



OWWKV-190801-C-1410

July 25, 2019

New Mexico Energy, Minerals and Natural Resources Department Oil
Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Re: **Remediation Summary and Closure Report**
North Lea 3 Federal #1H Battery
GPS: Latitude **32.608471** Longitude **-103.540197**
UL "A", Sec. 3 T20S, R34E
Lea County, NM
NMOCD Ref. No. **1RP-5440**
Plains SRS No. **2019-041**

Tasman Geosciences, Inc. (Tasman), on behalf of Read & Stevens, Inc., has prepared this *Remediation Summary and Closure Report* for the crude oil Release Site known as the North Lea 3 Federal Com #1H. Plains Marketing, LP. assumed responsibility for the remediation. Details of the release are summarized below:

RELEASE DETAILS			
Type of Release:	Crude Oil	Volume of Release:	13 bbls
		Volume Recovered:	0 bbls
Source of Release:	Load Line	Date of Discovery:	1/5/19
Was Immediate Notice Given?	No	If, YES, to Whom?	NMOCD District I
Was a Watercourse Reached?	No	If YES, Volume Impacting the Watercourse:	NA
Surface Owner:	Federal	Mineral Owner:	Federal
Describe Cause of Problem and Remedial Action Taken:			
The cause of the release is a 4 inch elbow failure on the load line. The release occurred outside of the containment, on the pad and approximately 12 ft. in width into the pasture. It is approximately 30 ft. running lengthwise along the production pad.			

Site Characteristics and Sample Location Map are provided as Figure 1 and 2. General Site Photographs are provided as Appendix C. A Copy of the Initial Form C-141 is provided as Appendix D.

REGULATORY FRAMEWORK

Surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste which occur during normal oilfield operations are generally regulated by the New Mexico Oil Conservation Division (NMOCD) in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). 19.15.29 NMAC establishes reporting, site assessment, remediation and closure procedures based on the type and volume of the release and site characterizations, including proximity to sensitive receptors and depth to groundwater, which may be used to determine a Total Ranking Score as follows:

Site Characteristics		
Approximate Depth to Groundwater		~56 ft
Within 300 ft. of any continuously flowing or significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within 200 ft. of any lakebed, sinkhole, or playa lake?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within 500 ft. of an occupied permanent residence, school, hospital, or institution?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within 500 ft. of a spring or private, domestic fresh water well?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within 1,000 ft. of any fresh water well?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within the incorporated municipal boundaries or within a municipal well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within 300 ft. of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within the area overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within an unstable area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within a 1 Mile radius of the release site and identify any registered water wells within a 1/2 Mile of the release site. If none were identified, the approximate depth to groundwater was extrapolated from a Depth to Groundwater Map utilized by the NMOCD. Depth to groundwater information is provided as Appendix B.

Based on the approximate groundwater and site characteristics, the NMOCD Closure Criteria are as follows:

Table I		Closure Criteria for Soils	
Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
<50 - 100 ft	Chloride***	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO + DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

INITIAL SITE ASSESSMENT

On April 4, 2019, an initial site investigation was conducted at the Site. During the initial site investigation, three (3) hand-augured soil bores (V1, V2, and V3) were advanced within the affected area in an effort to determine the vertical extent of hydrocarbon impact. During the advancement of the soil bores, ten (10) soil samples (V1 SS, V1 6", V1 1', V2 SS, V2 6", V2 1', V3 SS, V3 3', V3 5', and V3 6') were collected and submitted to an NMOCD-approved laboratory for analysis of TPH and BTEX. Soil samples (V1 SS, V1', V2 SS, V2 1', V3 SS, and V3 6') were also analyzed for concentrations of chloride. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of BTEX, TPH, and chloride concentrations. A table summarizing laboratory analytical results from soil samples collected during the initial site assessment is provided below:

Concentrations of Benzene, BTEX, TPH, and/or Chloride in Soil											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 C-B
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₅ (mg/kg)	TPH C ₆ -C ₃₅ (mg/kg)	Chloride (mg/kg)
V1 SS	4/4/2019	Surf.	Excavated	0.803	49.8	4,410	23,000	27,410	1,590	29,000	1,330
V1 6"	4/4/2019	6"	Excavated	0.0620	1.45	186	1,000	1,186	110	1,186	-
V1 1'	4/4/2019	1'	In-Situ	<0.0003	0.0008	<7.99	10.9	10.9	<8.11	10.9	168
V2 SS	4/4/2019	Surf.	Excavated	1.65	80.8	5,660	22,100	27,760	1,620	29,380	1,600
V2 6"	4/4/2019	6"	Excavated	0.001	0.026	58.5	376	435	45.1	480	-
V2 1'	4/4/2019	1'	In-Situ	<0.0003	<0.0003	11.3	19.7	31.0	<8.10	31	58.2
V3 SS	4/4/2019	Surf.	Excavated	9.62	121	6,770	16,900	23,670	1,410	25,080	75.5
V3 3'	4/4/2019	3'	Excavated	0.312	25.7	2,030	3,550	5,580	297	5,877	-
V3 5'	4/4/2019	5'	Excavated	<0.0003	<0.0003	<7.99	34.5	34.5	<8.11	34.5	-
V3 6'	4/4/2019	6'	In-Situ	<0.0003	<0.0003	<7.98	15.8	15.8	<8.10	15.8	2.11
Closure Criteria				10	50	-	-	1,000	-	2,500	10,000

A Sample Location Map is provided as Figure 2. Laboratory analytical reports are provided as Appendix A.

SUMMARY OF FIELD ACTIVITIES

Impacted soil within the release margins was excavated and temporarily stockpiled on-site, atop an impermeable liner, pending final disposition. The floor and sidewalls of the excavated area were advanced until laboratory analytical results from confirmation soil samples indicated TPH concentrations were below the NMOCD RRAL. Upon excavating impacted soil from within the release margins, nine (9) confirmation soil samples were collected from the floor and sidewalls of the excavated area representing no more than 200 SqFt. The collected soil samples were submitted to the laboratory for analysis of TPH, BTEX, and chloride concentrations. Upon receiving laboratory analytical data showing samples were below NMOCD RRAL, impacted soil was transported under manifest to a NMOCD-approved disposal facility and the excavated area was backfilled with locally sourced, non-impacted "like" material. A table summarizing laboratory analytical results from confirmation soil samples is provided below:

Concentrations of Benzene, BTEX, and/or TPH in Soil											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 C-B
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₅ (mg/kg)	TPH C ₆ -C ₃₅ (mg/kg)	Chloride (mg/kg)
FL-1 @ 1' NW	4/29/2019	1'	In-Situ	<0.0005	<0.0005	15	149	164	31.1	195	57.5
FL-2 @ 1' NE	4/29/2019	1'	In-Situ	<0.0005	<0.0005	15.6	107	123	26.9	150	51.7
FL-3 @ 6' W	4/29/2019	6'	In-Situ	<0.0005	<0.0005	<10.3	<10.3	<10.3	<10.3	<10.3	43.3
FL-4 @ 6' E	4/29/2019	6'	In-Situ	<0.0005	<0.0005	16.9	81.6	98.5	17.7	116	18.3
ESW @ 3' E	4/29/2019	3'	In-Situ	<0.0005	<0.0005	<10.3	<10.3	<10.3	<10.3	<10.3	10.6
ESW @ 3' W	4/29/2019	3'	In-Situ	<0.0005	<0.0005	<10.3	<10.3	<10.3	<10.3	<10.3	9.3
NSW @ 3' E	4/29/2019	3'	In-Situ	<0.0005	<0.0005	<10.3	<10.3	<10.3	<10.3	<10.3	47.1
NSW @ 3' W	4/29/2019	3'	In-Situ	<0.0005	<0.0005	<10.3	17.0	17.0	<10.3	17.0	34.7
NSW @ 6"	4/29/2019	6"	In-Situ	<0.0005	<0.0005	<10.3	30.2	30.2	10.3	40.5	78.5
Closure Criteria				10	50	-	-	1,000	-	2,500	10,000

Upon receiving laboratory analytical results from confirmation soil samples, the excavated area was backfilled with locally sourced, non-impacted "like" material.

SITE CLOSURE REQUEST

Based on laboratory analytical results from soil samples collected during the final site assessment, impacted soil within the release margins has been determined to be remediated below the Table I of 19.15.29.12 NMAC Closure Criteria for Soils Impacted by a Release. Tasman on behalf of Read & Stevens, Inc., respectfully requests the NMOCD grant closure approval for the North Lea 3 Fed Com #1H which occurred on January 5, 2019.

RESTORATION, RECLAMATION AND RE-VEGETATION

Areas affected by the Release and associated remediation activities will be substantially restored to the condition which existed prior to the Release to the maximum extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with BLM #2 seed mixture during the first favorable growing season following closure of the site in accordance with the applicable regulatory agency.

If you have any questions, or if additional information is required, please feel free to contact Amber Groves or the undersigned by phone or email.

Respectfully,



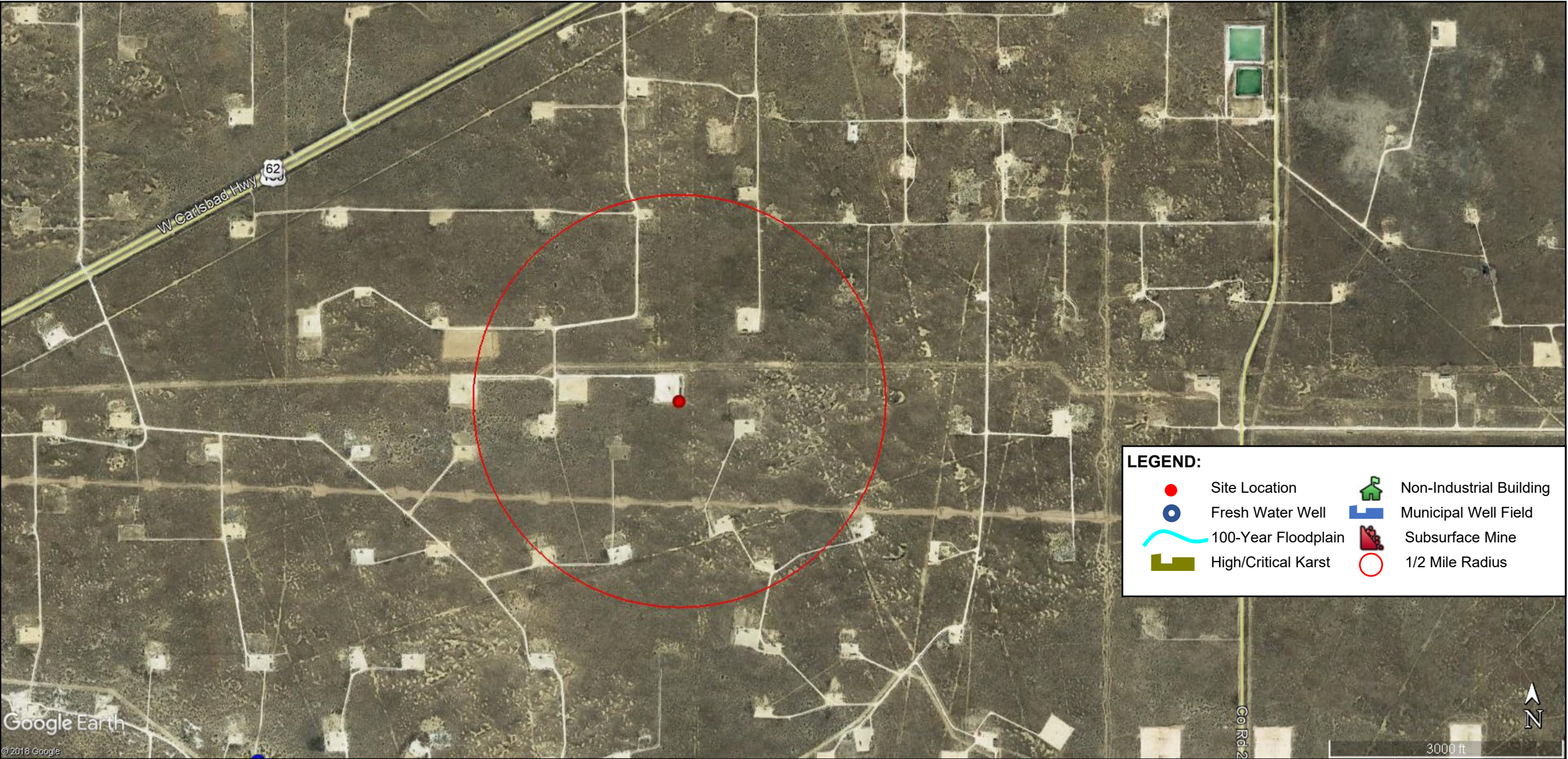
Zach Conder
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(806) 724-5943

Amber Groves
Plains Pipeline, LP
Remediation Coordinator
algroves@paalp.com
(575) 200-5517

Attachments:

- Figure 1: Site Characteristics Map
- Figure 2: Soil Sample Location Map
- Appendix A: Laboratory Analytical Reports
- Appendix B: Depth to Groundwater Results
- Appendix C: Photo Documentation

Figures



LEGEND:

Site Location

Fresh Water Well

100-Year Floodplain

High/Critical Karst

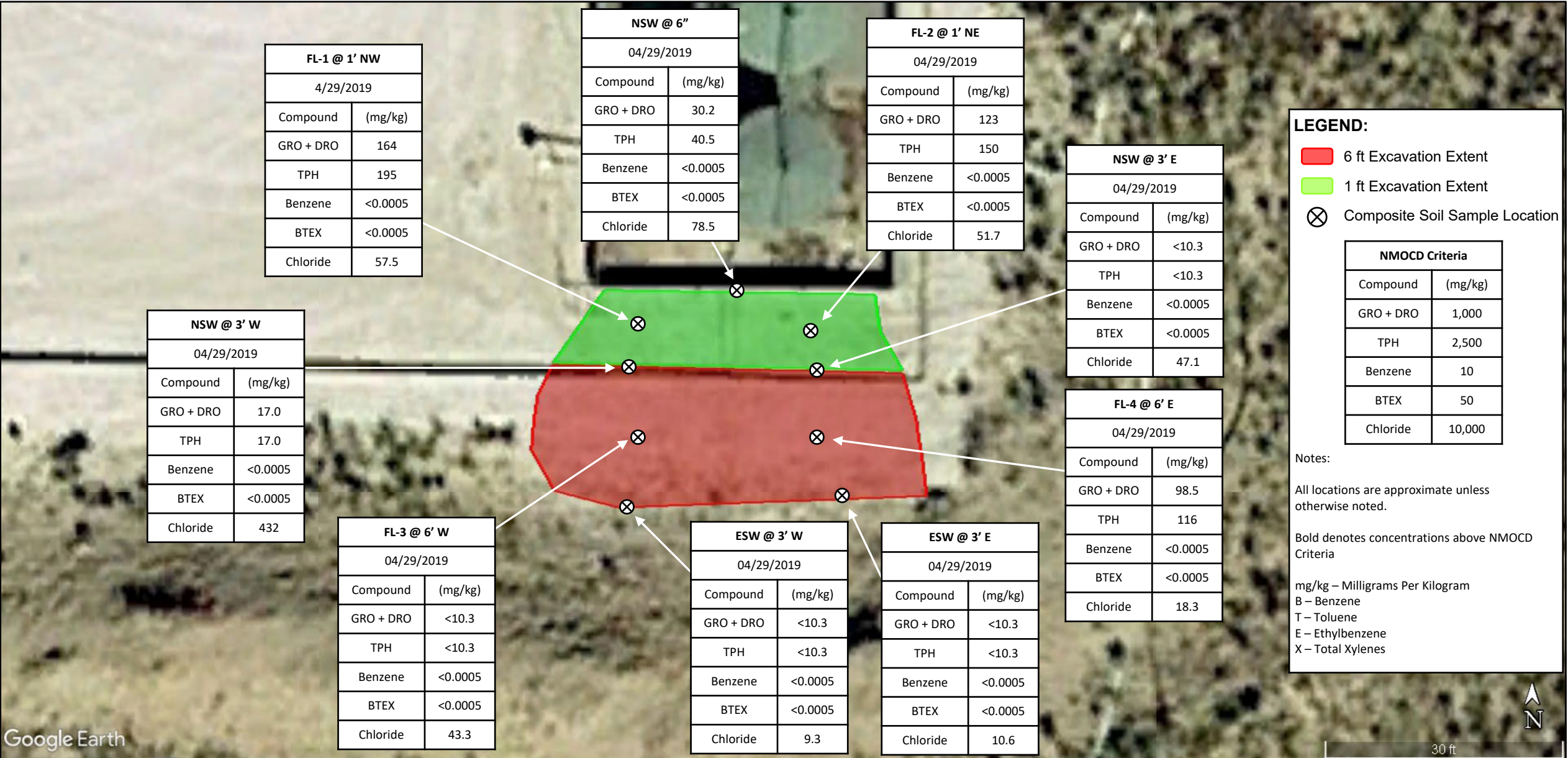
Non-Industrial Building

Municipal Well Field

Subsurface Mine

1/2 Mile Radius

DATE: March 2019	<div><div><div></div></div><div>TASMAN GEOSCIENCES</div><div>Tasman Geosciences, Inc. 2620 W. Marland Blvd. Hobbs, NM 88240</div></div>	<div><div>Read & Stevens, Inc.</div><div>North Lea 3 Fed Com 1H</div><div>GPS: 32.608471, -103.540197</div><div>UL "A", Section 3, Township 20 South, Range 34 East</div><div>Lea County, New Mexico</div></div>	<div>Site Characteristics Map</div>	<div>Figure 1</div>
DESIGNED BY: ZC				
DRAWN BY: BD				



Appendix A: Laboratory Analytical Results

Analytical Report 620223

for
Tasman Geosciences, LLC

Project Manager: Zach Conder

North Lea 3 Federal #1H Battery

15-APR-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

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15-APR-19

Project Manager: **Zach Conder**

Tasman Geosciences, LLC

2620 W. Marland Blvd.

Hobbs, NM 88240

Reference: XENCO Report No(s): **620223**

North Lea 3 Federal #1H Battery

Project Address: Lea County, NM

Zach Conder:

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) 620223. 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. 620223 will be filed for 45 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,

Brandi Ritcherson

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 - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 620223



Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
V1 SS	S	04-04-19 09:00	0 - 1 In	620223-001
V1 6"	S	04-04-19 09:05	6 In	620223-002
V1 1'	S	04-04-19 09:10	1 ft	620223-003
V2 SS	S	04-04-19 09:15	0 - 1 In	620223-004
V2 6"	S	04-04-19 09:20	6 In	620223-005
V2 1'	S	04-04-19 09:25	1 ft	620223-006
V3 SS	S	04-04-19 09:30	0 - 1 In	620223-007
V3 3'	S	04-04-19 09:35	3 ft	620223-008
V3 5'	S	04-04-19 09:40	5 ft	620223-009
V3 6'	S	04-04-19 09:45	6 ft	620223-010



CASE NARRATIVE

Client Name: Tasman Geosciences, LLC

Project Name: North Lea 3 Federal #1H Battery

Project ID:
Work Order Number(s): 620223

Report Date: 15-APR-19
Date Received: 04/05/2019

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3084908 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 620223-008, 620223-007.

Batch: LBA-3085351 Inorganic Anions by EPA 300/300.1

Lab Sample ID 620223-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 620223-001, -003, -004, -006, -007, -010.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3085485 BTEX by EPA 8021

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 620223-002.



Certificate of Analytical Results

620223



Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V1 SS Matrix: Soil Sample Depth: 0 - 1 In
Lab Sample Id: 620223-001 Date Collected: 04.04.19 09.00 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	1330	25.0	4.28	mg/kg	04.11.19 10:10		5

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	4410	74.9	40.0	mg/kg	04.07.19 05:59		5
Diesel Range Organics (DRO)	C10C28DRO	23000	74.9	40.6	mg/kg	04.07.19 05:59		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1590	74.9	40.6	mg/kg	04.07.19 05:59		5
Total TPH	PHC635	29000		40.0	mg/kg	04.07.19 05:59		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 135	%		
o-Terphenyl	89	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.803	0.497	0.0957	mg/kg	04.11.19 22:16		249
Toluene	108-88-3	11.2	0.497	0.113	mg/kg	04.11.19 22:16		249
Ethylbenzene	100-41-4	7.20	0.497	0.140	mg/kg	04.11.19 22:16		249
m_p-Xylenes	179601-23-1	22.2	0.994	0.252	mg/kg	04.11.19 22:16		249
o-Xylene	95-47-6	8.37	0.497	0.0856	mg/kg	04.11.19 22:16		249
Xylenes, Total	1330-20-7	30.6		0.0856	mg/kg	04.11.19 22:16		
Total BTEX		49.8		0.0856	mg/kg	04.11.19 22:16		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	129	70 - 130	%		



Certificate of Analytical Results

620223



Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: **V1 6"** Matrix: Soil Sample Depth: 6 In
Lab Sample Id: 620223-002 Date Collected: 04.04.19 09.05 Date Received: 04.05.19 11.11
Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	186	15.0	7.98	mg/kg	04.07.19 06:19		1
Diesel Range Organics (DRO)	C10C28DRO	1000	15.0	8.10	mg/kg	04.07.19 06:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	110	15.0	8.10	mg/kg	04.07.19 06:19		1
Total TPH	PHC635	1300		7.98	mg/kg	04.07.19 06:19		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	110	70 - 135	%		
o-Terphenyl	111	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.0620	0.0200	0.00385	mg/kg	04.11.19 22:54		10
Toluene	108-88-3	0.0448	0.0200	0.00456	mg/kg	04.11.19 22:54		10
Ethylbenzene	100-41-4	0.177	0.0200	0.00565	mg/kg	04.11.19 22:54		10
m_p-Xylenes	179601-23-1	0.813	0.0400	0.0101	mg/kg	04.11.19 22:54		10
o-Xylene	95-47-6	0.354	0.0200	0.00344	mg/kg	04.11.19 22:54		10
Xylenes, Total	1330-20-7	1.17		0.00344	mg/kg	04.11.19 22:54		
Total BTEX		1.45		0.00344	mg/kg	04.11.19 22:54		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	143	70 - 130	%		**



Certificate of Analytical Results

620223



Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V1 1' Matrix: Soil Sample Depth: 1 ft
Lab Sample Id: 620223-003 Date Collected: 04.04.19 09.10 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	168	4.97	0.853	mg/kg	04.11.19 09:16	X	1

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.99	15.0	7.99	mg/kg	04.07.19 06:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	10.9	15.0	8.11	mg/kg	04.07.19 06:38	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.11	15.0	8.11	mg/kg	04.07.19 06:38	U	1
Total TPH	PHC635	10.9		7.99	mg/kg	04.07.19 06:38	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	96	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	04.11.19 18:49	U	1
Toluene	108-88-3	0.000490	0.00200	0.000456	mg/kg	04.11.19 18:49	J	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	04.11.19 18:49	U	1
m_p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	04.11.19 18:49	U	1
o-Xylene	95-47-6	0.000380	0.00200	0.000344	mg/kg	04.11.19 18:49	J	1
Xylenes, Total	1330-20-7	0.000380		0.000344	mg/kg	04.11.19 18:49	J	
Total BTEX		0.000870		0.000344	mg/kg	04.11.19 18:49	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		



Certificate of Analytical Results

620223



Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V2 SS Matrix: Soil Sample Depth: 0 - 1 In
Lab Sample Id: 620223-004 Date Collected: 04.04.19 09.15 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	1660	24.9	4.27	mg/kg	04.11.19 10:24		5

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	5660	74.9	39.9	mg/kg	04.07.19 06:58		5
Diesel Range Organics (DRO)	C10C28DRO	22100	74.9	40.6	mg/kg	04.07.19 06:58		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1620	74.9	40.6	mg/kg	04.07.19 06:58		5
Total TPH	PHC635	29400		39.9	mg/kg	04.07.19 06:58		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	90	70 - 135	%		
o-Terphenyl	86	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	1.65	0.504	0.0970	mg/kg	04.11.19 21:57		252
Toluene	108-88-3	23.9	0.504	0.115	mg/kg	04.11.19 21:57		252
Ethylbenzene	100-41-4	10.9	0.504	0.142	mg/kg	04.11.19 21:57		252
m_p-Xylenes	179601-23-1	32.3	1.01	0.256	mg/kg	04.11.19 21:57		252
o-Xylene	95-47-6	12.0	0.504	0.0868	mg/kg	04.11.19 21:57		252
Xylenes, Total	1330-20-7	44.3		0.0868	mg/kg	04.11.19 21:57		
Total BTEX		80.8		0.0868	mg/kg	04.11.19 21:57		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	130	70 - 130	%		



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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: **V2 6"** Matrix: Soil Sample Depth: 6 In
Lab Sample Id: 620223-005 Date Collected: 04.04.19 09.20 Date Received: 04.05.19 11.11
Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	58.5	15.0	7.99	mg/kg	04.07.19 07:18		1
Diesel Range Organics (DRO)	C10C28DRO	376	15.0	8.12	mg/kg	04.07.19 07:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	45.1	15.0	8.12	mg/kg	04.07.19 07:18		1
Total TPH	PHC635	480		7.99	mg/kg	04.07.19 07:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	95	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.00116	0.00202	0.000389	mg/kg	04.11.19 20:03	J	1
Toluene	108-88-3	0.00381	0.00202	0.000460	mg/kg	04.11.19 20:03		1
Ethylbenzene	100-41-4	0.00366	0.00202	0.000570	mg/kg	04.11.19 20:03		1
m_p-Xylenes	179601-23-1	0.0102	0.00404	0.00102	mg/kg	04.11.19 20:03		1
o-Xylene	95-47-6	0.00712	0.00202	0.000348	mg/kg	04.11.19 20:03		1
Xylenes, Total	1330-20-7	0.0173		0.000348	mg/kg	04.11.19 20:03		
Total BTEX		0.0260		0.000348	mg/kg	04.11.19 20:03		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	87	70 - 130	%		
4-Bromofluorobenzene	98	70 - 130	%		



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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V2 1' Matrix: Soil Sample Depth: 1 ft
Lab Sample Id: 620223-006 Date Collected: 04.04.19 09.25 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	58.2	5.00	0.858	mg/kg	04.11.19 10:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	11.3	15.0	7.98	mg/kg	04.07.19 07:37	J	1
Diesel Range Organics (DRO)	C10C28DRO	19.7	15.0	8.10	mg/kg	04.07.19 07:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.10	15.0	8.10	mg/kg	04.07.19 07:37	U	1
Total TPH	PHC635	31.0		7.98	mg/kg	04.07.19 07:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	94	70 - 135	%		
o-Terphenyl	91	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	04.11.19 20:22	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	04.11.19 20:22	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	04.11.19 20:22	U	1
m_p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	04.11.19 20:22	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	04.11.19 20:22	U	1
Xylenes, Total	1330-20-7	<0.000343		0.000343	mg/kg	04.11.19 20:22	U	
Total BTEX		<0.000343		0.000343	mg/kg	04.11.19 20:22	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	92	70 - 130	%		



Certificate of Analytical Results

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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V3 SS Matrix: Soil Sample Depth: 0 - 1 In
Lab Sample Id: 620223-007 Date Collected: 04.04.19 09.30 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	75.5	5.00	0.858	mg/kg	04.11.19 10:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	6770	74.8	39.9	mg/kg	04.07.19 07:57		5
Diesel Range Organics (DRO)	C10C28DRO	16900	74.8	40.5	mg/kg	04.07.19 07:57		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1410	74.8	40.5	mg/kg	04.07.19 07:57		5
Total TPH	PHC635	25100		39.9	mg/kg	04.07.19 07:57		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	119	70 - 135	%		
o-Terphenyl	183	70 - 135	%		**

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	9.62	0.998	0.192	mg/kg	04.11.19 21:19		499
Toluene	108-88-3	38.4	0.998	0.227	mg/kg	04.11.19 21:19		499
Ethylbenzene	100-41-4	14.6	0.998	0.282	mg/kg	04.11.19 21:19		499
m_p-Xylenes	179601-23-1	42.6	2.00	0.506	mg/kg	04.11.19 21:19		499
o-Xylene	95-47-6	15.7	0.998	0.172	mg/kg	04.11.19 21:19		499
Xylenes, Total	1330-20-7	58.3		0.172	mg/kg	04.11.19 21:19		
Total BTEX		121		0.172	mg/kg	04.11.19 21:19		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	123	70 - 130	%		



Certificate of Analytical Results

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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V3 3' Matrix: Soil Sample Depth: 3 ft
Lab Sample Id: 620223-008 Date Collected: 04.04.19 09.35 Date Received: 04.05.19 11.11
Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	2030	14.9	7.97	mg/kg	04.07.19 08:16		1
Diesel Range Organics (DRO)	C10C28DRO	3550	14.9	8.10	mg/kg	04.07.19 08:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	297	14.9	8.10	mg/kg	04.07.19 08:16		1
Total TPH	PHC635	5880		7.97	mg/kg	04.07.19 08:16		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	85	70 - 135	%		
o-Terphenyl	154	70 - 135	%		**

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.312	0.398	0.0765	mg/kg	04.11.19 22:35	J	199
Toluene	108-88-3	6.18	0.398	0.0906	mg/kg	04.11.19 22:35		199
Ethylbenzene	100-41-4	3.91	0.398	0.112	mg/kg	04.11.19 22:35		199
m_p-Xylenes	179601-23-1	11.1	0.795	0.202	mg/kg	04.11.19 22:35		199
o-Xylene	95-47-6	4.18	0.398	0.0685	mg/kg	04.11.19 22:35		199
Xylenes, Total	1330-20-7	15.3		0.0685	mg/kg	04.11.19 22:35		
Total BTEX		25.7		0.0685	mg/kg	04.11.19 22:35		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		



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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V3 5' Matrix: Soil Sample Depth: 5 ft
Lab Sample Id: 620223-009 Date Collected: 04.04.19 09.40 Date Received: 04.05.19 11.11
Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.99	15.0	7.99	mg/kg	04.07.19 08:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	34.5	15.0	8.11	mg/kg	04.07.19 08:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.11	15.0	8.11	mg/kg	04.07.19 08:36	U	1
Total TPH	PHC635	34.5		7.99	mg/kg	04.07.19 08:36		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	96	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	04.11.19 20:41	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	04.11.19 20:41	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	04.11.19 20:41	U	1
m_p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	04.11.19 20:41	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	04.11.19 20:41	U	1
Xylenes, Total	1330-20-7	<0.000344		0.000344	mg/kg	04.11.19 20:41	U	
Total BTEX		<0.000344		0.000344	mg/kg	04.11.19 20:41	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	97	70 - 130	%		



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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: V3 6' Matrix: Soil Sample Depth: 6 ft
Lab Sample Id: 620223-010 Date Collected: 04.04.19 09.45 Date Received: 04.05.19 11.11
Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Analyst: CHE % Moist: Tech: CHE
Seq Number: 3085351 Date Prep: 04.10.19 13.40
Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	2.11	5.00	0.858	mg/kg	04.11.19 10:44	J	1

Analytical Method: TPH by SW8015 Mod Prep Method: 1005
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3084908 Date Prep: 04.06.19 14.00
Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.98	15.0	7.98	mg/kg	04.07.19 08:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	15.8	15.0	8.10	mg/kg	04.07.19 08:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.10	15.0	8.10	mg/kg	04.07.19 08:55	U	1
Total TPH	PHC635	15.8		7.98	mg/kg	04.07.19 08:55		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	108	70 - 135	%		
o-Terphenyl	109	70 - 135	%		

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B
Analyst: SCM % Moist: Tech: SCM
Seq Number: 3085485 Date Prep: 04.11.19 08.15
Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000388	0.00202	0.000388	mg/kg	04.11.19 21:00	U	1
Toluene	108-88-3	<0.000459	0.00202	0.000459	mg/kg	04.11.19 21:00	U	1
Ethylbenzene	100-41-4	<0.000569	0.00202	0.000569	mg/kg	04.11.19 21:00	U	1
m_p-Xylenes	179601-23-1	<0.00102	0.00403	0.00102	mg/kg	04.11.19 21:00	U	1
o-Xylene	95-47-6	<0.000347	0.00202	0.000347	mg/kg	04.11.19 21:00	U	1
Xylenes, Total	1330-20-7	<0.000347		0.000347	mg/kg	04.11.19 21:00	U	
Total BTEX		<0.000347		0.000347	mg/kg	04.11.19 21:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		



Certificate of Analytical Results

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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: **7675255-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7675255-1-BLK

Date Collected:

Date Received:

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3084908

Date Prep: 04.06.19 14.00

Prep seq: 7675255

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	04.07.19 00:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	04.07.19 00:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.13	15.0	8.13	mg/kg	04.07.19 00:28	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	04.07.19 00:28	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	98	70 - 135	%		

Sample Id: **7675457-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7675457-1-BLK

Date Collected:

Date Received:

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Analyst: CHE

% Moist:

Tech: CHE

Seq Number: 3085351

Date Prep: 04.10.19 13.40

Prep seq: 7675457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	04.11.19 07:13	U	1



Certificate of Analytical Results

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Tasman Geosciences, LLC, Hobbs, NM

North Lea 3 Federal #1H Battery

Sample Id: **7675643-1-BLK**

Matrix: Solid

Sample Depth:

Lab Sample Id: 7675643-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021

Prep Method: 5030B

Analyst: SCM

% Moist:

Tech: SCM

Seq Number: 3085485

Date Prep: 04.11.19 08.15

Prep seq: 7675643

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	04.11.19 15:39	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	04.11.19 15:39	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	04.11.19 15:39	U	1
m_p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	04.11.19 15:39	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	04.11.19 15:39	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	86	70 - 130	%		

- 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

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD

Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

+ 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: North Lea 3 Federal #1H Battery

Work Orders : 620223,

Project ID:

Lab Batch #: 3085485

Sample: 7675643-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 04/11/19 13:01	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					
1,4-Difluorobenzene		0.0296	0.0300	99	70-130
4-Bromofluorobenzene		0.0273	0.0300	91	70-130

Lab Batch #: 3085485

Sample: 7675643-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 04/11/19 13:20	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					
1,4-Difluorobenzene		0.0299	0.0300	100	70-130
4-Bromofluorobenzene		0.0295	0.0300	98	70-130

Lab Batch #: 3085485

Sample: 620635-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 04/11/19 14:43	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					
1,4-Difluorobenzene		0.0291	0.0300	97	70-130
4-Bromofluorobenzene		0.0279	0.0300	93	70-130

Lab Batch #: 3085485

Sample: 620635-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 04/11/19 15:02	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					
1,4-Difluorobenzene		0.0300	0.0300	100	70-130
4-Bromofluorobenzene		0.0292	0.0300	97	70-130

Lab Batch #: 3085485

Sample: 7675643-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 04/11/19 15:39	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
Analytes					
1,4-Difluorobenzene		0.0271	0.0300	90	70-130
4-Bromofluorobenzene		0.0257	0.0300	86	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: North Lea 3 Federal #1H Battery

Work Orders : 620223,

Project ID:

Lab Batch #: 3084908

Sample: 7675255-1-BLK / BLK

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 04/07/19 00:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.8	100	97	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

Lab Batch #: 3084908

Sample: 7675255-1-BKS / BKS

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 04/07/19 00:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	54.3	50.0	109	70-135	

Lab Batch #: 3084908

Sample: 620072-001 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 04/07/19 01:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.9	116	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

Lab Batch #: 3084908

Sample: 7675255-1-BSD / BSD

Batch: 1 **Matrix:** Solid

Units: mg/kg

Date Analyzed: 04/07/19 01:07

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 3084908

Sample: 620072-001 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 04/07/19 01:46

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-135	
o-Terphenyl	51.3	50.0	103	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: North Lea 3 Federal #1H Battery

Work Order #: 620223

Analyst: SCM

Date Prepared: 04/11/2019

Project ID:

Date Analyzed: 04/11/2019

Lab Batch ID: 3085485

Sample: 7675643-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	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
Analytes											
Benzene	<0.000382	0.0992	0.0969	98	0.100	0.0971	97	0	70-130	35	
Toluene	<0.000452	0.0992	0.0985	99	0.100	0.0983	98	0	70-130	35	
Ethylbenzene	<0.000560	0.0992	0.0926	93	0.100	0.0924	92	0	70-130	35	
m_p-Xylenes	<0.00101	0.198	0.185	93	0.200	0.184	92	1	70-130	35	
o-Xylene	<0.000342	0.0992	0.0923	93	0.100	0.0925	93	0	70-130	35	

Analyst: CHE

Date Prepared: 04/10/2019

Date Analyzed: 04/11/2019

Lab Batch ID: 3085351

Sample: 7675457-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	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
Analytes											
Chloride	<0.858	250	266	106	250	258	103	3	90-110	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: North Lea 3 Federal #1H Battery

Work Order #: 620223

Project ID:

Analyst: ARM

Date Prepared: 04/06/2019

Date Analyzed: 04/07/2019

Lab Batch ID: 3084908

Sample: 7675255-1-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
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1030	103	1000	1000	100	3	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1000	1080	108	4	70-135	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



Form 3 - MS / MSD Recoveries



Project Name: North Lea 3 Federal #1H Battery

Work Order # : 620223

Project ID:

Lab Batch ID: 3085485

QC- Sample ID: 620635-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/11/2019

Date Prepared: 04/11/2019

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 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	<0.000383	0.0996	0.0785	79	0.0994	0.0827	83	5	70-130	35	
Toluene	<0.000454	0.0996	0.0784	79	0.0994	0.0836	84	6	70-130	35	
Ethylbenzene	0.000756	0.0996	0.0747	74	0.0994	0.0788	79	5	70-130	35	
m_p-Xylenes	<0.00101	0.199	0.150	75	0.199	0.158	79	5	70-130	35	
o-Xylene	0.000353	0.0996	0.0735	73	0.0994	0.0786	79	7	70-130	35	

Lab Batch ID: 3085351

QC- Sample ID: 620026-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/11/2019

Date Prepared: 04/10/2019

Analyst: CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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
Chloride	4.35	250	243	95	250	244	96	0	90-110	20	

Lab Batch ID: 3085351

QC- Sample ID: 620223-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/11/2019

Date Prepared: 04/10/2019

Analyst: CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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
Chloride	168	249	405	95	249	456	116	12	90-110	20	X

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

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

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: North Lea 3 Federal #1H Battery

Work Order # : 620223

Project ID:

Lab Batch ID: 3084908

QC- Sample ID: 620072-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/07/2019

Date Prepared: 04/06/2019

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
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1060	106	999	959	96	10	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1180	118	999	1050	105	12	70-135	20	

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.



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CHAIN OF CUSTODY

Page 1 of 1

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Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

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Xenco Job #

620722

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes						
Company Name / Branch: Tasman Geosciences, LLC				Project Name/Number: North Lea 3 Federal #1H Battery														
Company Address: 2620 W Marland Blvd. Hobbs, NM 8820				Project Location: Lea County, NM														
Email: zcondor@tasman-geo.com				Phone No: 806-724-5943				Invoice To: PAAAP C/O Amber Groves										
Project Contact: Zach Conder				Invoice:														
Sampler's Name: Zach Conder																		
No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M Ext	Chloride SM 4500	BTEX 8021B	Field Comments
1	V1 SS	0-1"	4/4/2019	9:00	S	1									X	X	X	
2	V1 6"	6"	4/4/2019	9:05	S	1									X		X	
3	V1 1'	1'	4/4/2019	9:10	S	1									X	X	X	
4	V2 SS	0-1"	4/4/2019	9:15	S	1									X	X	X	
5	V2 6"	6"	4/4/2019	9:20	S	1									X		X	
6	V2 1'	1'	4/4/2019	9:25	S	1									X	X	X	
7	V3 SS	0-1"	4/4/2019	9:30	S	1									X	X	X	
8	V3 3'	3'	4/4/2019	9:35	S	1									X		X	
9	V3 5'	5'	4/4/2019	9:40	S	1									X		X	
10	V3 6'	6'	4/4/2019	9:45	S	1									X	X	X	
11																		
12																		
Turnaround Time (Business days)																		
Data Deliverable Information																		
Notes:																		
Please email results to: zcondor@tasman-geo.com																		
algroves@paaap.com																		
bdennis@tasman-geo.com																		
TAT Starts Day received by Lab, if received by 5:00 pm																		
FED-EX / UPS: Tracking #																		
Relinquished by Sampler:																		
Relinquished by: 1. Zach Conder Date Time: 4/4/19 10:13																		
Relinquished by: 2. Heather Frost Date Time: 4/4/19 4:13																		
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ORIGIN ID:CAOA (575) 887-6245
XENCO
PAC N MAIL
910 W PIERCE ST
CARLSBAD, NM 88220
UNITED STATES US

SHIP DATE: 04APR19
ACTWGT: 9.00 LB
CAD: 101813706/NET4100
DIMS: 13x10x11 IN
BILL RECIPIENT

TO HOLD FOR XENCO

FEDEX EXPRESS SHIP CENTER
FEDEX SHIP CENTER
3600 COUNTY RD 1276 S

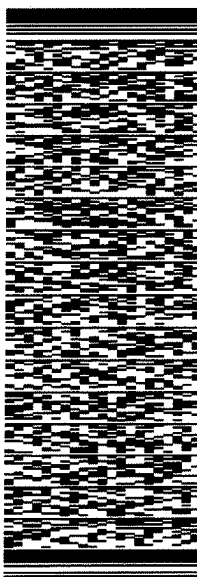
MIDLAND TX 79711

(800) 794-1296

REF:

INV:

DEPT:



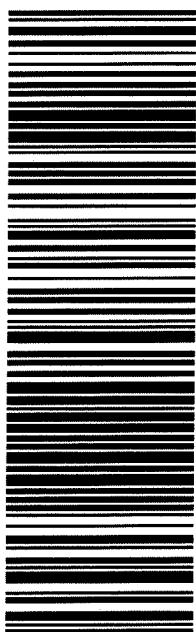
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0201

FRI - 05 APR HOLD
STANDARD OVERNIGHT

41 MAFA

HLD
MAFA
TX-US LBB



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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Tasman Geosciences, LLC

Date/ Time Received: 04/05/2019 11:11:00 AM

Work Order #: 620223

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

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?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Brianna Teel

Date: 04/05/2019

Checklist reviewed by:

Brandi Ritcherson

Brandi Ritcherson

Date: 04/09/2019

Analytical Report 621121

for
Tasman Geosciences, LLC

Project Manager: Zach Conder

North LEA 3 FED #1 H

24-APR-19

Collected By: Client



**4147 Greenbriar Dr.
Stafford, TX 77477**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)



24-APR-19

Project Manager: **Zach Conder**
Tasman Geosciences, LLC
2620 W. Marland Blvd.
Hobbs, NM 88240

Reference: XENCO Report No(s): **621121**
North LEA 3 FED #1 H
Project Address:

Zach Conder:

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) 621121. 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. 621121 will be filed for 45 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,

John Builes
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 621121



Tasman Geosciences, LLC, Hobbs, NM

North LEA 3 FED #1 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
W/C	S	04-11-19 13:00		621121-001



CASE NARRATIVE

Client Name: Tasman Geosciences, LLC

Project Name: North LEA 3 FED #1 H

Project ID:

Work Order Number(s): 621121

Report Date: 24-APR-19

Date Received: 04/13/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3086533 TPH by SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7676268-1-BSD.



Certificate of Analysis Summary 621121

Tasman Geosciences, LLC, Hobbs, NM

Project Name: North LEA 3 FED #1 H



Project Id:

Contact: Zach Conder

Project Location:

Date Received in Lab: Sat Apr-13-19 09:20 am

Report Date: 24-APR-19

Project Manager: Incorrect Lab Proj. Manager

Analysis Requested	Lab Id:	621121-001					
	Field Id:	W/C					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Apr-11-19 13:00					
TCLP BTEX by SW 8260B	Extracted:	Apr-16-19 09:15					
	Analyzed:	Apr-16-19 15:43					
	Units/RL:	mg/L RL					
Benzene		<0.00500 0.00500					
Toluene		0.00730 0.00500					
Ethylbenzene		<0.00500 0.00500					
m,p-Xylenes		0.0236 0.0100					
o-Xylene		0.0267 0.00500					
TCLP Mercury by EPA 7470A	Extracted:	Apr-18-19 08:45					
	Analyzed:	Apr-18-19 12:36					
	Units/RL:	mg/L RL					
Mercury		<0.000200 0.000200					
TCLP Metals per ICP by SW846 6010B	Extracted:	Apr-18-19 10:05					
	Analyzed:	Apr-18-19 22:37					
	Units/RL:	mg/L RL					
Arsenic		<0.0500 0.0500					
Barium		0.899 0.0500					
Cadmium		<0.0250 0.0250					
Chromium		<0.0500 0.0500					
Lead		<0.0500 0.0500					
Selenium		<0.100 0.100					
Silver		<0.100 0.100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

John Builes
Project Manager



Certificate of Analysis Summary 621121

Tasman Geosciences, LLC, Hobbs, NM

Project Name: North LEA 3 FED #1 H



Project Id:

Contact: Zach Conder

Project Location:

Date Received in Lab: Sat Apr-13-19 09:20 am

Report Date: 24-APR-19

Project Manager: Incorrect Lab Proj. Manager

Analysis Requested	Lab Id:	621121-001					
	Field Id:	W/C					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Apr-11-19 13:00					
Flash Point by EPA 1010	Extracted:						
	Analyzed:	Apr-17-19 12:04					
	Units/RL:	Deg F RL					
Flash Point		148					
Gamma Spectroscopy by E901.1 SUB: T104704400-18-16	Extracted:	Apr-17-19 08:04					
	Analyzed:	Apr-17-19 11:22					
	Units/RL:	pCi/g RL					
Radium-226		<2.78 2.78					
Radium-228		<1.02 1.02					
Lead-210		<2.76 2.76					
Thorium-228		<5.30 5.30					
Bismuth-214		<0.476 0.476					
Pb-214		<0.395 0.395					
Total Activity		<0.0797 0.0797					
Inorganic Anions by SW 9056	Extracted:	Apr-15-19 16:37					
	Analyzed:	Apr-15-19 17:16					
	Units/RL:	mg/kg RL					
Chloride		54.6 10.0					
Paint Filter Liquids Test by EPA 9095	Extracted:						
	Analyzed:	Apr-19-19 11:01					
	Units/RL:	PA/100mL RL					
Paint Filter		Pass 1.0					

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John Builes
Project Manager



Certificate of Analysis Summary 621121

Tasman Geosciences, LLC, Hobbs, NM

Project Name: North LEA 3 FED #1 H



Project Id:

Contact: Zach Conder

Project Location:

Date Received in Lab: Sat Apr-13-19 09:20 am

Report Date: 24-APR-19

Project Manager: Incorrect Lab Proj. Manager

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	621121-001 W/C SOIL Apr-11-19 13:00					
Reactive Cyanide by SW 846- Section 7.3.3.2	Extracted: Analyzed: Units/RL:	Apr-18-19 10:00 Apr-18-19 19:41 mg/kg RL					
Cyanide +		<0.0250 0.0250					
Reactive Sulfide by SW 846-Section 7.3.4.2	Extracted: Analyzed: Units/RL:	Apr-18-19 16:00 mg/kg RL					
Reactive Sulfide		<25.0 25.0					
Soil pH by EPA 9045C	Extracted: Analyzed: Units/RL:	Apr-19-19 12:00 Deg C RL					
Temperature +		22.6					
Soil pH by EPA 9045C	Extracted: Analyzed: Units/RL:	Apr-19-19 12:00 SU RL					
pH		7.36					
TPH by SW8015 Mod	Extracted: Analyzed: Units/RL:	Apr-19-19 15:12 Apr-20-19 04:41 mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		298 49.8					
Diesel Range Organics (DRO)		2670 49.8					
Motor Oil Range Hydrocarbons (MRO)		406 49.8					
Total TPH		3370 49.8					

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John Builes
Project Manager

Certificate of Analytical Results 621121

Tasman Geosciences, LLC, Hobbs, NM

North LEA 3 FED #1 H

Sample Type: Soil

Sample Date: 04.11.2019

Lab ID#: 621121-001

Sample Time: 13:00

Project Name: North LEA 3 FED #1 H

Receiving Date: 04.13.2019

Project #:

Analysis Date: 04.17.2019

Project Location:

Analysis Time: 11:22

Field Code: W/C

Analysis Description	Analysis Result pCi/G	Analysis Error +/- 2s	Analysis Result Bq/G	Analysis Error +/- 2s	Analysis Test Method	Analysis Technician
Radium-226	<2.78	N/A	<0.103	N/A	E901.1	SPC
Radium-228	<1.02	N/A	<0.0376	N/A	E901.1	SPC
Lead-210	<2.76	N/A	<0.102	N/A	E901.1	SPC
Thorium-228	<5.30	N/A	<0.196	N/A	E901.1	SPC
Bismuth-214	<0.476	N/A	<0.0176	N/A	E901.1	SPC
Pb-214	<0.395	N/A	<0.0146	N/A	E901.1	SPC
Total Activity	<0.0797	N/A	<0.00295	N/A	E901.1	SPC

- 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

SQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD

Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

+ 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: North LEA 3 FED #1 H

Work Orders : 621121,

Lab Batch #: 3085864

Sample: 621121-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/L

Date Analyzed: 04/16/19 15:43

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0450	0.0500	90	75-131	
1,2-Dichloroethane-D4	0.0475	0.0500	95	63-144	
Toluene-D8	0.0505	0.0500	101	80-117	

Lab Batch #: 3086533

Sample: 621121-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/20/19 04:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.5	108	70-135	
o-Terphenyl	56.0	49.8	112	70-135	

Lab Batch #: 3085864

Sample: 7675868-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/16/19 13:00

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0469	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0474	0.0500	95	63-144	
Toluene-D8	0.0507	0.0500	101	80-117	

Lab Batch #: 3086533

Sample: 7676268-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/19/19 16:55

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	145	200	73	70-135	
o-Terphenyl	80.9	100	81	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: North LEA 3 FED #1 H

Work Orders : 621121,

Lab Batch #: 3085864

Sample: 7675868-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/16/19 09:59

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0480	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0544	0.0500	109	63-144	
Toluene-D8	0.0464	0.0500	93	80-117	

Lab Batch #: 3086533

Sample: 7676268-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/22/19 10:58

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.4	100	80	70-135	
o-Terphenyl	39.0	50.0	78	70-135	

Lab Batch #: 3085864

Sample: 7675868-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 04/16/19 10:17

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0475	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0534	0.0500	107	63-144	
Toluene-D8	0.0477	0.0500	95	80-117	

Lab Batch #: 3086533

Sample: 7676268-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/19/19 17:31

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	138	100	138	70-135	**
o-Terphenyl	69.2	50.0	138	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: North LEA 3 FED #1 H

Work Orders : 621121,

Lab Batch #: 3085864

Sample: 620945-001 S / MS

Project ID:

Batch: 1 Matrix: Soil

Units: mg/L

Date Analyzed: 04/16/19 11:32

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0473	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0490	0.0500	98	63-144	
Toluene-D8	0.0480	0.0500	96	80-117	

Lab Batch #: 3085864

Sample: 620945-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/L

Date Analyzed: 04/16/19 11:50

SURROGATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0491	0.0500	98	75-131	
1,2-Dichloroethane-D4	0.0469	0.0500	94	63-144	
Toluene-D8	0.0487	0.0500	97	80-117	

* 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: North LEA 3 FED #1 H

Work Order #: 621121

Analyst: JYM

Date Prepared: 04/15/2019

Project ID:

Date Analyzed: 04/15/2019

Lab Batch ID: 3085762

Sample: 7675781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by SW 9056	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
Analytes											
Chloride	<0.354	100	100	100	100	106	106	6	80-120	20	

Analyst: KCS

Date Prepared: 04/18/2019

Date Analyzed: 04/18/2019

Lab Batch ID: 3086199

Sample: 7676084-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Reactive Cyanide by SW 846-Section 7.3.3.2	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
Analytes											
Cyanide	<0.0583	20.0	2.86	14	20.0	2.87	14	0	5-40	20	

Analyst: YAV

Date Prepared: 04/18/2019

Date Analyzed: 04/18/2019

Lab Batch ID: 3086176

Sample: 3086176-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Reactive Sulfide by SW 846-Section 7.3.4.2	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
Analytes											
Reactive Sulfide	<25.0	50.0	44.0	88	50.0	48.0	96	9	30-120	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: North LEA 3 FED #1 H

Work Order #: 621121

Analyst: KRP

Date Prepared: 04/16/2019

Project ID:

Date Analyzed: 04/16/2019

Lab Batch ID: 3085864

Sample: 7675868-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP BTEX by SW 8260B	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
Analytes											
Benzene	<0.00500	0.250	0.259	104	0.250	0.258	103	0	66-142	20	
Toluene	<0.00500	0.250	0.244	98	0.250	0.260	104	6	59-139	20	
Ethylbenzene	<0.00500	0.250	0.253	101	0.250	0.269	108	6	75-125	20	
m,p-Xylenes	<0.0100	0.500	0.494	99	0.500	0.523	105	6	75-125	20	
o-Xylene	<0.00500	0.250	0.261	104	0.250	0.270	108	3	75-125	20	

Analyst: ANJ

Date Prepared: 04/18/2019

Date Analyzed: 04/18/2019

Lab Batch ID: 3086101

Sample: 7676011-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by EPA 7470A	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
Analytes											
Mercury	<0.000100	0.00200	0.00199	100	0.00200	0.00203	102	2	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: North LEA 3 FED #1 H

Work Order #: 621121

Analyst: DEP

Date Prepared: 04/18/2019

Project ID:

Date Analyzed: 04/18/2019

Lab Batch ID: 3086167

Sample: 7676036-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals per ICP by SW846 6010B	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
Analytes											
Arsenic	<0.00336	1.00	0.976	98	1.00	0.994	99	2	75-125	20	
Barium	<0.000140	1.00	0.967	97	1.00	0.968	97	0	75-125	20	
Cadmium	<0.000131	1.00	1.00	100	1.00	0.997	100	0	75-125	20	
Chromium	<0.00136	1.00	1.03	103	1.00	1.03	103	0	75-125	20	
Lead	<0.00183	1.00	1.04	104	1.00	1.05	105	1	75-125	20	
Selenium	<0.00555	1.00	0.983	98	1.00	0.974	97	1	75-125	20	
Silver	<0.00160	0.500	0.500	100	0.500	0.501	100	0	75-125	20	

Analyst: ISU

Date Prepared: 04/19/2019

Date Analyzed: 04/22/2019

Lab Batch ID: 3086533

Sample: 7676268-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	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
Analytes											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1000	1170	117	6	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1000	1190	119	7	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: North LEA 3 FED #1 H

Work Order #: 621121

Project ID:

Lab Batch ID: 3085762

QC- Sample ID: 621121-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/15/2019

Date Prepared: 04/15/2019

Analyst: JYM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by SW 9056	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
Analytes											
Chloride	54.6	100	152	97	100	152	97	0	80-120	20	

Lab Batch ID: 3085864

QC- Sample ID: 620945-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/16/2019

Date Prepared: 04/16/2019

Analyst: KRP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP BTEX by SW 8260B	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
Analytes											
Benzene	<0.0500	2.50	2.63	105	2.50	2.79	112	6	66-142	20	
Toluene	0.0635	2.50	2.65	103	2.50	2.96	116	11	59-139	20	
Ethylbenzene	0.0770	2.50	2.72	106	2.50	3.05	119	11	75-125	20	
m,p-Xylenes	0.318	5.00	5.70	108	5.00	6.25	119	9	75-125	20	
o-Xylene	0.199	2.50	2.88	107	2.50	3.26	122	12	75-125	20	

Lab Batch ID: 3086101

QC- Sample ID: 621014-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 04/18/2019

Date Prepared: 04/18/2019

Analyst: ANJ

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by EPA 7470A	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
Analytes											
Mercury	<0.000100	0.00200	0.00195	98	0.00200	0.00191	96	2	75-125	20	

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

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

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: North LEA 3 FED #1 H

Work Order #: 621121

Project ID:

Lab Batch ID: 3086101

QC- Sample ID: 621121-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/18/2019

Date Prepared: 04/18/2019

Analyst: ANJ

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by EPA 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	<0.000100	0.00200	0.00204	102	0.00200	0.00201	101	1	75-125	20	

Lab Batch ID: 3086167

QC- Sample ID: 621133-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/18/2019

Date Prepared: 04/18/2019

Analyst: DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals per ICP 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
Arsenic	<0.0168	5.00	4.94	99	5.00	4.97	99	1	75-125	20	
Barium	1.77	5.00	6.66	98	5.00	6.66	98	0	75-125	20	
Cadmium	<0.000656	5.00	5.22	104	5.00	5.24	105	0	75-125	20	
Chromium	<0.00681	5.00	5.24	105	5.00	5.27	105	1	75-125	20	
Lead	<0.00916	5.00	5.08	102	5.00	5.12	102	1	75-125	20	
Selenium	0.206	5.00	5.44	105	5.00	5.49	106	1	75-125	20	
Silver	<0.00802	2.50	2.65	106	2.50	2.66	106	0	75-125	20	

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.

Project Name: North LEA 3 FED #1 H

Work Order #: 621121

Lab Batch #: 3086003

Date Analyzed: 04/17/2019 10:15

QC- Sample ID: 620664-001 D

Reporting Units: Deg F

Date Prepared: 04/17/2019

Batch #: 1

Project ID:

Analyst: JCL

Matrix: Product

SAMPLE / SAMPLE DUPLICATE RECOVERY

Flash Point by EPA 1010	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Flash Point	102	104	2	25	

Lab Batch #: 3086199

Date Analyzed: 04/18/2019 19:33

QC- Sample ID: 621011-001 D

Reporting Units: mg/kg

Date Prepared: 04/18/2019

Batch #: 1

Analyst: KCS

Matrix: Product

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reactive Cyanide by SW 846-Section 7.3.3.2	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Cyanide	<0.0250	<0.0250	0	20	U

Lab Batch #: 3086176

Date Analyzed: 04/18/2019 16:00

QC- Sample ID: 621011-001 D

Reporting Units: mg/kg

Date Prepared: 04/18/2019

Batch #: 1

Analyst: YAV

Matrix: Product

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reactive Sulfide by SW 846-Section 7.3.4.2	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Reactive Sulfide	<25.0	<25.0	0	20	U

Lab Batch #: 3086296

Date Analyzed: 04/19/2019 12:00

QC- Sample ID: 621644-001 D

Reporting Units: Deg C

Date Prepared: 04/19/2019

Batch #: 1

Analyst: KBU

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY

Soil pH by EPA 9045C	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Temperature	22.8	22.8	0	25	

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |

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

BRL - Below Reporting Limit

Project Name: North LEA 3 FED #1 H

Work Order #: 621121

Lab Batch #: 3086296

Project ID:

Date Analyzed: 04/19/2019 12:00

Date Prepared: 04/19/2019

Analyst: KBU

QC- Sample ID: 621644-001 D

Batch #: 1

Matrix: Soil

Reporting Units: SU

SAMPLE / SAMPLE DUPLICATE RECOVERY

Soil pH by EPA 9045C	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
pH	9.68	9.69	0	20	

Log Difference $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$
Spike Relative Difference $\text{RPD} = 200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Tampa, FL (813) 275-2027 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 449-8800

Work Order No: 621121

www.xenco.com Page of

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

ST	Work Order Notes
----	------------------

X DOZMAN@TASMAN
GEO.COM
ALGROVES@PARA
BOFFICE@TASMAN
GEO.COM
BDEWIS@TASMAN
GEO.COM

GED.COM bdevms@TAS.N GED.COM	TAT starts the day received by the lab, if received by 4:30pm
------------------------------------	--

[illegible]

Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	V	Zn	
								1631 / 245.1 / 7470 / 7471 : Hg						
Ni	Se	Ag	Tl	U										

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of sale to Xenco, its affiliates and subcontractors. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco, its affiliates and subcontractors. These terms will be enforced unless previously negotiated, amended or waived in writing by the parties. *Notwithstanding to whom bills are rendered, bills shall be paid to Xenco, Inc., but not assigned.*

Signature	Received by: (Signature)	Date/Time
	Fed Ex	

ORIGIN ID: H0BA (575) 392-7550

**
MAIL SERVICES ETC, LLC
4008 N GRIMES

HOBBS, NM 88240
UNITED STATES US

SHIP DATE: 12APR19
ACTWGT: 6.00 LB MAN
CAD: 0909328/CAFE3211
DIMS: 15x11x9 IN

BILL RECIPIENT

TO XENCO LABORATORIES
XENCO LABORATORIES
4143 GREENBRIAR DR

STAFFORD TX 77477

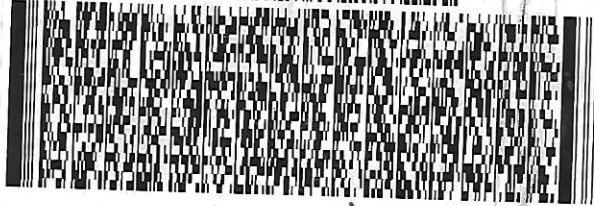
(281) 240-4200

INV:

PO:

REF:

DEPT:



FedEx
Express



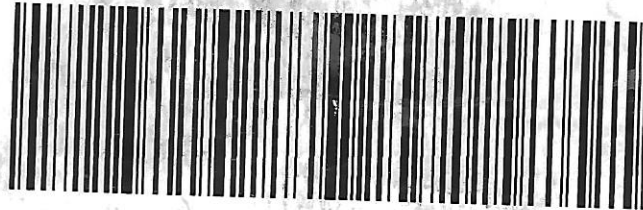
J161118060501uv

TRK# 4705 2520 6340
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 SGRA

77477
TX-US IAH



PU# 185146-434 PRT EXP 0319 **

551C1/D7E5/104C



Inter-Office Shipment

Page 1 of 1

IOS Number **37072**

Date/Time: 04/15/19 13:42

Created by: Heidi Mathews

Please send report to: Brandi Ritcherson

Lab# From: **Houston**

Delivery Priority:

Address: 4147 Greenbriar Dr.

Lab# To: **Midland**

Air Bill No.:

E-Mail: brandi.ritcherson@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
621121-001	S	W/C	04/11/19 13:00	E901.1	Gamma Spectroscopy by E901.1	04/19/19	10/08/19	BAR	TOTACTIVITY Y	

Inter Office Shipment or Sample Comments:

Relinquished By:

Heidi Mathews

Date Relinquished: 04/15/2019

Received By:

Brianna Teel

Date Received: 04/16/2019 09:27

Cooler Temperature:



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 37072

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Heidi Mathews

Date Sent: 04/15/2019 01:42 PM

Received By: Brianna Teel

Date Received: 04/16/2019 09:27 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 *Custody Seals Signed and dated for Containers/coolers	N/A
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Brianna Teel

Date: 04/16/2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Tasman Geosciences, LLC

Date/ Time Received: 04/13/2019 09:20:00 AM

Work Order #: 621121

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : hou-068

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	5.7	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	No	very limited sample
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	sub norm to midland
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Heidi Mathews
Heidi Mathews

Date: 04/15/2019

Checklist reviewed by:

Kelsey Brooks
Kelsey Brooks

Date: 04/17/2019

Analytical Report 622970

**for
Tasman Geosciences, LLC**

Project Manager: Zach Conder

North Lead 3 Fed Com #1H

11-MAY-19

Collected By: Client



**4147 Greenbriar Dr.
Stafford, TX 77477**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNi02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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11-MAY-19

Project Manager: **Zach Conder**
Tasman Geosciences, LLC
2620 W. Marland Blvd.
Hobbs, NM 88240

Reference: XENCO Report No(s): **622970**
North Lead 3 Fed Com #1H
Project Address:

Zach Conder:

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) 622970. 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. 622970 will be filed for 45 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,

John Builes
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 - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 622970



Tasman Geosciences, LLC, Hobbs, NM

North Lead 3 Fed Com #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL-1 @ 1' NW	S	04-29-19 10:00	1 ft	622970-001
FL-2 @ 1' NE	S	04-29-19 10:15	1 ft	622970-002
FL-3 @ 6' W	S	04-29-19 10:30	6 ft	622970-003
FL-4 @ 6' E	S	04-29-19 11:00	6 ft	622970-004
ESW @ 3' E	S	04-29-19 11:15	3 ft	622970-005
ESW @ 3' W	S	04-29-19 11:30	3 ft	622970-006
NSW @ 3' E	S	04-29-19 12:00	3 ft	622970-007
NSW @ 3' W	S	04-29-19 12:15	3 ft	622970-008
NSW @ 6"	S	04-29-19 12:30	6 In	622970-009



CASE NARRATIVE

Client Name: Tasman Geosciences, LLC

Project Name: North Lead 3 Fed Com #1H

Project ID:

Work Order Number(s): 622970

Report Date: 11-MAY-19

Date Received: 05/01/2019

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3088418 BTEX by SW 8260C

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; This surrogate is not associated with target compound.

Samples affected are: 622755-009 S.



Certificate of Analysis Summary 622970

Tasman Geosciences, LLC, Hobbs, NM

Project Name: North Lead 3 Fed Com #1H



Project Id:

Contact: Zach Conder

Project Location:

Date Received in Lab: Wed May-01-19 09:15 am

Report Date: 11-MAY-19

Project Manager: Incorrect Lab Proj. Manager

<i>Analysis Requested</i>	<i>Lab Id:</i>	622970-001	622970-002	622970-003	622970-004	622970-005	622970-006
	<i>Field Id:</i>	FL-1 @ 1' NW	FL-2 @ 1' NE	FL-3 @ 6' W	FL-4 @ 6' E	ESW @ 3' E	ESW @ 3' W
	<i>Depth:</i>	1- ft	1- ft	6- ft	6- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Apr-29-19 10:00	Apr-29-19 10:15	Apr-29-19 10:30	Apr-29-19 11:00	Apr-29-19 11:15	Apr-29-19 11:30
BTEX by SW 8260B	<i>Extracted:</i>	May-08-19 18:00	May-09-19 09:30	May-09-19 09:30	May-09-19 09:30	May-09-19 09:30	May-09-19 09:30
	<i>Analyzed:</i>	May-09-19 04:49	May-09-19 11:39	May-09-19 14:50	May-09-19 15:13	May-09-19 15:37	May-09-19 16:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
Toluene		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
Ethylbenzene		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
m,p-Xylenes		<0.00102 0.00203	<0.00102 0.00204	<0.00105 0.00210	<0.00109 0.00217	<0.00103 0.00205	<0.00101 0.00203
o-Xylene		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
Total Xylenes		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
Total BTEX		<0.000508 0.00102	<0.000511 0.00102	<0.000525 0.00105	<0.000543 0.00109	<0.000513 0.00103	<0.000507 0.00101
Inorganic Anions by SW 9056	<i>Extracted:</i>	May-06-19 16:00	May-06-19 16:00	May-06-19 16:00	May-06-19 16:00	May-06-19 16:00	May-06-19 16:00
	<i>Analyzed:</i>	May-06-19 22:13	May-06-19 22:25	May-06-19 22:38	May-06-19 22:50	May-06-19 23:02	May-06-19 23:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		57.5 10.1	51.7 10.2	43.3 10.5	18.3 10.9	10.6 10.3	9.33 J 10.1
Percent Moisture by SM2540G	<i>Extracted:</i>						
	<i>Analyzed:</i>	May-06-19 18:34	May-06-19 18:34	May-06-19 18:34	May-06-19 18:34	May-06-19 18:34	May-06-19 18:34
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		1.31	1.95	4.29	7.47	2.33	1.34
TPH by Texas1005	<i>Extracted:</i>	May-07-19 15:24	May-07-19 15:27	May-07-19 15:30	May-07-19 15:33	May-07-19 15:36	May-07-19 15:39
	<i>Analyzed:</i>	May-08-19 01:30	May-08-19 01:49	May-08-19 02:08	May-08-19 02:27	May-08-19 02:47	May-08-19 03:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		15.0 J 25.2	15.6 J 25.4	<10.3 25.9	16.9 J 27.0	<10.1 25.6	<9.96 25.2
C12-C28 Diesel Range Hydrocarbons		149 25.2	107 25.4	<10.3 25.9	81.6 27.0	<10.1 25.6	<9.96 25.2
C28-C35 Oil Range Hydrocarbons		31.1 25.2	26.9 25.4	<10.3 25.9	17.7 J 27.0	<10.1 25.6	<9.96 25.2
Total TPH 1005		195 25.2	150 25.4	<10.3 25.9	116 27.0	<10.1 25.6	<9.96 25.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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John Builes
Project Manager



Certificate of Analysis Summary 622970



Tasman Geosciences, LLC, Hobbs, NM

Project Name: North Lead 3 Fed Com #1H

Project Id:

Contact: Zach Conder

Project Location:

Date Received in Lab: Wed May-01-19 09:15 am

Report Date: 11-MAY-19

Project Manager: Incorrect Lab Proj. Manager

Analysis Requested	Lab Id:	622970-007	622970-008	622970-009			
	Field Id:	NSW @ 3' E	NSW @ 3' W	NSW @ 6"			
	Depth:	3- ft	3- ft	6- In			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Apr-29-19 12:00	Apr-29-19 12:15	Apr-29-19 12:30			
BTEX by SW 8260B	Extracted:	May-09-19 09:30	May-09-19 09:30	May-09-19 09:30			
	Analyzed:	May-09-19 16:23	May-09-19 16:47	May-09-19 17:10			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
Toluene		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
Ethylbenzene		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
m,p-Xylenes		<0.00101 0.00203	<0.00101 0.00202	<0.00101 0.00202			
o-Xylene		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
Total Xylenes		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
Total BTEX		<0.000507 0.00101	<0.000504 0.00101	<0.000504 0.00101			
Inorganic Anions by SW 9056	Extracted:	May-06-19 16:00	May-06-19 16:00	May-06-19 16:00			
	Analyzed:	May-06-19 23:51	May-07-19 00:03	May-07-19 00:15			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		47.1 10.2	34.7 10.0	78.5 10.1			
Percent Moisture by SM2540G	Extracted:						
	Analyzed:	May-06-19 18:34	May-06-19 18:34	May-06-19 18:34			
	Units/RL:	% RL	% RL	% RL			
Percent Moisture		1.22	0.800	1.22			
TPH by Texas1005	Extracted:	May-07-19 15:42	May-07-19 15:45	May-07-19 15:48			
	Analyzed:	May-08-19 03:44	May-08-19 04:03	May-08-19 04:22			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		<9.90 25.1	<9.96 25.2	<9.92 25.1			
C12-C28 Diesel Range Hydrocarbons		<9.90 25.1	17.0 J 25.2	30.2 25.1			
C28-C35 Oil Range Hydrocarbons		<9.90 25.1	<9.96 25.2	10.3 J 25.1			
Total TPH 1005		<9.90 25.1	17.0 J 25.2	40.5 25.1			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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John Builes
Project Manager

- 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

SQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD

Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

+ 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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088356

Sample: 622970-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 01:30

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	52.0	49.8	104	70-130	
1-Chlorooctane	92.0	99.6	92	70-130	

Lab Batch #: 3088356

Sample: 622970-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 01:49

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	51.2	49.8	103	70-130	
1-Chlorooctane	91.8	99.5	92	70-130	

Lab Batch #: 3088356

Sample: 622970-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 02:08

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	51.2	49.7	103	70-130	
1-Chlorooctane	90.8	99.3	91	70-130	

Lab Batch #: 3088356

Sample: 622970-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 02:27

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	58.8	50.0	118	70-130	
1-Chlorooctane	102	100	102	70-130	

Lab Batch #: 3088356

Sample: 622970-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 02:47

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.6	50.0	111	70-130	
1-Chlorooctane	101	100	101	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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088356

Sample: 622970-006 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 03:06

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	50.9	49.8	102	70-130	
1-Chlorooctane	92.8	99.5	93	70-130	

Lab Batch #: 3088356

Sample: 622970-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 03:44

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	53.0	49.5	107	70-130	
1-Chlorooctane	97.7	99.0	99	70-130	

Lab Batch #: 3088356

Sample: 622970-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 04:03

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	61.8	50.0	124	70-130	
1-Chlorooctane	114	100	114	70-130	

Lab Batch #: 3088356

Sample: 622970-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 04:22

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.5	49.6	112	70-130	
1-Chlorooctane	101	99.2	102	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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088418

Sample: 622970-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 04:49

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0522	0.0500	104	73-132	
1,2-Dichloroethane-D4	0.0528	0.0500	106	73-124	
Toluene-D8	0.0499	0.0500	100	69-124	
4-Bromofluorobenzene	0.0496	0.0500	99	58-152	

Lab Batch #: 3088476

Sample: 622970-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 11:39

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0521	0.0500	104	73-132	
1,2-Dichloroethane-D4	0.0522	0.0500	104	73-124	
Toluene-D8	0.0499	0.0500	100	69-124	
4-Bromofluorobenzene	0.0499	0.0500	100	58-152	

Lab Batch #: 3088476

Sample: 622970-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 14:50

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0510	0.0500	102	73-132	
1,2-Dichloroethane-D4	0.0522	0.0500	104	73-124	
Toluene-D8	0.0500	0.0500	100	69-124	
4-Bromofluorobenzene	0.0494	0.0500	99	58-152	

Lab Batch #: 3088476

Sample: 622970-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 15:13

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0523	0.0500	105	73-132	
1,2-Dichloroethane-D4	0.0514	0.0500	103	73-124	
Toluene-D8	0.0497	0.0500	99	69-124	
4-Bromofluorobenzene	0.0490	0.0500	98	58-152	

* 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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088476

Sample: 622970-005 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 15:37

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0507	0.0500	101	73-132	
1,2-Dichloroethane-D4	0.0534	0.0500	107	73-124	
Toluene-D8	0.0498	0.0500	100	69-124	
4-Bromofluorobenzene	0.0489	0.0500	98	58-152	

Lab Batch #: 3088476

Sample: 622970-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 16:00

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0515	0.0500	103	73-132	
1,2-Dichloroethane-D4	0.0519	0.0500	104	73-124	
Toluene-D8	0.0496	0.0500	99	69-124	
4-Bromofluorobenzene	0.0495	0.0500	99	58-152	

Lab Batch #: 3088476

Sample: 622970-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 16:23

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0507	0.0500	101	73-132	
1,2-Dichloroethane-D4	0.0521	0.0500	104	73-124	
Toluene-D8	0.0496	0.0500	99	69-124	
4-Bromofluorobenzene	0.0492	0.0500	98	58-152	

Lab Batch #: 3088476

Sample: 622970-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 16:47

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0505	0.0500	101	73-132	
1,2-Dichloroethane-D4	0.0501	0.0500	100	73-124	
Toluene-D8	0.0496	0.0500	99	69-124	
4-Bromofluorobenzene	0.0501	0.0500	100	58-152	

* 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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088476

Sample: 622970-009 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 17:10

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0523	0.0500	105	73-132	
1,2-Dichloroethane-D4	0.0511	0.0500	102	73-124	
Toluene-D8	0.0492	0.0500	98	69-124	
4-Bromofluorobenzene	0.0511	0.0500	102	58-152	

Lab Batch #: 3088356

Sample: 7677334-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 00:32

SURROGATE RECOVERY STUDY

TPH by Texas1005	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
o-Terphenyl	51.0	50.0	102	70-130	
1-Chlorooctane	89.9	100	90	70-130	

Lab Batch #: 3088418

Sample: 7677476-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 23:20

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0505	0.0500	101	73-132	
1,2-Dichloroethane-D4	0.0510	0.0500	102	73-124	
Toluene-D8	0.0513	0.0500	103	69-124	
4-Bromofluorobenzene	0.0494	0.0500	99	58-152	

Lab Batch #: 3088476

Sample: 7677518-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/09/19 11:15

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0506	0.0500	101	73-132	
1,2-Dichloroethane-D4	0.0505	0.0500	101	73-124	
Toluene-D8	0.0503	0.0500	101	69-124	
4-Bromofluorobenzene	0.0492	0.0500	98	58-152	

* 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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088356

Sample: 7677334-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 00:51

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	52.4	50.0	105	70-130	
1-Chlorooctane	103	100	103	70-130	

Lab Batch #: 3088418

Sample: 7677476-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 21:21

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0525	0.0500	105	73-132	
1,2-Dichloroethane-D4	0.0520	0.0500	104	73-124	
Toluene-D8	0.0482	0.0500	96	69-124	
4-Bromofluorobenzene	0.0459	0.0500	92	58-152	

Lab Batch #: 3088476

Sample: 7677518-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/09/19 09:17

SURROGATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0518	0.0500	104	73-132	
1,2-Dichloroethane-D4	0.0509	0.0500	102	73-124	
Toluene-D8	0.0486	0.0500	97	69-124	
4-Bromofluorobenzene	0.0467	0.0500	93	58-152	

Lab Batch #: 3088356

Sample: 7677334-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 01:11

SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	56.7	50.0	113	70-130	
1-Chlorooctane	111	100	111	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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088418

Sample: 7677476-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/08/19 21:45

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0526	0.0500	105	73-132	
1,2-Dichloroethane-D4	0.0531	0.0500	106	73-124	
Toluene-D8	0.0486	0.0500	97	69-124	
4-Bromofluorobenzene	0.0463	0.0500	93	58-152	

Lab Batch #: 3088476

Sample: 7677518-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/09/19 09:41

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0515	0.0500	103	73-132	
1,2-Dichloroethane-D4	0.0541	0.0500	108	73-124	
Toluene-D8	0.0483	0.0500	97	69-124	
4-Bromofluorobenzene	0.0459	0.0500	92	58-152	

Lab Batch #: 3088356

Sample: 622970-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 05:39

SURROGATE RECOVERY STUDY

TPH by Texas1005	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
o-Terphenyl	48.9	49.6	99	70-130	
1-Chlorooctane	104	99.2	105	70-130	

Lab Batch #: 3088418

Sample: 622755-009 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 22:09

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0624	0.0500	125	73-132	
1,2-Dichloroethane-D4	0.0556	0.0500	111	73-124	
Toluene-D8	0.0581	0.0500	116	69-124	
4-Bromofluorobenzene	0.0825	0.0500	165	58-152	**

* 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: North Lead 3 Fed Com #1H

Work Orders : 622970,

Lab Batch #: 3088476

Sample: 622970-002 S / MS

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/09/19 10:04

SURROGATE RECOVERY STUDY

BTEX by SW 8260B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
Dibromofluoromethane	0.0547	0.0500	109	73-132	
1,2-Dichloroethane-D4	0.0536	0.0500	107	73-124	
Toluene-D8	0.0485	0.0500	97	69-124	
4-Bromofluorobenzene	0.0465	0.0500	93	58-152	

Lab Batch #: 3088356

Sample: 622970-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/08/19 05:58

SURROGATE RECOVERY STUDY

TPH by Texas1005	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
o-Terphenyl	57.2	49.7	115	70-130	
1-Chlorooctane	118	99.3	119	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.



BS / BSD Recoveries



Project Name: North Lead 3 Fed Com #1H

Work Order #: 622970

Analyst: CRL

Date Prepared: 05/08/2019

Project ID:

Date Analyzed: 05/08/2019

Lab Batch ID: 3088418

Sample: 7677476-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B	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
Analytes											
Benzene	<0.000500	0.0500	0.0587	117	0.0500	0.0637	127	8	62-132	25	
Toluene	<0.000500	0.0500	0.0548	110	0.0500	0.0605	121	10	66-124	25	
Ethylbenzene	<0.000500	0.0500	0.0525	105	0.0500	0.0576	115	9	71-134	25	
m,p-Xylenes	<0.00100	0.100	0.108	108	0.100	0.120	120	11	69-128	25	
o-Xylene	<0.000500	0.0500	0.0551	110	0.0500	0.0599	120	8	72-131	25	

Analyst: CRL

Date Prepared: 05/09/2019

Date Analyzed: 05/09/2019

Lab Batch ID: 3088476

Sample: 7677518-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B	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
Analytes											
Benzene	<0.000500	0.0500	0.0504	101	0.0500	0.0511	102	1	62-132	25	
Toluene	<0.000500	0.0500	0.0484	97	0.0500	0.0482	96	0	66-124	25	
Ethylbenzene	<0.000500	0.0500	0.0479	96	0.0500	0.0483	97	1	71-134	25	
m,p-Xylenes	<0.00100	0.100	0.0971	97	0.100	0.0982	98	1	69-128	25	
o-Xylene	<0.000500	0.0500	0.0505	101	0.0500	0.0516	103	2	72-131	25	

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: North Lead 3 Fed Com #1H

Work Order #: 622970

Project ID:

Analyst: JYM

Date Prepared: 05/06/2019

Date Analyzed: 05/06/2019

Lab Batch ID: 3088119

Sample: 7677241-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by SW 9056	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
Analytes											
Chloride	<0.354	100	102	102	100	106	106	4	80-120	20	

Analyst: ISU

Date Prepared: 05/07/2019

Date Analyzed: 05/08/2019

Lab Batch ID: 3088356

Sample: 7677334-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005	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
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<9.88	1000	959	96	1000	961	96	0	70-130	20	
C12-C28 Diesel Range Hydrocarbons	<9.88	1000	1090	109	1000	1100	110	1	70-130	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



Form 3 - MS Recoveries

Project Name: North Lead 3 Fed Com #1H



Work Order #: 622970

Lab Batch #: 3088418

Date Analyzed: 05/08/2019

QC- Sample ID: 622755-009 S

Reporting Units: mg/kg

Project ID:

Date Prepared: 05/08/2019

Batch #: 1

Analyst: CRL

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
BTEX by SW 8260B	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Benzene	<0.000588	0.0588	0.0735	125	62-132	
Toluene	<0.000588	0.0588	0.0745	127	66-124	X
Ethylbenzene	<0.000588	0.0588	0.0512	87	71-134	
m,p-Xylenes	<0.00118	0.118	0.0758	64	69-128	X
o-Xylene	<0.000588	0.0588	0.0468	80	72-131	

Lab Batch #: 3088476

Date Analyzed: 05/09/2019

QC- Sample ID: 622970-002 S

Reporting Units: mg/kg

Date Prepared: 05/09/2019

Batch #: 1

Analyst: CRL

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
BTEX by SW 8260B	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Benzene	<0.000508	0.0508	0.0460	91	62-132	
Toluene	<0.000508	0.0508	0.0435	86	66-124	
Ethylbenzene	<0.000508	0.0508	0.0432	85	71-134	
m,p-Xylenes	<0.00102	0.102	0.0857	84	69-128	
o-Xylene	<0.000508	0.0508	0.0459	90	72-131	

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

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: North Lead 3 Fed Com #1H

Work Order #: 622970

Project ID:

Lab Batch ID: 3088119

QC- Sample ID: 622849-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/06/2019

Date Prepared: 05/06/2019

Analyst: JYM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by SW 9056 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
Chloride	148	104	245	93	104	245	93	0	80-120	20	

Lab Batch ID: 3088119

QC- Sample ID: 622849-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/06/2019

Date Prepared: 05/06/2019

Analyst: JYM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by SW 9056 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
Chloride	627	102	710	81	102	710	81	0	80-120	20	

Lab Batch ID: 3088356

QC- Sample ID: 622970-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/08/2019

Date Prepared: 05/07/2019

Analyst: ISU

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	15.0	1010	911	89	1010	1030	100	12	70-130	20	
C12-C28 Diesel Range Hydrocarbons	149	1010	1060	90	1010	1240	108	16	70-130	20	

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.

Project Name: North Lead 3 Fed Com #1H

Work Order #: 622970

Lab Batch #: 3088100

Date Analyzed: 05/06/2019 18:34

QC- Sample ID: 622962-001 D

Reporting Units: %

Date Prepared: 05/06/2019

Batch #: 1

Project ID:

Analyst: KBU

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture by SM2540G	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Percent Moisture	21.9	20.0	9	10	

Lab Batch #: 3088100

Date Analyzed: 05/06/2019 18:34

QC- Sample ID: 622968-001 D

Reporting Units: %

Date Prepared: 05/06/2019

Batch #: 1

Analyst: KBU

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture by SM2540G	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Analyte					
Percent Moisture	7.92	8.44	6	10	

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)
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

Work Order No: 622970

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8600 Tampa, FL (813) 620-2000

www.xenco.com Page of

Project Manager:	ZACH GUNDEL	Bill to: (if different)	
Company Name:	TKSMAID GEDS SCIENCES	Company Name:	PLAINS AREA
Address:	2620 W. NARVAH BLVD	Address:	70 HUBER GROVES
City, State ZIP:	HOBBS, NM 88240	City, State ZIP:	
Phone:	806-724-5943	Email:	ZGUNDER@TKSMAID-GEO.COM
Project Name:	NORTH LEA 3 FED COM #11	Turn Around	
Project Number:		Routine <input type="checkbox"/>	
P.O. Number:		Rush: <input type="checkbox"/>	
Sampler's Name:	ZACH GUNDEL	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	-7.2	IR ID: HOU-068	C/F: +0.2		
Received Intact:	Yes No	Temp:	Corrected:		
Cooler Custody Seals:	Yes No	-2.2	-2		
Sample Custody Seals:	Yes No	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Work Order Notes
FL-10-1' NS	S	4-29-19	10:00	1 FT	1	RC1	
FL-20-1' NE	S	4-29-19	10:15	1 FT	1	CHLORIDE 4500	
FL-30-1' W	S	4-29-19	10:30	6 FT	1	TCLP BENZENE	
FL-40-1' E	S	4-29-19	11:00	6 FT	1	TCLP RC RA 8	
ES-10-3' E	S	4-29-19	11:15	3 FT	1	NORM	
ES-20-3' W	S	4-29-19	11:30	3 FT	1	PAINT FILTER	
ES-30-3' E	S	4-29-19	12:00	3 FT	1	TPH	
NS-10-3' W	S	4-29-19	12:15	3 FT	1	BTX	
NS-20-6' W	S	4-29-19	12:30	6 IN	1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Bucky G	Bucky G	4/30/19 14:25	Bucky G	FedEx	
FedEx	FedEx	5/1/19 9:15	FedEx		

156140-434 RIT EXP 0379 **

TRK# 4705 2520 7612

WED - 01 MAY 3:00P
STANDARD OVERNIGHT

AB SGRA

PRIMES ST
ERS NM 88240-0903

77477
TX-US IAH

HAL 15:00 7612 05.01

J18111801 27

156140-434 RIT EXP 0379 **



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Tasman Geosciences, LLC

Date/ Time Received: 05/01/2019 09:15:00 AM

Work Order #: 622970

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sample Receipt Checklist

Comments


#1 *Temperature of cooler(s)?	-2
#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?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:


Heidi Mathews

Date: 05/02/2019

Checklist reviewed by:


John Builes

Date: 05/07/2019

Appendix B: Depth to Groundwater Results



New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 636974

Northing (Y): 3608823.83

Radius: 1700

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 323536103301101

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 323536103301101 20S.35E.06.331332

Lea County, New Mexico
Latitude 32°35'50", Longitude 103°30'17" NAD27
Land-surface elevation 3,678.00 feet above NGVD29
The depth of the well is 70 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measure
1961-03-08		D	58.70			2			U	
1971-01-21		D	57.58			2			U	
1976-02-19		D	61.24			2			U	
1986-04-02		D	56.91			2			U	
1991-07-03		D	54.23			2			U	
1996-03-05		D	56.39			2			S	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Appendix C: Photo Documentation

Read & Stevens, Inc.
North Lea 3 Federal #1H Battery



Initial Release



1 ft. Excavation

Read & Stevens, Inc.
North Lea 3 Federal #1H Battery



1 ft. Excavation



6 ft. Excavation

Read & Stevens, Inc.
North Lea 3 Federal #1H Battery



6 ft. Excavation



Back Filled Excavation

Read & Stevens, Inc.
North Lea 3 Federal #1H Battery



Back Filled Excavation

Appendix D: Initial Form C-141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1911534215
District RP	1RP-5440
Facility ID	
Application ID	pAB1911533945

Release Notification

Responsible Party

Responsible Party Read & Stevens, Inc.	OGRID 18917
Contact Name Kelly Barajas	Contact Telephone 575-624-3760
Contact email kbarajas@read-stevens.com	Incident # (assigned by OCD) NAB1911534215
Contact mailing address PO Box 1518, Roswell, NM 88202	

Location of Release Source

Latitude 32.363221 N Longitude -103.322613 W
(NAD 83 in decimal degrees to 5 decimal places)

Site Name North Lea 3 Federal Com #1H	Site Type Oil Well & Oil Battery
Date Release Discovered 03/26/2019	API# (if applicable) 30-025-42080

Unit Letter	Section	Township	Range	County
A	3	20S	34E	Lea County, NM

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 13 BO	Volume Recovered (bbls) 0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The cause of release is a 4 inch elbow failure on the load line. This release is outside of the containment, on the pad and approximately 12 ft in width into the pasture. It is approximately 30 ft running lengthwise to the production pad. Plains will be handling the remediation for this release.

3/29/19 emailed to Brad Bulings -OCD

State of New Mexico
Oil Conservation Division

Incident ID	NAB1911534215
District RP	1RP-5440
Facility ID	
Application ID	pAB1911533945

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Sent an email to emnrd-ocd-district1spills@state.nm.us on 3/27/2019 at 8:43 a.m. Also emailed Crystal Weaver and Jim Amos with the BLM on 3/27/2019 at 9:32 a.m.
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Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Immediate cleanup has been conducted with absorbent pads. The actual remediation will occur once a one call can be cleared.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Kelly Barajas

Title: Production & Regulatory

Signature: 

Date: 03/29/2019

email: kbarajas@read-stevens.com

Telephone: 575-624-3760

OCD Only

Received by: 

Date: 4/25/2019