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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Holly Energy Partners	Contact: Allison Stockweather, Senior Manager, EHS
Address: 1602 West Main Street, Artesia, NM 88210	Telephone No.: 575-746-5475
Facility Name: N. Artesia to Beeson 6" Pipeline	Facility Type: Pipeline

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Eddy County

Latitude 32.77559 **Longitude** -104.016210

NATURE OF RELEASE

Type of Release: Crude Oil Release, Pipeline	Volume of Release: 35 bbls	Volume Recovered: 15 bbls
Source of Release: Hole in pipeline	Date and Hour of Occurrence: 04/23/14, 2:08 PM	Date and Hour of Discovery: 04/23/14, 2:08 PM
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required HEP EHS telephone notification to NMED was made within 24 hours of incident release (Ruth Horowitz, voicemail) per NMAC 20.6.2.1203. HEP notified Mike Bratcher, NMOCD, District 2, (voicemail) on 04/24/14.	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Please see CRA 2RP-2362 Site Closure Report

Describe Area Affected and Cleanup Action Taken.*
Please see CRA 2RP-2362 Site Closure Report

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: Allison Stockweather	OIL CONSERVATION DIVISION	
Printed Name: Allison Stockweather	Approved by Environmental Specialist:	
Title: Senior Manager, EHS	Approval Date:	Expiration Date:
E-mail Address: Allison.Stockweather@hollyenergy.com	Conditions of Approval:	Attached ☐
Date: 02/11/15 Phone: 575-746-5475		

* Attach Additional Sheets If Necessary

Original

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com


Final Report

SITE CLOSURE REPORT
2RP-2362
N. ARTESIA TO BEESON 6" PIPELINE RELEASE

NW/4 of the SW/4, Section 6, Township 18 South, Range 30 East
Eddy County, New Mexico

Prepared for: Holly Energy Partners

Conestoga-Rovers & Associates
2135 South Loop, 250 West
Midland, Texas 79703

February 2015 • 086405 • Report No. 1

Partners in Sustainability

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Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) appreciates the opportunity to submit this Site Closure Report on behalf of Holly Energy Partners (HEP) to the New Mexico Oil Conservation District (NMOCD) for 2RP-2362.

This Site Closure Report provides documentation associated with a crude oil pipeline release that occurred on April 23, 2014, and the implementation and management of assessment and restoration activities along the N. Artesia to Beeson 6" pipeline located in Eddy County, New Mexico. The closure activities were documented and performed by CRA and its contractors. The N. Artesia to Beeson 6" pipeline release ("Site"), is located in the NW/4 of the SW/4 of Section 6, Township 18 South, Range 30 East, approximately four miles southwest of Loco Hills, New Mexico. The pipeline carries crude oil only (no produced water) and is shown on the Site Location Map (Figures 1 and 2). The NMOCD "Guidelines for Remediation of Leaks, Spills, and Releases," published August, 13, 1993, was utilized for assessment, remediation and closure activities in association with this project.

The scope of work for the assessment and restoration activities was developed between HEP and CRA personnel. CRA was responsible for project management; general oversight of the assessment; delineation, remediation, and reclamation activities; waste coordination; and documentation of the field work. The scope of work included:

- Waste characterization of crude oil impacted soils, including analytical testing and NMOCD Form C-138 (Appendix A) completion for waste management purposes.
- Excavation of test pits and collection of soil samples to evaluate the vertical and horizontal extent of the crude oil impacted soils. Deeper test pit excavations were expected in the area adjacent to the release point. Soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) impacts to 5,000 mg/kg and benzene (10 mg/kg), toluene, ethylbenzene and xylenes (BTEX) impacts to 50 mg/kg. Highly impacted soils were identified for proper disposal at the R360 waste facility in Lea County, New Mexico.
- Subsequent excavation events pending results of the initial test pit samples in order to remove remaining soils exhibiting concentrations above regulatory levels.
- Backfilling of the remedial excavations, grading of the construction-affected area to minimize erosion and re-seeding of the construction-affected area with native plants and grasses in accordance with Bureau of Land Management (BLM) directives.
- Preparation of a site closure report documenting assessment and remediation activities to NMOCD along with the "Final Report" version of the C-141 (Release Notification and Corrective Action) Form.

Section 2.0 Release Information and Response Activities

A crude oil pipeline release was discovered at the Site on April 23, 2014 near the HEP N. Artesia to Beeson 6" pipeline. The release was caused by a line strike in association with a road grader attempting to move a piece of pipeline construction equipment that had become stuck in the sand. The 35 barrel crude oil release was immediately reported to the NMOCD by HEP and a clamp was installed on the 6" line to stop the release on April 24, 2014. NMOCD Form C-141, Release Notification and Corrective Action, dated May 2, 2014 was submitted to the agency containing "Initial Report" information regarding the location, nature of release, remedial actions taken and other details. A copy of the NMOCD Form C-141 is attached in Appendix A.

Vacuum trucks recovered approximately 15 barrels of crude oil from the release area. The remaining fluids saturated the soil around the release point. Surface soils at the site were primarily loose, wind-blown sand deposits that were effective in absorbing the released liquids. The Petroleum Recovery Research Center (PRRC) Web Mapping Portal was utilized to research the depth to groundwater in the general area. No groundwater wells or depth to groundwater (DTW) data was available within a 5-6 mile radius of the release. Beyond the 5-6 mile radius, the DTW ranged from 79 to 246 feet below the ground surface.

CRA contacted Mike Bratcher, NMOCD District 2, regarding the depth and occurrence of groundwater beneath the site. Mr. Bratcher reported that the agency was not aware of any protectable groundwater at the location and for ranking purposes that the depth to groundwater would be considered to be greater than 100 feet below the ground surface.

The NMOCD 1993 guidance document was reviewed for site ranking criteria, criteria score and recommended remediation action levels (RRALs). Based on the evaluation, the site had a ranking score of "0". Consequently, the RRALs for site soils were: 5,000 mg/kg for TPH, 10 mg/kg for benzene, and 50 mg/kg for total BTEX.

CRA inspected the Site on May 19, 2014 with an HEP representative and OneSource Industrial (One Source) to evaluate the site conditions, plan for additional assessment and remedial actions; and mark for One Call. A composite waste soil sample was collected for waste characterization purposes and NMOCD Form C-138 completion. The N. Artesia to Beeson crude oil pipeline is not directly associated with Exploration and Production (E&P) activities as the liquids have changed custody from lease operations. The waste materials associated with the release are considered "RCRA non-exempt". A site aerial map is presented as Figure 2. During the Site visit, CRA obtained information to develop assessment and remediation work tasks required to move the project toward regulatory closure.

A Site Closure Work Plan was developed and submitted to the NMOD District 2 office, on May 23, 2014. Following discussions with the NMOCD and HEP representatives, Mr. Bratcher approved the Site Closure

Work Plan on June 27, 2014 and provided the NMOCD Remediation Permit number, 2RP-2362, for the incident.

Section 3.0 Soil Assessment, Delineation and Remediation

3.1 Test Pit Assessment

On August 5, 2014, spotting of the pipeline route in the sandy soils began in advance of excavation activities. Subsequent to spotting the pipeline, D&D Construction utilized a backhoe to construct test pits around the main release area. The test pits were designed to evaluate the vertical and horizontal extent of the crude oil impacts. The crude oil impacted areas, spill path, and test pit locations with associated analytical summaries are depicted on Figure 3.

Test pit samples were collected on August 7, 2014 from the sidewalls of the excavation at 4 and 6 feet below ground surface (bgs) on the east sidewall, and 4-feet bgs on the north, south, and west sidewalls. An additional sample was collected from the bottom of the excavation at 16' bgs. The samples were submitted to Xenco Laboratories in Odessa, Texas and analyzed for TPH by SW 8015 modified method (C_6 to C_{35}) and BTEX by EPA method 8021B. Results of the analytical data are summarized in Table 1. The two samples analyzed from the east sidewall exhibited TPH, benzene, and total BTEX concentrations above the NMOCD RRALs. Samples analyzed from the bottom of the excavation and the north and south sidewalls exhibited total BTEX and TPH concentrations above the RRALs. The west sidewall sample did not exhibit TPH or BTEX concentrations above RRALs. The presence of BTEX and TPH concentrations above RRALs indicated additional excavation of hydrocarbon-impacted soils was necessary. Site photographs depicting the affected areas and test pits are presented in Appendix C. Copies of certified laboratory reports and chain of custody documentation are attached in Appendix D.

3.2 Soil Excavation

Construction of a 1,000-foot caliche road was proposed in the Site Closure Work Plan (May 23, 2014) was not needed to handle the heavy traffic of haul trucks for removal of crude oil impacted-soils.

Soil excavating operations were conducted at the Site between August 5 and August 7, 2014 and re-commenced on August 25 and August 26, 2014. The heavily stained soil around the affected area was removed for disposal to the R360 waste facility in western Lea County, New Mexico.

3.3 Confirmation Sampling and Site Restoration

Confirmation samples were collected on August 7, 2014 in the native soils along the spill path to the east of the excavation site under the supervision of Randy Pair of the Bureau of Land Management (BLM) as depicted in Figure 3. All confirmation samples collected at the sample locations exhibited BTEX and TPH

concentrations below NMOCD RRALs at the sampled locations. Following further excavation in the proximity of the release point, a second set of samples were collected on August 26, 2014 from the north, south, and east sidewalls (12', 12', and 8' bgs, respectively), as well as the bottom of the excavation (18' bgs). Only the sample collected from the east sidewall exhibited benzene, total BTEX, and TPH concentrations above RRALs.

The collection of an additional confirmation sample from the east sidewall of the excavation was postponed due to significant rainfall in the area of the excavation. On October 22, 2014, CRA arrived on-site to meet with Randy Pair, BLM, to collect a confirmation sample from the east sidewall of the excavation. Mr. Pair was not able to be present at the Site, and gave verbal confirmation for sampling to take place. The east sidewall confirmation sample was collected from 8' bgs. Analytical results from Xenco Laboratories confirmed that the sample exhibited BTEX and TPH concentrations below NMOCD RRALs (Table 1).

On December 16, 2014, following verification that all confirmation samples were below NMOCD RRALs, the excavation area was backfilled with 140 cubic yards of (cy) soil from a BLM borrow pit approximately two miles away. The BLM contract for the sale of mineral material is included as Appendix F. The site was then graded back to the native landscape and capped using topsoil from within the project area to provide a native seed bank for the re-seeding process. A BLM-approved #2 seed mixture specified for areas with the endangered Lesser Prairie Chicken (LPC) and sandy soils was purchased from Curtis and Curtis, Inc. in Clovis, New Mexico and hand-broadcast over the excavation area and along the right-of-way where the vegetation was impacted by the transportation of materials to and from the site, per BLM requirements. Following hand-broadcasting, a harrow was used to till in the seed.

Section 4.0 Waste Management

A composite waste characterization soil sample was collected from the Site on May 19, 2014 for analysis by Xenco Laboratories in Odessa, Texas. The sample was analyzed for TPH and BTEX for waste profiling and facility approval purposes (see Form C-138 in Appendix A). The R360 waste facility in western Lea County, New Mexico was used for the disposal of the impacted soil. The associated waste characterization analytical data is included on Table 1 and the reports are included in Appendix D. The following table summarizes the approximately 196 cy of crude oil impacted soils that were removed from the remedial excavation. The waste manifests are included in Appendix E.

Date	Number of Loads	Cubic Yards/Load
August 5, 2014	2	18
August 6, 2014	2	20
August 25, 2014	3	20
August 26, 2014	3	20
	TOTAL	**196**

Section 5.0 Summary

A crude oil pipeline release was discovered at the Site on April 23, 2014 near the N. Artesia to Beeson 6" pipeline that had been struck while a road grader attempted to move a piece of equipment stuck in the sand. The following are summary points for the release incident:

- NMOCD Form C-141, Release Notification and Corrective Action, dated May 2, 2014 was submitted to the to the NMOCD regarding the details of the reported 35 barrels crude oil release.
- The NMOCD "Guidelines for Remediation of Leaks, Spills and Releases," published August 13, 1993, was utilized for project activities. Based on a ranking criteria score of "0", site RRALs utilized were 5,000 mg/kg TPH, 10 mg/kg benzene, and 50 mg/kg total BTEX.
- The extent of the hydrocarbon-impacted soils was defined by collecting delineation samples from the area adjacent to the release site and along the spill path. Both Petroflag field screening and analytical methods were utilized to verify excavations reached the extent of the crude oil impacts.
- Soils exhibiting TPH and BTEX concentrations above NMOCD RRALs; (approximately 196 cy, were removed from the remedial excavation and disposed of at the R360 waste facility in western Lea County, New Mexico.
- Confirmation samples were collected from the excavation area to verify that hydrocarbon-impacted soils above the NMOCD RRALs had been removed.
- The excavation area was backfilled using 140 cy of material from a BLM borrow pit, graded back to the native landscape and capped with topsoil from within the project area at provide a natural seed base.
- A BLM-approved #2 seed mixture, specified for areas with the endangered LPC and sandy soils, was hand-broadcast over the excavation area and the right-of-way leading to the site and tilled into the soil using a harrow.
- Assessment, remediation, restoration and closure activities were performed in coordination with appropriate BLM and NMOCD personnel and guidelines.

Section 6.0 Site Closure Request for 2RP-2362

This Site Closure Report for the HEP N. Artesia to Beeson 6" Pipeline Release, 2RP-2362 provides documentation of closure activities performed at the release site. Based on assessment and corrective actions performed to date and documented in this report, CRA, on behalf of HEP, respectfully requests the NMOCD to rule that no further action for this Site is warranted.

Please feel free to contact Nathan Knowles at the CRA Midland office if there are any questions or additional information is required.

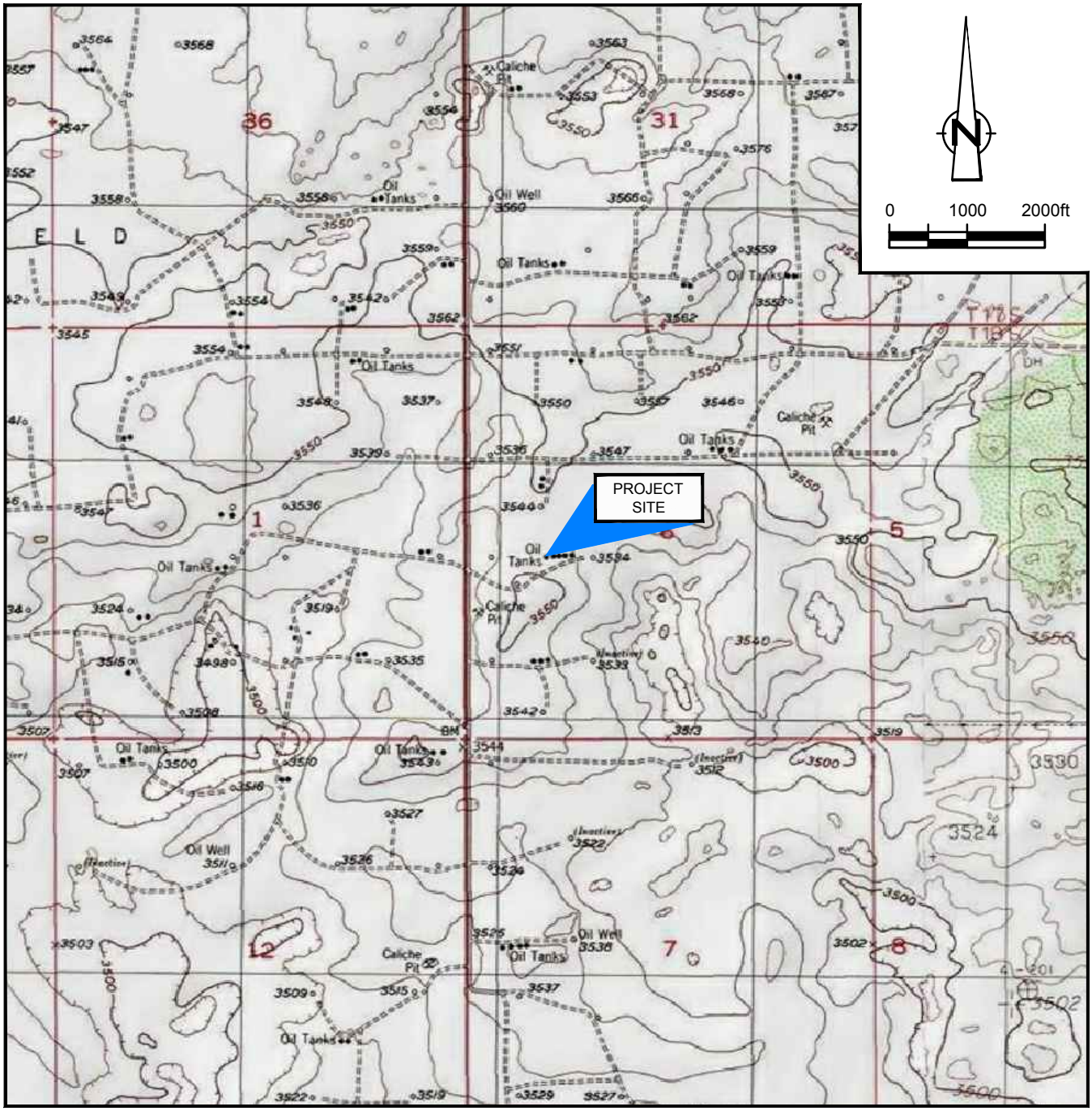
Sincerely,

Conestoga-Rovers & Associates

Thomas C. Larson
Principal, Midland Operations Manager

Nathan Knowles
Project Manager

Figures

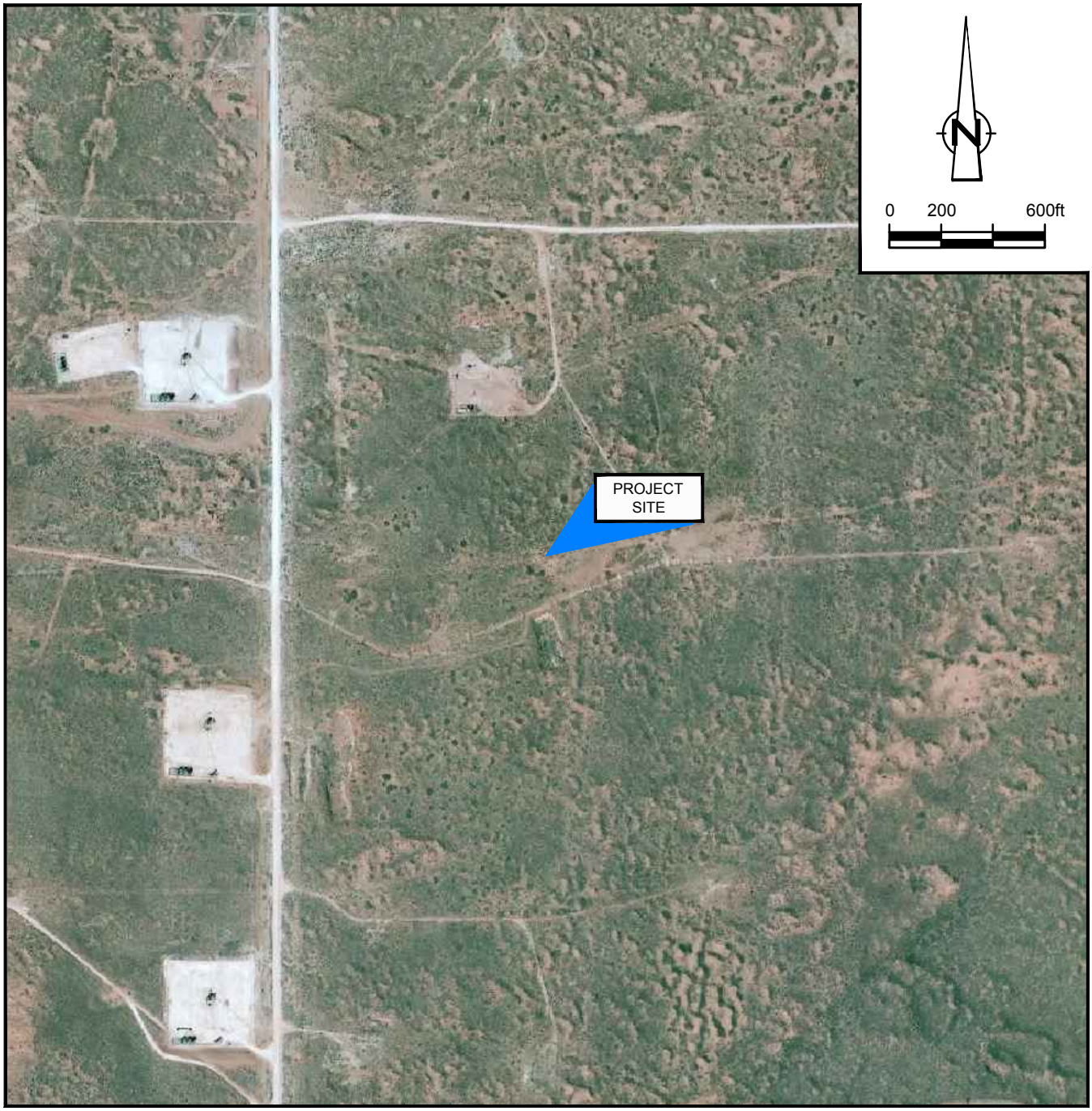


SOURCE: USGS 7.5 MINUTE QUAD
"RED LAKE SE AND LOCO HILLS, NEW MEXICO"

LAT/LONG: 32.7755° NORTH, 104.0162° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

Figure 1

SITE LOCATION MAP
N ARTESIA - BEESON 6"
SECTION 6, T-18-S, R-30-E
EDDY COUNTY, NEW MEXICO
Holly Energy Partners



LAT/LONG: 32.7755° NORTH, 104.0162° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

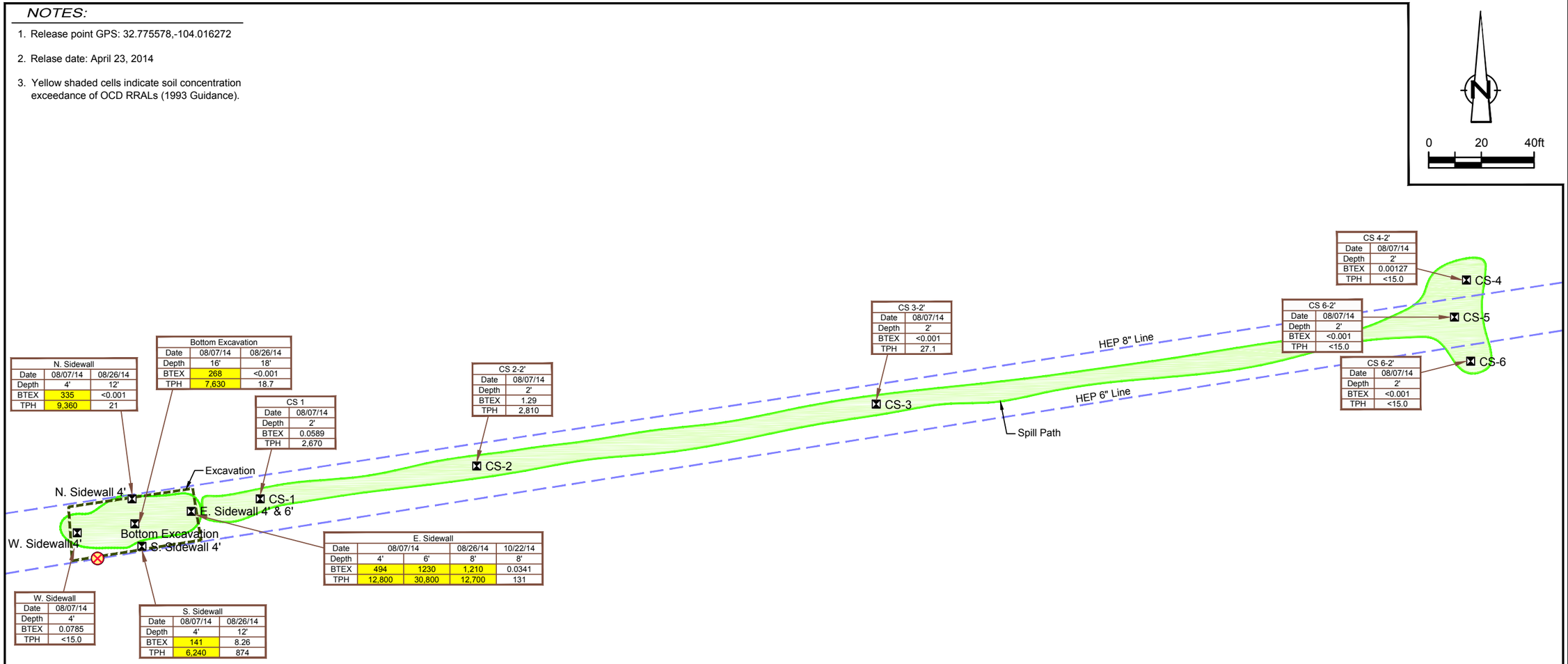
Figure 2

SITE AERIAL MAP
N ARTESIA - BEESON 6"
SECTION 6, T-18-S, R-30-E
EDDY COUNTY, NEW MEXICO
Holly Energy Partners

086405-00(000)GN-DL001 MAY 7/2014

NOTES:

1. Release point GPS: 32.775578,-104.016272
2. Relase date: April 23, 2014
3. Yellow shaded cells indicate soil concentration exceedance of OCD RRALs (1993 Guidance).



LEGEND

	Sample Location
	Release Point
	Excavation Limits
	Approximate Visibly Affected Area
Depth	Depth of Sample (ft)
BTEX	Total Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg)
TPH	Total Petroleum Hydrocarbons Concentration (mg/kg)

NOTES:

1. Approximately 196 cubic yards of impacted soils removed from remedial excavation.
2. Remedial excavation backfilled with 140 cubic yards of material from a BLM borrow pit and seeded with a BLM - approved #2 seeded mixture.

Figure 3

SITE DETAIL
N ARTESIA - BEESON 6"
SECTION 6, T-18-S, R-30-E
EDDY COUNTY, NEW MEXICO
Holly Energy Partners

Tables

TABLE 1

SOIL ANALYTICAL SUMMARY
BEESON CRUDE PIPELINE RELEASE

Sample ID	Depth (bgs)	Sample Date	BTEX (EPA 8021B)					TPH (SW 8015 Modified)			
			Benzene	Toluene	Ethyl-Benzene	Xylenes	Total BTEX	C6-C12 Gas Range Hydrocarbons	C12-C28 Diesel Range Hydrocarbons	C28-C35 Oil Range Hydrocarbons	Total TPH
NMOCD Recommended Remediation Action Levels			**10**	**---**	**---**	**---**	**50**	**---**	**---**	**---**	**5,000**
			(mg/kg)	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Waste profile (composite)	--	5/19/14	0.126	3.77	4.23	12.6	20.7	1330	15300	1480	18100
6' E. Sidewall	6	8/7/14	140	464	180	447	1230	13400	17400	< 15.0	30800
4' W. Sidewall	4	8/7/14	0.048	0.0236	< 0.001	0.00688	0.0785	< 15.0	< 15.0	< 15.0	< 15.0
4' N. Sidewall	4	8/7/14	6.21	99.3	51.8	178	335	3820	5540	< 15.0	9360
4' S. Sidewall	4	8/7/14	0.636	22.4	26.8	91.2	141	1990	4250	< 15.0	6240
Bottom Excavation 16'	16	8/7/14	2.42	74	53.2	139	268	2980	4650	< 15.0	7630
4' E. Sidewall	4	8/7/14	28.2	206	69.6	190	494	5070	7430	315	12800
CS 1-2'	2	8/7/14	0.0101	0.0152	0.00285	0.0308	0.0589	97.7	2520	49.1	2670
CS 2-2'	2	8/7/14	0.0155	0.0832	0.233	0.959	1.29	464	2350	< 15.0	2810
CS 3-2'	2	8/7/14	< 0.0010	< 0.0020	< 0.001	< 0.003	< 0.001	< 15.0	27.1	< 15.0	27.1
CS 4-2'	2	8/7/14	0.00127	< 0.0020	< 0.001	< 0.003	0.00127	< 15.0	< 15.0	< 15.0	< 15.0
CS 5-2'	2	8/7/14	< 0.0010	< 0.0020	< 0.001	< 0.003	< 0.001	< 15.0	< 15.0	< 15.0	< 15.0
CS 6-2'	2	8/7/14	< 0.0010	< 0.0020	< 0.001	< 0.003	< 0.001	< 15.0	< 15.0	< 15.0	< 15.0
S. Sidewall-12'-#2	12	8/26/14	0.0367	0.943	1.68	5.6	8.26	187	687	< 15.0	874
Bottom Excavation 18'	18	8/26/14	< 0.0010	< 0.0020	< 0.0010	<0.003	< 0.001	< 15.0	18.7	< 15.0	18.7
N. Sidewall-12'-#2	12	8/26/14	< 0.0010	< 0.0020	< 0.0010	<0.003	< 0.001	< 15.0	21	< 15.0	21
E. Sidewall-8'-#2	8	8/26/14	86	447	189	490	1210	4600	7820	291	12700
E. Sidewall-8'	8	10/22/14	<0.0010	<0.0020	0.00225	0.0319	0.0341	19.4	112	<15.0	131

Notes:

1. All analytical results reported in (mg/kg) milligrams per kilogram
2. BTEX analysis by Method EPA 8021 B
3. TPH analysis by Method SW 8015 Modified
4. Highlighted cells indicate concentrations exceeding guidance RRALs
5. RRALs from 1993 New Mexico OCD Release Guidance Document, site ranking score = 0
6. < indicates below laboratory Reporting Limit (RL)
7. bgs- below ground surface
8. CS- Confirmation sample

Appendices

Appendix A

New Mexico Oil Conservation District Forms
C-138 and C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Holly Energy Partners, 1602 W. Main Street, Artesia, NM 88210

2. Originating Site:
N Artesia – Beeson 6

3. Location of Material (Street Address, City, State or ULSTR):
4 miles SW of Loco Hills, New Mexico, Eddy County, Texas

4. Source and Description of Waste:
Soil impacted with crude oil from pipeline release.

Estimated Volume 800 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd³ / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Allison Stockweather, representative or authorized agent for Holly Energy Partners do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Roberto Canales Jr., representative for R360 Environmental Solutions do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter:
One Source Industrial

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #:
R360 Half Way Facility, Permit # R-9166

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☒ Landfill ☐ Other

Waste Acceptance Status:

☑ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Roberto Canales Jr. TITLE: Site Manager DATE: 6/24/14

SIGNATURE: _____ TELEPHONE NO.: 575-887-6504

Surface Waste Management Facility Authorized Agent

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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State of New Mexico
Energy Minerals and Natural Resources

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Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

X Initial Report ☐ Final Report

Name of Company: Holly Energy Partners	Contact: Allison Stockweather, Senior EHS Manager
Address: 1602 West Main Street, Artesia, NM 88210	Telephone No.: 575-746-9338
Facility Name: N. Artesia to Beeson 6" Pipeline	Facility Type: Pipeline

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE: see latitude and longitude below.

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Eddy County

Latitude 32.77559 **Longitude** -104.016210

NATURE OF RELEASE

Type of Release: Crude Oil Release, Pipeline	Volume of Release: 35 bbls	Volume Recovered: 15 bbls
Source of Release: Hole in pipeline	Date and Hour of Occurrence: 04/23/14, 2:08 pm	Date and Hour of Discovery: 04/23/14, 2:08 pm
Was Immediate Notice Given? ☐ Yes X No ☐ Not Required HEP EHS telephone notification to NMED was made w/in 24 hours of incident release (Ruth Horowitz, voicemail) per NMAC 20.6.2.1203. HEP notified Mike Bratcher, NMOCD, District 2, (voicemail) on 04/24/14.	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

RECEIVED
MAY 02 2014
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.* D&D Pipeline Construction was stringing skids; got stuck in the sand; and used a blade on the road grader to move from the sand when the line was struck. Approximately 35 bbls of crude oil released onto the ground as a result of this incident and 15 bbls was recovered. The line was shutdown and clean-up crews were dispatched. The free product was contained on the HEP ROW, and a clamp was installed on the pipeline stopping the release of product. The pipeline is a non-regulated gathering line.

Describe Area Affected and Cleanup Action Taken.* Vacuum trucks recovered 15 bbls of free product. The site will be assessed and remediated in accordance with NMOCD regulations.

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: Allison Stockweather	OIL CONSERVATION DIVISION	
Printed Name: Allison Stockweather	Approved by Environmental Specialist:	
Title: Senior EHS Manager	Approval Date:	Expiration Date:
E-mail Address: Allison.Stockweather@hollyenergy.com	Conditions of Approval:	Attached ☐
Date: 05/02/14 Phone: 575-746-5475		

* Attach Additional Sheets If Necessary

Appendix B

Site Chronology

Site Chronology
Holly Energy Partners (HEP)
N. Artesia to Beeson Crude Oil Release

April 23, 2014 (Wednesday)	At approximately 14:00 MST, a crude pipeline release was discovered near the N. Artesia to Beeson 6" pipeline. The release was caused by a line strike while a road grader was attempting to move a piece of equipment stuck in the sand.
April 24, 2014 (Thursday)	The 35 barrels crude release was reported to the New Mexico Oil Conservation District (NMOCD) and a clamp was installed on the line to stop the release. Vacuum trucks reportedly recovered 15 barrels of oil from the site.
May 2, 2014 (Friday)	NMOCD Form C-141, Release Notification and Corrective Action, submitted to the agency. Mike Bratcher with NMOCD was contacted by CRA regarding the release incident and permission was granted to stage soils removed from the Site at HEP's Barnsdell Station four miles away, if necessary.
May 19, 2014 (Monday)	CRA inspected the Site, with OneSource Industrial, to evaluate site conditions and plan for additional assessment and remediation actions and plan for road construction. Additionally, white flags were placed for One Call. A composite sample was collected for waste characterization purposes and generation of NMOCD Form C-138 Request for Approval to Accept Solid Waste.
August 5, 2014 (Tuesday)	Met on-site with D&D Construction and Lonnie Lyles for safety meeting and Job Safety Analysis (JSA) review. Spotting of the pipeline began using a shovel. An excavator was utilized to begin removing crude oil impacted soils. Two loads, 18 cubic yards each, of impacted soils hauled off-site to landfill.
August 6, 2014 (Wednesday)	Met on-site with D&D Construction and Lonnie Lyles for safety meeting and JSA review. Excavated crude oil impacted soil to 12 feet below ground surface (bgs). Lonnie Lyles left site to go to the nearby RJU South site. A delineation sample was collected from the excavation and analyzed in the field using Petroflag. A photo-ionization detector (PID) was used to evaluate the absence or presence of volatile organic compounds (VOCs). Follow-up with D&D Construction regarding process and logistics. Two loads of impacted soils, 20 yards each, hauled off-site to landfill. The excavator remained on-site.
August 7, 2014 (Thursday)	Met on-site with Bureau of Land Management (BLM) representative, Randy Pair, to discuss current excavation issues and receive guidance for subsequent digging. The BLM representative oversaw the collection of five excavation samples and also indicated six additional sample locations along the spill path. The six additional samples along the spill path were then collected. Collected samples were analyzed by a PID to evaluate the absence or presence of VOCs. Approval was given for backfill material to be brought in. Re-seeding of the backfilled area to be completed using BLM-approved mix.

August 25, 2014 (Monday)	Daylight pipelines prior the day's excavation. Continued excavation to the east, approximately 25 feet. Three test samples were collected and analyzed on-site using Petroflag. The results of the Petroflag analysis indicated deeper excavation was needed. Three, 20 cubic yards loads of impacted soil hauled off-site to landfill. Stop Work Authority (SWA) issued due to lightning nearby.
August 26, 2014 (Tuesday)	BLM representative on-site to discuss current excavation progress and oversee sampling. Approval of 18-foot excavation as long the excavation was backfilled following sample collection. Continued excavation work. BLM representative present for collection of four soil samples from the north, south and east sidewalls, as well as the bottom of the excavation. The samples collected from the north and south sidewalls were field screened using Petroflag.
September 18-20, 2014 (Thursday-Saturday)	Heavy rainfall in and around the site location caused wide scale flooding. Site visits delayed due to the heavy rainfall accumulations.
October 22, 2014 (Wednesday)	BLM representative, Randy Pair, unable to make it to site. Randy verbally confirmed that work could take place. One confirmation sample from the east sidewall was collected and field screened using PetroFlag.
December 16, 2014 (Tuesday)	Backfilling activities commenced by hauling in 140 cubic yards of soil from a BLM borrow pit approximately two miles away. The area was capped with native topsoil from within the project area. The excavation was graded back to the natural landscape and the BLM-approved seed mixture was hand-broadcast across the excavation area and right-of-way leading to site. A harrow was then used to till the seed into the topsoil.

Appendix C

Site Photographs

Photo 1 – April 23, 2014: Site location looking northwest as vacuum trucks remove the crude oil.

Photo 2 – April 23, 2014: Site location, looking northeast, following removal of the crude oil.

Photo 3 – August 5, 2015 looking northeast along the pipeline right-of-way.

Photo 4 – August 5, 2014: Spotting of the 6” pipeline.

SITE PHOTOGRAPHS

Photo 5 – August 5, 2014: Spotting of the pipeline.

Photo 6 – August 5, 2014: Completion of spotting the pipeline.

SITE PHOTOGRAPHS

Photo 7 – August 25, 2014: Excavation to the north of the 6” pipeline.

Photo 8 – August 26, 2014: Deepening of the excavation to 18 feet.

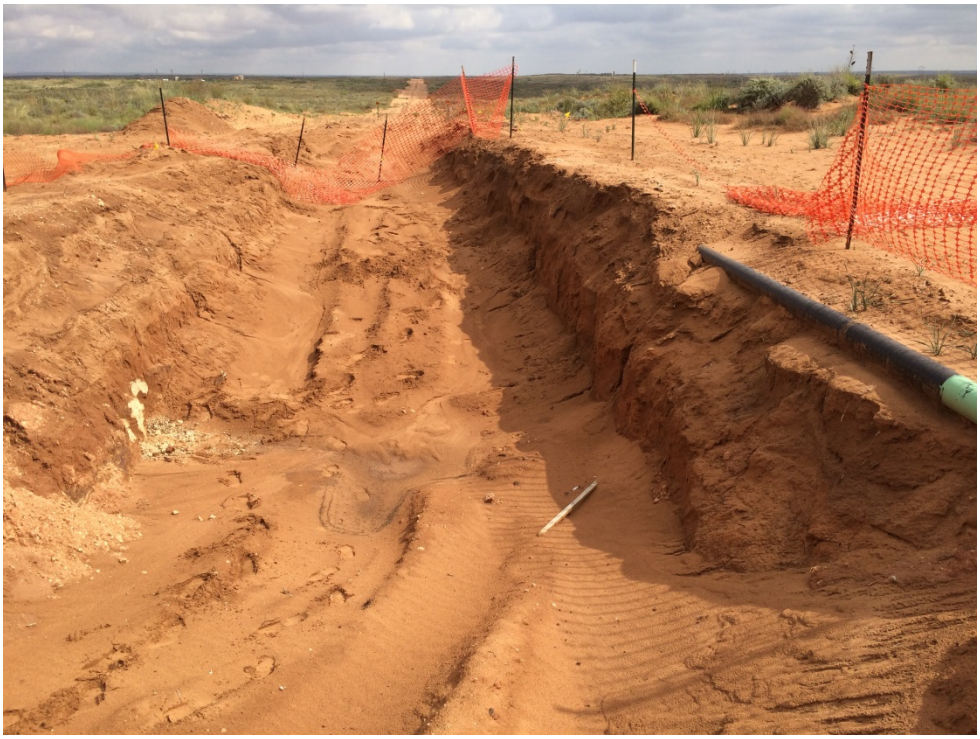

Photo 9 – October 22, 2014: looking northeast along the pipeline right-of-way.

Photo 10 – December 16, 2014: Hand-broadcasting of BLM-approved Lesser Prairie Chicken (LPC) seed mix.

SITE PHOTOGRAPHS

Photo 11 – December 16, 2014: Harrow used to till the BLM seed mix into the topsoil.

Photo 12 – December 16, 2014: looking northeast at the backfilled excavation.

SITE PHOTOGRAPHS

Appendix D

Certified Laboratory Reports

Analytical Report 485707

for

Conestoga Rovers & Associates

Project Manager: Tom Larson

N.Artesia- Beeson 6"

086405

29-MAY-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

29-MAY-14

Project Manager: **Tom Larson**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **485707**
N.Artesia- Beeson 6"
Project Address: TX

Tom Larson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 485707. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 485707 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

Sample Cross Reference 485707

Conestoga Rovers & Associates, Midland, TX

N.Artesia- Beeson 6"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NA- Beeson	S	05-19-14 10:30		485707-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-941666 TCLP VOAs by EPA 8260B
Vinyl Chloride RPD between matrix spike and duplicate was outside QC limits.
Samples affected are: 485707-001

Certificate of Analysis Summary 485707

Conestoga Rovers & Associates, Midland, TX

Project Name: N.Artesia- Beeson 6"

Project Id: 086405
Contact: Tom Larson
Project Location: TX

Date Received in Lab: Mon May-19-14 03:48 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	485707-001					
	Field Id:	NA- Beeson					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-19-14 10:30					
TCLP Mercury by SW 7470A SUB: E871002	***Extracted:***	May-25-14 09:00					
	Analyzed:	May-26-14 15:28					
	Units/RL:	mg/L	RL				
Mercury		ND	0.000200				
TCLP Metals by SW846 6010B SUB: E871002	***Extracted:***	May-27-14 10:00					
	Analyzed:	May-28-14 14:38					
	Units/RL:	mg/L	RL				
Antimony		ND	0.100				
Arsenic		ND	0.100				
Barium		0.589	0.0500				
Beryllium		ND	0.0200				
Cadmium		ND	0.0500				
Chromium		ND	0.0500				
Lead		ND	0.0500				
Nickel		ND	0.0500				
Selenium		ND	0.150				
Silver		ND	0.100				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485707

Conestoga Rovers & Associates, Midland, TX

Project Name: N.Artesia- Beeson 6"

Project Id: 086405
Contact: Tom Larson
Project Location: TX

Date Received in Lab: Mon May-19-14 03:48 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	485707-001					
	Field Id:	NA- Beeson					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-19-14 10:30					
TCLP SVOCs by EPA 8270C	***Extracted:***	May-21-14 10:18					
SUB: E871002	***Analyzed:***	May-21-14 19:14					
	Units/RL:	mg/L RL					
1,4-Dichlorobenzene		ND 0.0250					
2,4,5-Trichlorophenol		ND 0.0250					
2,4,6-Trichlorophenol		ND 0.0250					
2,4-Dinitrotoluene		ND 0.0250					
2-methylphenol		ND 0.0250					
3&4-Methylphenol		ND 0.0250					
Hexachlorobenzene		ND 0.0250					
Hexachlorobutadiene		ND 0.0250					
Hexachloroethane		ND 0.0250					
Nitrobenzene		ND 0.0250					
Pentachlorophenol		ND 0.0500					
Pyridine		ND 0.0500					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485707

Conestoga Rovers & Associates, Midland, TX

Project Name: N.Artesia- Beeson 6"

Project Id: 086405
Contact: Tom Larson
Project Location: TX

Date Received in Lab: Mon May-19-14 03:48 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	485707-001					
	Field Id:	NA- Beeson					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-19-14 10:30					
TCLP VOAs by EPA 8260B	***Extracted:***	May-21-14 12:53					
SUB: E871002	***Analyzed:***	May-21-14 15:54					
	Units/RL:	mg/L RL					
Benzene		ND 0.0250					
2-Butanone		ND 0.250					
Carbon Tetrachloride		ND 0.0250					
Chlorobenzene		ND 0.0250					
Chloroform		ND 0.0250					
1,4-Dichlorobenzene		ND 0.0250					
1,2-Dichloroethane		ND 0.0250					
1,1-Dichloroethene		ND 0.0250					
Tetrachloroethylene		ND 0.0250					
Trichloroethene		ND 0.0250					
Vinyl Chloride		ND 0.0100					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485707

Conestoga Rovers & Associates, Midland, TX

Project Name: N.Artesia- Beeson 6"

Project Id: 086405
Contact: Tom Larson
Project Location: TX

Date Received in Lab: Mon May-19-14 03:48 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	485707-001						
	Field Id:	NA- Beeson						
	Depth:							
	Matrix:	SOIL						
	Sampled:	May-19-14 10:30						
BTEX by EPA 8021B	***Extracted:***	May-20-14 16:00						
	Analyzed:	May-21-14 17:15						
	Units/RL:	mg/kg	RL					
Benzene		0.126	0.0253					
Toluene		3.77	0.0505					
Ethylbenzene		4.23	0.0253					
m,p-Xylenes		8.92	0.0505					
o-Xylene		3.66	0.0253					
Total Xylenes		12.6	0.0253					
Total BTEX		20.7	0.0253					
Flash Point (CC) SW-846 1010 SUB: E871002	***Extracted:***							
	Analyzed:	May-27-14 17:12						
	Units/RL:	Deg F	RL					
Flash Point		177.8	75.0					
Percent Moisture	***Extracted:***							
	Analyzed:	May-20-14 18:00						
	Units/RL:	%	RL					
Percent Moisture		1.45	1.00					
Reactive Cyanide by EPA 9010B SUB: E871002	***Extracted:***							
	Analyzed:	May-22-14 12:10						
	Units/RL:	mg/kg	RL					
Cyanide		ND	0.200					
Reactive Sulfide by SW 9030B SUB: E871002	***Extracted:***							
	Analyzed:	May-22-14 15:00						
	Units/RL:	mg/kg	RL					
Sulfide		ND	50.0					

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485707

Conestoga Rovers & Associates, Midland, TX

Project Name: N.Artesia- Beeson 6"

Project Id: 086405
Contact: Tom Larson
Project Location: TX

Date Received in Lab: Mon May-19-14 03:48 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	485707-001					
	Field Id:	NA- Beeson					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-19-14 10:30					
Soil pH by EPA 9045C	***Extracted:***						
	Analyzed:	May-19-14 15:27					
	Units/RL:	SU	RL				
pH		7.56					
TPH by Texas1005	***Extracted:***	May-22-14 16:00					
	Analyzed:	May-23-14 14:54					
	Units/RL:	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		1330	127				
C12-C28 Diesel Range Hydrocarbons		15300	127				
C28-C35 Oil Range Hydrocarbons		1480	127				
Total TPH 1005		18100	127				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941666 **Sample:** 485707-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 05/21/14 15:54

SURROGATE RECOVERY STUDY

TCLP VOAs by EPA 8260B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0535	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0517	0.0500	103	63-144	
Toluene-D8	0.0487	0.0500	97	80-117	
4-Bromofluorobenzene	0.0473	0.0500	95	74-124	

Lab Batch #: 941601 **Sample:** 485707-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/21/14 17:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 941572 **Sample:** 485707-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 05/21/14 19:14

SURROGATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	24.3	50.0	49	30-100	
Phenol-d6	23.9	50.0	48	15-94	
Nitrobenzene-d5	28.7	50.0	57	46-111	
2-Fluorobiphenyl	30.7	50.0	61	44-117	
2,4,6-Tribromophenol	38.4	50.0	77	48-117	
Terphenyl-D14	41.1	50.0	82	46-126	

Lab Batch #: 941764 **Sample:** 485707-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/23/14 14:54

SURROGATE RECOVERY STUDY

TPH by Texas1005

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.8	109	70-135	
o-Terphenyl	58.9	49.9	118	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941601 **Sample:** 655811-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/21/14 10:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 941666 **Sample:** 655936-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/21/14 14:56

SURROGATE RECOVERY STUDY

TCLP VOAs by EPA 8260B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0527	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0531	0.0500	106	63-144	
Toluene-D8	0.0473	0.0500	95	80-117	
4-Bromofluorobenzene	0.0483	0.0500	97	74-124	

Lab Batch #: 941572 **Sample:** 655782-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/21/14 17:24

SURROGATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	35.1	50.0	70	30-100	
Phenol-d6	31.5	50.0	63	15-94	
Nitrobenzene-d5	43.1	50.0	86	46-111	
2-Fluorobiphenyl	41.5	50.0	83	44-117	
2,4,6-Tribromophenol	40.1	50.0	80	48-117	
Terphenyl-D14	48.2	50.0	96	46-126	

Lab Batch #: 941764 **Sample:** 655988-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/22/14 18:37

SURROGATE RECOVERY STUDY

TPH by Texas1005

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	63.7	50.0	127	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941601 **Sample:** 655811-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/21/14 12:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 941666 **Sample:** 655936-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/21/14 12:50

SURROGATE RECOVERY STUDY

TCLP VOAs by EPA 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0526	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0512	0.0500	102	63-144	
Toluene-D8	0.0481	0.0500	96	80-117	
4-Bromofluorobenzene	0.0493	0.0500	99	74-124	

Lab Batch #: 941572 **Sample:** 655782-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/21/14 17:43

SURROGATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	33.2	50.0	66	30-100	
Phenol-d6	28.9	50.0	58	15-94	
Nitrobenzene-d5	42.5	50.0	85	46-111	
2-Fluorobiphenyl	41.6	50.0	83	44-117	
2,4,6-Tribromophenol	41.9	50.0	84	48-117	
Terphenyl-D14	45.1	50.0	90	46-126	

Lab Batch #: 941764 **Sample:** 655988-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/22/14 19:01

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	51.6	50.0	103	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941601 **Sample:** 655811-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/21/14 12:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 941572 **Sample:** 655782-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/21/14 18:01

SURROGATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	36.8	50.0	74	30-100	
Phenol-d6	33.3	50.0	67	15-94	
Nitrobenzene-d5	43.1	50.0	86	46-111	
2-Fluorobiphenyl	42.6	50.0	85	44-117	
2,4,6-Tribromophenol	42.7	50.0	85	48-117	
Terphenyl-D14	47.0	50.0	94	46-126	

Lab Batch #: 941764 **Sample:** 655988-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/22/14 19:24

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	51.0	50.0	102	70-130	

Lab Batch #: 941601 **Sample:** 485523-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/21/14 13:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941666 **Sample:** 485675-001 S / MS **Batch:** 1 **Matrix:** Solid

Units: mg/L **Date Analyzed:** 05/21/14 16:20

SURROGATE RECOVERY STUDY

TCLP VOAs by EPA 8260B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0523	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0516	0.0500	103	63-144	
Toluene-D8	0.0482	0.0500	96	80-117	
4-Bromofluorobenzene	0.0482	0.0500	96	74-124	

Lab Batch #: 941572 **Sample:** 485676-001 S / MS **Batch:** 1 **Matrix:** Sludge

Units: mg/L **Date Analyzed:** 05/21/14 18:56

SURROGATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorophenol	35.4	50.0	71	30-100	
Phenol-d6	31.6	50.0	63	15-94	
Nitrobenzene-d5	41.7	50.0	83	46-111	
2-Fluorobiphenyl	41.4	50.0	83	44-117	
2,4,6-Tribromophenol	40.8	50.0	82	48-117	
Terphenyl-D14	44.1	50.0	88	46-126	

Lab Batch #: 941764 **Sample:** 485603-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/22/14 20:36

SURROGATE RECOVERY STUDY

TPH by Texas1005

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.9	126	70-135	
o-Terphenyl	45.2	50.0	90	70-130	

Lab Batch #: 941601 **Sample:** 485523-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/21/14 13:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: N.Artesia- Beeson 6"

Work Orders : 485707, **Project ID:** 086405

Lab Batch #: 941666 **Sample:** 485675-001 SD / MSD **Batch:** 1 **Matrix:** Solid

Units: mg/L **Date Analyzed:** 05/21/14 16:45

TCLP VOAs by EPA 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0521	0.0500	104	75-131	
1,2-Dichloroethane-D4	0.0521	0.0500	104	63-144	
Toluene-D8	0.0481	0.0500	96	80-117	
4-Bromofluorobenzene	0.0490	0.0500	98	74-124	

Lab Batch #: 941764 **Sample:** 485603-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/22/14 21:00

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.9	128	70-135	
o-Terphenyl	56.4	50.0	113	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707 **Project ID:** 086405

Lab Batch #: 941667 **Sample:** 941667-1-BKS **Matrix:** Solid

Date Analyzed: 05/22/2014 **Date Prepared:** 05/22/2014 **Analyst:** BFO

Reporting Units: mg/kg **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

Reactive Cyanide by EPA 9010B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Cyanide	<4.00	1000	892	89	60-120	

Lab Batch #: 941666 **Sample:** 655936-1-BKS **Matrix:** Water

Date Analyzed: 05/21/2014 **Date Prepared:** 05/21/2014 **Analyst:** MCH

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TCLP VOAs by EPA 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.0250	0.250	0.244	98	68-123	
2-Butanone	<0.250	1.25	1.35	108	49-135	
Carbon Tetrachloride	<0.0250	0.250	0.259	104	68-135	
Chlorobenzene	<0.0250	0.250	0.229	92	78-124	
Chloroform	<0.0250	0.250	0.262	105	71-119	
1,4-Dichlorobenzene	<0.0250	0.250	0.228	91	80-119	
1,2-Dichloroethane	<0.0250	0.250	0.254	102	64-130	
1,1-Dichloroethene	<0.0250	0.250	0.259	104	68-116	
Tetrachloroethylene	<0.0250	0.250	0.230	92	79-122	
Trichloroethene	<0.0250	0.250	0.252	101	74-123	
Vinyl Chloride	<0.0100	0.250	0.219	88	59-124	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 05/20/2014 **Date Analyzed:** 05/21/2014

Lab Batch ID: 941601 **Sample:** 655811-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.105	105	0.100	0.105	105	0	70-130	35	
Toluene	<0.00200	0.100	0.105	105	0.100	0.105	105	0	70-130	35	
Ethylbenzene	<0.00100	0.100	0.113	113	0.100	0.114	114	1	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.233	117	0.200	0.233	117	0	70-135	35	
o-Xylene	<0.00100	0.100	0.115	115	0.100	0.115	115	0	71-133	35	

Analyst: DHE **Date Prepared:** 05/22/2014 **Date Analyzed:** 05/22/2014

Lab Batch ID: 941650 **Sample:** 941650-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Reactive Sulfide by SW 9030B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Sulfide	<50.0	20000	19600	98	20000	19600	98	0	60-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707 **Project ID:** 086405

Analyst: ANS **Date Prepared:** 05/25/2014 **Date Analyzed:** 05/26/2014

Lab Batch ID: 941846 **Sample:** 656014-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00200	100	0.00200	0.00203	102	1	80-120	20	

Analyst: MLI **Date Prepared:** 05/27/2014 **Date Analyzed:** 05/28/2014

Lab Batch ID: 941957 **Sample:** 656041-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Antimony	<0.0200	1.00	1.02	102	1.00	1.03	103	1	80-120	20	
Arsenic	<0.0200	1.00	0.969	97	1.00	0.988	99	2	80-120	20	
Barium	<0.0100	1.00	0.966	97	1.00	0.979	98	1	80-120	20	
Beryllium	<0.00400	1.00	1.02	102	1.00	1.03	103	1	80-120	20	
Cadmium	<0.0100	1.00	0.962	96	1.00	0.977	98	2	80-120	20	
Chromium	<0.0100	1.00	1.02	102	1.00	1.04	104	2	80-120	20	
Lead	<0.0100	1.00	1.01	101	1.00	1.02	102	1	80-120	20	
Nickel	<0.0100	1.00	0.956	96	1.00	0.968	97	1	80-120	20	
Selenium	<0.0300	1.00	1.01	101	1.00	1.02	102	1	80-120	20	
Silver	<0.0200	0.500	0.508	102	0.500	0.543	109	7	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707 **Project ID:** 086405

Analyst: PKH **Date Prepared:** 05/21/2014 **Date Analyzed:** 05/21/2014

Lab Batch ID: 941572 **Sample:** 655782-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP SVOCs by EPA 8270C Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.0250	0.250	0.188	75	0.250	0.191	76	2	37-111	30	
2,4,5-Trichlorophenol	<0.0250	0.250	0.208	83	0.250	0.215	86	3	39-125	30	
2,4,6-Trichlorophenol	<0.0250	0.250	0.207	83	0.250	0.217	87	5	42-125	30	
2,4-Dinitrotoluene	<0.0250	0.250	0.221	88	0.250	0.226	90	2	41-128	30	
2-methylphenol	<0.0250	0.250	0.191	76	0.250	0.202	81	6	36-105	30	
3&4-Methylphenol	<0.0250	0.250	0.189	76	0.250	0.202	81	7	35-96	30	
Hexachlorobenzene	<0.0250	0.250	0.212	85	0.250	0.216	86	2	39-128	30	
Hexachlorobutadiene	<0.0250	0.250	0.196	78	0.250	0.195	78	1	31-120	30	
Hexachloroethane	<0.0250	0.250	0.186	74	0.250	0.192	77	3	37-109	30	
Nitrobenzene	<0.0250	0.250	0.199	80	0.250	0.204	82	2	37-114	30	
Pentachlorophenol	<0.0500	0.250	0.225	90	0.250	0.231	92	3	10-137	40	
Pyridine	<0.0500	0.250	0.0961	38	0.250	0.139	56	36	16-135	40	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 05/22/2014 **Date Analyzed:** 05/22/2014

Lab Batch ID: 941764 **Sample:** 655988-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<25.0	1000	964	96	1000	992	99	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<25.0	1000	1040	104	1000	1030	103	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707

Lab Batch #: 941572 **Project ID:** 086405

Date Analyzed: 05/21/2014 **Date Prepared:** 05/21/2014 **Analyst:** PKH

QC- Sample ID: 485676-001 S **Batch #:** 1 **Matrix:** Sludge

Reporting Units: mg/L

TCLP SVOCs by SW-846 8270C Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
1,4-Dichlorobenzene	<0.0250	0.250	0.184	74	37-111	
2,4,5-Trichlorophenol	<0.0250	0.250	0.206	82	39-125	
2,4,6-Trichlorophenol	<0.0250	0.250	0.203	81	42-125	
2,4-Dinitrotoluene	<0.0250	0.250	0.211	84	41-128	
2-methylphenol	<0.0250	0.250	0.191	76	36-105	
3&4-Methylphenol	<0.0250	0.250	0.189	76	35-96	
Hexachlorobenzene	<0.0250	0.250	0.204	82	39-128	
Hexachlorobutadiene	<0.0250	0.250	0.188	75	31-120	
Hexachloroethane	<0.0250	0.250	0.184	74	37-109	
Nitrobenzene	<0.0250	0.250	0.198	79	37-114	
Pentachlorophenol	<0.0500	0.250	0.218	87	10-137	
Pyridine	<0.0500	0.250	0.122	49	16-135	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order # : 485707 **Project ID:** 086405

Lab Batch ID: 941601 **QC- Sample ID:** 485523-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/21/2014 **Date Prepared:** 05/20/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00112	0.112	0.0911	81	0.112	0.0960	86	5	70-130	35	
Toluene	<0.00224	0.112	0.0826	74	0.112	0.0893	80	8	70-130	35	
Ethylbenzene	<0.00112	0.112	0.0862	77	0.112	0.0929	83	7	71-129	35	
m,p-Xylenes	<0.00224	0.224	0.172	77	0.224	0.186	83	8	70-135	35	
o-Xylene	<0.00112	0.112	0.0877	78	0.112	0.0948	85	8	71-133	35	

Lab Batch ID: 941846 **QC- Sample ID:** 485286-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/26/2014 **Date Prepared:** 05/25/2014 **Analyst:** ANS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00206	103	0.00200	0.00204	102	1	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order # : 485707 **Project ID:** 086405

Lab Batch ID: 941957 **QC- Sample ID:** 485764-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/28/2014 **Date Prepared:** 05/27/2014 **Analyst:** MLI

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Antimony	<0.100	5.00	5.04	101	5.00	5.35	107	6	80-120	20	
Arsenic	<0.100	5.00	4.93	99	5.00	5.25	105	6	80-120	20	
Barium	0.831	5.00	5.54	94	5.00	5.97	103	7	80-120	20	
Beryllium	<0.0200	5.00	5.15	103	5.00	5.45	109	6	80-120	20	
Cadmium	<0.0500	5.00	4.82	96	5.00	5.12	102	6	80-120	20	
Chromium	<0.0500	5.00	4.99	100	5.00	5.31	106	6	80-120	20	
Lead	<0.0500	5.00	4.85	97	5.00	5.13	103	6	80-120	20	
Nickel	<0.0500	5.00	4.64	93	5.00	4.91	98	6	80-120	20	
Selenium	<0.150	5.00	5.13	103	5.00	5.43	109	6	80-120	20	
Silver	<0.100	2.50	2.55	102	2.50	2.75	110	8	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: N.Artesia- Beeson 6"

Work Order # : 485707 **Project ID:** 086405

Lab Batch ID: 941666 **QC- Sample ID:** 485675-001 S **Batch #:** 1 **Matrix:** Solid

Date Analyzed: 05/21/2014 **Date Prepared:** 05/21/2014 **Analyst:** MCH

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP VOAs by EPA 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.0250	0.250	0.242	97	0.250	0.219	88	10	66-142	25	
2-Butanone	<0.250	1.25	1.41	113	1.25	1.40	112	1	60-140	25	
Carbon Tetrachloride	<0.0250	0.250	0.242	97	0.250	0.203	81	18	62-125	25	
Chlorobenzene	<0.0250	0.250	0.232	93	0.250	0.216	86	7	60-133	25	
Chloroform	<0.0250	0.250	0.259	104	0.250	0.235	94	10	70-130	25	
1,4-Dichlorobenzene	<0.0250	0.250	0.229	92	0.250	0.217	87	5	75-125	25	
1,2-Dichloroethane	<0.0250	0.250	0.254	102	0.250	0.247	99	3	68-127	25	
1,1-Dichloroethene	<0.0250	0.250	0.230	92	0.250	0.182	73	23	59-172	25	
Tetrachloroethylene	<0.0250	0.250	0.224	90	0.250	0.195	78	14	71-125	25	
Trichloroethene	<0.0250	0.250	0.236	94	0.250	0.210	84	12	62-137	25	
Vinyl Chloride	<0.0100	0.250	0.190	76	0.250	0.141	56	30	60-140	25	XF

Lab Batch ID: 941764 **QC- Sample ID:** 485603-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/22/2014 **Date Prepared:** 05/22/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	176	1110	1180	90	1110	1330	104	12	70-135	35	
C12-C28 Diesel Range Hydrocarbons	341	1110	1370	93	1110	1410	96	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707

Lab Batch #: 941891 **Project ID:** 086405
Date Analyzed: 05/27/2014 17:12 **Date Prepared:** 05/27/2014 **Analyst:** DHE
QC- Sample ID: 485764-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: Deg F

Flash Point (CC) SW-846 1010 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Flash Point	182	182	0	25	

Lab Batch #: 941593
Date Analyzed: 05/20/2014 18:00 **Date Prepared:** 05/20/2014 **Analyst:** JUM
QC- Sample ID: 485620-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.50	3.23	8	20	

Lab Batch #: 941667
Date Analyzed: 05/22/2014 12:10 **Date Prepared:** 05/22/2014 **Analyst:** BFO
QC- Sample ID: 485616-009 D **Batch #:** 1 **Matrix:** Solid
Reporting Units: mg/kg

Reactive Cyanide by EPA 9010B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Cyanide	<0.200	<0.200	0	20	U

Lab Batch #: 941667
Date Analyzed: 05/22/2014 12:10 **Date Prepared:** 05/22/2014 **Analyst:** BFO
QC- Sample ID: 485764-005 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Reactive Cyanide by EPA 9010B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Cyanide	<0.200	<0.200	0	20	U

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: N.Artesia- Beeson 6"

Work Order #: 485707

Lab Batch #: 941650 **Project ID:** 086405
Date Analyzed: 05/22/2014 15:00 **Date Prepared:** 05/22/2014 **Analyst:** DHE
QC- Sample ID: 485616-009 D **Batch #:** 1 **Matrix:** Solid
Reporting Units: mg/kg

Reactive Sulfide by SW 9030B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Sulfide	400	380	5	20	

Lab Batch #: 941650
Date Analyzed: 05/22/2014 15:00 **Date Prepared:** 05/22/2014 **Analyst:** DHE
QC- Sample ID: 485764-005 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Reactive Sulfide by SW 9030B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Sulfide	<50.0	<50.0	0	20	U

Lab Batch #: 941325
Date Analyzed: 05/19/2014 15:27 **Date Prepared:** 05/19/2014 **Analyst:** WRU
QC- Sample ID: 485509-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: SU

Soil pH by EPA 9045C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
pH	8.38	8.39	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

CHAIN OF CUSTODY

Page ___ Of ___

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

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Service Center - San Antonio, Texas (210-509-3334) | www.xenco.com

Xenco Quote # | Xenco Job #

Client / Reporting Information

Company Name / Branch: CRA

Company Address: 2135 S Loop 250 W

Email: tlarson@craworld.com Phone No:

Project Contact: Tom Larson

Samplers's Name: " "

Project Information

Project Name/Number: 086405

Project Location: NArtesia - Beeson 6"

Invoice To: CRA

PO Number: See CRA SSOW

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date (2014)	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH	BTEX	RCI	TCLP 11 metals	TCLP Vol	TCLP Semi Vol					Field Comments
1	NA - Beeson	surf	5.19	1030	S	3									X	X	X	X	X	X					
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes: See SSOW

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler / Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Tom Larson	1548 5/19/14				
2				5/19/14 1548		
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						6

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 05/19/2014 03:48:00 PM

Work Order #: 485707

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 05/19/2014

Checklist reviewed by: Kelsey Brooks Date: 05/19/2014

Analytical Report 491118

for

Conestoga Rovers & Associates

Project Manager: Nathan Knowles

Beeson

086405

18-AUG-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

18-AUG-14

Project Manager: **Nathan Knowles**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **491118**
Beeson
Project Address: Loco Hills,NM

Nathan Knowles:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 491118. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 491118 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 491118

Conestoga Rovers & Associates, Midland, TX

Beeson

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS 1-2'	S	08-07-14 11:40	- 2 ft	491118-001
CS 2-2'	S	08-07-14 11:45	- 2 ft	491118-002
CS 3-2'	S	08-07-14 11:50	- 2 ft	491118-003
CS 4-2'	S	08-07-14 12:00	- 2 ft	491118-004
CS 5-2'	S	08-07-14 11:55	- 2 ft	491118-005
CS 6-2'	S	08-07-14 12:05	- 2 ft	491118-006
6' E. Sidewall	S	08-07-14 11:34	- 6 ft	491118-007
4' W. Sidewall	S	08-07-14 11:25	- 4 ft	491118-008
4' N. Sidewall	S	08-07-14 11:17	- 4 ft	491118-009
4' S. Sidewall	S	08-07-14 11:20	- 4 ft	491118-010
Bottom Excavation 16 '	S	08-07-14 11:37	- 16 ft	491118-011
4' E.Sidewall	S	08-07-14 11:30	- 4 ft	491118-012

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-948330 BTEX by EPA 8021B

Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 491118-004, -008, -002, -001, -003, -005, -006.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Certificate of Analysis Summary 491118

Conestoga Rovers & Associates, Midland, TX

Project Name: Beeson

Project Id: 086405
Contact: Nathan Knowles
Project Location: Loco Hills,NM

Date Received in Lab: Fri Aug-08-14 11:10 am
Report Date: 18-AUG-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	491118-001		491118-002		491118-003		491118-004		491118-005		491118-006	
	Field Id:	CS 1-2'		CS 2-2'		CS 3-2'		CS 4-2'		CS 5-2'		CS 6-2'	
	Depth:	2 ft		2 ft		2 ft		2 ft		2 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-14 11:40		Aug-07-14 11:45		Aug-07-14 11:50		Aug-07-14 12:00		Aug-07-14 11:55		Aug-07-14 12:05	
BTEX by EPA 8021B	*Extracted:*	Aug-13-14 16:00		Aug-13-14 16:00		Aug-13-14 16:00		Aug-13-14 16:00		Aug-13-14 16:00		Aug-13-14 16:00	
	Analyzed:	Aug-14-14 19:04		Aug-14-14 20:59		Aug-14-14 17:25		Aug-14-14 17:42		Aug-14-14 17:58		Aug-14-14 18:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.0101	0.00100	0.0155	0.00101	ND	0.00105	0.00127	0.00102	ND	0.00104	ND	0.00103
Toluene		0.0152	0.00201	0.0832	0.00202	ND	0.00210	ND	0.00204	ND	0.00208	ND	0.00206
Ethylbenzene		0.00285	0.00100	0.233	0.00101	ND	0.00105	ND	0.00102	ND	0.00104	ND	0.00103
m,p-Xylenes		0.0233	0.00201	0.705	0.00202	ND	0.00210	ND	0.00204	ND	0.00208	ND	0.00206
o-Xylene		0.00748	0.00100	0.254	0.00101	ND	0.00105	ND	0.00102	ND	0.00104	ND	0.00103
Total Xylenes		0.0308	0.00100	0.959	0.00101	ND	0.00105	ND	0.00102	ND	0.00104	ND	0.00103
Total BTEX		0.0589	0.00100	1.29	0.00101	ND	0.00105	0.00127	0.00102	ND	0.00104	ND	0.00103
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	1.43	1.00	4.91	1.00	2.63	1.00	4.18	1.00	3.43	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00	
	Analyzed:	Aug-13-14 16:33		Aug-13-14 16:58		Aug-13-14 17:23		Aug-13-14 18:34		Aug-13-14 18:57		Aug-13-14 19:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		97.7	15.1	464	75.9	ND	15.7	ND	15.3	ND	15.6	ND	15.5
C12-C28 Diesel Range Hydrocarbons		2520	15.1	2350	75.9	27.1	15.7	ND	15.3	ND	15.6	ND	15.5
C28-C35 Oil Range Hydrocarbons		49.1	15.1	ND	75.9	ND	15.7	ND	15.3	ND	15.6	ND	15.5
Total TPH		2670	15.1	2810	75.9	27.1	15.7	ND	15.3	ND	15.6	ND	15.5

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 491118

Conestoga Rovers & Associates, Midland, TX

Project Name: Beeson

Project Id: 086405
Contact: Nathan Knowles
Project Location: Loco Hills,NM

Date Received in Lab: Fri Aug-08-14 11:10 am
Report Date: 18-AUG-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	491118-007		491118-008		491118-009		491118-010		491118-011		491118-012	
	Field Id:	6' E. Sidewall		4' W. Sidewall		4' N. Sidewall		4' S. Sidewall		Bottom Excavation 16 '		4' E.Sidewall	
	Depth:	6 ft		4 ft		4 ft		4 ft		16 ft		4 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-14 11:34		Aug-07-14 11:25		Aug-07-14 11:17		Aug-07-14 11:20		Aug-07-14 11:37		Aug-07-14 11:30	
BTEX by EPA 8021B	*Extracted:*	Aug-16-14 18:00		Aug-13-14 16:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00		Aug-16-14 18:00	
	Analyzed:	Aug-17-14 15:49		Aug-14-14 18:31		Aug-17-14 16:06		Aug-17-14 16:23		Aug-17-14 16:39		Aug-17-14 16:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		140	1.17	0.0480	0.00105	6.21	0.562	0.636	0.254	2.42	0.540	28.2	1.10
Toluene		464	2.34	0.0236	0.00210	99.3	1.12	22.4	0.509	74.0	1.08	206	2.21
Ethylbenzene		180	1.17	ND	0.00105	51.8	0.562	26.8	0.254	53.2	0.540	69.6	1.10
m,p-Xylenes		338	2.34	0.00528	0.00210	132	1.12	67.2	0.509	105	1.08	137	2.21
o-Xylene		109	1.17	0.00160	0.00105	46.0	0.562	24.0	0.254	33.5	0.540	52.9	1.10
Total Xylenes		447	1.17	0.00688	0.00105	178	0.562	91.2	0.254	139	0.540	190	1.10
Total BTEX		1230	1.17	0.0785	0.00105	335	0.562	141	0.254	268	0.540	494	1.10
Percent Moisture	*Extracted:*												
	Analyzed:	Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05		Aug-13-14 17:05	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		15.3	1.00	4.93	1.00	11.3	1.00	1.89	1.00	7.81	1.00	9.78	1.00
TPH By SW8015 Mod	*Extracted:*	Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00		Aug-13-14 12:00	
	Analyzed:	Aug-13-14 19:44		Aug-13-14 20:07		Aug-13-14 20:30		Aug-13-14 20:54		Aug-13-14 21:42		Aug-14-14 09:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		13400	88.3	ND	15.8	3820	16.9	1990	15.3	2980	16.3	5070	166
C12-C28 Diesel Range Hydrocarbons		17400	88.3	ND	15.8	5540	16.9	4250	15.3	4650	16.3	7430	166
C28-C35 Oil Range Hydrocarbons		ND	88.3	ND	15.8	ND	16.9	ND	15.3	ND	16.3	315	166
Total TPH		30800	88.3	ND	15.8	9360	16.9	6240	15.3	7630	16.3	12800	166

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118,

Project ID: 086405

Lab Batch #: 948125 **Sample:** 491118-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 16:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	99.7	96	70-135	
o-Terphenyl	62.5	49.9	125	70-135	

Lab Batch #: 948125 **Sample:** 491118-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 16:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.8	107	70-135	
o-Terphenyl	59.6	49.9	119	70-135	

Lab Batch #: 948125 **Sample:** 491118-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 17:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	99.8	99	70-135	
o-Terphenyl	49.6	49.9	99	70-135	

Lab Batch #: 948125 **Sample:** 491118-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 18:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.2	99.6	98	70-135	
o-Terphenyl	47.7	49.8	96	70-135	

Lab Batch #: 948125 **Sample:** 491118-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 18:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.6	99.8	94	70-135	
o-Terphenyl	47.7	49.9	96	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948125 **Sample:** 491118-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 19:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.9	99.7	90	70-135	
o-Terphenyl	45.7	49.9	92	70-135	

Lab Batch #: 948125 **Sample:** 491118-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 19:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.7	127	70-135	
o-Terphenyl	58.3	49.9	117	70-135	

Lab Batch #: 948125 **Sample:** 491118-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 20:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	99.9	94	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 948125 **Sample:** 491118-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 20:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.8	119	70-135	
o-Terphenyl	44.0	49.9	88	70-135	

Lab Batch #: 948125 **Sample:** 491118-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 20:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	63.3	50.0	127	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948125 **Sample:** 491118-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 21:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.9	126	70-135	
o-Terphenyl	61.6	50.0	123	70-135	

Lab Batch #: 948125 **Sample:** 491118-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 09:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 948330 **Sample:** 491118-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 17:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 948330 **Sample:** 491118-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 17:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 948330 **Sample:** 491118-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118,

Project ID: 086405

Lab Batch #: 948330 **Sample:** 491118-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 18:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 948330 **Sample:** 491118-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 18:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 948330 **Sample:** 491118-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 19:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 948330 **Sample:** 491118-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 20:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 948394 **Sample:** 491118-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 15:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	80-120	
4-Bromofluorobenzene	0.0240	0.0300	80	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948394 **Sample:** 491118-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 16:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 948394 **Sample:** 491118-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 16:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 948394 **Sample:** 491118-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 16:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 948394 **Sample:** 491118-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 16:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 948125 **Sample:** 659993-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/14 15:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948330 **Sample:** 660099-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/14 16:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

Lab Batch #: 948394 **Sample:** 660143-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/17/14 05:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 948125 **Sample:** 659993-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/14 15:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	64.1	50.0	128	70-135	

Lab Batch #: 948330 **Sample:** 660099-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/14 16:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 948394 **Sample:** 660143-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/17/14 05:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948125 **Sample:** 659993-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/14 16:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	64.3	50.0	129	70-135	

Lab Batch #: 948330 **Sample:** 660099-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/14 16:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 948394 **Sample:** 660143-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/17/14 06:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 948125 **Sample:** 491118-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 17:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 948330 **Sample:** 491118-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 16:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 491118, **Project ID:** 086405

Lab Batch #: 948394 **Sample:** 490901-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 06:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 948125 **Sample:** 491118-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/14 18:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.8	114	70-135	
o-Terphenyl	60.1	49.9	120	70-135	

Lab Batch #: 948330 **Sample:** 491118-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/14 17:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 948394 **Sample:** 490901-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/14 06:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Beeson

Work Order #: 491118 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 08/13/2014 **Date Analyzed:** 08/14/2014

Lab Batch ID: 948330 **Sample:** 660099-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0933	93	0.100	0.0966	97	3	70-130	35	
Toluene	<0.00200	0.100	0.0964	96	0.100	0.101	101	5	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0980	98	0.100	0.104	104	6	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.197	99	0.200	0.210	105	6	70-135	35	
o-Xylene	<0.00100	0.100	0.0948	95	0.100	0.101	101	6	71-133	35	

Analyst: ARM **Date Prepared:** 08/16/2014 **Date Analyzed:** 08/17/2014

Lab Batch ID: 948394 **Sample:** 660143-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.104	104	0.100	0.106	106	2	70-130	35	
Toluene	<0.00200	0.100	0.102	102	0.100	0.105	105	3	70-130	35	
Ethylbenzene	<0.00100	0.100	0.107	107	0.100	0.111	111	4	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.209	105	0.200	0.219	110	5	70-135	35	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.105	105	4	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Beeson

Work Order #: 491118 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 08/13/2014 **Date Analyzed:** 08/13/2014

Lab Batch ID: 948125 **Sample:** 659993-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	1030	103	1000	963	96	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1120	112	1000	1140	114	2	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Beeson

Work Order # : 491118 **Project ID:** 086405

Lab Batch ID: 948330 **QC- Sample ID:** 491118-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/14/2014 **Date Prepared:** 08/13/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00105	0.105	0.0629	60	0.105	0.0646	62	3	70-130	35	X
Toluene	<0.00210	0.105	0.0626	60	0.105	0.0620	59	1	70-130	35	X
Ethylbenzene	<0.00105	0.105	0.0472	45	0.105	0.0465	44	1	71-129	35	X
m,p-Xylenes	<0.00210	0.210	0.118	56	0.210	0.117	56	1	70-135	35	X
o-Xylene	<0.00105	0.105	0.0641	61	0.105	0.0649	62	1	71-133	35	X

Lab Batch ID: 948394 **QC- Sample ID:** 490901-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/17/2014 **Date Prepared:** 08/16/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00103	0.103	0.104	101	0.102	0.0999	98	4	70-130	35	
Toluene	<0.00205	0.103	0.103	100	0.102	0.0974	95	6	70-130	35	
Ethylbenzene	<0.00103	0.103	0.108	105	0.102	0.102	100	6	71-129	35	
m,p-Xylenes	<0.00205	0.205	0.212	103	0.205	0.199	97	6	70-135	35	
o-Xylene	<0.00103	0.103	0.102	99	0.102	0.0965	95	6	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Beeson

Work Order # : 491118 **Project ID:** 086405

Lab Batch ID: 948125 **QC- Sample ID:** 491118-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2014 **Date Prepared:** 08/13/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.8	1050	944	90	1050	1010	96	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	27.1	1050	1050	97	1050	1110	103	6	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Beeson

Work Order #: 491118

Lab Batch #: 948148 **Project ID:** 086405

Date Analyzed: 08/13/2014 17:05 **Date Prepared:** 08/13/2014 **Analyst:** WRU

QC- Sample ID: 491118-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	<1.00	<1.00	0	20	U

Lab Batch #: 948148

Date Analyzed: 08/13/2014 17:05 **Date Prepared:** 08/13/2014 **Analyst:** WRU

QC- Sample ID: 491118-011 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.81	8.12	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

XENCO LABORATORIES

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Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

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Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

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CHAIN OF CUSTODY

Page 1 Of 2

Xenco Quote #

Xenco Job # 419118

Client / Reporting Information

Company Name / Branch: CRA

Company Address: 2135 S. Loop 250 W, Midland, TX 79703

Email: nknowles@craworld.com

Phone No: (432) 557-0684

Project Contact: Nathan Knowles

Samplers's Name: Nathan Knowles

Project Information

Project Name/Number: 086405 Beeson

Project Location: Loco Hills, NM

Invoice To:

PO Number: See SSOW

Analytical Information

TPH

BTEX

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE
1	CS 1-2'	2'	8/7	11:40	So	1								
2	CS 2-2'	2'	8/7	11:45	So	1								
3	CS 3-2'	2'	8/7	11:50	So	1								
4	CS 4-2'	2'	8/7	12:00	So	1								
5	CS 5-2'	2'	8/7	11:55	So	1								
6	CS 6-2'	2'	8/7	12:05	So	1								
7	6' E. sidewall	6'	8/7	11:34	So	1								
8	4' W. sidewall	4'	8/7	11:25	So	1								
9	4' N. sidewall	4'	8/7	11:17	So	1								
10	4' S. sidewall	4'	8/7	11:20	So	1								

Field Comments

See SSOW for methods

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/8 11:10	1	2	8/8/14 1116	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. Thermo. Corr. Factor 1.3

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

Page 2 Of 2

XENCO LABORATORIES

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Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

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Xenco Quote #

Xenco Job # 491118

Client / Reporting Information

Company Name / Branch: CRA

Company Address: 2135 S. Loop 250W. Midland, TX 79703

Email: nknowles@crawford.com

Phone No: (432) 551-0684

Project Contact: Nathan Knowles

Samplers's Name: Nathan Knowles

Project Information

Project Name/Number: 08605 Beeson

Project Location: Loco Hills, NM

Invoice To:

PO Number: See SSOW

Analytical Information

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH	BTEX	Field Comments
1	Bottom excavation 16'	16'	8/7	11:37	So	1									✓	✓	See SSOW
2	4' E. Sidewall	4'	8/7	11:30	So	1									✓	✓	for methods
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/8 11:10		2	8/8/19 1110	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X
			5			Cooler Temp. Thermo. Corr. Factor 1.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 08/08/2014 11:10:00 AM

Work Order #: 491118

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**No**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 08/08/2014

Checklist reviewed by: Date:

Analytical Report 492185

for

Conestoga Rovers & Associates

Project Manager: Nathan Knowles

Beeson

086405

04-SEP-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

04-SEP-14

Project Manager: **Nathan Knowles**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **492185**
Beeson
Project Address: Loco Hills,NM

Nathan Knowles:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 492185. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 492185 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Julian Martinez
Project Manager

Sample Cross Reference 492185

Conestoga Rovers & Associates, Midland, TX

Beeson

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S. Sidewall-12'-#2	S	08-26-14 16:20	- 12 ft	492185-001
Bottom Excavation-18'	S	08-26-14 16:25	- 18 ft	492185-002
N.Sidewall-12'-#2	S	08-26-14 16:15	- 15 ft	492185-003
E. Sidewall-8'-#2	S	08-26-14 16:30	- 8 ft	492185-004

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 492185

Conestoga Rovers & Associates, Midland, TX

Project Name: Beeson

Project Id: 086405
Contact: Nathan Knowles
Project Location: Loco Hills,NM

Date Received in Lab: Wed Aug-27-14 08:55 am
Report Date: 04-SEP-14
Project Manager: Kelsey Brooks

Analysis Requested		492185-001		492185-002		492185-003		492185-004			
	Field Id:	S. Sidewall-12'-#2		Bottom Excavation-18'		N.Sidewall-12'-#2		E. Sidewall-8'-#2			
	Depth:	12 ft		18 ft		15 ft		8 ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Aug-26-14 16:20		Aug-26-14 16:25		Aug-26-14 16:15		Aug-26-14 16:30			
BTEX by EPA 8021B	Extracted:	Aug-28-14 11:00		Aug-28-14 11:00		Aug-28-14 11:00		Aug-28-14 11:00			
	Analyzed:	Aug-28-14 17:47		Aug-28-14 15:36		Aug-28-14 15:53		Aug-29-14 08:38			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		0.0367	0.0110	ND	0.00109	ND	0.00114	86.0	6.16		
Toluene		0.943	0.0219	ND	0.00217	ND	0.00229	447	12.3		
Ethylbenzene		1.68	0.0110	ND	0.00109	ND	0.00114	189	6.16		
m,p-Xylenes		4.10	0.0219	ND	0.00217	ND	0.00229	371	12.3		
o-Xylene		1.50	0.0110	ND	0.00109	ND	0.00114	119	6.16		
Total Xylenes		5.60	0.0110	ND	0.00109	ND	0.00114	490	6.16		
Total BTEX		8.26	0.0110	ND	0.00109	ND	0.00114	1210	6.16		
Percent Moisture	Extracted:										
	Analyzed:	Aug-28-14 17:20		Aug-28-14 17:20		Aug-28-14 17:20		Aug-28-14 17:20			
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		9.14	1.00	8.32	1.00	13.1	1.00	19.3	1.00		
TPH By SW8015 Mod	Extracted:	Aug-27-14 14:00		Aug-27-14 14:00		Aug-27-14 14:00		Aug-27-14 14:00			
	Analyzed:	Aug-28-14 01:03		Aug-28-14 01:35		Aug-28-14 02:02		Aug-28-14 07:47			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		187	16.5	ND	16.3	ND	17.2	4600	92.9		
C12-C28 Diesel Range Hydrocarbons		687	16.5	18.7	16.3	21.0	17.2	7820	92.9		
C28-C35 Oil Range Hydrocarbons		ND	16.5	ND	16.3	ND	17.2	291	92.9		
Total TPH		874	16.5	18.7	16.3	21.0	17.2	12700	92.9		

Julian Martinez
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 492185, **Project ID:** 086405

Lab Batch #: 949367 **Sample:** 492185-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 01:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	55.7	49.9	112	70-135	

Lab Batch #: 949367 **Sample:** 492185-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 01:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.6	87	70-135	
o-Terphenyl	43.6	49.8	88	70-135	

Lab Batch #: 949367 **Sample:** 492185-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 02:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.6	99.8	89	70-135	
o-Terphenyl	46.1	49.9	92	70-135	

Lab Batch #: 949367 **Sample:** 492185-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 07:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.7	99.9	97	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

Lab Batch #: 949437 **Sample:** 492185-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 15:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 492185, **Project ID:** 086405

Lab Batch #: 949437 **Sample:** 492185-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 15:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 949437 **Sample:** 492185-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 17:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 949437 **Sample:** 492185-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/29/14 08:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 949367 **Sample:** 660737-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/27/14 23:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.1	100	91	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 949437 **Sample:** 660792-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 12:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 492185, **Project ID:** 086405

Lab Batch #: 949367 **Sample:** 660737-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 00:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.3	100	99	70-135	
o-Terphenyl	61.3	50.0	123	70-135	

Lab Batch #: 949437 **Sample:** 660792-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 12:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 949367 **Sample:** 660737-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 00:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	61.1	50.0	122	70-135	

Lab Batch #: 949437 **Sample:** 660792-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 12:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 949367 **Sample:** 492185-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 02:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.9	104	70-135	
o-Terphenyl	59.1	50.0	118	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 492185,

Project ID: 086405

Lab Batch #: 949437 **Sample:** 492176-001 S / MS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 12:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 949367 **Sample:** 492185-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/28/14 03:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.8	95	70-135	
o-Terphenyl	56.5	49.9	113	70-135	

Lab Batch #: 949437 **Sample:** 492176-001 SD / MSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/28/14 13:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Beeson

Work Order #: 492185 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 08/28/2014 **Date Analyzed:** 08/28/2014

Lab Batch ID: 949437 **Sample:** 660792-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.107	107	0.100	0.106	106	1	70-130	35	
Toluene	<0.00200	0.100	0.107	107	0.100	0.105	105	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.114	114	0.100	0.112	112	2	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.223	112	0.200	0.219	110	2	70-135	35	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.104	104	1	71-133	35	

Analyst: ARM **Date Prepared:** 08/27/2014 **Date Analyzed:** 08/28/2014

Lab Batch ID: 949367 **Sample:** 660737-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	941	94	1000	840	84	11	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1050	105	1000	1040	104	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Beeson

Work Order # : 492185 **Project ID:** 086405

Lab Batch ID: 949437 **QC- Sample ID:** 492176-001 S **Batch #:** 1 **Matrix:** Solid

Date Analyzed: 08/28/2014 **Date Prepared:** 08/28/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000996	0.0996	0.0976	98	0.0998	0.102	102	4	70-130	35	
Toluene	<0.00199	0.0996	0.0955	96	0.0998	0.0988	99	3	70-130	35	
Ethylbenzene	<0.000996	0.0996	0.0967	97	0.0998	0.102	102	5	71-129	35	
m,p-Xylenes	<0.00199	0.199	0.188	94	0.200	0.199	100	6	70-135	35	
o-Xylene	<0.000996	0.0996	0.0908	91	0.0998	0.0953	95	5	71-133	35	

Lab Batch ID: 949367 **QC- Sample ID:** 492185-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/28/2014 **Date Prepared:** 08/27/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<17.2	1150	1070	93	1150	1020	89	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	21.0	1150	1170	100	1150	1120	96	4	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Beeson

Work Order #: 492185

Lab Batch #: 949494 **Project ID:** 086405

Date Analyzed: 08/28/2014 17:20 **Date Prepared:** 08/28/2014 **Analyst:** WRU

QC- Sample ID: 492176-003 D **Batch #:** 1 **Matrix:** Solid

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	<1.00	<1.00	0	20	U

Lab Batch #: 949494

Date Analyzed: 08/28/2014 17:20 **Date Prepared:** 08/28/2014 **Analyst:** WRU

QC- Sample ID: 492246-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	16.8	16.9	1	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford, Texas (281-240-4200)
Dallas, Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #: | Xenco Job #: 492185

Client / Reporting Information

Company Name / Branch: CRA
Company Address:
Email: NKnowles@cramworld.com
Phone No: 432 557-6684
Project Contact: Nathan Knowles
Samplers's Name: Nathan Knowles

Project Information

Project Name/Number: 086405 Reeson
Project Location: Loco Hills NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Field Comments
1	S. Sidewall - 12' - #2	12'	8/26	16:20	S	1									1	1	
2	Bottom Excavation - 18'	18'	8/26	16:25	S	1											
3	N Sidewall - 12' - #2	12'	8/26	16:15	S	1											
4	E Sidewall - 8' - #2	8'	8/26	16:30	S	1											
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

See SSOW for Methods

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Nathan Kn	8:55 8/27	1 Julian Martinez		8-27-14	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time: 8:55	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable: [ ]	On Ice: [x] Cooler Temp. 5.0°C Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 08/27/2014 08:55:00 AM

Work Order #: 492185

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 08/27/2014

Checklist reviewed by: Kelsey Brooks Date: 08/27/2014

Analytical Report 495737

for

Conestoga Rovers & Associates

Project Manager: Nathan Knowles

Beeson

086405

28-OCT-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

28-OCT-14

Project Manager: **Nathan Knowles**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **495737**
Beeson
Project Address: Loco Hills,NM

Nathan Knowles:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 495737. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 495737 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 495737

Conestoga Rovers & Associates, Midland, TX

Beeson

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East sidewall 8'	S	10-22-14 13:00	- 8 ft	495737-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 495737

Conestoga Rovers & Associates, Midland, TX

Project Name: Beeson

Project Id: 086405
Contact: Nathan Knowles
Project Location: Loco Hills,NM

Date Received in Lab: Wed Oct-22-14 04:55 pm
Report Date: 28-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	495737-001					
	Field Id:	East sidewall 8'					
	Depth:	8 ft					
	Matrix:	SOIL					
	Sampled:	Oct-22-14 13:00					
BTEX by EPA 8021B	***Extracted:***	Oct-23-14 15:00					
	Analyzed:	Oct-23-14 19:35					
	Units/RL:	mg/kg	RL				
Benzene		ND	0.00105				
Toluene		ND	0.00209				
Ethylbenzene		0.00225	0.00105				
m,p-Xylenes		0.0257	0.00209				
o-Xylene		0.00618	0.00105				
Total Xylenes		0.0319	0.00105				
Total BTEX		0.0341	0.00105				
Percent Moisture	***Extracted:***						
	Analyzed:	Oct-23-14 16:50					
	Units/RL:	%	RL				
Percent Moisture		4.92	1.00				
TPH By SW8015 Mod	***Extracted:***	Oct-23-14 16:00					
	Analyzed:	Oct-24-14 13:28					
	Units/RL:	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		19.4	15.8				
C12-C28 Diesel Range Hydrocarbons		112	15.8				
C28-C35 Oil Range Hydrocarbons		ND	15.8				
Total TPH		131	15.8				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 495737,

Project ID: 086405

Lab Batch #: 953772 **Sample:** 495737-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/23/14 19:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 953910 **Sample:** 495737-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 13:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 953772 **Sample:** 663448-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/23/14 17:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 953910 **Sample:** 663507-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 12:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 953772 **Sample:** 663448-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/23/14 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 495737, **Project ID:** 086405

Lab Batch #: 953910 **Sample:** 663507-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 12:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

Lab Batch #: 953772 **Sample:** 663448-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/23/14 18:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 953910 **Sample:** 663507-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/24/14 13:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	37.4	50.0	75	70-135	

Lab Batch #: 953772 **Sample:** 495738-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/23/14 18:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0344	0.0300	115	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 953910 **Sample:** 495738-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 15:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.7	119	70-135	
o-Terphenyl	63.1	49.9	126	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Beeson

Work Orders : 495737, **Project ID:** 086405

Lab Batch #: 953910 **Sample:** 495738-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/24/14 15:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.8	114	70-135	
o-Terphenyl	63.2	49.9	127	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Beeson

Work Order #: 495737 **Project ID:** 086405

Analyst: ARM **Date Prepared:** 10/23/2014 **Date Analyzed:** 10/23/2014

Lab Batch ID: 953772 **Sample:** 663448-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0901	90	0.100	0.0895	90	1	70-130	35	
Toluene	<0.00200	0.100	0.0958	96	0.100	0.0953	95	1	70-130	35	
Ethylbenzene	<0.00100	0.100	0.0988	99	0.100	0.0985	99	0	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.203	102	0.200	0.202	101	0	70-135	35	
o-Xylene	<0.00100	0.100	0.0955	96	0.100	0.0942	94	1	71-133	35	

Analyst: ARM **Date Prepared:** 10/23/2014 **Date Analyzed:** 10/24/2014

Lab Batch ID: 953910 **Sample:** 663507-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	909	91	1000	916	92	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	1090	109	1000	1090	109	0	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Beeson

Work Order #: 495737

Lab Batch #: 953772 **Project ID:** 086405

Date Analyzed: 10/23/2014 **Date Prepared:** 10/23/2014 **Analyst:** ARM

QC- Sample ID: 495738-002 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	<0.00124	0.124	0.0966	78	70-130	
Toluene	<0.00248	0.124	0.103	83	70-130	
Ethylbenzene	<0.00124	0.124	0.105	85	71-129	
m,p-Xylenes	<0.00248	0.248	0.222	90	70-135	
o-Xylene	<0.00124	0.124	0.107	86	71-133	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Beeson

Work Order # : 495737 **Project ID:** 086405

Lab Batch ID: 953910 **QC- Sample ID:** 495738-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/24/2014 **Date Prepared:** 10/23/2014 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<18.6	1240	1090	88	1240	1100	89	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<18.6	1240	1260	102	1240	1290	104	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Beeson

Work Order #: 495737

Lab Batch #: 953755 **Project ID:** 086405

Date Analyzed: 10/23/2014 16:50 **Date Prepared:** 10/23/2014 **Analyst:** WRU

QC- Sample ID: 495737-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.92	5.15	5	20	

Lab Batch #: 953755

Date Analyzed: 10/23/2014 16:50 **Date Prepared:** 10/23/2014 **Analyst:** WRU

QC- Sample ID: 495764-010 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.65	4.82	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas, Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
www.xenco.com

Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)

Xenco Quote #

Xenco Job # 419573

Client / Reporting Information

Company Name / Branch: CRA
Company Address:
Email: nknowles@cravworld.com Phone No: 432-557-0604
Project Contact:
Samplers's Name: Nathan Knowles

Project Information

Project Name/Number: 086405 Beeson
Project Location: Loco Hills NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Field Comments
1	East sidewall 8'	8'	10/20	13:20	S	1									X	X	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [X] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

See SSOW

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Nathan K	10/22 4:55	1	2	10/22 14:65	
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. Thermo. Corr. Factor: 5

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 10/22/2014 04:55:00 PM

Work Order #: 495737

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 10/22/2014

Checklist reviewed by: Kelsey Brooks Date: 10/23/2014

Appendix E

Waste Manifests

This Memorandum is an acknowledgment that a Bill of Lading ha be en issued and is not Original Bill of Lading, nor a copy or duplicate, covering t ie property named herein, and is intended solely for filing or record.

Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/25

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee R360 HalfWay Facility
Street Mile Marker 66, Carlsbad HWY
City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6
Street 4 miles SW of Loco Hills, NM
City Eddy County State NM Zip Code
24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material (soil), RCRA Non-exempt	24	Y		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Natta Knox on behalf of HEP
PER HEP
DATE 8/25

CARRIER Antonio Ornelas
PER D+D
DATE 8/25

3

Permanent post-office address of shipper.

This Memorandum is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/25/14

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee R360 HalfWay Facility
Street Mile Marker 66, Carlsbad HWY
City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6
Street 4 miles SW of Loco Hills, NM
City Eddy County State NM Zip Code
24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material(soil),RCRA Non-exempt	17(4	Y		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Matthew Knowles on behalf of HEP
PER HEP

CARRIER Antonio Ornelas
PER DD
DATE 8/25/14

4

Permanent post-office address of shipper.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/25

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee R360 HalfWay Facility

Street Mile Marker 66, Carlsbad HWY

City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6

Street 4 miles SW of Loco Hills, NM

City Eddy County State NM Zip Code

24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material (soil), RCRA Non-exempt	20cy	Y		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Nathan Kuns on behalf HEP

PER HEP

CARRIER Antonio Ornelas

PER D&D

DATE 8/25

4

Permanent post-office address of shipper.

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. N/A

Carrier No. N/A

#3

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/26

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:

Consignee R360 HalfWay Facility

Street Mile Marker 66, Carlsbad HWY

City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6

Street 4 miles SW of Loco Hills, NM

City Eddy County State NM Zip Code

24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material(soil), RCRA Non-exempt	20 cy	Y		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Natta K on behalf of HEP

PER HEP

DATE 8/26

CARRIER Antonio Ornelas

PER D+D

DATE

3

Permanent post-office address of shipper.

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#9

Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/29/20

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee R360 HalfWay Facility
Street Mile Marker 66, Carlsbad HWY
City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6
Street 4 miles SW of Loco Hills, NM
City Eddy County State NM Zip Code
24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material (soil), RCRA Non-exempt		Y		

PLACARDS TENDERED: YES ☐ NO ☐

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(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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TOTAL CHARGES $

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SHIPPER Natalie Krank on behalf of HEP
PER HEP

CARRIER Antonio Ornelas
PER D+D
DATE 8/26

4

ermanent post-office address of shipper.

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Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/20

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TO:

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City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6

Street 4 miles SW of Loco Hills, NM

City Eddy County State NM Zip Code

24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

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DT		NON DOT-Regulated Material (soil), RCRA Non-exempt	20cy	Y		

PLACARDS TENDERED: YES ☐ NO ☐

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COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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(Signature of Consignor)

TOTAL CHARGES $

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SHIPPER Nathan Monk on behalf of HEP

PER HEP

CARRIER Antonio Cornejo

PER D&D

DATE 8/20

4

Permanent post-office address of shipper.

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Shipper No. N/A

Carrier No. N/A

Page 1 of 1

D & D Pipeline Construction
(Name of carrier) (SCAC)

Date 8/26

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TO:

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Street Mile Marker 66, Carlsbad HWY

City Hobbs State NM Zip Code

FROM: Shipper Holly Energy Partners-N Artesia-Beeson6

Street 4 miles SW of Loco Hills, NM

City Eddy County State NM Zip Code

24 hr. Emergency Contact Tel. No. (432)553-1681

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
DT		NON DOT-Regulated Material(soil), RCRA Non-exempt	20cy	Y		

PLACARDS TENDERED: YES ☐ NO ☐

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(Signature of Consignor)

TOTAL CHARGES $

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SHIPPER Nathan Krenek on behalf of HEP

PER HEP

CARRIER Antonio Arnelas

PER DrD

DATE 8/26

4

Permanent post-office address of shipper.

Appendix F

Bureau of Land Management (BLM) Contract

United States Department of the Interior
Bureau of Land Management
CARLSBAD FIELD OFFICE
620 E. GREENE
CARLSBAD, NM 88220 -6292
Phone: (575) 234-5972

Receipt

No: 3185137

Transaction #: 3278230
Date of Transaction: 12/08/2014

CUSTOMER:

CONESTOGA-ROVERS & ASSOCIATES
2135 S LOOP 250 W
MIDLAND,TX 79703-7404 US

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	900.00	MINERAL MATERIALS / PD MINERAL MATERIAL COMPETITIVE/NONCOMP. SALE / PAYMENT **CASES:** NMNM 133563/$720.00 **PROJECT:** LUGD35015240		- n/a -	720.00
2	1.00	MINERAL MATERIALS / PD MINERAL MATERIAL COMPETITIVE/NONCOMP. SALE / PROCESSING FEE **CASES:** NMNM 133563/$46.00 **PROJECT:** LVEMG15CG410		- n/a -	46.00
				TOTAL:	**$766.00**

PAYMENT INFORMATION

NOTE: Items will appear on credit card statement as "Bureau of Land Mgmt CO".

1	AMOUNT:	766.00	POSTMARKED:	N/A
	TYPE:	CREDIT CARD	RECEIVED:	12/08/2014
	NAME:	CONESTOGA-ROVERS & ASSOCIATES 2135 S LOOP 250 W MIDLAND TX 79703-7404 US		
	CARD NO:	XXXXXXXXXXXX8647	AUTH CODE:	03093C
	NAME ON CARD:	NATHAN KNOWLES		
	EXPIRES:	02/2017		
	SIGNATURE:			

REMARKS

Form 3600-9
(February 2012)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

CONTRACT FOR THE SALE OF MINERAL MATERIALS

FORM APPROVED
OMB NO. 1004-0103

Office: BLM CFO 0200

Contract Serial Number:
NMNM 133563

The UNITED STATES OF AMERICA acting through the Bureau of Land Management (BLM), and you, the purchaser, Conestoga-Rovers & Associates (CRA) make this AGREEMENT, under the authority of the Act of July 31, 1947 (61 Stat. 681), as amended at 30 U.S.C. 601 through 604, and the regulations at 43 CFR Group 3600.

We agree: Berm Pit Entrance 4 feet upon Completion

Sec 1. Contract area

Under the terms and conditions of this contract, the United States sells to you and you buy the mineral materials listed in Section 2 and contained in the following lands as shown on the map and mining plan attached to this contract:

County	State	Township	Range	Section	Aliquot Parts	Meridian	Acreage
Eddy	NM	T18S	R30E	04	SWNW	NMPM	

Pit Name (if any):

Sec. 2. Amount and price of materials

The United States determines the total purchase price by multiplying the total quantity of mineral material designated by the unit price given below, or as changed through reappraisal.

Description of Service or Item		Quantity	Price Per Unit	Subtotal
Mineral Type: Borrow	◉ LCY ○ Tons	900	$0.80	$720.00
Recovery Fee				$46.00
☐ Fax Fee		0	$0.00	$0.00
☐ Reclamation			$1.00	$0.00
☒ Pit Sloping				
			Total Price:	$766.00

BLM's determination of the amount of materials that you have taken under the contract is binding on you. You may appeal this determination as provided in Section 19. You are liable for the total purchase price, even if the quantity of materials you ultimately extract is less than the amount shown above. You may not mine more than the quantity of materials shown in the contract.

☑ If you pay in full in advance, BLM will check this box, and Subsections 3(a) through 3(c) do not apply to your contract. You must pay in full for all sales of $2,000 or less.

Sec. 3. Payments, title, and reappraisals

You may not extract the materials until you have paid in advance for them in full $766.00, or paid the first installment of $0.00.

(a) If you pay in installments, you must pay the first installment before BLM approves the contract.

(b) Once you start removing material, you must pay each subsequent installment payment monthly in an amount equal to the value of materials removed in the previous month. Payment must be made by the 15th day following the end of the month for which you are reporting. You must pay the total purchase price not later than 60 days before the contract expires.

(c) The United States will retain the first installment as security for your full and faithful performance and will apply it to the last installment required to make the total payment equal to the total price given in Section 2.

If you are late making an installment payment, you must not remove any more material until you have paid. Removing material you have not paid for is trespass, and for trespass you must pay at triple the appraised unit price, or at triple the reappraised unit price if BLM has made a reappraisal. To resume removal operations after you were late making payments, you must obtain BLM's written approval.

(d) You must annually produce an amount sufficient to pay to theUnited States a sum of money equal to the first installment identified in this section. In lieu of such production, you may make an annual payment in the amount of the first installment. If in any contract year you make production payments that are less than the first installment, you must pay the difference between the production payments and the amount of the first installment. These annual payments are due on or before each anniversary date of the contract.

(e) You receive title to the mineral materials only after you have paid for them and extracted them.

Sec. 4. Bonds

(a) You must furnish BLM with a performance bond in the amount of $0.00 as a condition of issuing this contract.

(b) If you do not perform all terms of the contract, BLM will deduct an amount equal to the damages from the face amount of the bond. If the damages exceed the amount of the bond, you are liable for the excess. BLM will cancel the bond or return the cash or U.S. bonds you supplied when you have completed performance under this contract.

(c) BLM will require a new bond when it finds any bond you furnish under this contract to be unsatisfactory.

Sec. 5. Risk of loss

(a) You assume complete risk of loss for all materials to which you have title. If material covered by this contract is damaged or destroyed before title passes, you are liable for all loss suffered if you or your agents are directly or indirectly responsible for the damages. If you are not responsible for the damage or destruction, you are liable only to the extent that the loss was caused by your failure to remove the material under the terms of this contract. You are still liable for breach of contract or any wrongful or negligent act.

Sec. 6. Liability for damage to materials not sold to you

(a) You are liable for loss or damage to materials not sold to you if you or your agents are directly or indirectly responsible for the damage or loss. You are also liable if you fail to perform under the contract according to BLM's instructions and the United States incurs costs resulting from your breach of any contract term or your failure to use proper conservation practices. If the damage resulted from willful or gross negligence, you are liable for triple the appraised value of the damaged or destroyed materials. If the damage or destruction did not result from willful or gross negligence, you are liable for lesser charges, but not less than the appraised value of the materials.

Sec. 7. Stipulations and reserved terms

(a) Your rights are subject to the regulations at 43 CFR Group 3600 now or hereafter in force and to any stipulations and the mining plan attached to this contract.

☑ BLM will check this box if there are stipulations attached to this contract.

Sec. 8. Notice of operations

(a) You must notify BLM immediately when you begin and end operations under this contract. If BLM has specified a time frame for notification, you must comply with that time frame.

Sec. 9. Assignments

(a) You may not assign this contract without BLM's written approval.

Sec. 10. Modification of the Approved Mining or Reclamation Plan

(a) You or BLM may initiate modification of these plans to adjust for changed conditions, or to correct any oversight. The conditions for BLM requiring you to modify these plans, or approving your request for modification are found in the regulations at 43 CFR 3601.44.

Sec. 11. Expiration of contract Expiration Date: 12/12/2014

(a) This contract will expire _____ months, 14 years, _____ days from its approval date, unless BLM extends the term or renews the contract.

Sec. 12. Extensions of time

(a) BLM may grant you an extension of time in which to comply with contract provisions under the regulations at 43 CFR 3602.27. For contracts with terms over 90 days, you must apply in writing no less than 30 or more than 90 days before your contract expires. For contracts with terms of 90 days or less you must apply no later than 15 days before your contract expires.

Sec. 13. Renewal of renewable competitive contract

(a) BLM will renew your renewable competitive contract if you apply in writing no less than 90 days before your contract expires and you meet the conditions in the regulations at 43 CFR 3602.47

Sec. 14. Time for removing personal property

(a) You have 3 days (not to exceed 90) from the date this contract expires to remove your equipment, improvements, and other personal property from US lands or rights-of-way. You may leave in place improvements such as roads, culverts, and bridges if BLM consents. Any property remaining after this period ends, including extracted materials, becomes the property of the United States. You will remain liable for any costs of removing and disposing of the property and restoring the site.

Sec. 15. Violations and cancellations

(a) If you violate any terms or provisions of this contract, BLM may cancel your contract following the regulations at 43 CFR 3601.60 et seq., and recover all damages suffered by the United States, including applying any advance payments you made under this contract toward the payment of the damages.

(b) If you extract any mineral materials sold under this contract during a suspension period, or after the contract has expired or been canceled, you have committed, and may be charged with, willful trespass.

Sec. 16. Responsibility for damages suffered or costs incurred by the United States

(a) If you, your contractors, subcontractors or employees breach this contract or commit any wrongful or negligent act, you are liable for any resulting damages suffered or costs incurred by the United States. You must pay the United States within 30 days after receiving a written demand from BLM.

Sec. 17. Equal opportunity clause

(a) The actions you take in hiring must comply with the provisions of Executive Order No. 11246 of Sept. 24,1965, as amended, which describe the nondiscrimination clauses. You may get a copy of this order from BLM.

Sec. 18. Effective date

◉ If this contract becomes effective on the date BLM signs the contract, BLM will check this box.

○ If this contract becomes effective only after certain conditions are met, BLM will check this box, list the conditions below, and indicate the effective date.

Mineral Destination

Township: T17S Range: R29E Section: 26 Footages: _____ Job Type: environmental

Operator: _____ Well Name: RJU South Number of Vehicles: _____

Job Details --Standard Pit Stipulations attached
--Purchaser must have a copy of this contract present in each vehicle handling minerals when working at pit site
--Berm pit entrance 4' when removal of material is complete
--No Trackhoes allowed in pit
--No pit high walls are to remain in pit or be generated by contractor
--'Dig Safe' clearance required (phone #811)
--Dust control and road protection required, using water during dry periods

Sec. 19. Appeal

(a) You may appeal any decision that BLM makes in regard to this contract under Parts 4 and 1840 of Title 43 of the Code of Federal Regulations.

The following parties have executed this contract as of: (Contract Date) **11/28/2014**

PURCHASER	THE UNITED STATES OF AMERICA
Conestoga-Rovers & Associates (CRA)	**DOI - Bureau of Land Management**
(Individual or Firm Name)	(Print Name of BLM Official)
2135 S. Loop 250, Midland, TX 79703	12.5.2014
(Address)	(Signature of BLM Official)
Phone Number: (432) 686-0086 Fax Number:	**Field Manager**
(Phone Number - include area code)	(Title)
Nathan K	Craig Cranston
(Signature)	(Signature)

If you are a corporation, affix corporate seal here:

Title 18 U.S.C. 1001, makes it a crime for any person knowingly or willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction, subject to a fine of up to $10,000 and imprisonment up to 5 years.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 601 et seq.; 43 CFR Group 3600

PRINCIPAL PURPOSE: BLM uses this information to identify the parties entering into contracts for disposing of mineral materials.

ROUTINE USES: BLM will transfer information from the record or the record itself to appropriate Federal, State, local, or foreign agencies, when relevant to criminal, civil, or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: If you do not provide this information to BLM, we will not be able to process your application for a contract.

The Paperwork Reduction Act requires us to inform you that:

The BLM is collecting this information to process your application and effect a binding contract.
The BLM will use this information to identify and communicate with applicants.
You must respond to this request to get a benefit.
You do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average about 1 hour per response, including the time for reviewing instructions gathering and maintaining data, and completing and reviewing the form. You may submit comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0103), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Room 2134LM, Washington, D.C. 20240.

EXHIBIT A - MINERAL PIT STIPULATIONS

Mining Plan

1. The material pit will be mined according to the mining plan.
   (A) Mining will be restricted within the surveyed Archaeological boundaries which are marked by steel T posts or metal rods.

2. The overburden and or topsoil will be stockpiled along the outer rim of the first cell of a new pit. Following the first mined cell all top soil is to be stock piles in the bottom of the previously mined out cell to be used to reclaim the pit. NO overburden or top soil shall leave the pit.

3. Damage to the locality will be restricted to the area needed for extraction of the materials. NO excavating without first calling and having New Mexico Dig One field clearance (Call, USA National Cell # 811).

4. Restrict extraction of mineral material to within the surveyed area and active mineral pit cell being harvested (Example: 120 'wide by 600' long cell) Metal T-post have been placed along four corners of the mineral material pit to distinguish outer boundaries of the entire mineral pit. If T-posts are missing, for your safety, call the BLM office at (575) 234-5972.

5. All vehicles shall be confined to roads and the designated boundaries of the working areas. In addition Lesser Prairie chicken timing stipulations maybe required for construction activities in the area of East Eddy Lea County's starting March 1, active until June 15, from 03:00 to 09:00 Hrs.

6. On leaving a material site, it will be cleaned and dressed. All rubbish and debris will be removed and the site dressed by dragging, blading, or otherwise smoothing the excavated surface.

7. The mineral material site will be maintained so as to diminish injury to people, livestock and wildlife. All open excavations need sloped side walls.

8. The open pit slope shall be graded not less than 3 (three) feet horizontal to 1 (one) foot vertical (3 to 1 slope). Test pit are to be back filled.

9. Extreme care and caution will be given as to the existence of underground cables and pipelines in the locality to be excavated. Any existing structures will not be disturbed or damaged in any way by an excavation within a material site. No soil stockpile or excavation activity is to be within 30 feet of any underground or aboveground utility structure.
   (A) New Mexico Call One is a state law that requires a dig clearance for all earth work. Call USA National Cell Phone Number 811 prior to excavation.
   (B) Contact pipeline and waterline lease holders in this area prior to digging to determine exact locations of any buried pipe.
   (C) Stake off any pipes that are discovered and post signs. Cell # 811

10. The material site access roads will be maintained so as not to cause wear and water erosion. Water bars should be constructed across roads in accordance with Bureau o f Land Management (BLM) specifications.

11. Natural drainage systems shall not be blocked. Cuts or fills causing siltation or accumulation of debris in stream channels shall be avoided. Precaution will be taken in staging any spoil piles or material stockpiles to insure that siltation of streams, tanks, and ponds does not occur.

12. This permit may be canceled by the BLM when it is found that the permittee has violated federal law regulations, any clause of the contract, or any of the attached special stipulation. Funds are forfeited by Holder.

General Conditions of Approval

1. The holder shall indemnify the United State against any liability for damage to life or property arising from the occupancy or use of public lands under this authorization.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et, seq.) with regard to any toxic substances that are used, generated by or stored on the pipeline route or on facilities authorized. (See 40 CFR. Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1 – 761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency of State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et, seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on this pipeline (unless the release or threatened release is wholly unrelated to the holder's activity on the pipeline). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the authorization, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or cleanup such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder shall be responsible for the cost of evaluation and any decision as to the proper mitigation measure will be made by the Authorized Officer after consulting with the holder.

6. The holder is herby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes.

7. The holder shall be responsible for weed control on disturbed areas within the limits of the site. The holder is responsible for consultation with the authorized office and/or local authorities for acceptable weed control methods. The mineral material mining site and construction area will be kept free of the following plant species; Malta starthistle, African rue, Scotch thistle, and saltcedar.

8. The holder shall be responsible for maintaining the site in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

9. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during mineral removal or site construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required."

Mineral Material Sites

1. All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices. Dig One Call required - Cell Phone Number 811

2. The holder shall conduct all activities associated with the construction, operation, and termination of the material pit within the authorized limits.

3. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair impacted improvements to at least their former state. The holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officers. Close Gates

4. The holder shall be responsible for the actions and operations of any third party users associated with this authorization. All such use shall be subject to the applicable terms, conditions, and stipulations of this authorization. (Example: Dust control required – water the roads.)

5. The road proposed as part of this authorization shall be constructed and maintained in accordance with the BLM standards prescribed for a roads and the New Mexico Roads Policy.(Example: one lane, 14'W x .5'H, turnout)

6. Topsoil material moved in conjunction with clearing and stripping prior to mineral (caliche', gravel, clay) removal, shall be conserved in stockpiles (within the material site). No top soil shall be removed from the mineral pit.

7. Excess excavated, unsuitable, or slide material shall be disposed of as directed by the authorized officer.

8. No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of two inches deep, the soil shall be deemed too wet to adequately support construction equipment.

9. Existing permitted roads and trails on public lands that are blocked as the result of the material pit activities shall be rerouted or rebuilt as directed by the authorized officer. No soil is to be stock piled on underground utilities. Holder is responsible for removing stock pile off underground utility.

10. The holder shall recontour the disturbed area and obliterate all earth work by removing embankments, backfilling excavations, and grading to reestablish the approximate original contour of the land as determined by the authorized officer. BLM land shall not storage vehicles or equipment.

11. The BLM will monitor construction on this material pit site. Notify the appropriate Resource Area Office, BLM at least (one) working days prior to commencing excavation at (575) 234-5972. The holder shall have a copy of the authorized mineral material permit including C.O.A's and stipulations at the material pit site prior to and during excavation and removal of mineral material from a federal material pit. Surface disturbance, excavation and removal of mineral material cannot commence until the mineral material permit is physically at the material site. The holder will have the authorized mineral material permit available for inspection by the authorized officer at the material site location. Operations by the holder within a federal material site will cease upon discovery by the Authorized Officer that the authorized mineral material permit is not available for inspection or is not valid due to permit volume or date expiration.

HYDROGEN SULFIDE (H2S) PRODUCTIVE AREA STIPULATINS:

1. Hydrogen Sulfide Training All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing excavation or removal of mineral from the material site:
   (A) The hazards and characteristics of hydrogen sulfide (H2S).
   (B) The proper use and maintenance of personal protective equipment and life support systems.
   (C) The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuations procedures, and prevailing winds.
   (D)The proper techniques for first aid and rescue procedures.

2. EMERGENCY EQUIPMENT REQUIREMENTS
   (A) SIGNS-One sign located at the mineral material pit entrance with the following language:
   CAUTION – POTENTIAL POISON GAS
   HYDROGEN SULFIDE (H2S)
   NO ADMITTANCE WITHOUT AUTHORIZATION
   (B) WINDSOCK – WINDSTREAMERS-One windsock or streamer which is 36" (in length) located at the pit entrance and at a height visible from the pit area.
   (C) HYDROGEN SULFIDE DETECTOR AND ALARMS A. H2S detectors or monitors with alarm will be used by all personal located within the mineral material site. BLM personal evacuate at 10ppb H2S, and notify BLM office.
   (D) CONDITION FLAGS A. One each of green, yellow, and red condition flags to be displayed to denote conditions.
   GREEN – NORMAL CONDITIONS
   YELLOW – POTENTIAL DANGER
   RED – DANGER, H2S PRESENT

3. MINERAL MATERIAL EXCAVATION AND REMOVAL WILL CEASE AND THE AREA WILL BE EVACUATED WHEN H2S CONDITIONS ARE IDENTIFIED.

Pipeline Safety Act of 2006 and U.S. Code: Title 49

Release date March 17, 2005

Sec. 60123. Criminal penalties

(A) General Penalty

A person knowingly and willfully violating section 60114(c), 60118(a), or 60128 of this Title or a regulation prescribed or order issued under this chapter shall be fined under Title 18, imprisoned for not more than 5 years, or both.

(B) Penalty for Damaging or Destroying Facilit

A person knowingly and willfully damaging or destroying an interstate gas pipeline facility or interstate hazardous liquid pipeline facility, or attempting or conspiring to do such an act, shall be fined under Title 18, imprisoned for not more than 20 years, or both, and, if death results to any person, shall be imprisoned for any term of years or for life.

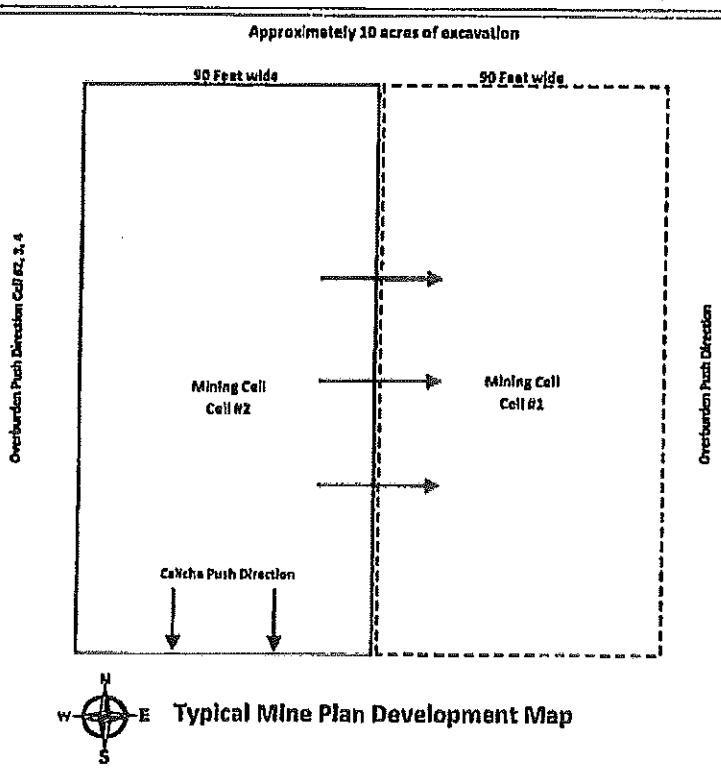
(C) Penalty for Damaging or Destroying Sig

A person knowingly and willfully defacing, damaging, removing, or destroying a pipeline sign or right-of-way marker required by a law or regulation of the United States shall be fined under Title 18, imprisoned for not more than 1 year, or both.

(D) Penalty for Not Using One-Call Cell # 811 Notification System or Not Heeding Location Information or OSHA required utility Marking

A person shall be fined under Title 18, imprisoned for not more than 5 years, or both, if the person knowingly and willfully –

(1) engages in an excavation activity –
  (A) without first using an available one-call notification system to establish the location of undergrou facilities in the excavation area; or
  (B) without paying attention to appropriate location information or markings the operator of a pipeline facili establishes; and
(2) subsequently damages –
  (A) a pipeline facility that results in death, serious bodily harm, or actual damage to property of more thn $50,000;
  (B) a pipeline facility that does not report the damage promptly to the operator of the pipeline facility and t other appropriate authorities; or
  (C) a hazardous liquid pipeline facility that results in the release of more than 50 barrels of product.



Typical Mine Plan Development Map