
1-Methylnaphthalene	ND		0.0100	1	02/23/2016 13:20	WG851480
2-Methylnaphthalene	ND		0.0100	1	02/23/2016 13:20	WG851480
(S) Toluene-d8	*106*		*90.0-115*		*02/23/2016 13:20*	WG851480
(S) Dibromofluoromethane	*112*		*79.0-121*		*02/23/2016 13:20*	WG851480
(S) 4-Bromofluorobenzene	*97.1*		*80.1-120*		*02/23/2016 13:20*	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2016 13:41	WG851480
Acrolein	ND		0.0500	1	02/23/2016 13:41	WG851480
Acrylonitrile	ND		0.0100	1	02/23/2016 13:41	WG851480
Benzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Bromobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Bromodichloromethane	ND		0.00100	1	02/23/2016 13:41	WG851480
Bromoform	ND		0.00100	1	02/23/2016 13:41	WG851480
Bromomethane	ND		0.00500	1	02/23/2016 13:41	WG851480
n-Butylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
sec-Butylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
tert-Butylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Carbon tetrachloride	ND		0.00100	1	02/23/2016 13:41	WG851480
Chlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Chlorodibromomethane	ND		0.00100	1	02/23/2016 13:41	WG851480
Chloroethane	ND		0.00500	1	02/23/2016 13:41	WG851480
2-Chloroethyl vinyl ether	ND	J4	0.0500	1	02/23/2016 13:41	WG851480
Chloroform	ND		0.00500	1	02/23/2016 13:41	WG851480
Chloromethane	ND		0.00250	1	02/23/2016 13:41	WG851480
2-Chlorotoluene	ND		0.00100	1	02/23/2016 13:41	WG851480
4-Chlorotoluene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2016 13:41	WG851480
1,2-Dibromoethane	ND		0.00100	1	02/23/2016 13:41	WG851480
Dibromomethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Dichlorodifluoromethane	ND		0.00500	1	02/23/2016 13:41	WG851480
1,1-Dichloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,2-Dichloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1-Dichloroethene	ND		0.00100	1	02/23/2016 13:41	WG851480
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 13:41	WG851480
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,2-Dichloropropane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1-Dichloropropene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,3-Dichloropropane	ND		0.00100	1	02/23/2016 13:41	WG851480
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 13:41	WG851480
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 13:41	WG851480
2,2-Dichloropropane	ND		0.00100	1	02/23/2016 13:41	WG851480
Di-isopropyl ether	ND		0.00100	1	02/23/2016 13:41	WG851480
Ethylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2016 13:41	WG851480
Isopropylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
p-Isopropyltoluene	ND		0.00100	1	02/23/2016 13:41	WG851480
2-Butanone (MEK)	ND		0.0100	1	02/23/2016 13:41	WG851480
Methylene Chloride	ND		0.00500	1	02/23/2016 13:41	WG851480
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2016 13:41	WG851480
Methyl tert-butyl ether	ND		0.00100	1	02/23/2016 13:41	WG851480
Naphthalene	ND		0.00500	1	02/23/2016 13:41	WG851480
n-Propylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Styrene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
Tetrachloroethene	ND		0.00100	1	02/23/2016 13:41	WG851480
Toluene	ND		0.00500	1	02/23/2016 13:41	WG851480
1,2,3-Trichlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2016 13:41	WG851480
Trichloroethene	ND		0.00100	1	02/23/2016 13:41	WG851480
Trichlorofluoromethane	ND		0.00500	1	02/23/2016 13:41	WG851480
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2016 13:41	WG851480
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,2,3-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2016 13:41	WG851480
Vinyl chloride	ND		0.00100	1	02/23/2016 13:41	WG851480
Xylenes, Total	ND		0.00300	1	02/23/2016 13:41	WG851480
1-Methylnaphthalene	ND		0.0100	1	02/23/2016 13:41	WG851480
2-Methylnaphthalene	ND		0.0100	1	02/23/2016 13:41	WG851480
(S) Toluene-d8	*107*		*90.0-115*		*02/23/2016 13:41*	WG851480
(S) Dibromofluoromethane	*110*		*79.0-121*		*02/23/2016 13:41*	WG851480
(S) 4-Bromofluorobenzene	*95.6*		*80.1-120*		*02/23/2016 13:41*	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2016 14:03	WG851480
Acrolein	ND		0.0500	1	02/23/2016 14:03	WG851480
Acrylonitrile	ND		0.0100	1	02/23/2016 14:03	WG851480
Benzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Bromobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Bromodichloromethane	ND		0.00100	1	02/23/2016 14:03	WG851480
Bromoform	ND		0.00100	1	02/23/2016 14:03	WG851480
Bromomethane	ND		0.00500	1	02/23/2016 14:03	WG851480
n-Butylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
sec-Butylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
tert-Butylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Carbon tetrachloride	ND		0.00100	1	02/23/2016 14:03	WG851480
Chlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Chlorodibromomethane	ND		0.00100	1	02/23/2016 14:03	WG851480
Chloroethane	ND		0.00500	1	02/23/2016 14:03	WG851480
2-Chloroethyl vinyl ether	ND	J4	0.0500	1	02/23/2016 14:03	WG851480
Chloroform	ND		0.00500	1	02/23/2016 14:03	WG851480
Chloromethane	ND		0.00250	1	02/23/2016 14:03	WG851480
2-Chlorotoluene	ND		0.00100	1	02/23/2016 14:03	WG851480
4-Chlorotoluene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2016 14:03	WG851480
1,2-Dibromoethane	ND		0.00100	1	02/23/2016 14:03	WG851480
Dibromomethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Dichlorodifluoromethane	ND		0.00500	1	02/23/2016 14:03	WG851480
1,1-Dichloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,2-Dichloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1-Dichloroethene	ND		0.00100	1	02/23/2016 14:03	WG851480
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 14:03	WG851480
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,2-Dichloropropane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1-Dichloropropene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,3-Dichloropropane	ND		0.00100	1	02/23/2016 14:03	WG851480
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 14:03	WG851480
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2016 14:03	WG851480
2,2-Dichloropropane	ND		0.00100	1	02/23/2016 14:03	WG851480
Di-isopropyl ether	ND		0.00100	1	02/23/2016 14:03	WG851480
Ethylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2016 14:03	WG851480
Isopropylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
p-Isopropyltoluene	ND		0.00100	1	02/23/2016 14:03	WG851480
2-Butanone (MEK)	ND		0.0100	1	02/23/2016 14:03	WG851480
Methylene Chloride	ND		0.00500	1	02/23/2016 14:03	WG851480
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2016 14:03	WG851480
Methyl tert-butyl ether	ND		0.00100	1	02/23/2016 14:03	WG851480
Naphthalene	ND		0.00500	1	02/23/2016 14:03	WG851480
n-Propylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Styrene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
Tetrachloroethene	ND		0.00100	1	02/23/2016 14:03	WG851480
Toluene	ND		0.00500	1	02/23/2016 14:03	WG851480
1,2,3-Trichlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2016 14:03	WG851480
Trichloroethene	ND		0.00100	1	02/23/2016 14:03	WG851480
Trichlorofluoromethane	ND		0.00500	1	02/23/2016 14:03	WG851480
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2016 14:03	WG851480
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,2,3-Trimethylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2016 14:03	WG851480
Vinyl chloride	ND		0.00100	1	02/23/2016 14:03	WG851480
Xylenes, Total	ND		0.00300	1	02/23/2016 14:03	WG851480
1-Methylnaphthalene	ND		0.0100	1	02/23/2016 14:03	WG851480
2-Methylnaphthalene	ND		0.0100	1	02/23/2016 14:03	WG851480
(S) Toluene-d8	*107*		*90.0-115*		*02/23/2016 14:03*	WG851480
(S) Dibromofluoromethane	*111*		*79.0-121*		*02/23/2016 14:03*	WG851480
(S) 4-Bromofluorobenzene	*96.4*		*80.1-120*		*02/23/2016 14:03*	WG851480

Method Blank (MB)

(MB) 02/23/16 10:53

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Acetone	ND		0.0500
Acrolein	ND		0.0500
Acrylonitrile	ND		0.0100
Benzene	ND		0.00100
Bromobenzene	ND		0.00100
Bromodichloromethane	ND		0.00100
Bromoform	ND		0.00100
Bromomethane	ND		0.00500
n-Butylbenzene	ND		0.00100
sec-Butylbenzene	ND		0.00100
tert-Butylbenzene	ND		0.00100
Carbon tetrachloride	ND		0.00100
Chlorobenzene	ND		0.00100
Chlorodibromomethane	ND		0.00100
Chloroethane	ND		0.00500
2-Chloroethyl vinyl ether	ND		0.0500
Chloroform	ND		0.00500
Chloromethane	ND		0.00250
2-Chlorotoluene	ND		0.00100
4-Chlorotoluene	ND		0.00100
1,2-Dibromo-3-Chloropropane	ND		0.00500
1,2-Dibromoethane	ND		0.00100
Dibromomethane	ND		0.00100
1,2-Dichlorobenzene	ND		0.00100
1,3-Dichlorobenzene	ND		0.00100
1,4-Dichlorobenzene	ND		0.00100
Dichlorodifluoromethane	ND		0.00500
1,1-Dichloroethane	ND		0.00100
1,2-Dichloroethane	ND		0.00100
1,1-Dichloroethene	ND		0.00100
cis-1,2-Dichloroethene	ND		0.00100
trans-1,2-Dichloroethene	ND		0.00100
1,2-Dichloropropane	ND		0.00100
1,1-Dichloropropene	ND		0.00100
1,3-Dichloropropane	ND		0.00100
cis-1,3-Dichloropropene	ND		0.00100

Method Blank (MB)

(MB) 02/23/16 10:53

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
trans-1,3-Dichloropropene	ND		0.00100
2,2-Dichloropropane	ND		0.00100
Di-isopropyl ether	ND		0.00100
Ethylbenzene	ND		0.00100
Hexachloro-1,3-butadiene	ND		0.00100
Isopropylbenzene	ND		0.00100
p-Isopropyltoluene	ND		0.00100
2-Butanone (MEK)	ND		0.0100
Methylene Chloride	ND		0.00500
4-Methyl-2-pentanone (MIBK)	ND		0.0100
Methyl tert-butyl ether	ND		0.00100
1-Methylnaphthalene	ND		0.0100
2-Methylnaphthalene	ND		0.0100
Naphthalene	ND		0.00500
1,1,2,2-Tetrachloroethane	ND		0.00100
n-Propylbenzene	ND		0.00100
Tetrachloroethene	ND		0.00100
Styrene	ND		0.00100
1,1,1,2-Tetrachloroethane	ND		0.00100
Toluene	ND		0.00500
1,1,1-Trichloroethane	ND		0.00100
1,1,2-Trichloroethane	ND		0.00100
1,1,2-Trichlorotrifluoroethane	ND		0.00100
1,2,3-Trichlorobenzene	ND		0.00100
Trichloroethene	ND		0.00100
1,2,4-Trichlorobenzene	ND		0.00100
Trichlorofluoromethane	ND		0.00500
1,2,3-Trichloropropane	ND		0.00250
1,2,3-Trimethylbenzene	ND		0.00100
1,2,4-Trimethylbenzene	ND		0.00100
Vinyl chloride	ND		0.00100
1,3,5-Trimethylbenzene	ND		0.00100
Xylenes, Total	ND		0.00300
(S) Toluene-d8	*106*		*90.0-115*
(S) Dibromofluoromethane	*111*		*79.0-121*
(S) 4-Bromofluorobenzene	*94.4*		*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/23/16 09:06 • (LCSD) 02/23/16 09:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrolein	0.125	0.108	0.121	86.7	96.4	40.4-172			10.7	20
Acetone	0.125	0.0660	0.0758	52.8	60.6	28.7-175			13.8	20.9
Acrylonitrile	0.125	0.132	0.149	106	119	58.2-145			12.2	20
Benzene	0.0250	0.0239	0.0251	95.6	101	73.0-122			4.96	20
Bromobenzene	0.0250	0.0241	0.0260	96.3	104	81.5-115			7.73	20
Bromodichloromethane	0.0250	0.0263	0.0276	105	110	75.5-121			4.85	20
Bromoform	0.0250	0.0238	0.0264	95.2	106	71.5-131			10.4	20
Bromomethane	0.0250	0.0249	0.0266	99.4	107	22.4-187			6.90	20
n-Butylbenzene	0.0250	0.0262	0.0274	105	110	75.9-134			4.68	20
sec-Butylbenzene	0.0250	0.0241	0.0261	96.4	105	80.6-126			8.05	20
tert-Butylbenzene	0.0250	0.0237	0.0256	94.9	102	79.3-127			7.57	20
Carbon tetrachloride	0.0250	0.0241	0.0259	96.3	104	70.9-129			7.30	20
Chlorobenzene	0.0250	0.0234	0.0249	93.6	99.7	79.7-122			6.33	20
Chlorodibromomethane	0.0250	0.0240	0.0257	95.9	103	78.2-124			7.12	20
Chloroethane	0.0250	0.0277	0.0293	111	117	41.2-153			5.57	20
2-Chloroethyl vinyl ether	0.125	0.0236	0.0198	18.9	15.8	23.4-162	J4	J4	17.5	23.5
Chloroform	0.0250	0.0262	0.0276	105	111	73.2-125			5.25	20
Chloromethane	0.0250	0.0236	0.0251	94.2	100	55.8-134			6.24	20
2-Chlorotoluene	0.0250	0.0232	0.0252	92.8	101	76.4-125			8.39	20
4-Chlorotoluene	0.0250	0.0248	0.0264	99.3	106	81.5-121			6.22	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0234	0.0256	93.5	103	64.8-131			9.18	20
1,2-Dibromoethane	0.0250	0.0233	0.0255	93.1	102	79.8-122			9.23	20
Dibromomethane	0.0250	0.0257	0.0274	103	110	79.5-118			6.53	20
1,2-Dichlorobenzene	0.0250	0.0250	0.0261	99.8	105	84.7-118			4.66	20
1,3-Dichlorobenzene	0.0250	0.0233	0.0246	93.2	98.2	77.6-127			5.28	20
1,4-Dichlorobenzene	0.0250	0.0252	0.0259	101	103	82.2-114			2.43	20
Dichlorodifluoromethane	0.0250	0.0231	0.0251	92.3	100	56.0-134			8.20	20
1,1-Dichloroethane	0.0250	0.0267	0.0283	107	113	71.7-127			5.76	20
1,2-Dichloroethane	0.0250	0.0280	0.0296	112	119	65.3-126			5.66	20
1,1-Dichloroethene	0.0250	0.0299	0.0323	120	129	59.9-137			7.76	20
cis-1,2-Dichloroethene	0.0250	0.0252	0.0267	101	107	77.3-122			5.69	20
trans-1,2-Dichloroethene	0.0250	0.0247	0.0264	98.7	106	72.6-125			6.81	20
1,2-Dichloropropane	0.0250	0.0258	0.0270	103	108	77.4-125			4.48	20
1,1-Dichloropropene	0.0250	0.0267	0.0284	107	114	72.5-127			6.30	20
cis-1,3-Dichloropropene	0.0250	0.0267	0.0280	107	112	77.7-124			4.90	20
1,3-Dichloropropane	0.0250	0.0244	0.0262	97.6	105	80.6-115			7.09	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 02/23/16 09:06 • (LCSD) 02/23/16 09:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	0.0271	0.0285	108	114	73.5-127			5.04	20
2,2-Dichloropropane	0.0250	0.0286	0.0314	114	125	61.3-134			9.22	20
Di-isopropyl ether	0.0250	0.0275	0.0292	110	117	65.1-135			5.90	20
Ethylbenzene	0.0250	0.0235	0.0249	93.8	99.7	80.9-121			6.06	20
Hexachloro-1,3-butadiene	0.0250	0.0265	0.0275	106	110	73.7-133			3.80	20
Isopropylbenzene	0.0250	0.0238	0.0259	95.3	103	81.6-124			8.12	20
p-Isopropyltoluene	0.0250	0.0250	0.0268	100	107	77.6-129			6.92	20
2-Butanone (MEK)	0.125	0.0916	0.104	73.2	82.8	46.4-155			12.3	20
Methylene Chloride	0.0250	0.0244	0.0258	97.4	103	69.5-120			5.69	20
4-Methyl-2-pentanone (MIBK)	0.125	0.130	0.150	104	120	63.3-138			14.0	20
Methyl tert-butyl ether	0.0250	0.0249	0.0272	99.4	109	70.1-125			9.08	20
1-Methylnaphthalene	0.0250	0.0219	0.0226	87.7	90.6	48.8-157			3.15	20
2-Methylnaphthalene	0.0250	0.0227	0.0240	90.9	95.9	55.6-154			5.34	20
Naphthalene	0.0250	0.0223	0.0236	89.1	94.3	69.7-134			5.64	20
n-Propylbenzene	0.0250	0.0243	0.0262	97.2	105	81.9-122			7.68	20
Styrene	0.0250	0.0231	0.0248	92.3	99.4	79.9-124			7.39	20
1,1,2,2-Tetrachloroethane	0.0250	0.0224	0.0251	89.5	101	79.3-123			11.6	20
1,1,1,2-Tetrachloroethane	0.0250	0.0236	0.0254	94.5	102	78.5-125			7.24	20
Tetrachloroethene	0.0250	0.0231	0.0246	92.4	98.4	73.5-130			6.28	20
Toluene	0.0250	0.0242	0.0255	96.8	102	77.9-116			5.23	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0261	0.0287	105	115	62.0-141			9.22	20
1,2,3-Trichlorobenzene	0.0250	0.0257	0.0260	103	104	75.7-134			1.26	20
1,1,1-Trichloroethane	0.0250	0.0259	0.0279	103	112	71.1-129			7.65	20
1,2,4-Trichlorobenzene	0.0250	0.0247	0.0250	98.7	100	76.1-136			1.46	20
1,1,2-Trichloroethane	0.0250	0.0228	0.0245	91.1	98.0	81.6-120			7.29	20
Trichloroethene	0.0250	0.0232	0.0247	92.7	98.9	79.5-121			6.46	20
Trichlorofluoromethane	0.0250	0.0261	0.0286	104	114	49.1-157			9.27	20
1,2,3-Trichloropropane	0.0250	0.0239	0.0262	95.7	105	74.9-124			9.12	20
1,2,3-Trimethylbenzene	0.0250	0.0255	0.0264	102	105	79.9-118			3.15	20
1,2,4-Trimethylbenzene	0.0250	0.0236	0.0254	94.6	101	79.0-122			6.97	20
1,3,5-Trimethylbenzene	0.0250	0.0240	0.0258	96.1	103	81.0-123			7.11	20
Vinyl chloride	0.0250	0.0262	0.0285	105	114	61.5-134			8.60	20
Xylenes, Total	0.0750	0.0702	0.0752	93.6	100	79.2-122			6.82	20
(S) Toluene-d8				*105*	*105*	*90.0-115*				
(S) Dibromofluoromethane				*103*	*104*	*79.0-121*				
(S) 4-Bromofluorobenzene				*94.5*	*98.3*	*80.1-120*				

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

[1] Cp
[2] Tc
[3] Ss
[4] Cn
[5] Sr
[6] Qc
[7] Gl
[8] Al
[9] Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

Company Name/Address:
EnviroTech- NM

5796 US. Highway 64
Farmington.NM 87401

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody Page 1 of 1

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

J213

Report to: Falynn Burns | Email to: fburns@envirotech-inc.com

Project Description: NEBU 464 A - Spill. Sampling | City/State Collected: Navaja Lake, NM

Phone: (505) 632-0615 | Client Project #: | ESC Key:

FAX:

Collected by: F. Burns | Site/Facility ID#: | P.O.#: 22216

Collected by (signature): Falynn Burns
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
✓ Same Day.....200%
___ Next Day.....100%
___ Two Day.....50%
___ Three Day.....25%

Date Results Needed:
Email? ___No ✓Yes
FAX? ✓No ___Yes

CoCode: ENVIROFNM (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	8260	Remarks/Contaminant	Sample # (lab only)
Source - Water	Grab	OT	—	2-21-16	9:35	2	X		L819267-01
Mid-Point - Water	Grab	OT	—	2-21-16	10:00	2	X		02
3/4 Point - Water	Grab	OT	—	2-21-16	10:40	2	X		03
End Point - Water	Grab	OT	—	2-21-16	11:01	2	X		04
Lake BG - Water	Grab	OT	—	2-21-16	11:26	2	X		05

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other produced water

pH ___ Temp ___

Remarks: 5040 0631 0724

Flow ___ Other ___

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Falynn Burns	2.22.16	10:31	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 2.6 | Bottles Received: 10-TP | Date: 2-23-16 | Time: 0900

Condition: 0810 (lab use only) | CoC Seals Intact ___Y ___N ___NA | pH Checked: | NCF:

Analytical Report
Lab Order **1603001**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BP America
Project: NEBU 454A
Lab ID: 1603001-001
Matrix: AQUEOUS
Client Sample ID: NEBU 454A Inlet
Collection Date: 2/29/2016 10:20:00 AM
Received Date: 3/1/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LGT**
Fluoride	0.16	0.10		mg/L	1	3/2/2016 2:07:36 PM
Chloride	2.7	0.50		mg/L	1	3/1/2016 1:47:18 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/1/2016 1:47:18 PM
Bromide	ND	0.10		mg/L	1	3/1/2016 1:47:18 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	3/1/2016 1:47:18 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/1/2016 1:47:18 PM
Sulfate	32	0.50		mg/L	1	3/1/2016 1:47:18 PM
SM2340B: HARDNESS						Analyst: **MED**
Hardness (As CaCO3)	91	6.6		mg/L	1	3/3/2016 8:00:00 AM
EPA METHOD 7470: MERCURY						Analyst: **DBD**
Mercury	ND	0.00020		mg/L	1	3/2/2016 2:32:23 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **MED**
Calcium	29	1.0		mg/L	1	3/3/2016 10:39:11 AM
Iron	ND	0.020		mg/L	1	3/3/2016 10:39:11 AM
Magnesium	4.7	1.0		mg/L	1	3/3/2016 10:39:11 AM
Manganese	0.0096	0.0020		mg/L	1	3/3/2016 10:39:11 AM
Potassium	1.9	1.0		mg/L	1	3/3/2016 10:39:11 AM
Sodium	12	1.0		mg/L	1	3/3/2016 10:39:11 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **MED**
Boron	ND	0.20		mg/L	1	3/3/2016 8:43:14 AM
Cadmium	ND	0.010		mg/L	1	3/3/2016 8:43:14 AM
Iron	0.63	0.25		mg/L	1	3/3/2016 8:43:14 AM
Lead	ND	0.025		mg/L	1	3/3/2016 8:43:14 AM
Manganese	0.026	0.010		mg/L	1	3/3/2016 8:43:14 AM
Selenium	ND	0.25		mg/L	1	3/3/2016 8:43:14 AM
Silicon	6.8	2.5		mg/L	1	3/3/2016 8:43:14 AM
Vanadium	ND	0.25		mg/L	1	3/3/2016 8:43:14 AM
SODIUM ADSORPTION RATIO						Analyst: **MED**
Sodium Absorption Ratio	0.53	0			1	3/3/2016 8:00:00 AM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **MRA**
Conductivity	230	0.010		µmhos/cm	1	3/1/2016 1:59:12 PM
SM4500-H+B: PH						Analyst: **MRA**
pH	7.96	1.68	H	pH units	1	3/1/2016 1:59:12 PM
SM2320B: ALKALINITY						Analyst: **MRA**
Alkalinity, Hydroxide (As CaCO3)	ND	2.000		mg/L CaCO3	1	3/1/2016 1:59:12 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1603001**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BP America
Project: NEBU 454A
Lab ID: 1603001-001
Matrix: AQUEOUS
Client Sample ID: NEBU 454A Inlet
Collection Date: 2/29/2016 10:20:00 AM
Received Date: 3/1/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM2320B: ALKALINITY						Analyst: **MRA**
Bicarbonate (As CaCO3)	77.68	20.00		mg/L CaCO3	1	3/1/2016 1:59:12 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	3/1/2016 1:59:12 PM
Total Alkalinity (as CaCO3)	77.68	20.00		mg/L CaCO3	1	3/1/2016 1:59:12 PM
SPECIFIC GRAVITY						Analyst: **SRM**
Specific Gravity	0.9949	0			1	3/1/2016 2:21:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	130	40.0	D	mg/L	1	3/2/2016 3:02:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1603001**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BP America
Project: NEBU 454A
Lab ID: 1603001-002 **Matrix:** AQUEOUS

Client Sample ID: NEBU 454A Background
Collection Date: 2/29/2016 10:23:00 AM
Received Date: 3/1/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LGT**
Fluoride	0.16	0.10		mg/L	1	3/2/2016 2:20:00 PM
Chloride	2.4	0.50		mg/L	1	3/1/2016 2:12:07 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/1/2016 2:12:07 PM
Bromide	ND	0.10		mg/L	1	3/1/2016 2:12:07 PM
Nitrogen, Nitrate (As N)	0.15	0.10		mg/L	1	3/1/2016 2:12:07 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/1/2016 2:12:07 PM
Sulfate	32	0.50		mg/L	1	3/1/2016 2:12:07 PM
SM2340B: HARDNESS						Analyst: **MED**
Hardness (As CaCO3)	86	6.6		mg/L	1	3/1/2016 12:00:00 PM
EPA METHOD 7470: MERCURY						Analyst: **DBD**
Mercury	ND	0.00020		mg/L	1	3/2/2016 2:34:27 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **MED**
Calcium	27	1.0		mg/L	1	3/1/2016 12:36:15 PM
Iron	ND	0.020		mg/L	1	3/1/2016 12:36:15 PM
Magnesium	4.7	1.0		mg/L	1	3/1/2016 12:36:15 PM
Potassium	1.8	1.0		mg/L	1	3/1/2016 12:36:15 PM
Sodium	11	1.0		mg/L	1	3/1/2016 12:36:15 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **MED**
Boron	ND	0.20		mg/L	1	3/3/2016 8:45:22 AM
Cadmium	ND	0.010		mg/L	1	3/3/2016 8:45:22 AM
Iron	ND	0.25		mg/L	1	3/3/2016 8:45:22 AM
Lead	ND	0.025		mg/L	1	3/3/2016 8:45:22 AM
Manganese	ND	0.010		mg/L	1	3/3/2016 8:45:22 AM
Selenium	ND	0.25		mg/L	1	3/3/2016 8:45:22 AM
Silicon	5.5	2.5		mg/L	1	3/3/2016 8:45:22 AM
Vanadium	ND	0.25		mg/L	1	3/3/2016 8:45:22 AM
SODIUM ADSORPTION RATIO						Analyst: **MED**
Sodium Absorption Ratio	0.54	0			1	3/1/2016 12:00:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **MRA**
Conductivity	230	0.010		µmhos/cm	1	3/1/2016 2:07:40 PM
SM4500-H+B: PH						Analyst: **MRA**
pH	7.88	1.68	H	pH units	1	3/1/2016 2:07:40 PM
SM2320B: ALKALINITY						Analyst: **MRA**
Alkalinity, Hydroxide (As CaCO3)	ND	2.000		mg/L CaCO3	1	3/1/2016 2:07:40 PM
Bicarbonate (As CaCO3)	75.84	20.00		mg/L CaCO3	1	3/1/2016 2:07:40 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: BP America
Project: NEBU 454A
Lab ID: 1603001-002 **Matrix:** AQUEOUS

Client Sample ID: NEBU 454A Background
Collection Date: 2/29/2016 10:23:00 AM
Received Date: 3/1/2016 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM2320B: ALKALINITY						Analyst: **MRA**
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	3/1/2016 2:07:40 PM
Total Alkalinity (as CaCO3)	75.84	20.00		mg/L CaCO3	1	3/1/2016 2:07:40 PM
SPECIFIC GRAVITY						Analyst: **SRM**
Specific Gravity	0.9961	0			1	3/1/2016 2:21:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	116	40.0	D	mg/L	1	3/2/2016 3:02:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample diluted due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified