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REMEDIATION SUMMARY AND RISK-BASED SITE CLOSURE REQUEST

**MEWBOURNE OIL COMPANY
QPQASU #10 FLOW LINE
Lea County, New Mexico
Unit Letter "O" (SW/SE), Section 21, Township 18 South, Range 32 East
Latitude 32.726192° North, Longitude -103.761283° West
NMOCD Reference #1RP-_____**

Prepared For:

Mewbourne Oil Company
701 South Cecil Street
Hobbs, NM 88240

Prepared By:

Basin Environmental Service Technologies, LLC
3100 Plains Highway
Lovington, NM 88260

January 2015

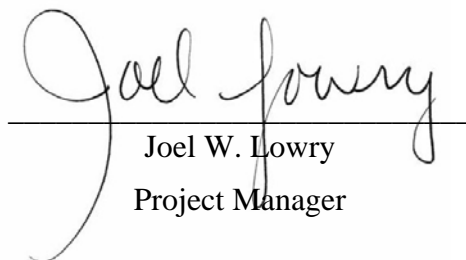

Joel W. Lowry
Project Manager

TABLE OF CONTENTS

1.0 INTRODUCTION & BACKGROUND INFORMATION.....	1
2.0 NMOCD SITE CLASSIFICATION.....	1
3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES.....	2
4.0 QA/QC PROCEDURES.....	7
4.1 Soil Sampling.....	7
4.2 Decontamination of Equipment.....	7
4.3 Laboratory Protocol.....	7
5.0 SITE CLOSURE REQUEST.....	8
6.0 LIMITATIONS.....	8
7.0 DISTRIBUTION.....	9

FIGURES

Figure 1 – Site Location Map

Figure 2a – Site & Sample Location Map – Primary Release

Figure 2b – Site & Sample Location Map – Western Release

Figure 2c – Site & Sample Location Map – Eastern Release

TABLES

Table 1a – Concentrations of Benzene, BTEX, TPH & Chloride in Soil – Primary Release

Table 1b – Concentrations of Benzene, BTEX, TPH & Chloride in Soil – Western Release

Table 1c – Concentrations of Benzene, BTEX, TPH & Chloride in Soil – Eastern Release

APPENDICES

Appendix A – Release Notification and Corrective Action (Form C-141)

Appendix B – Photographs

Appendix C – Soil Boring Logs

Appendix D – Laboratory Analytical Reports

INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Mewbourne Oil Company (Mewbourne) has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as QPQASU #10 Flow Line. The legal description of the release site is Unit Letter "O" (SW/SE), Section 21, Township 18 South, Range 32 East in Lea County, New Mexico. The geographic coordinates of the release site are 32.726192° North latitude and -103.761283° West longitude. The property affected by the release is owned by the United States Department of the Interior and administered by the Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On May 15, 2014, Mewbourne discovered a release had occurred on the QPQASU #10 flow line. Failure of a section of 2 7/8" poly flow line resulted in the release of an unknown volume of crude oil and produced water. The "Release Notification and Corrective Action" (Form C-141) indicated the release affected approximately five thousand, five hundred square feet (5,500 ft²) of pasture land. During initial response activities, a vacuum truck was used to recover approximately five hundred barrels (500 bbls) of free standing fluid. The release occurred adjacent to two (2) historical releases. Final remediation of each of the release sites will be conducted in accordance with the New Mexico Oil Conservation Division's (NMOCD) Guidelines for Remediation of Spills, Leaks and Releases. The Form C-141 is provided as Appendix A. General photographs of the release site are provided as Appendix B.

On June 13, 2014, a *Remediation Summary & Risk-Based Soil Closure Proposal* was submitted to the NMOCD proposing a risk-based closure strategy. The *Remediation Summary & Risk-Based Soil Closure Proposal* was subsequently approved.

NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 21, Township 18 South, Range 32 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately three hundred and seventy-five feet (375') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no domestic water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the QPQASU #10 Flow Line release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

Beginning May 27, 2014, Basin conducted an initial investigation at the release site. A series of test trenches (TT-1, TT-2 and TT-3) were advanced in an effort to characterize the release and determine the vertical extent of soil impact. TT-1 was advanced in the center of the primary release. TT-1 was advanced to approximately fourteen feet (14') bgs. During the advancement of the test trench, soil samples were collected from two (2), six (6), ten (10) and fourteen feet (14') bgs and submitted to the laboratory for analysis TPH and chloride concentrations in accordance with EPA Methods SW-846 8015M and 4500 Cl⁻ B, respectively. Laboratory analytical results indicated TPH concentrations ranged from 71,360 ppm for the soil sample collected at six feet (6') bgs to 36,080 ppm for the soil sample collected at fourteen feet (14') bgs. Chloride concentrations ranged from 12,400 ppm for the soil sample collected at six feet (6') bgs to 992 ppm for the soil sample collected at two feet (2') bgs. Soil samples collected at ten (10) and fourteen feet (14') bgs were also analyzed for concentrations of BTEX in accordance with EPA Method SW-846 8021B. Laboratory analytical results indicated the concentration of BTEX in soil sample TT-1 @ 10' was 175 ppm; the benzene concentration was 8.18 ppm. The concentration of BTEX in soil sample TT-1 @ 14' was 166 ppm; the benzene concentration was 6.15 ppm. A site and sample location. Table 1a summarizes the "Concentrations of Benzene, BTEX, TPH & Chlorides in Soil – Primary Release". Sample locations are depicted in Figure 2a, "Site & Sample Location Map – Primary Release". Laboratory analytical reports are provided as Appendix D.

Test trench TT-2 was advanced in the center of the stained area west of the primary release site. TT-2 was advanced to approximately fourteen feet (14') bgs. During the advancement of the test trench, soil samples were collected from two (2), six (6), ten (10) and fourteen feet (14') bgs and submitted to the laboratory for analysis TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 30,111 ppm for the soil sample collected at two feet (2') bgs to 6,907 ppm for the soil sample collected at ten feet (10') bgs. Chloride concentrations ranged from 9,860 ppm for the soil sample collected at fourteen feet (14') bgs to 48.0 ppm for the soil sample collected at two feet (2') bgs. Soil samples collected at ten (10) and fourteen feet (14') bgs were also analyzed for concentrations of BTEX. Laboratory analytical results indicated the concentration of BTEX in soil sample TT-2 @ 10' was 7.25 ppm; the benzene concentration was less than the laboratory method detection limit (MDL). The concentration of BTEX in soil sample TT-2 @ 14' was 7.97 ppm; the benzene concentration was less than the laboratory MDL. Table 1b summarizes the "Concentrations of Benzene, BTEX, TPH & Chlorides in Soil – Western Release". Sample locations are depicted in Figure 2b, "Site & Sample Location Map – Western Release".

Test trench TT-3 was advanced in the stained area east of the primary release site. TT-3 was advanced to approximately fourteen feet (14') bgs. During the advancement of the test trench, soil samples were collected from two (2), six (6), ten (10) and fourteen feet (14') bgs and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 32,220 ppm for the soil sample collected at fourteen feet (14') bgs to 2,976 ppm for the soil sample collected at ten feet (10') bgs. Chloride concentrations ranged from 5,120 ppm for the soil sample collected at ten feet (10') bgs to 112 ppm for the soil sample collected at six feet (6') bgs. Soil samples collected at ten (10) and fourteen feet (14') bgs were also analyzed for concentrations of BTEX. Laboratory analytical results indicated the concentration of BTEX in soil sample TT-3 @ 10' was 3.11 ppm; the benzene concentration was less than the laboratory MDL. The concentration of BTEX in soil sample TT-3 @ 14' was 141 ppm; the benzene concentration was 4.49 ppm. Table 1c summarizes the "Concentrations of Benzene, BTEX, TPH & Chlorides in Soil – Eastern Release". Sample locations are depicted in Figure 2c, "Site & Sample Location Map – Eastern Release".

On June 27, 2014, Basin began excavation activities at the QPQASU #10 Flow Line release site. The floor of the excavation characterized by the western release was advanced to approximately ten feet (10') bgs as per the NMOCD. The floor of the primary excavation was advanced to approximately twelve (12) to fourteen feet (14') as per the NMOCD. The sidewalls of the excavations were advanced until field tests suggested concentration of BTEX, TPH and chloride were less than NMOCD regulatory standards.

On July 8, 2014, a delineation trench (TT-2b) was advanced in the floor of the western excavation in an area exhibiting hydrocarbon staining at ten feet (10') bgs. The delineation trench was advanced to approximately twenty feet (20') bgs. During the advancement of the delineation trench, two (2) soil samples (TT-2b @ 15' and TT-2b @ 20') were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations ranged from 104 ppm for soil sample TT-2b @ 15' to less than the appropriate laboratory MDL for soil sample TT-2b @ 20'. Analytical results indicated TPH concentrations ranged from 9,029 ppm for soil sample TT-2b @ 15' to 137 ppm for soil sample TT-2b @ 20'. Chloride concentrations ranged from 6,160 ppm for soil sample TT-2b @ 15' to 2,440 ppm for soil sample TT-2b @ 20'.

In addition, five (5) soil samples [NSW #1 (Primary), WSW #1 (Primary), SSW #1 (Primary), Floor #1 (Primary), Test Floor A (Primary)] were collected from the floor and sidewalls of the primary release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples with the exception of soil sample Test Floor A (Primary), which exhibited a BTEX concentration of 7.09 ppm. Analytical results indicated TPH concentrations were less than the laboratory MDL for each of the submitted soil samples with the exception of soil samples Floor #1 (Primary) and Test Floor A (Primary), which exhibited TPH concentrations of 24.1 and 4,213 ppm, respectively. Chloride concentrations ranged from less than the laboratory MDL for soil sample NSW #1 (Primary) and WSW #1 (Primary) to 192 ppm for soil sample Test Floor A (Primary). Each of the submitted soil samples exhibited BTEX, TPH and chloride concentrations that were below NMOCD regulatory standards.

On July 17, 2014, two (2) soil samples [WSW #1 (Western) and SSW #1 (Western)] were collected from the sidewalls of the western release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples. Analytical results indicated chloride concentrations ranged from 64.0 ppm for soil sample WSW #1 (Western) to 1,220 ppm for soil sample SSW #1 (Western). The excavation was advanced in the area characterized by soil sample SSW #1 (Western).

On July 21, 2014, three (3) soil samples [NSW #1 (Western), NSW #2 (Western) and SSW #2 (Western)] were collected from the sidewalls of the western release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples. Analytical results indicated chloride concentrations ranged from 32.0 ppm for soil sample SSW #2 (Western) to 96.0 ppm for soil sample NSW #2 (Western). Each of the submitted soil samples exhibited BTEX, TPH and chloride concentrations that were below NMOCD regulatory standards.

On July 23, 2014, two (2) soil samples [SSW #3 (Western) and NSW #3 (Western)] were collected from the sidewalls of the western release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples. Analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil sample NSW #3 (Western) to 320 ppm for soil sample SSW #3 (Western). Each of the submitted soil samples exhibited BTEX, TPH and chloride concentrations that were below NMOCD regulatory standards.

On July 30, 2014, two (2) soil samples [SSW #1b (Western) and ESW #1 (Western)] were collected from the sidewalls of the western release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples.

On August 5, 2014, Basin began excavating impacted soil associated with the release in the eastern portion of the remediation site. The floor of the excavation characterized by the eastern release was advanced to approximately ten feet (10') bgs. The excavation sidewalls were advanced until field tests suggested concentration of BTEX, TPH and chloride were less than NMOCD regulatory standards.

In addition, six (6) soil samples [NSW #2 (Primary), NSW #3 (Primary), ESW #1 (Primary), ESW #2 (Primary), WSW #2 (Primary) and SSW #2 (Primary)], were collected from the sidewalls of the primary release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples. Analytical results indicated the chloride concentration ranged from less than the laboratory MDL for soil sample NSW #3 (Primary) to 288 ppm for soil sample SSW #2 (Primary). Each of the submitted

soil samples exhibited BTEX, TPH and chloride concentrations that were below NMOCD regulatory standards.

On August 6, 2014, a delineation trench (TT-1a) was advanced in the floor of the primary excavation in an area exhibiting hydrocarbon staining at twelve feet (12') bgs. The delineation trench was advanced to approximately thirty feet (30') bgs. During the advancement of the delineation trench, two (2) soil samples (TT-1a @ 20' and TT-1a @ 30') were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX concentrations ranged from less than the appropriate laboratory MDL for soil sample TT-1a @ 20' to 14.3 ppm for soil sample TT-1a @ 30'. Analytical results indicated TPH concentrations ranged from 5,187 ppm for soil sample TT-1a @ 30' to 219 ppm for soil sample TT-1a @ 20'. Chloride concentrations ranged from 7,400 ppm for soil sample TT-1a @ 20' to 4,960 ppm for soil sample TT-1a @ 30'.

On August 12, 2014, on receiving NMOCD approval, a 20-millimeter polyurethane liner was installed in the floor of the primary excavation at approximately twelve feet (12') bgs. A 20-millimeter polyurethane liner was also installed in the floor of the western excavation at approximately ten feet (10') bgs. A one-foot (1') layer of pad sand was installed above and below the liners to maintain their integrity during backfilling activities. These engineering controls were designed to inhibit the vertical migration of contaminants left in-situ. The 20-millimeter polyurethane liners were fitted with eight-inch (8") PVC conduits in an areas inferred to exhibit the highest concentration of TPH. This engineering control was designed to allow for the safe and accurate advancement of soil bores, while maintaining the integrity of the liner. Upon installing the liners, the excavations were backfilled with locally purchased, non-impacted soil.

On September 5, 2014, areas disturbed by remediation activities associated with the western and primary release sites were reseeded with a BLM-approved seed mixture.

On September 10, 2014, seven (7) soil samples [NSW #1 (Eastern), NSW #2 (Eastern) and NSW #3 (Eastern), WSW #1 (Eastern), ESW #1 (Eastern), SSW #1 (Eastern) and SSW #2 (Eastern)] were collected from the sidewalls of the western release excavation and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the appropriate laboratory MDL in each of the submitted soil samples. Analytical results indicated chloride concentration ranged from less than the laboratory MDL for soil samples NSW #1 (Eastern), NSW #3 (Eastern) and WSW #1 (Eastern) to 528 ppm for soil sample SSW #2 (Eastern). Each of the submitted soil samples exhibited BTEX, TPH and chloride concentrations that were below NMOCD regulatory standards.

On September 15, 2014, a delineation trench (TT-3b) was advanced in the floor of the eastern excavation in an area exhibiting hydrocarbon staining at approximately twelve feet (12') bgs. The delineation trench was advanced to approximately twenty-four feet (24') bgs. During the advancement of the delineation trench, two (2) soil samples (TT-3b @ 18' and TT-3b @ 24') were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX concentrations ranged from 20.6 ppm for soil sample TT-3b @ 18' to 5.12 ppm for soil sample TT-3b @ 24'. Analytical results indicated TPH concentrations ranged from 6,759 ppm for soil sample TT-3b @ 18' to 2,886 ppm for soil sample TT-3b @ 24'.

Chloride concentrations ranged from 896 ppm for soil sample TT-3b @ 24' to 144 ppm for soil sample TT-3b @ 18'.

On September 17, 2014, a 20-millimeter polyurethane liner was installed in the floor of the eastern excavation at approximately twelve feet (12') bgs. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ. The 20-millimeter polyurethane liner was fitted with an eight-inch (8") PVC conduit in an area inferred to exhibit the highest concentration of TPH. This engineering control was designed to allow for the safe and accurate advancement of soil bores, while maintaining the integrity of the liner. Upon installing the liner, the excavation was backfilled with locally purchased, non-impacted soil.

Between July 1, and September 17, 2014, approximately ten thousand, three hundred and sixty cubic yards (10,360 yd³) of impacted material was transported to Controlled Recovery, Inc. (NMOCD Permit #NM1-6-0), for disposal. The final dimensions of the primary excavation were approximately ninety-five feet (95') in width, one hundred and ten feet (110') in length and eight (8) to twelve feet (12') in depth. The final dimensions of western excavation were approximately seventy feet (70') in width, one hundred and seventy feet (170') in length and ten feet (10') in depth. The final dimensions of eastern excavation were approximately forty-five feet (45') in width, one hundred and twenty feet (120') in length and twelve feet (12') in depth.

On September 5, 2014, areas disturbed by remediation activities associated with the western and primary release sites were seeded with a BLM-approved seed mixture.

On November 13, 2014, Mewbourne and NMOCD representatives met to discuss the advancement of environmental soil bores at the location. Mewbourne requested permission to preclude the western release site from soil boring activities citing access concerns for the drilling rig. It was determined environmental soil bores within the primary and eastern release sites would adequately characterize the site.

On January 12, 2015, two (2) environmental soil bores (SB-1 and SB-3) were advanced at the release site. Soil boring SB-1 was advanced through the established PVC conduit in the primary release site. The soil boring was advanced to approximately eighty feet (80') bgs. During the advancement of the soil boring, soil samples were collected at five-foot (5') drilling intervals and field-screened for concentrations of chloride and TPH. Six (6) representative soil samples (SB-1 @ 40', SB-1 @ 50', SB-1 @ 60', SB-1 @ 70', SB-1 @ 75' and SB-1 @ 80') were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from 8,800 ppm for soil sample SB-1 @ 40' to 160 ppm for soil sample SB-1 @ 80'. Soil sample SB-1 @ 40' was also analyzed for concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL. Based on laboratory analytical results it was determined vertical delineation had been achieved. Soil boring logs are provided as Appendix C.

Soil boring SB-3 was advanced through the established PVC conduit in the eastern release site. The soil boring was advanced to approximately fifty-five feet (55') bgs. During the advancement of the soil boring, soil samples were collected at five-foot (5') drilling intervals and field-screened

for concentrations of chloride and TPH. Five (5) representative soil samples (SB-3 @ 25', SB-3 @ 35', SB-3 @ 45', SB-3 @ 50' and SB-3 @ 55') were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 11,680 ppm for soil sample SB-3 @ 25' to less than the appropriate laboratory MDL for soil sample SB-3 @ 55'. Chloride concentrations ranged were less than the appropriate laboratory MDL for each of the submitted soil samples. Soil samples SB-3 @ 25' and SB-3 @ 35' were also analyzed for concentrations of BTEX. Analytical results indicated BTEX concentrations ranged from 31.0 pm for soil sample SB-3 @ 25' to less than the appropriate laboratory MDL for soil sample SB-3 @ 35'. Based on laboratory analytical results it was determined vertical delineation had been achieved.

The remaining portion of the remediation site will be seeded with a BLM-approved seed mixture at a time more conducive to germination.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for BTEX, TPH and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 4500 Cl-B

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Remediation activities at the QPQASU #10 Flow Line Release Site met the objectives set forth by the NMOCD. Affected soil was excavated to the maximum practicable depth; excavation sidewalls were advanced until concentrations of BTEX, TPH and chloride were below NMOCD regulatory standards. As per the NMOCD, a twenty-millimeter (20-mil) polyurethane liner was installed on the floor of each excavation atop soil exhibiting concentrations of TPH and chloride above NMOCD regulatory standards. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ. Environmental soil bores were used to determine the vertical extent of soil impact at the primary and eastern release sites. As per the NMOCD, the western release site was precluded from soil boring activities. Based on the results of confirmation soil samples and the installation of approved engineering controls, Basin recommends Mewbourne provide the NMOCD Artesia District Office and the BLM a copy of this *Remediation Summary and Risk-Based Site Closure Request* and request the NMOCD grant site closure to the QPQASU #10 Flow Line release site.

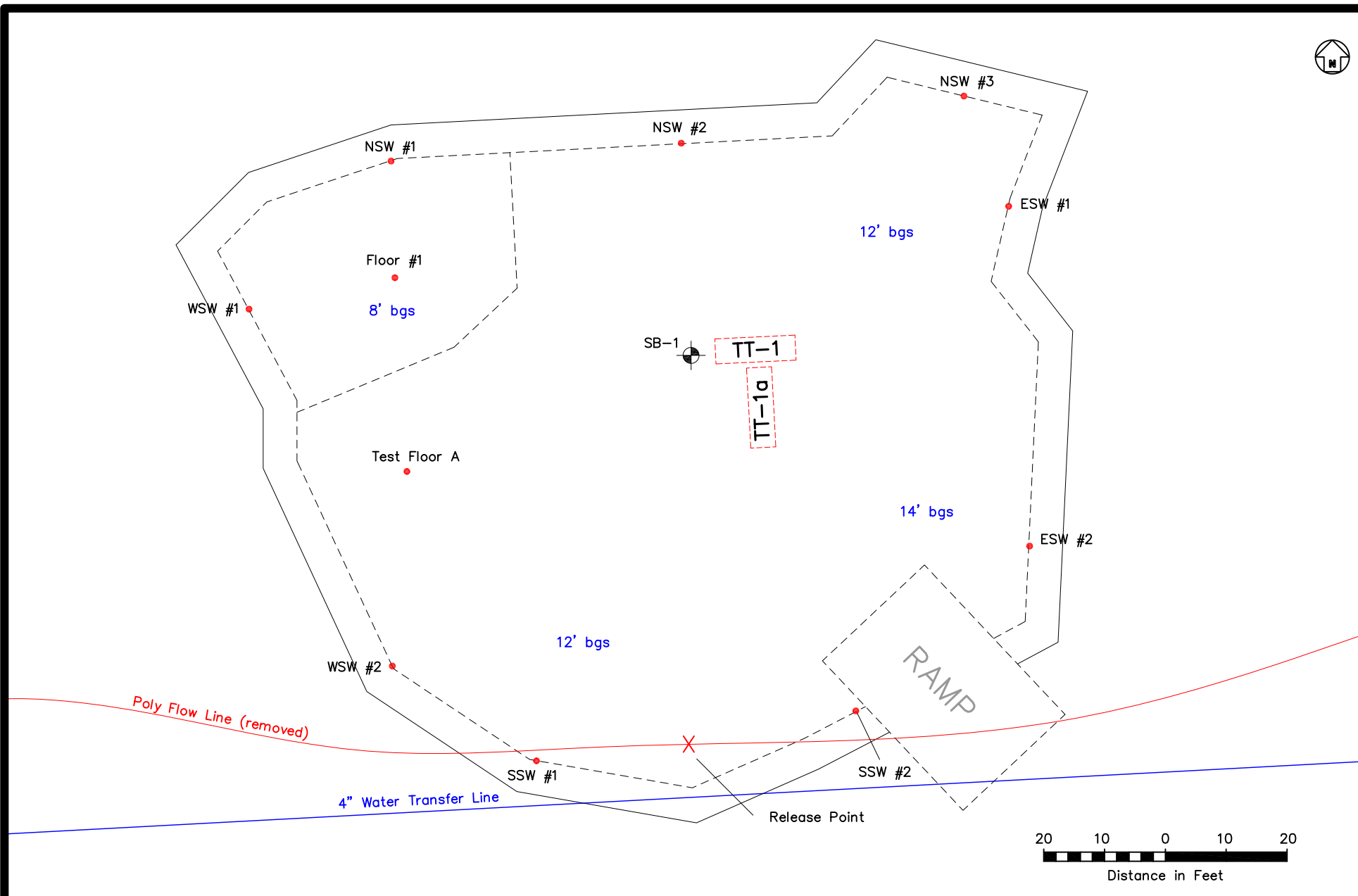
6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary and Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Mewbourne.

7.0 DISTRIBUTION:

- Copy 1: Tomas Oberding
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Hobbs, NM 88241
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Lovington, NM 88260



Legend:




- | | | | |
|---|-------------------|---|--------------------|
| | Excavation Extent | | Bench |
|  | Sample Location |  | Proposed Soil Bore |
|  | Test Trench | | Buried Pipeline |

Figure 2a
Site & Sample Location Map
Mewbourne Oil Company
QPQASU #10 Flow Line
Primary Release
Lea County, New Mexico

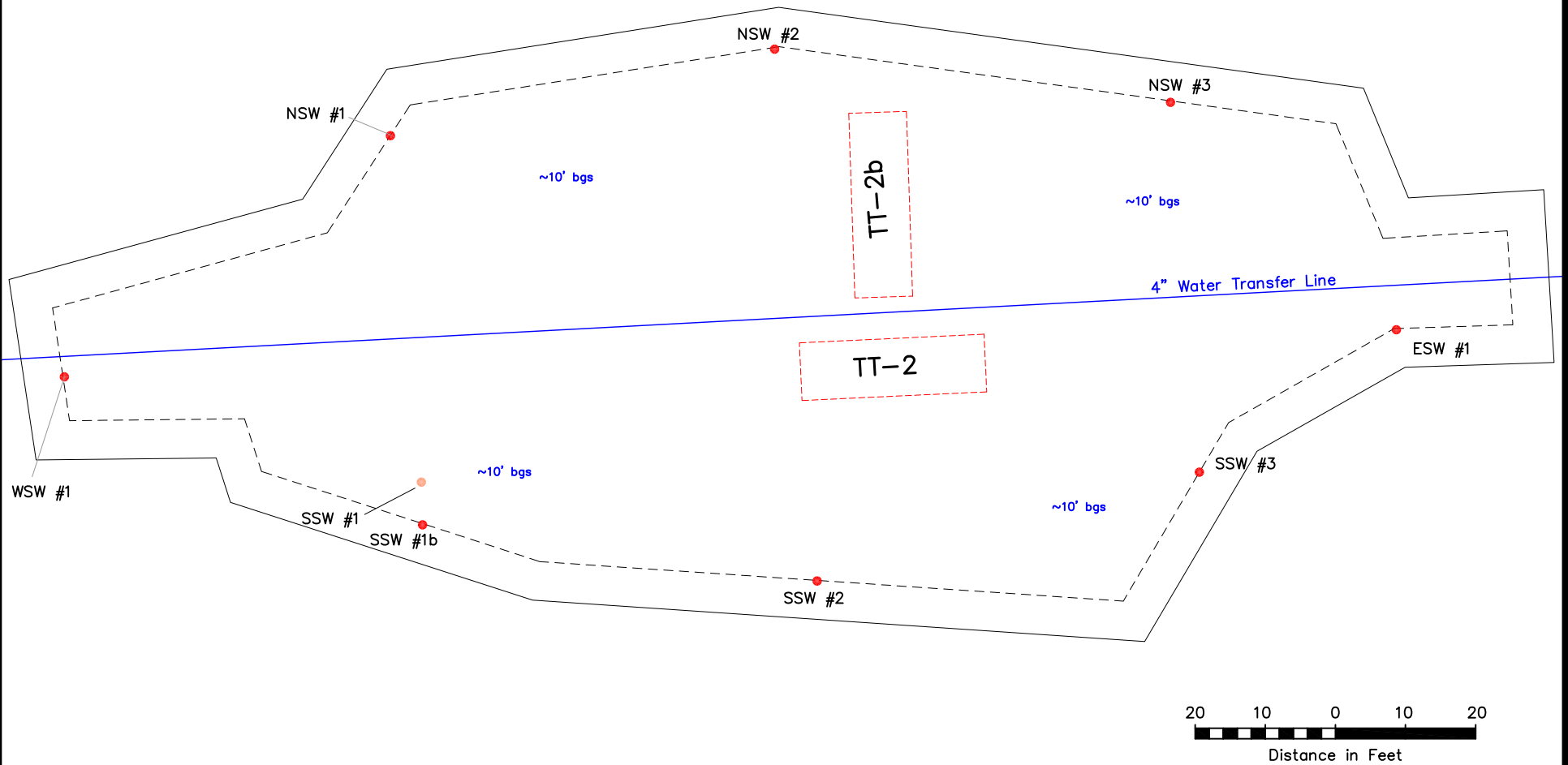
Basin Environmental Services

Prep By: JWL

Checked By: BJA

June 5, 2014

Scale 1"=20'



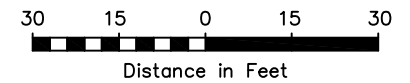
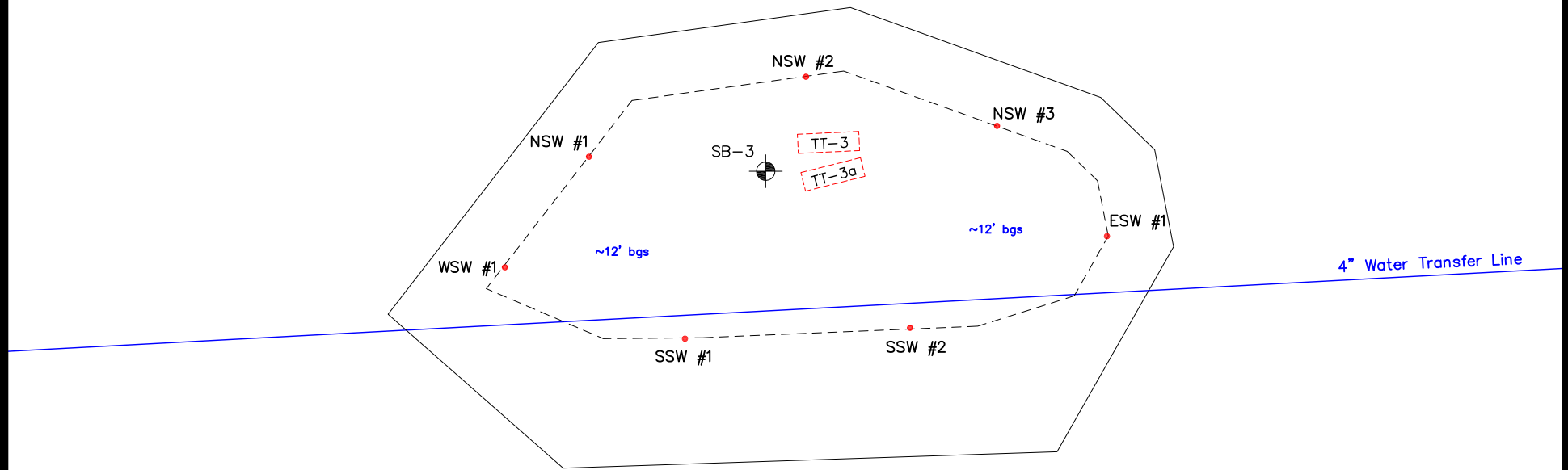
Legend:

- | | | | |
|-------|-------------------|-------|--------------------|
| — | Excavation Extent | - - - | Bench |
| • | Sample Location | — | Proposed Soil Bore |
| - - - | Test Trench | — | Buried Pipeline |

Figure 2b
Site & Sample Location Map
Mewbourne Oil Company
QPQASU #10 Flow Line
Western Release
Lea County, New Mexico

Basin Environmental Services

Prep By: JWL	Checked By: BJA
June 5, 2014	Scale 1"=20'



Legend:

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|--|-------------------|--|--------------------|
| | Excavation Extent | | Bench |
| | Sample Location | | Proposed Soil Bore |
| | Test Trench | | Buried Pipeline |

Figure 2c
Site & Sample Location Map
Mewbourne Oil Company
QPQASU #10 Flow Line
Eastern Release
Lea County, New Mexico

Basin Environmental Services

Prep By: JWL	Checked By: BJA
June 5, 2014	Scale 1"=30'

TABLE 1a
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - PRIMARY RELEASE

MEWBOURNE OIL COMPANY
QPQASU #10 FLOW LINE
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: 1RP-_____

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TT-1 @ 2'	2'	5/28/2014	Excavated	-	-	-	-	-	3,610	32,100	6,400	42,110	992
TT-1 @ 6'	6'	5/28/2014	Excavated	-	-	-	-	-	8,450	53,000	9,920	71,370	12,400
TT-1 @ 10'	10'	5/28/2014	Excavated	8.18	38.9	32.4	95.9	175	9,170	34,000	6,760	49,930	10,500
TT-1 @ 14'	14'	5/28/2014	In-Situ	6.15	31.7	32.7	95.8	166	8,300	23,100	4,690	36,090	5,600
NSW #1 (Primary)	5'	7/8/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
WSW #1 (Primary)	5'	7/8/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SSW #1 (Primary)	8'	7/8/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
Floor #1 (Primary)	8'	7/8/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	24.1	<10.0	24.1	96.0
Test Floor A (Primary)	12'	7/8/2014	In-Situ	<0.500	<0.500	1.99	5.10	7.09	434	3,320	459	4,213	192
NSW #2 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
NSW #3 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
ESW #1 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
ESW #2 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
WSW #2 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SSW #2 (Primary)	8'	8/5/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	288
TT-1a @ 20'	20'	8/6/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	19.9	166	33.2	219	7,400
TT-1a @ 30'	30'	8/6/2014	In-Situ	<0.500	2.29	3.45	8.58	14.3	593	3,880	714	5,187	4,960
SB-1 @ 40'	40'	1/12/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	8,800
SB-1 @ 50'	50'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	8,400
SB-1 @ 60'	60'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	4,560
SB-1 @ 70'	70'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	496
SB-1 @ 75'	75'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	240
SB-1 @ 80'	80'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	160
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

TABLE 1b
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - WESTERN RELEASE

MEWBOURNE OIL COMPANY
QPQASU #10 FLOW LINE
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: 1RP-_____

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TT-2 @ 2'	2'	5/27/2014	Excavated	-	-	-	-	-	751	23,400	5,960	30,111	48
TT-2 @ 6'	6'	5/27/2014	Excavated	-	-	-	-	-	605	8,050	2,050	10,705	224
TT-2 @ 10'	10'	5/27/2014	In-Situ	<0.200	<0.200	2.32	4.93	7.25	297	5,370	1,240	6,907	912
TT-2 @ 14'	14'	5/27/2014	In-Situ	<1.00	<1.00	2.10	5.87	7.97	618	9,060	2,110	11,788	9,860
TT-2b @ 15'	15'	7/8/2014	In-Situ	3.59	21.4	20.90	57.9	104	2,290	5,860	879	9,029	6,160
TT-2b @ 20'	20'	7/8/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	12.2	108	17.0	137	2,440
WSW #1 (Western)	7'	7/17/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
SSW #1 (Western)	7'	7/17/2014	Excavated	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,220
NSW #1 (Western)	7'	7/21/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
NSW #2 (Western)	7'	7/21/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	96.0
SSW #2 (Western)	7'	7/21/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SSW #3 (Western)	7'	7/23/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	320
NWS #3 (Western)	7'	7/23/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SSW #1B (Western)	7'	7/30/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
ESW #1 (Western)	7'	7/30/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

TABLE 1c
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - EASTERN RELEASE

MEWBOURNE OIL COMPANY
QPQASU #10 FLOW LINE
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: 1RP-_____

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 Cl-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
TT-3 @ 2'	2'	5/27/2014	Excavated	-	-	-	-	-	297	9,290	2,800	12,387	272
TT-3 @ 6'	6'	5/27/2014	Excavated	-	-	-	-	-	1,260	22,000	4,880	28,140	112
TT-3 @ 10'	10'	5/27/2014	Excavated	<0.100	0.193	0.632	2.29	3.11	227	2,230	519	2,976	5,120
TT-3 @ 14'	14'	5/27/2014	In-Situ	4.49	28.8	27.1	80.9	141	6,310	21,500	4,410	32,220	144
NSW #1 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
NSW #2 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
NSW #3 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
WSW #1 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
ESW #1 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	64.0
SSW #1 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	416
SSW #2 (Eastern)	8'	9/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	528
TT-3b @ 18'	18'	9/15/2014	In-Situ	<1.00	2.49	3.46	14.7	20.6	11,80	5,140	439	6,759	144
TT-3b @ 24'	24'	9/15/2014	In-Situ	<0.200	0.495	0.737	3.89	5.12	272	2,240	374	2,886	896
SB-3 @ 25'	25'	1/12/2015	In-Situ	<1.00	3.79	5.38	21.8	31.0	1,560	10,200	1,420	11,680	<16.0
SB-3 @ 35'	35'	1/12/2015	In-Situ	-	-	-	-	-	27.8	601	99.3	728	<16.0
SB-3 @ 45'	45'	1/12/2015	In-Situ	-	-	-	-	-	15.6	465	69.1	550	<16.0
SB-3 @ 50'	50'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	26.7	<10.0	26.7	<16.0
SB-3 @ 55'	55'	1/12/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

HOBBS OCD

MAY 19 2014

Form C-141
Revised August 8, 2011

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

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Mewbourne Oil Company	Contact: Zack Thomas
Address: PO Box 5270 Hobbs NM 88241	Telephone No. 575-393-5905
Facility Name: QPQASU #10	Facility Type: Producing Oil Well
Surface Owner: BLM	Mineral Owner: BLM
API No. 30-025-28908	

LOCATION OF RELEASE

Unit Letter O	Section 21	Township 18S	Range 32E	Feet from the 660'	North/South Line South	Feet from the 1650'	East/West Line East	County Lca
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	------------------------	------------------------	---------------

Latitude 32.726192 Longitude -103.761283

NATURE OF RELEASE

Type of Release: Oil/ Produced Water	Volume of Release: Unknown	Volume Recovered: 500 bbls (Oil)/ 0 bbls (PW)
Source of Release: Flow Line	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 5-15-14 1:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Geoff Leking, Jim Amos	
By Whom? Zack Thomas	Date and Hour: 5-15-14 5:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Napth to H₂O 7100'

Describe Cause of Problem and Remedial Action Taken.*

Failure of a poly flow line resulted in the release of an unknown volume of a mixture of crude oil and produced water. Following the discovery of the release, the well was shut in and the flow line was repaired. A vacuum truck was used to recover approximately 500 bbls of free standing fluid.

Describe Area Affected and Cleanup Action Taken.*

The release impacted an area of pasture land measuring approximately 5,500 sq. ft. Saturated soil will be scrapped up and placed on a poly liner pending BLM Arch and One-Call clearance. The release occurred adjacent to two historical releases which will be remediated in the same manner. Final remediation will be conducted in accordance with the NMOCD's Guidelines for Remediation of Spills, Leaks and Releases.

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: <i>Z. Thomas</i>	OIL CONSERVATION DIVISION	
Printed Name: Zack Thomas	Approved by Environmental Specialist:	
Title: Environmental Rep.	Approval Date: 7-7-14	Expiration Date: 9-10-14
E-mail Address: zthomas@mewbourne.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-19-14	Phone: 575-602-2188	7-14-3147

* Attach Additional Sheets If Necessary

Site Samples required. Delinquent
remediate area as per NMOCD
guide. Submit final C-141 by
9-10-14

03rid 14744
170 1418 855194
P+0 1418 855412

JUL 09 2014

5/19



Photograph of the Initial Primary Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Initial Primary Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Primary Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Primary Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the advancement of delineation trench in the Primary Release excavation at the QPQASU #10 Remediation Site.



Photograph of the installation of an NMOCD-approved liner in the Primary Release excavation at the QPQASU #10 Remediation Site.



Photograph of backfilling activities related to the Primary Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Primary Release Site after backfilling and seeding at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Initial Western Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Initial Western Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Western Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Western Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the advancement of delineation trench in the Western Release excavation at the QPQASU #10 Remediation Site.



Photograph of the installation of an NMOCD-approved liner in the Western Release excavation at the QPQASU #10 Remediation Site.



Photograph of backfilling activities related to the Western Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Western Release Site after backfilling and seeding at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Initial Eastern Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the Initial Eastern Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Eastern Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of excavation activities related to the Eastern Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of the advancement of delineation trench in the Eastern Release excavation at the QPQASU #10 Remediation Site.



Photograph of the installation of an NMOCD-approved liner in the Eastern Release excavation at the QPQASU #10 Remediation Site.



Photograph of the installation of 8" PVC casing conduits at the QPQASU #10 Flow Line Remediation Site.



Photograph of backfilling activities related to the Eastern Release at the QPQASU #10 Flow Line Remediation Site.



Photograph of soil boring activities at the QPQASU #10 Flow Line Remediation Site.

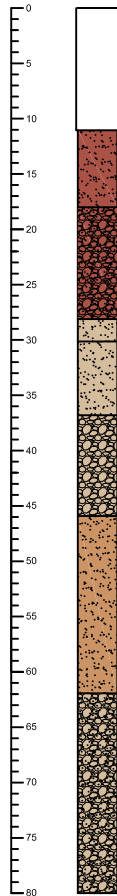


Photograph of the advancement of environmental soil bores at the QPQASU #10 Flow Line Remediation Site.

Soil Boring SB-1

Depth
Below
Ground
Surface

Soil
Column



Soil Description

0' - 11' - Open - 8" PVC Conduit

11' - 18' - Red Fine Sand

18' - 28' - Red Fine Sand - P Gravel

28' - 30' - Tan Fine Sand - Cement Sandstone

30' - 37' - Tan Silty Sand - Sandstone

37' - 46' - P Gravel

46' - 62' - Dark Tan Very Fine Sand - Cement - Sandstone

62' - 80' - Light Tan Fine Sand - Gravel

Date Drilled January 12, 2015
Thickness of Bentonite Seal 78 Ft
Depth of Exploratory Boring 80 Ft bgs
Depth to Groundwater N/A
Ground Water Elevation N/A

▼ Indicates the PSH level measured on N/A
▼ Indicates the groundwater level measured on N/A

Completion Notes

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-1

Mewbourne Oil Company
QPQASU #10 Flow Line
Lea County, New Mexico

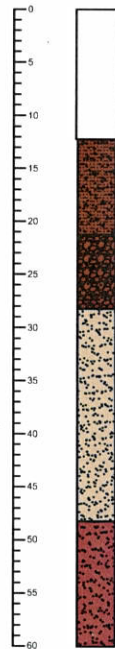
Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Prep By: JWL	Checked By: BJA
February 2, 2015	

Soil Boring SB-3

Depth
Below
Ground
Surface

Soil
Column



Soil Description

0' - 12' - Open - 8" PVC Conduit

12' - 21' - Brown Sandy Clay

21' - 29' - Brown Fine Sand - Gravel Cement

29' - 47' - Tan Very Fine Sand - Sandstone

47' - 60' - Red Very Fine Sand - Cement Sandstone

Date Drilled January 12, 2015
Thickness of Bentonite Seal 58 Ft
Depth of Exploratory Boring 60 Ft bgs
Depth to Groundwater N/A
Ground Water Elevation N/A

▼ Indicates the PSH level measured on N/A
▼ Indicates the groundwater level measured on N/A

Completion Notes

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-3

Mewbourne Oil Company
QPQASU #10 Flow Line
Lea County, New Mexico

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Prep By: JWL	Checked By: BJA
February 2, 2015	



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 05, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 05/29/14 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/28/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-1 @ 2' (H401648-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	06/04/2014	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	3610	200	06/03/2014	ND	214	107	200	5.51		
DRO >C10-C28	32100	200	06/03/2014	ND	226	113	200	7.38		
EXT DRO >C28-C35	6400	200	06/03/2014	ND						
Surrogate: 1-Chlorooctane	229 %	65.2-140								
Surrogate: 1-Chlorooctadecane	602 %	63.6-154								

Sample ID: TT-1 @ 6' (H401648-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12400	16.0	06/04/2014	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	8450	200	06/03/2014	ND	214	107	200	5.51		
DRO >C10-C28	53000	200	06/03/2014	ND	226	113	200	7.38		
EXT DRO >C28-C35	9920	200	06/03/2014	ND						
Surrogate: 1-Chlorooctane	443 %	65.2-140								
Surrogate: 1-Chlorooctadecane	984 %	63.6-154								

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/28/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-1 @ 10' (H401648-03)

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	8.18	5.00	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	38.9	10.0	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	32.4	10.0	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	95.9	30.0	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	175	55.0	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10500	16.0	06/04/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	9170	200	06/03/2014	ND	214	107	200	5.51	
DRO >C10-C28	34000	200	06/03/2014	ND	226	113	200	7.38	
EXT DRO >C28-C35	6760	200	06/03/2014	ND					

Surrogate: 1-Chlorooctane 328 % 65.2-140

Surrogate: 1-Chlorooctadecane 683 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 JOEL LOWRY
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 05/29/2014
 Reported: 06/05/2014
 Project Name: QPQASU #10
 Project Number: NONE GIVEN
 Project Location: LEA COUNTY, NM

 Sampling Date: 05/28/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT-1 @ 14' (H401648-04)

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.15	5.00	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	31.7	5.00	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	32.7	5.00	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	95.8	15.0	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	166	30.0	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5600	16.0	06/04/2014	ND	400	100	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	8300	200	06/03/2014	ND	214	107	200	5.51	
DRO >C10-C28	23100	200	06/03/2014	ND	226	113	200	7.38	
EXT DRO >C28-C35	4690	200	06/03/2014	ND					

Surrogate: 1-Chlorooctane 248 % 65.2-140

Surrogate: 1-Chlorooctadecane 419 % 63.6-154

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Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-2 @ 2' (H401648-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/04/2014	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	751	200	06/03/2014	ND	187	93.4	200	0.381		
DRO >C10-C28	23400	200	06/03/2014	ND	205	103	200	1.81		
EXT DRO >C28-C35	5960	200	06/03/2014	ND						
Surrogate: 1-Chlorooctane	161 %	65.2-140								
Surrogate: 1-Chlorooctadecane	492 %	63.6-154								

Sample ID: TT-2 @ 6' (H401648-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	06/04/2014	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	605	200	06/03/2014	ND	187	93.4	200	0.381		
DRO >C10-C28	8050	200	06/03/2014	ND	205	103	200	1.81		
EXT DRO >C28-C35	2050	200	06/03/2014	ND						
Surrogate: 1-Chlorooctane										
	137 %	65.2-140								
Surrogate: 1-Chlorooctadecane										
	178 %	63.6-154								

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-2 @ 10' (H401648-07)

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<0.200	0.200	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	2.32	0.200	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	4.93	0.600	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTEX	7.25	1.20	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 89.5-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	06/04/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	297	100	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	5370	100	06/03/2014	ND	205	103	200	1.81	
EXT DRO >C28-C35	1240	100	06/03/2014	ND					

Surrogate: 1-Chlorooctane 129 % 65.2-140

Surrogate: 1-Chlorooctadecane 179 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-2 @ 14' (H401648-08)

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<1.00	1.00	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	2.10	1.00	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	5.87	3.00	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	7.97	6.00	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9860	16.0	06/04/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	618	100	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	9060	100	06/03/2014	ND	205	103	200	1.81	
EXT DRO >C28-C35	2110	100	06/03/2014	ND					

Surrogate: 1-Chlorooctane 135 % 65.2-140

Surrogate: 1-Chlorooctadecane 213 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3 @ 2' (H401648-09)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	06/04/2014	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	297	200	06/03/2014	ND	187	93.4	200	0.381		
DRO >C10-C28	9290	200	06/03/2014	ND	205	103	200	1.81		
EXT DRO >C28-C35	2800	200	06/03/2014	ND						
Surrogate: 1-Chlorooctane	100 %	65.2-140								
Surrogate: 1-Chlorooctadecane	228 %	63.6-154								

Sample ID: TT-3 @ 6' (H401648-10)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2014	ND	416	104	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1260	200	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	22000	200	06/03/2014	ND	205	103	200	1.81	
EXT DRO >C28-C35	4880	200	06/03/2014	ND					
Surrogate: 1-Chlorooctane	175 %	65.2-140							
Surrogate: 1-Chlorooctadecane	455 %	63.6-154							

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Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3 @ 10' (H401648-11)

BTX 8021B		mg/L		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	0.193	0.100	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	0.632	0.100	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	2.29	0.300	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	3.11	0.600	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 140 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	06/04/2014	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Surrogate: 1-Chlorooctane 211 % 65.2-140

Surrogate: 1-Chlorooctadecane 233 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 05/29/2014
Reported: 06/05/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 05/27/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3 @ 14' (H401648-12)

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	4.49	2.50	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	28.8	5.00	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	27.1	5.00	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	80.9	15.0	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	141	27.5	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/04/2014	ND	416	104	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	6310	100	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	21500	100	06/03/2014	ND	205	103	200	1.81	
EXT DRO >C28-C35	4410	100	06/03/2014	ND					

Surrogate: 1-Chlorooctane 376 % 65.2-140

Surrogate: 1-Chlorooctadecane 433 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

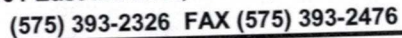
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Celey D. Keene, Lab Director/Quality Manager



Page 12 of 14

Please email results to pm@basinenv.com,
& zthomas@Mewbourne.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Page 13 of 14

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 09, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/08/14 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/08/2014
Reported: 07/09/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/07/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-2B @ 15' (H402062-01)

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.59	2.00	07/08/2014	ND	1.85	92.6	2.00	7.12	
Toluene*	21.4	2.00	07/08/2014	ND	1.94	97.2	2.00	7.57	
Ethylbenzene*	20.9	2.00	07/08/2014	ND	1.72	86.2	2.00	8.12	
Total Xylenes*	57.9	6.00	07/08/2014	ND	5.35	89.2	6.00	7.60	
Total BTX	104	12.0	07/08/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6160	16.0	07/08/2014	ND	416	104	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2290	200	07/08/2014	ND	181	90.4	200	3.59		
DRO >C10-C28	5860	200	07/08/2014	ND	207	103	200	4.68		
EXT DRO >C28-C35	879	200	07/08/2014	ND						

Surrogate: 1-Chlorooctane 177 % 65.2-140

Surrogate: 1-Chlorooctadecane 192 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/08/2014
Reported: 07/09/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/07/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-2B @ 20' (H402062-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/08/2014	ND	1.85	92.6	2.00	7.12		
Toluene*	<0.050	0.050	07/08/2014	ND	1.94	97.2	2.00	7.57		
Ethylbenzene*	<0.050	0.050	07/08/2014	ND	1.72	86.2	2.00	8.12		
Total Xylenes*	<0.150	0.150	07/08/2014	ND	5.35	89.2	6.00	7.60		
Total BTEx	<0.300	0.300	07/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	07/08/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12.2	10.0	07/08/2014	ND	181	90.4	200	3.59	
DRO >C10-C28	108	10.0	07/08/2014	ND	207	103	200	4.68	
EXT DRO >C28-C35	17.0	10.0	07/08/2014	ND					

Surrogate: 1-Chlorooctane 128 % 65.2-140

Surrogate: 1-Chlorooctadecane 149 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

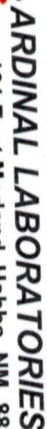
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Celey D. Keene, Lab Director/Quality Manager



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h54



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 15, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/09/14 10:41.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/09/2014
Reported: 07/15/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: NSW #1 (PRIMARY) (H402082-01)

BTEX 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2014	ND	1.89	94.3	2.00	21.5	
Toluene*	<0.050	0.050	07/11/2014	ND	1.89	94.7	2.00	21.9	
Ethylbenzene*	<0.050	0.050	07/11/2014	ND	1.88	93.8	2.00	22.4	
Total Xylenes*	<0.150	0.150	07/11/2014	ND	5.76	96.0	6.00	20.7	
Total BTEX	<0.300	0.300	07/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/11/2014	ND	400	100	400	7.69	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2014	ND	184	92.0	200	1.00	
DRO >C10-C28	<10.0	10.0	07/11/2014	ND	198	99.0	200	0.155	
EXT DRO >C28-C35	<10.0	10.0	07/11/2014	ND					

Surrogate: 1-Chlorooctane 89.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.8 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/09/2014
Reported: 07/15/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: WSW #1 (PRIMARY) (H402082-02)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2014	ND	1.89	94.3	2.00	21.5	
Toluene*	<0.050	0.050	07/11/2014	ND	1.89	94.7	2.00	21.9	
Ethylbenzene*	<0.050	0.050	07/11/2014	ND	1.88	93.8	2.00	22.4	
Total Xylenes*	<0.150	0.150	07/11/2014	ND	5.76	96.0	6.00	20.7	
Total BTEX	<0.300	0.300	07/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/11/2014	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2014	ND	184	92.0	200	1.00	
DRO >C10-C28	<10.0	10.0	07/11/2014	ND	198	99.0	200	0.155	
EXT DRO >C28-C35	<10.0	10.0	07/11/2014	ND					

Surrogate: 1-Chlorooctane 92.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.8 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/09/2014
Reported: 07/15/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SSW #1 (PRIMARY) (H402082-03)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/11/2014	ND	1.58	79.0	2.00	17.6		
Toluene*	<0.050	0.050	07/11/2014	ND	1.58	79.0	2.00	17.8		
Ethylbenzene*	<0.050	0.050	07/11/2014	ND	1.58	79.1	2.00	18.4		
Total Xylenes*	<0.150	0.150	07/11/2014	ND	4.80	80.0	6.00	18.2		
Total BTX	<0.300	0.300	07/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/15/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2014	ND	184	92.0	200	1.00	
DRO >C10-C28	<10.0	10.0	07/11/2014	ND	198	99.0	200	0.155	
EXT DRO >C28-C35	<10.0	10.0	07/11/2014	ND					

Surrogate: 1-Chlorooctane 91.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 94.2 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/09/2014
Reported: 07/15/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: FLOOR #1 (PRIMARY) (H402082-04)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/11/2014	ND	1.58	79.0	2.00	17.6		
Toluene*	<0.050	0.050	07/11/2014	ND	1.58	79.0	2.00	17.8		
Ethylbenzene*	<0.050	0.050	07/11/2014	ND	1.58	79.1	2.00	18.4		
Total Xylenes*	<0.150	0.150	07/11/2014	ND	4.80	80.0	6.00	18.2		
Total BTEx	<0.300	0.300	07/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	07/15/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2014	ND	184	92.0	200	1.00	
DRO >C10-C28	24.1	10.0	07/11/2014	ND	198	99.0	200	0.155	
EXT DRO >C28-C35	<10.0	10.0	07/11/2014	ND					

Surrogate: 1-Chlorooctane 96.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/09/2014
Reported: 07/15/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/08/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: TEST FLOOR A (PRIMARY) (H402082-05)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	07/11/2014	ND	1.58	79.0	2.00	17.6	
Toluene*	<0.500	0.500	07/11/2014	ND	1.58	79.0	2.00	17.8	
Ethylbenzene*	1.99	0.500	07/11/2014	ND	1.58	79.1	2.00	18.4	
Total Xylenes*	5.10	1.50	07/11/2014	ND	4.80	80.0	6.00	18.2	
Total BTEx	7.09	3.00	07/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/15/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	434	100	07/11/2014	ND	184	92.0	200	1.00	
DRO >C10-C28	3320	100	07/11/2014	ND	198	99.0	200	0.155	
EXT DRO >C28-C35	459	100	07/11/2014	ND					

Surrogate: 1-Chlorooctane 120 % 65.2-140

Surrogate: 1-Chlorooctadecane 146 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC		P.O. #:		ANALYSIS REQUEST							
Project Manager: Joel Lowry		Company: Mewbourne Oil Co									
Address: P.O. Box 301		Attn: Zack Thomas									
City: Lovington		Address: PO Box 5270									
Phone #: (575)396-2378		City: Hobbs									
Fax #: (575)396-1429		State: NM									
Project #:		Zip: 88241									
Project Name: QPOASU #10 Flowline		Phone #: 575-393-5905									
Project Location: Eddy Co., NM		Fax #:									
Sampler Name: <u>Joel Lowry</u>											
FOR LAB USE ONLY											
Lab I.D. <u>H40282</u>	Sample I.D.	(G)RAB OR (C)OMP.	MATRIX	PRESERV	SAMPLING	Chloride					
		# CONTAINERS				TPH (8015M)					
		GROUNDWATER				BTX (8021B)					
		WASTEWATER				HOLD FOR TPH					
		SOIL				RUSH					
Oil											
Sludge											
Other :											
ACID/BASE:											
ICE / COOL											
Other :											
DATE	TIME										
7/9/14	1100	X	X	X							
7/9/14	1110	X	X	X							
7/9/14	1120	X	X	X							
7/9/14	1130	X	X	X							
7/9/14	1140	X	X	X							

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Relinquished By: <u>Joel Lowry</u>	Date: <u>7/14/14</u>	Received By: <u>[Signature]</u>	Time: <u>10:41</u>
Relinquished By:	Date:	Received By:	Time:

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	(Initials)

FORM-006
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

Please email results to pm@basinenr.com,
zthomas@mewbourne.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 24, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/18/14 9:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/18/2014
Reported: 07/24/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: WSW #1 (WESTERN) (H402192-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/23/2014	ND	2.41	120	2.00	2.72	
Toluene*	<0.050	0.050	07/23/2014	ND	2.20	110	2.00	3.49	
Ethylbenzene*	<0.050	0.050	07/23/2014	ND	2.45	122	2.00	4.14	
Total Xylenes*	<0.150	0.150	07/23/2014	ND	7.86	131	6.00	4.44	
Total BTEX	<0.300	0.300	07/23/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/22/2014	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2014	ND	174	86.9	200	5.90	
DRO >C10-C28	<10.0	10.0	07/18/2014	ND	187	93.5	200	6.11	
EXT DRO >C28-C35	<10.0	10.0	07/18/2014	ND					

Surrogate: 1-Chlorooctane 108 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/18/2014
Reported: 07/24/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: SSW #1 (WESTERN) (H402192-02)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/23/2014	ND	2.41	120	2.00	2.72		
Toluene*	<0.050	0.050	07/23/2014	ND	2.20	110	2.00	3.49		
Ethylbenzene*	<0.050	0.050	07/23/2014	ND	2.45	122	2.00	4.14		
Total Xylenes*	<0.150	0.150	07/23/2014	ND	7.86	131	6.00	4.44		
Total BTEx	<0.300	0.300	07/23/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1220	16.0	07/22/2014	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2014	ND	174	86.9	200	5.90	
DRO >C10-C28	<10.0	10.0	07/18/2014	ND	187	93.5	200	6.11	
EXT DRO >C28-C35	<10.0	10.0	07/18/2014	ND					

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

ANALYSIS REQUEST

Page 5 of 5



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 28, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/22/14 11:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Hope S. Moreno". The signature is written in a cursive, flowing style.

Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/22/2014
Reported: 07/28/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/21/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #1 (WESTERN) (H402217-01)

BTEX 8021B			mg/kg		Analyzed By: CK/				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/25/2014	ND	1.87	93.7	2.00	1.24	
Toluene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	0.842	
Ethylbenzene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	1.33	
Total Xylenes*	<0.150	0.150	07/25/2014	ND	5.92	98.6	6.00	2.11	
Total BTEX	<0.300	0.300	07/25/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/23/2014	ND	400	100	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/23/2014	ND	192	96.1	200	8.16	
DRO >C10-C28	<10.0	10.0	07/23/2014	ND	208	104	200	6.40	
EXT DRO >C28-C35	<10.0	10.0	07/23/2014	ND					


Surrogate: 1-Chlorooctane 123 % 65.2-140

Surrogate: 1-Chlorooctadecane 135 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/22/2014
Reported: 07/28/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/21/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #2 (WESTERN) (H402217-02)

BTEx 8021B		mg/kg		Analyzed By: CK/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/25/2014	ND	1.87	93.7	2.00	1.24		
Toluene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	0.842		
Ethylbenzene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	1.33		
Total Xylenes*	<0.150	0.150	07/25/2014	ND	5.92	98.6	6.00	2.11		
Total BTEX	<0.300	0.300	07/25/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	07/23/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/23/2014	ND	192	96.1	200	8.16	
DRO >C10-C28	<10.0	10.0	07/23/2014	ND	208	104	200	6.40	
EXT DRO >C28-C35	<10.0	10.0	07/23/2014	ND					

Surrogate: 1-Chlorooctane 128 % 65.2-140

Surrogate: 1-Chlorooctadecane 140 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 JOEL LOWRY
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 07/22/2014
 Reported: 07/28/2014
 Project Name: QPQASU #10
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/21/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SSW #2 (WESTERN) (H402217-03)

BTEx 8021B		mg/kg		Analyzed By: CK/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/25/2014	ND	1.87	93.7	2.00	1.24		
Toluene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	0.842		
Ethylbenzene*	<0.050	0.050	07/25/2014	ND	1.87	93.5	2.00	1.33		
Total Xylenes*	<0.150	0.150	07/25/2014	ND	5.92	98.6	6.00	2.11		
Total BTEX	<0.300	0.300	07/25/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/23/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/23/2014	ND	192	96.1	200	8.16	
DRO >C10-C28	<10.0	10.0	07/23/2014	ND	208	104	200	6.40	
EXT DRO >C28-C35	<10.0	10.0	07/23/2014	ND					

Surrogate: 1-Chlorooctane 115 % 65.2-140

Surrogate: 1-Chlorooctadecane 125 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Caley D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

ORDINAL LABORATORIES

DIVINE LABORatories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 31, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/24/14 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/24/2014
Reported: 07/31/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/23/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SSW #3 (WESTERN) (H402267-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2014	ND	1.67	83.5	2.00	2.10	
Toluene*	<0.050	0.050	07/27/2014	ND	1.63	81.4	2.00	2.39	
Ethylbenzene*	<0.050	0.050	07/27/2014	ND	1.64	81.9	2.00	2.42	
Total Xylenes*	<0.150	0.150	07/27/2014	ND	5.31	88.4	6.00	2.84	
Total BTEX	<0.300	0.300	07/27/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/29/2014	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	176	88.2	200	2.52	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	194	97.0	200	3.54	
EXT DRO >C28-C35	<10.0	10.0	07/25/2014	ND					

Surrogate: 1-Chlorooctane 119 % 65.2-140

Surrogate: 1-Chlorooctadecane 133 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/24/2014
Reported: 07/31/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/23/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #3 (WESTERN) (H402267-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2014	ND	1.67	83.5	2.00	2.10	
Toluene*	<0.050	0.050	07/27/2014	ND	1.63	81.4	2.00	2.39	
Ethylbenzene*	<0.050	0.050	07/27/2014	ND	1.64	81.9	2.00	2.42	
Total Xylenes*	<0.150	0.150	07/27/2014	ND	5.31	88.4	6.00	2.84	
Total BTEx	<0.300	0.300	07/27/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/29/2014	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	176	88.2	200	2.52	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	194	97.0	200	3.54	
EXT DRO >C28-C35	<10.0	10.0	07/25/2014	ND					

Surrogate: 1-Chlorooctane 118 % 65.2-140

Surrogate: 1-Chlorooctadecane 135 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager



BILL TO

ANALYSIS REQUEST

Relinquished By: _____, releasing without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated causes of action, and the completion of the applicable

July 31, 2014

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 07/30/14 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

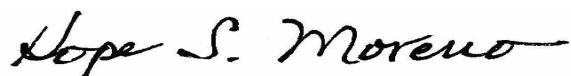
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 07/30/2014
Reported: 07/31/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 07/30/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: SSW #1B (WESTERN) (H402350-01)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2014	ND	1.75	87.3	2.00	2.83	
Toluene*	<0.050	0.050	07/31/2014	ND	1.78	89.1	2.00	5.77	
Ethylbenzene*	<0.050	0.050	07/31/2014	ND	1.77	88.6	2.00	4.92	
Total Xylenes*	<0.150	0.150	07/31/2014	ND	5.38	89.6	6.00	5.16	
Total BTEX	<0.300	0.300	07/31/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.9 % 89.4-126

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/31/2014	ND	416	104	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/31/2014	ND	155	77.3	200	7.73	
DRO >C10-C28	<10.0	10.0	07/31/2014	ND	167	83.6	200	6.45	
EXT DRO >C28-C35	<10.0	10.0	07/31/2014	ND					

Surrogate: 1-Chlorooctane 88.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.1 % 63.6-154

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 BEN J. ARGUIJO
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 07/30/2014
 Reported: 07/31/2014
 Project Name: QPQASU #10
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 07/30/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: ESW #1 (WESTERN) (H402350-02)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2014	ND	1.75	87.3	2.00	2.83		
Toluene*	<0.050	0.050	07/31/2014	ND	1.78	89.1	2.00	5.77		
Ethylbenzene*	<0.050	0.050	07/31/2014	ND	1.77	88.6	2.00	4.92		
Total Xylenes*	<0.150	0.150	07/31/2014	ND	5.38	89.6	6.00	5.16		
Total BTEX	<0.300	0.300	07/31/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.9 % 89.4-126

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AP			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	<16.0	16.0	07/31/2014	ND	416	104	400	0.00			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/31/2014	ND	155	77.3	200	7.73		
DRO >C10-C28	<10.0	10.0	07/31/2014	ND	167	83.6	200	6.45		
EXT DRO >C28-C35	<10.0	10.0	07/31/2014	ND						

Surrogate: 1-Chlorooctane 82.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 85.6 % 63.6-154

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
A-01	Surrogate recovery marginally low. Target analytes within acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager



Page 5 of 5

(575) 393-2326 FAX (575) 393-2476

[illegible]

August 12, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 08/06/14 8:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/06/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #2 (PRIMARY) (H402407-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19	
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24	
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21	
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31	
Total BTEX	<0.300	0.300	08/08/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/08/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 89.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/06/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #3 (PRIMARY) (H402407-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19		
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24		
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21		
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31		
Total BTX	<0.300	0.300	08/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/08/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 93.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/06/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: ESW #1 (PRIMARY) (H402407-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19		
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24		
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21		
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31		
Total BTEx	<0.300	0.300	08/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/08/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 93.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/06/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: ESW #2 (PRIMARY) (H402407-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19	
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24	
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21	
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31	
Total BTEX	<0.300	0.300	08/08/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/07/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 JOEL LOWRY
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 08/06/2014
 Reported: 08/12/2014
 Project Name: QPQASU #10
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 08/05/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: WSW #2 (PRIMARY) (H402407-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19	
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24	
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21	
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31	
Total BTX	<0.300	0.300	08/08/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/07/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.0 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/06/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SSW #2 (PRIMARY) (H402407-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/08/2014	ND	1.90	95.2	2.00	8.19		
Toluene*	<0.050	0.050	08/08/2014	ND	1.94	97.0	2.00	8.24		
Ethylbenzene*	<0.050	0.050	08/08/2014	ND	1.96	98.0	2.00	8.21		
Total Xylenes*	<0.150	0.150	08/08/2014	ND	6.10	102	6.00	7.31		
Total BTEx	<0.300	0.300	08/08/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	08/07/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/07/2014	10.9	178	88.8	200	4.58	
DRO >C10-C28	<10.0	10.0	08/07/2014	ND	182	90.8	200	7.33	
EXT DRO >C28-C35	<10.0	10.0	08/07/2014	ND					

Surrogate: 1-Chlorooctane 86.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.2 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

August 12, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 08/07/14 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 08/07/2014
Reported: 08/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 08/06/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-1A @ 20' (H402429-01)

BTX 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/11/2014	ND	1.95	97.4	2.00	6.89	
Toluene*	<0.050	0.050	08/11/2014	ND	1.98	99.1	2.00	6.53	
Ethylbenzene*	<0.050	0.050	08/11/2014	ND	1.99	99.5	2.00	6.93	
Total Xylenes*	<0.150	0.150	08/11/2014	ND	6.14	102	6.00	6.72	
Total BTX	<0.300	0.300	08/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7400	16.0	08/11/2014	ND	400	100	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	19.9	10.0	08/08/2014	ND	171	85.5	200	8.57	
DRO >C10-C28	166	10.0	08/08/2014	ND	180	89.9	200	9.44	
EXT DRO >C28-C35	33.2	10.0	08/08/2014	ND					

Surrogate: 1-Chlorooctane 87.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.9 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 JOEL LOWRY
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 08/07/2014
 Reported: 08/12/2014
 Project Name: QPQASU #10
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 08/06/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT - 1A @ 30' (H402429-02)

BTEx 8021B		mg/kg		Analyzed By: CK				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	08/11/2014	ND	1.95	97.4	2.00	6.89	
Toluene*	2.29	0.500	08/11/2014	ND	1.98	99.1	2.00	6.53	
Ethylbenzene*	3.45	0.500	08/11/2014	ND	1.99	99.5	2.00	6.93	
Total Xylenes*	8.58	1.50	08/11/2014	ND	6.14	102	6.00	6.72	
Total BTEX	14.3	3.00	08/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 143 % 89.4-126

Chloride, SM4500Cl-B			mg/kg					Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	08/11/2014	ND	400	100	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	593	50.0	08/08/2014	ND	171	85.5	200	8.57	
DRO >C10-C28	3880	50.0	08/08/2014	ND	180	89.9	200	9.44	
EXT DRO >C28-C35	714	50.0	08/08/2014	ND					

Surrogate: 1-Chlorooctane 121 % 65.2-140

Surrogate: 1-Chlorooctadecane 152 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Chloride	ANALYSIS REQUEST
PH (8015M)	
TEX (8021B)	
LD FOR TPH	
RUSH	

[illegible]

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Relinquished By:	Date: 8-7-14	Received By: Scott Jensen	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: 11:15			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: [Signature]	Date: 11:15	Received By: [Signature]	REMARKS:	
Time:				
Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)		
	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>			
Sampler - UPS - Bus - Other:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
	-3.2e			
Please email results to pm@basinenv.com, zthomas@mewbourne.com				

FORM-006
Revision 1.0

+ Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#54

September 12, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 09/11/14 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #1 (EASTERN) (H402824-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49	
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95	
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27	
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76	
Total BTEX	<0.300	0.300	09/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/12/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 123 % 63.6-154

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #2 (EASTERN) (H402824-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49		
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95		
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27		
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76		
Total BTX	<0.300	0.300	09/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	09/12/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 122 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #3 (EASTERN) (H402824-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49		
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95		
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27		
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76		
Total BTX	<0.300	0.300	09/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/12/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 115 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: WSW #1 (EASTERN) (H402824-04)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49		
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95		
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27		
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76		
Total BTX	<0.300	0.300	09/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/12/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 125 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: ESW #1 (EASTERN) (H402824-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49		
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95		
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27		
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76		
Total BTEx	<0.300	0.300	09/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	09/12/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 115 % 65.2-140

Surrogate: 1-Chlorooctadecane 126 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SSW #1 (EASTERN) (H402824-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49	
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95	
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27	
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76	
Total BTX	<0.300	0.300	09/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	09/12/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/11/2014
Reported: 09/12/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SSW #2 (EASTERN) (H402824-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/11/2014	ND	1.82	91.1	2.00	6.49		
Toluene*	<0.050	0.050	09/11/2014	ND	1.68	83.8	2.00	5.95		
Ethylbenzene*	<0.050	0.050	09/11/2014	ND	1.75	87.5	2.00	6.27		
Total Xylenes*	<0.150	0.150	09/11/2014	ND	5.34	89.0	6.00	6.76		
Total BTEx	<0.300	0.300	09/11/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	09/12/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/11/2014	ND	198	99.1	200	4.65	
DRO >C10-C28	<10.0	10.0	09/11/2014	ND	198	98.9	200	8.84	
EXT DRO >C28-C35	<10.0	10.0	09/11/2014	ND					

Surrogate: 1-Chlorooctane 117 % 65.2-140

Surrogate: 1-Chlorooctadecane 127 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

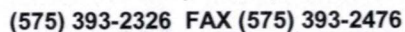
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Celey D. Keene, Lab Director/Quality Manager



Page 10 of 10

Please email results to pm@basinenv.com,
zthomas@mewbourne.com

September 22, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10

Enclosed are the results of analyses for samples received by the laboratory on 09/16/14 10:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/16/2014
Reported: 09/22/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/15/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3B @ 18' (H402864-01)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	09/17/2014	ND	1.73	86.6	2.00	8.13	
Toluene*	2.49	1.00	09/17/2014	ND	1.65	82.3	2.00	7.44	
Ethylbenzene*	3.46	1.00	09/17/2014	ND	1.55	77.3	2.00	8.98	
Total Xylenes*	14.7	3.00	09/17/2014	ND	4.55	75.8	6.00	9.70	
Total BTX	20.6	6.00	09/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	09/18/2014	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1180	200	09/17/2014	ND	227	113	200	4.96		
DRO >C10-C28	5140	200	09/17/2014	ND	191	95.6	200	11.0		
EXT DRO >C28-C35	439	200	09/17/2014	ND						

Surrogate: 1-Chlorooctane 146 % 65.2-140

Surrogate: 1-Chlorooctadecane 169 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 09/16/2014
Reported: 09/22/2014
Project Name: QPQASU #10
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 09/15/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3B @ 24' (H402864-02)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	09/17/2014	ND	1.73	86.6	2.00	8.13	
Toluene*	0.495	0.200	09/17/2014	ND	1.65	82.3	2.00	7.44	
Ethylbenzene*	0.737	0.200	09/17/2014	ND	1.55	77.3	2.00	8.98	
Total Xylenes*	3.89	0.600	09/17/2014	ND	4.55	75.8	6.00	9.70	
Total BTX	5.12	1.20	09/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	09/18/2014	ND	384	96.0	400	4.08	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	272	100	09/17/2014	ND	227	113	200	4.96	
DRO >C10-C28	2240	100	09/17/2014	ND	191	95.6	200	11.0	
EXT DRO >C28-C35	374	100	09/17/2014	ND					

Surrogate: 1-Chlorooctane 119 % 65.2-140

Surrogate: 1-Chlorooctadecane 136 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

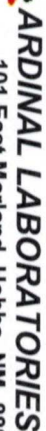
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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

#54



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 22, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: QPQASU #10 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/13/15 13:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/13/2015	Sampling Date:	01/12/2015
Reported:	01/22/2015	Sampling Type:	Soil
Project Name:	QPQASU #10 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: SB-1 @ 40' (H500122-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2015	ND	1.57	78.6	2.00	12.3	
Toluene*	<0.050	0.050	01/16/2015	ND	1.58	79.1	2.00	11.8	
Ethylbenzene*	<0.050	0.050	01/16/2015	ND	1.56	78.2	2.00	12.1	
Total Xylenes*	<0.150	0.150	01/16/2015	ND	4.69	78.2	6.00	12.7	
Total BTX	<0.300	0.300	01/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8800	16.0	01/15/2015	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					

Surrogate: 1-Chlorooctane 97.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 114 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-1 @ 50' (H500122-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
Surrogate: 1-Chlorooctane		94.5 %	47.2-157						
Surrogate: 1-Chlorooctadecane		110 %	52.1-176						

Sample ID: SB-1 @ 60' (H500122-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
Surrogate: 1-Chlorooctane		92.4 %	47.2-157						
Surrogate: 1-Chlorooctadecane		104 %	52.1-176						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-1 @ 70' (H500122-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
Surrogate: 1-Chlorooctane		89.2 %	47.2-157						
Surrogate: 1-Chlorooctadecane		96.3 %	52.1-176						

Sample ID: SB-1 @ 75' (H500122-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
Surrogate: 1-Chlorooctane		96.3 %	47.2-157						
Surrogate: 1-Chlorooctadecane		109 %	52.1-176						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-1 @ 80' (H500122-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/15/2015	ND	1.68	84.2	2.00	9.55		
Toluene*	<0.050	0.050	01/15/2015	ND	1.65	82.4	2.00	9.56		
Ethylbenzene*	<0.050	0.050	01/15/2015	ND	1.62	80.8	2.00	9.21		
Total Xylenes*	<0.150	0.150	01/15/2015	ND	4.86	80.9	6.00	9.66		
Total BTEx	<0.300	0.300	01/15/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/15/2015	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					

Surrogate: 1-Chlorooctane 98.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 110 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-3 @ 25' (H500122-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	01/15/2015	ND	1.68	84.2	2.00	9.55	
Toluene*	3.79	1.00	01/15/2015	ND	1.65	82.4	2.00	9.56	
Ethylbenzene*	5.38	1.00	01/15/2015	ND	1.62	80.8	2.00	9.21	
Total Xylenes*	21.8	3.00	01/15/2015	ND	4.86	80.9	6.00	9.66	
Total BTEx	31.0	6.00	01/15/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/15/2015	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1560	100	01/15/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	10200	100	01/15/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	1420	100	01/15/2015	ND					

Surrogate: 1-Chlorooctane 211 % 47.2-157

Surrogate: 1-Chlorooctadecane 221 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Basin Environmental Service
 JOEL LOWRY
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 01/13/2015
 Reported: 01/22/2015
 Project Name: QPQASU #10 FLOW LINE
 Project Number: NONE GIVEN
 Project Location: LEA COUNTY, NM

 Sampling Date: 01/12/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SB-3 @ 35' (H500122-08)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/22/2015	ND	1.58	78.8	2.00	14.6	
Toluene*	<0.050	0.050	01/22/2015	ND	1.51	75.7	2.00	15.2	
Ethylbenzene*	<0.050	0.050	01/22/2015	ND	1.44	72.0	2.00	15.8	
Total Xylenes*	<0.150	0.150	01/22/2015	ND	4.34	72.3	6.00	16.4	
Total BTEX	<0.300	0.300	01/22/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/15/2015	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	27.8	10.0	01/15/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	601	10.0	01/15/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	99.3	10.0	01/15/2015	ND					

Surrogate: 1-Chlorooctane 94.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

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Analytical Results For:

Basin Environmental Service
JOEL LOWRY
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Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-3 @ 45' (H500122-09)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.6	10.0	01/15/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	465	10.0	01/15/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	69.1	10.0	01/15/2015	ND					
Surrogate: 1-Chlorooctane	95.4 %	47.2-157							
Surrogate: 1-Chlorooctadecane	111 %	52.1-176							

Sample ID: SB-3 @ 50' (H500122-10)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/15/2015	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/15/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	26.7	10.0	01/15/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/15/2015	ND					
Surrogate: 1-Chlorooctane	99.0 %	47.2-157							
Surrogate: 1-Chlorooctadecane	109 %	52.1-176							

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Analytical Results For:

Basin Environmental Service
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/13/2015
Reported: 01/22/2015
Project Name: QPQASU #10 FLOW LINE
Project Number: NONE GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 01/12/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SB-3 @ 55' (H500122-11)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/15/2015	ND	1.68	84.2	2.00	9.55		
Toluene*	<0.050	0.050	01/15/2015	ND	1.65	82.4	2.00	9.56		
Ethylbenzene*	<0.050	0.050	01/15/2015	ND	1.62	80.8	2.00	9.21		
Total Xylenes*	<0.150	0.150	01/15/2015	ND	4.86	80.9	6.00	9.66		
Total BTEx	<0.300	0.300	01/15/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/15/2015	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/15/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/15/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/15/2015	ND					

Surrogate: 1-Chlorooctane 95.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 114 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 11 of 12

FORM-006
Revision 1.0



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:		Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY	
		Joel Lowry		P.O. Box 301		Lovington		NM		88260				Mewbourne Oil Co		Zack Thomas						NM								OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM										OPQASU #10 Flow Line		Lea Co, NM		J. Lowry					
Project Manager:		Address:		City:		State:		Zip:		P.O. #:		Company:		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project Name:		Project Location:		Sample Name:		FOR LAB USE ONLY			
		Joel Lowry		P.O. Box 301		Lovington		NM		88260		Mewbourne Oil Co		Zack Thomas						NM																			

FORM-006
Revision 1.0