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	NCS1935342644
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Jennifer Deal	Contact Telephone 505-801-6517
Contact email jdeal@hilcorp.com	Incident # NCS1935342644
Contact mailing address 382 Road 3100, Aztec NM 87410	

Location of Release Source

Latitude 36.7999687 Longitude -107.904892

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Gage 3	Site Type Gas Well
Date Release Discovered 11/19/2019 at 2:27pm	API# *30-045-23146*

Unit Letter	Section	Township	Range	County
G	20	30N	10W	San Juan

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 6	Volume Recovered (bbls) 0
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A release of ~6 bbls of condensate was released due to internal corrosion on the bottom of the condensate tank. The operator removed fluids from tank. The tank will be pulled and inspected and coated. Release remained on location. 0 bbls were recovered. Environmental will provide OCD 48 hour notice of sampling.

Incident ID	NCS1935342644
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☐ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	NCS1935342644
District RP	
Facility ID	
Application ID	

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: ___Jennifer Deal_____ Title: ____Environmental Specialist_____

Signature:_____ Jennifer Deal _____ Date: __1/15/2020_____

email: ___jdeal@hilcorp.com_____ Telephone: ___(505) 324-5128_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NCS1935342644
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jennifer Deal Title: Environmental Specialist

Signature: Jennifer Deal Date: 1/15/2020

email: jdeal@hilcorp.com Telephone: 505-801-6517

OCD Only

Received by: OCD Date: 1/20/2020

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

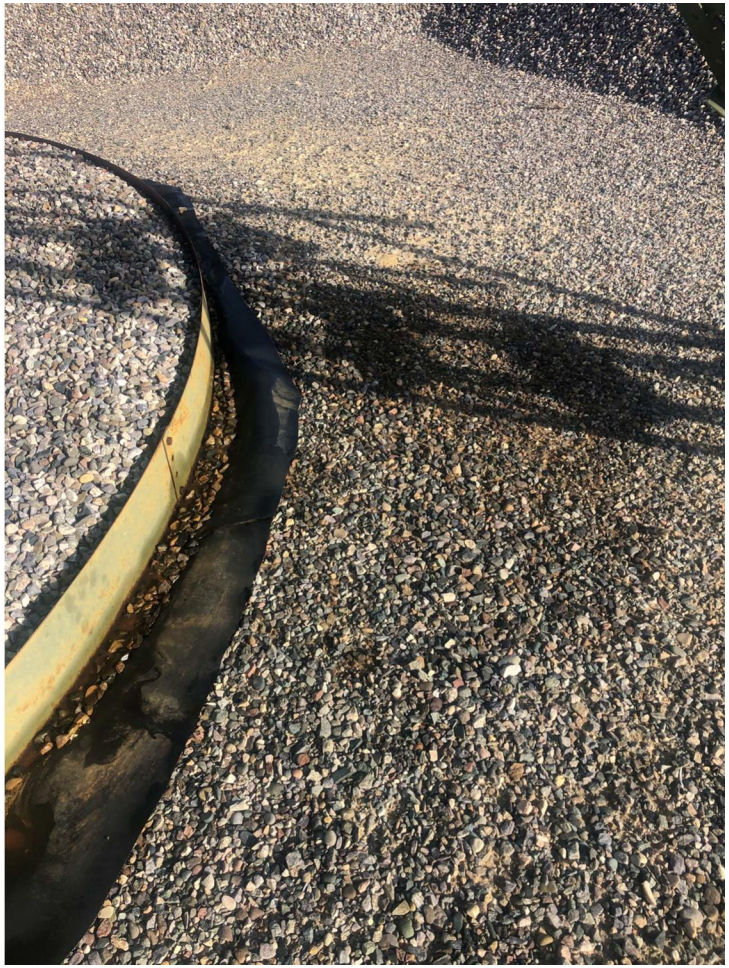
Closure Approved by: Date: 3/27/2020

Printed Name: Cory Smith Title: Environmental Specialist

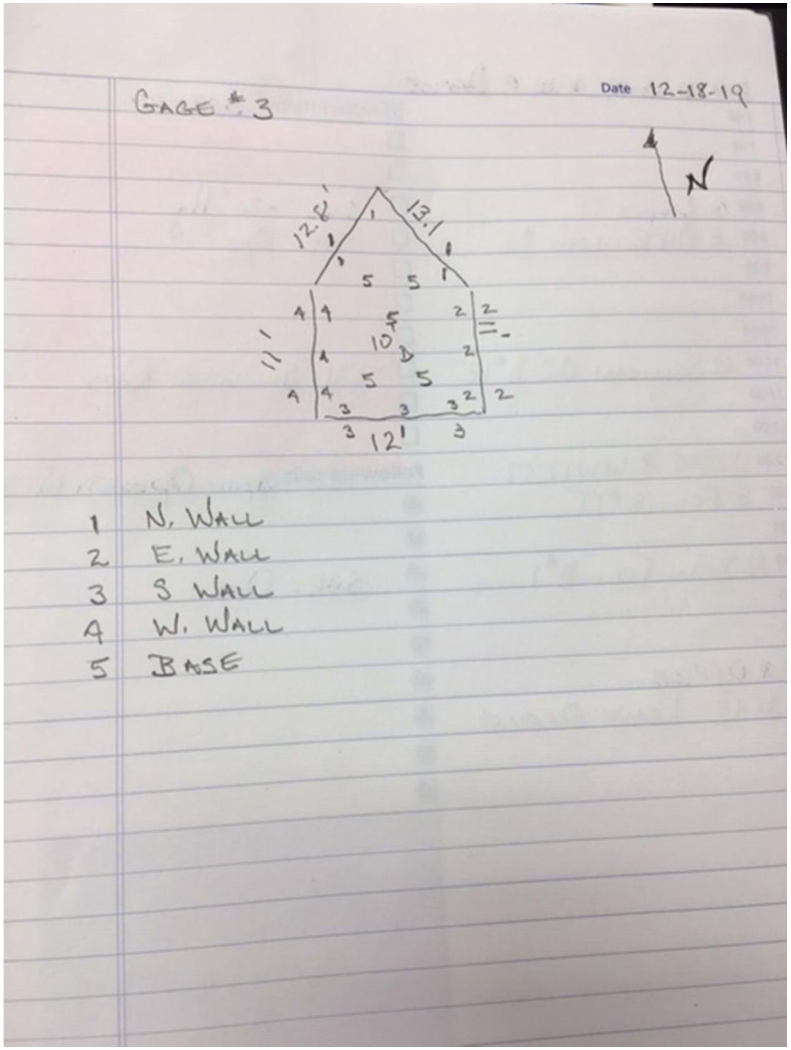
Scaled Map

N

Photographs – Initial Release



Field Data



Data table of soil contaminant concentration data

TABLE 1

SOIL ANALYTICAL RESULTS
GAGE 3
HILCORP ENERGY - L48 WEST

Soil Sample Identification	Sample Date	Field Headspace	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes	Total BTEX	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	MRO+DRO (mg/kg)	TPH (mg/kg)
North 1/3	12/6/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	24	<0.1	<4.0	<4.0	<4.0	<4.0
Middle 1/3	12/6/2019		<0.0005	<0.005	<0.0005	18.2	18.2	53	784	1170.00	142.00	**1312.00**	**2096.00**
South 1/3	12/6/2019		<0.0005	<0.005	<0.0005	0.00224	0.0022	21	0.14	8.71	5.82	14.53	14.67
N. Wall	12/18/2019		<0.0125	<0.125	0.0177	0.146	0.1637	ND	25.30	46.40	7.31	53.71	79.01
E. Wall	12/18/2019		<0.0005	<0.005	0.000678	0.0199	0.0206	20	0.37	23.70	6.27	29.97	30.34
S. Wall	12/18/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	ND	<0.10	8.55	<4.00	8.55	8.55
W. Wall	12/18/2019		<0.0005	<0.005	<0.0005	0.00211	0.0021	ND	0.39	20.30	6.91	27.21	27.60
Base	12/18/2019		<0.0125	<0.125	<0.0125	0.168	0.1680	ND	30.80	66.50	11.00	77.50	108.30
NMOCD Standards		**NE**	**10**	**NE**	**NE**	**NE**	**50**	**600**	**NE**	**NE**	**NE**	**1,000**	**2,500**

Depth to water determination

SJ 01362 Elevation = 6326; Gage 3 Elevation = 6396

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 01362		SJ	SJ	3	3	1	20	30N	10W	239888	4076436*	238	190	48
SJ 02782		SJ	SJ	4	4	1	20	30N	10W	240482	4076452*	250		
SJ 02797		SJ	SJ	1	4	2	20	30N	10W	241073	4076685*	70		
SJ 03442		SJ	SJ	1	4	1	20	30N	10W	240282	4076652*	200		

Average Depth to Water: **190 feet**

Minimum Depth: **190 feet**

Maximum Depth: **190 feet**

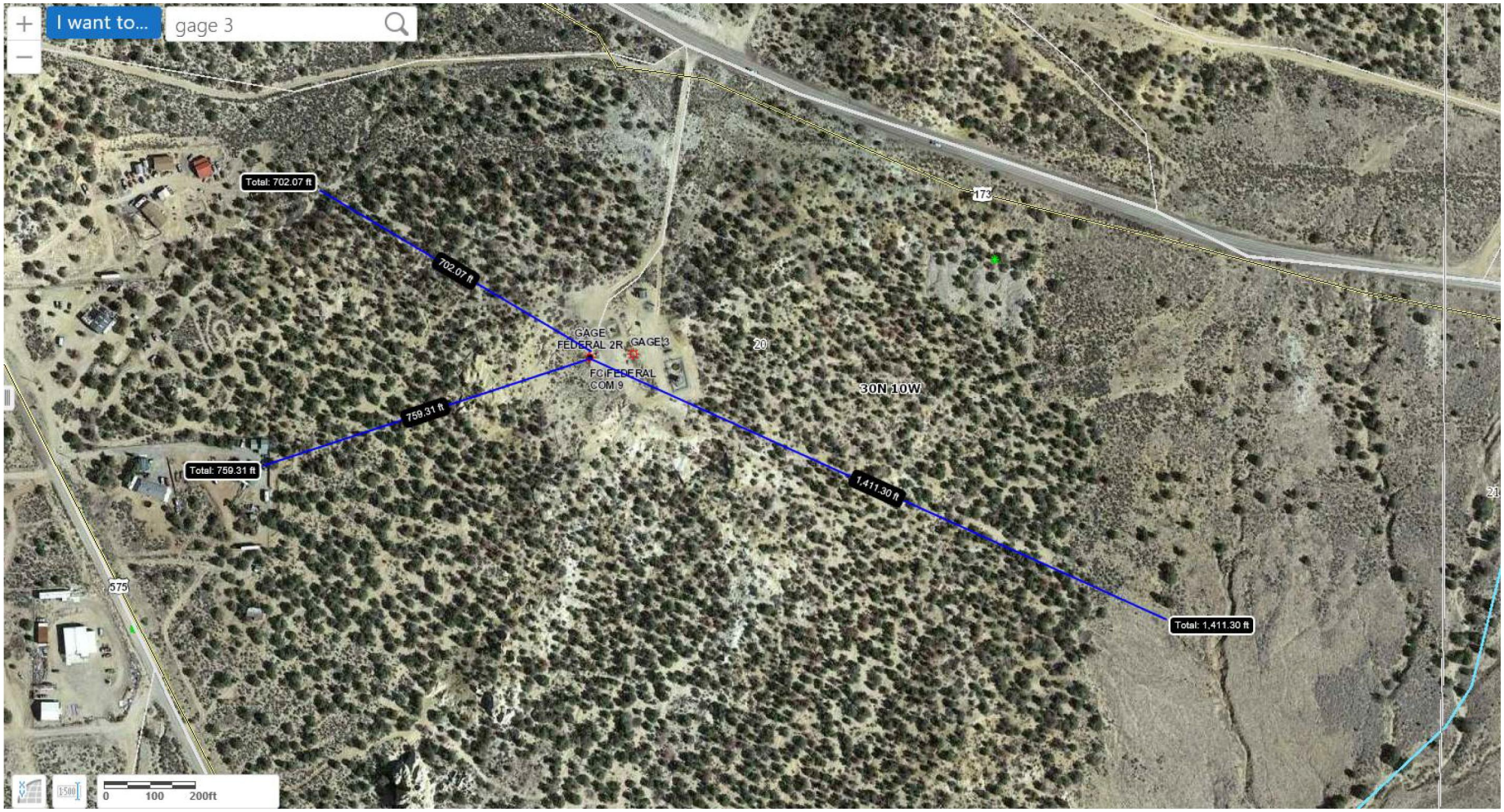
Record Count: 4

PLSS Search:

Section(s): 20 **Township:** 30N **Range:** 10W

***UTM location was derived from PLSS - see Help**

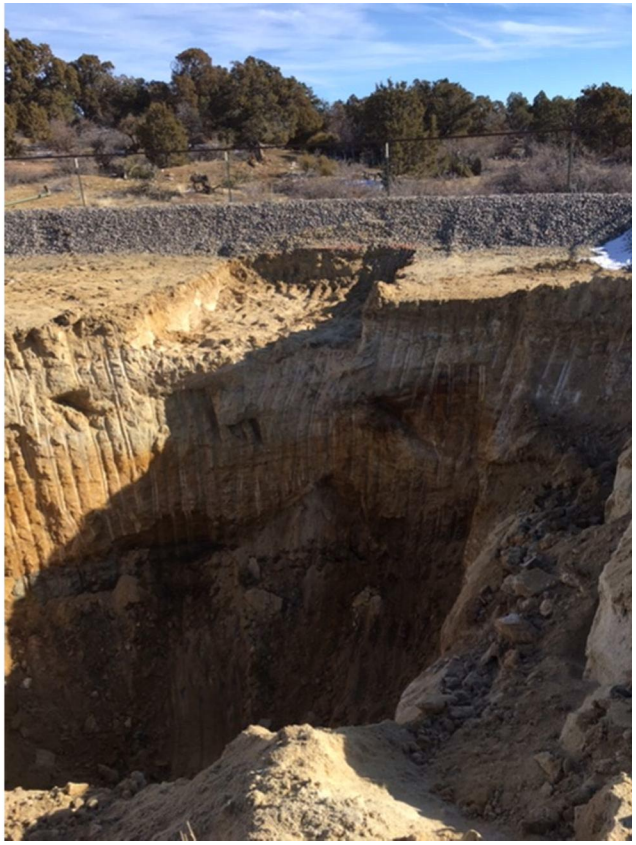
Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release



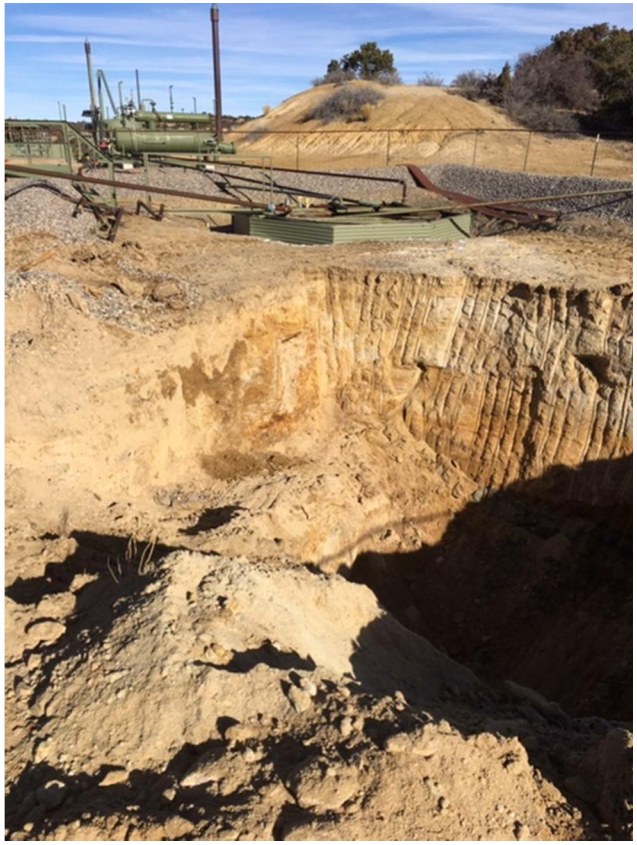
Photographs – 12/18/2019 Sampling Event

Base

East Wall



North Wall



Photographs – 12/18/19 Sampling Event

South Wall

West Wall

Topographic/Aerial Maps

N

Summary of events

- Release of ~6bbls of condensate was released
  - ~120 yards/3 of contaminated soil was removed and disposed at IEI
  - ~120 yards/3 of clean soil was brought in from Four Corners Material
  - Size of excavation was approximately 24’x12’x10’ deep
- 1st Confirmation sampling occurred on 12/6/2019 at 9:00am
  - Kurt performed sampling
  - Results came back with MRO+DRO > 1,000 mg/kg
- 2nd Confirmation sampling occurred on 12/18/2019 at 9:00am
  - Kurt performed sampling

NMAC 19.15.29.13 Comment

- Because the remediated area is currently used for production operations, HEC will restore the pad in compliance with NMAC 19.15.29.13(D) upon P&A

Jennifer Deal

From: Jennifer Deal
Sent: Wednesday, December 4, 2019 7:15 AM
To: cory.smith@state.nm.us
Cc: Kurt Hoekstra; Jeremy Brooks
Subject: Confirmation Sampling: Gage 3

Good morning,

Hilcorp energy is providing 48 hour notice of confirmation sampling to occur on December 6 at 9:00am at the Gage 3 (Incident ID: Not assigned). Let me know if you have any questions.

Thank you,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

From: Auto-Receipt [mailto:noreply@mail.authorize.net]
Sent: Tuesday, December 3, 2019 9:46 AM
To: Jennifer Deal <jdeal@hilcorp.com>
Subject: [EXTERNAL] Transaction Receipt from EMNRD OCD for $150.00 (USD)

Order Information

Description: Goods or Services

PO Number J0GQ1-191203-C-1410

Billing Information
Jennifer Deal
1111 Travis
Houston, Texas 77002
US
jdeal@hilcorp.com
5053245128

Shipping Information

Total: $150.00 (USD)

Payment Information

Date/Time:	3-Dec-2019 9:45:45 MST
Transaction ID:	41719326670
Payment Method:	MasterCard xxxx3913
Transaction Type:	Purchase
Auth Code:	042056

Merchant Contact Information

EMNRD OCD
Santa Fe, NM 87505
US
ocdfees@state.nm.us

Jennifer Deal

From: Jennifer Deal
Sent: Monday, December 16, 2019 8:15 AM
To: cory.smith@state.nm.us
Cc: Kurt Hoekstra; Chad Perkins; Joey Becker
Subject: Confirmation Sampling: Gage 3
Attachments: L1168297.pdf

Importance: High

Good morning,

Below and attached are the lab analysis for the sampling that occurred at the Gage 3 on 12/6/19. As you can see the Middle 1/3 came back above closure standards. Additional excavation will be completed. Hilcorp Energy is providing 48 hour notice of confirmation sampling to occur on Wednesday, December 18th at 9:00am. Please let me know if you have any questions.

SOIL ANALYTICAL RESUL

Gage 3

HILCORP ENERGY - L48 WE

Soil Sample Identification	Sample Date	Field Headspace	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	To Xyl
North 1/3	12/6/2019		<0.0005	<0.005	<0.0005	<0.(
Middle 1/3	12/6/2019		<0.0005	<0.005	<0.0005	18
South 1/3	12/6/2019		<0.0005	<0.005	<0.0005	0.0(
NMOCD Standards		**NE**	**10**	**NE**	**NE**	**N**

Thank you,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

From: Jennifer Deal
Sent: Wednesday, December 4, 2019 7:15 AM
To: cory.smith@state.nm.us
Cc: Kurt Hoekstra <khoekstra@hilcorp.com>; Jeremy Brooks <jbrooks@hilcorp.com>
Subject: Confirmation Sampling: Gage 3

Good morning,

Hilcorp energy is providing 48 hour notice of confirmation sampling to occur on December 6 at 9:00am at the Gage 3 (Incident ID: Not assigned). Let me know if you have any questions.

Thank you,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 30, 2019

HilCorp-Farmington, NM

Sample Delivery Group:	L1173178
Samples Received:	12/20/2019
Project Number:	
Description:	Gage #3
Site:	GAGE #3
Report To:	Jennifer Deal 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

N. WALL L1173178-01 Solid

Collected by: K Hoekstra | Collected date/time: 12/18/19 09:30 | Received date/time: 12/20/19 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1400873	1	12/22/19 18:05	12/22/19 21:08	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1402535	25	12/21/19 14:45	12/26/19 23:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1402942	1	12/27/19 12:31	12/28/19 02:37	JDG	Mt. Juliet, TN

E. WALL L1173178-02 Solid

Collected by: K Hoekstra | Collected date/time: 12/18/19 09:40 | Received date/time: 12/20/19 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1400873	1	12/22/19 18:05	12/22/19 21:17	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1402050	1	12/21/19 14:45	12/24/19 13:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1402942	1	12/27/19 12:31	12/28/19 02:50	JDG	Mt. Juliet, TN

S. WALL L1173178-03 Solid

Collected by: K Hoekstra | Collected date/time: 12/18/19 09:45 | Received date/time: 12/20/19 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1400873	1	12/22/19 18:05	12/22/19 21:27	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1402050	1	12/21/19 14:45	12/24/19 13:29	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1402942	1	12/27/19 12:31	12/28/19 03:03	JDG	Mt. Juliet, TN

W. WALL L1173178-04 Solid

Collected by: K Hoekstra | Collected date/time: 12/18/19 09:50 | Received date/time: 12/20/19 09:30

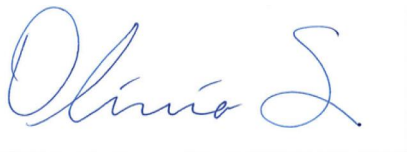
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1400873	1	12/22/19 18:05	12/22/19 21:36	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1402050	1	12/21/19 14:45	12/24/19 13:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1402942	1	12/27/19 12:31	12/28/19 03:15	JDG	Mt. Juliet, TN

BASE L1173178-05 Solid

Collected by: K Hoekstra | Collected date/time: 12/18/19 10:00 | Received date/time: 12/20/19 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1400873	1	12/22/19 18:05	12/22/19 21:46	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1402535	25	12/21/19 14:45	12/27/19 00:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1402942	1	12/27/19 12:31	12/28/19 03:54	JDG	Mt. Juliet, TN

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



Olivia Studebaker
Project Manager

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/22/2019 21:08	WG1400873

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.0125	25	12/26/2019 23:58	WG1402535
Toluene	ND		0.125	25	12/26/2019 23:58	WG1402535
Ethylbenzene	0.0177		0.0125	25	12/26/2019 23:58	WG1402535
Total Xylene	0.146		0.0375	25	12/26/2019 23:58	WG1402535
TPH (GC/FID) Low Fraction	25.3		2.50	25	12/26/2019 23:58	WG1402535
(S) a,a,a-Trifluorotoluene(FID)	*113*		*77.0-120*		*12/26/2019 23:58*	WG1402535
(S) a,a,a-Trifluorotoluene(PID)	*114*		*72.0-128*		*12/26/2019 23:58*	WG1402535

Sample Narrative:

L1173178-01 WG1402535: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	46.4		4.00	1	12/28/2019 02:37	WG1402942
C28-C40 Oil Range	7.31		4.00	1	12/28/2019 02:37	WG1402942
(S) o-Terphenyl	*74.5*		*18.0-148*		*12/28/2019 02:37*	WG1402942

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	20.4		10.0	1	12/22/2019 21:17	WG1400873

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	12/24/2019 13:08	WG1402050
Toluene	ND		0.00500	1	12/24/2019 13:08	WG1402050
Ethylbenzene	0.000678		0.000500	1	12/24/2019 13:08	WG1402050
Total Xylene	0.0199		0.00150	1	12/24/2019 13:08	WG1402050
TPH (GC/FID) Low Fraction	0.369	B	0.100	1	12/24/2019 13:08	WG1402050
(S) a,a,a-Trifluorotoluene(FID)	*106*		*77.0-120*		*12/24/2019 13:08*	WG1402050
(S) a,a,a-Trifluorotoluene(PID)	*102*		*72.0-128*		*12/24/2019 13:08*	WG1402050

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	23.7		4.00	1	12/28/2019 02:50	WG1402942
C28-C40 Oil Range	6.27		4.00	1	12/28/2019 02:50	WG1402942
(S) o-Terphenyl	*78.9*		*18.0-148*		*12/28/2019 02:50*	WG1402942

S. WALL
Collected date/time: 12/18/19 09:45
L1173178

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/22/2019 21:27	WG1400873

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	12/24/2019 13:29	WG1402050
Toluene	ND		0.00500	1	12/24/2019 13:29	WG1402050
Ethylbenzene	ND		0.000500	1	12/24/2019 13:29	WG1402050
Total Xylene	ND		0.00150	1	12/24/2019 13:29	WG1402050
TPH (GC/FID) Low Fraction	ND		0.100	1	12/24/2019 13:29	WG1402050
(S) a,a,a-Trifluorotoluene(FID)	*106*		*77.0-120*		*12/24/2019 13:29*	WG1402050
(S) a,a,a-Trifluorotoluene(PID)	*103*		*72.0-128*		*12/24/2019 13:29*	WG1402050

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	8.55		4.00	1	12/28/2019 03:03	WG1402942
C28-C40 Oil Range	ND		4.00	1	12/28/2019 03:03	WG1402942
(S) o-Terphenyl	*72.4*		*18.0-148*		*12/28/2019 03:03*	WG1402942

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

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/22/2019 21:36	WG1400873

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	12/24/2019 13:49	WG1402050
Toluene	ND		0.00500	1	12/24/2019 13:49	WG1402050
Ethylbenzene	ND		0.000500	1	12/24/2019 13:49	WG1402050
Total Xylene	0.00211		0.00150	1	12/24/2019 13:49	WG1402050
TPH (GC/FID) Low Fraction	0.391		0.100	1	12/24/2019 13:49	WG1402050
(S) a,a,a-Trifluorotoluene(FID)	*106*		*77.0-120*		*12/24/2019 13:49*	WG1402050
(S) a,a,a-Trifluorotoluene(PID)	*108*		*72.0-128*		*12/24/2019 13:49*	WG1402050

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	20.3		4.00	1	12/28/2019 03:15	WG1402942
C28-C40 Oil Range	6.91		4.00	1	12/28/2019 03:15	WG1402942
(S) o-Terphenyl	*73.8*		*18.0-148*		*12/28/2019 03:15*	WG1402942

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/22/2019 21:46	WG1400873

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.0125	25	12/27/2019 00:19	WG1402535
Toluene	ND		0.125	25	12/27/2019 00:19	WG1402535
Ethylbenzene	ND		0.0125	25	12/27/2019 00:19	WG1402535
Total Xylene	0.168		0.0375	25	12/27/2019 00:19	WG1402535
TPH (GC/FID) Low Fraction	30.8		2.50	25	12/27/2019 00:19	WG1402535
(S) a,a,a-Trifluorotoluene(FID)	*113*		*77.0-120*		*12/27/2019 00:19*	WG1402535
(S) a,a,a-Trifluorotoluene(PID)	*107*		*72.0-128*		*12/27/2019 00:19*	WG1402535

Sample Narrative:

L1173178-05 WG1402535: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	66.5		4.00	1	12/28/2019 03:54	WG1402942
C28-C40 Oil Range	11.0		4.00	1	12/28/2019 03:54	WG1402942
(S) o-Terphenyl	*73.6*		*18.0-148*		*12/28/2019 03:54*	WG1402942

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

Method Blank (MB)

(MB) R3485220-1 12/22/19 20:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	1.77	J	0.795	10.0

L1173332-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1173332-02 12/22/19 22:05 • (DUP) R3485220-3 12/22/19 22:33

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	858	839	1	2.20		20

L1173332-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1173332-08 12/22/19 23:31 • (DUP) R3485220-4 12/22/19 23:40

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	670	680	1	1.59		20

Laboratory Control Sample (LCS)

(LCS) R3485220-2 12/22/19 20:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	199	99.3	90.0-110	

L1173332-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1173332-12 12/23/19 00:37 • (MS) R3485220-5 12/23/19 00:47 • (MSD) R3485220-6 12/23/19 00:56

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	520	U	518	524	99.7	101	1	80.0-120			1.16	20

Method Blank (MB)

(MB) R3485846-3 12/24/19 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000124	J	0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0386	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*106*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3485846-1 12/24/19 10:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0600	120	76.0-121	
Toluene	0.0500	0.0539	108	80.0-120	
Ethylbenzene	0.0500	0.0567	113	80.0-124	
Total Xylene	0.150	0.156	104	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*111*	*72.0-128*	

Laboratory Control Sample (LCS)

(LCS) R3485846-2 12/24/19 10:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.44	98.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*114*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*128*	*72.0-128*	

Method Blank (MB)

(MB) R3486386-3 12/26/19 23:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000350	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0323	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*114*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3486386-1 12/26/19 21:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.70	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*123*	*77.0-120*	J1
(S) a,a,a-Trifluorotoluene(PID)			*136*	*72.0-128*	J1

Laboratory Control Sample (LCS)

(LCS) R3486386-2 12/26/19 22:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0528	106	76.0-121	
Toluene	0.0500	0.0495	99.0	80.0-120	
Ethylbenzene	0.0500	0.0538	108	80.0-124	
Total Xylene	0.150	0.147	98.0	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*112*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*110*	*72.0-128*	

Method Blank (MB)

(MB) R3486533-1 12/28/19 00:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*68.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3486533-2 12/28/19 00:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.7	75.4	50.0-150	
(S) o-Terphenyl			*66.4*	*18.0-148*	

L1173178-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1173178-04 12/28/19 03:15 • (MS) R3486533-3 12/28/19 03:28 • (MSD) R3486533-4 12/28/19 03:41

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.7	20.3	54.2	54.6	68.2	69.7	1	50.0-150			0.735	20
(S) o-Terphenyl					*65.6*	*68.4*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

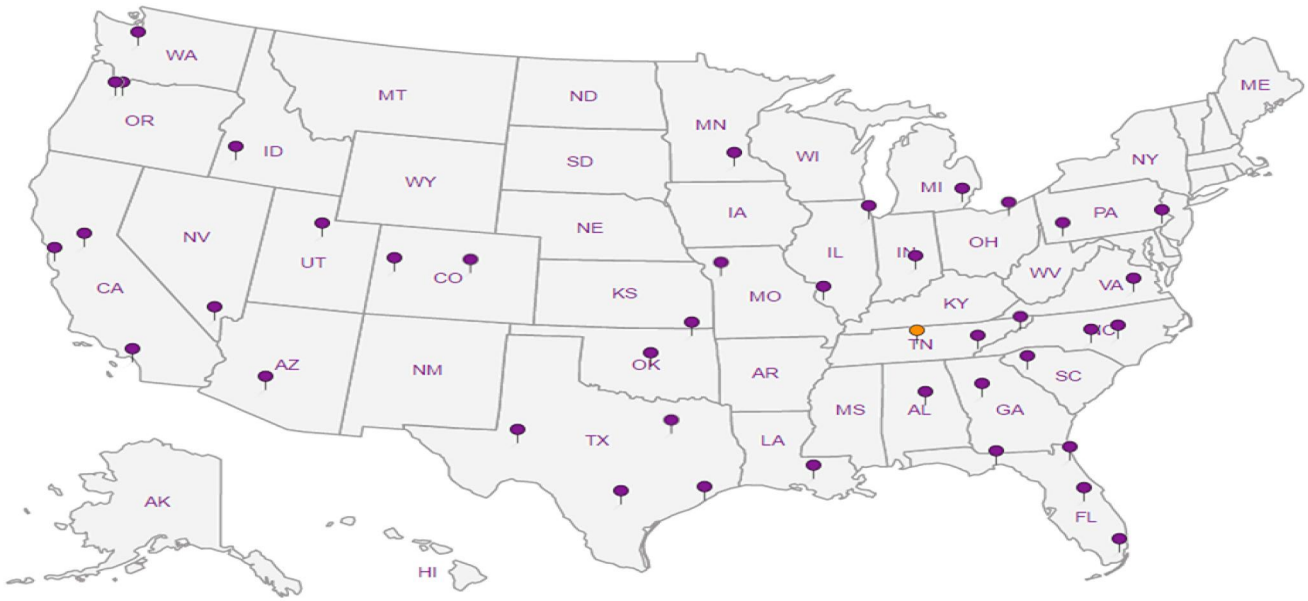
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

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



Billing Information: **ATTN: Jennifer Deal**

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L173478

B217

Acctnum: HILCORANM

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Report to: **Jennifer Deal**

Email To: **jdeal@hilcorp.com; khoekstra@hilcorp**

Project Description: **Gage # 3**

City/State Collected: **Aztec, NM**

Phone: **505-324-5128**
Fax:

Client Project #

Lab Project #

Collected by (print): **K Hoekstra**

Site/Facility ID # **Gage # 3**

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH - 8015 - DRO, GRO, MRO	BTEX 8021	Chloride 300.0	Remarks	Sample # (lab only)
N. Wall	Comp	SS		12-18	9:30	1	X	X	X		-01
E. Wall	Comp	SS		12-18	9:40	1	X	X	X		-02
S. Wall	Comp	SS		12-18	9:45	1	X	X	X		-03
W. Wall	Comp	SS		12-18	9:50	1	X	X	X		-04
Base	Comp	SS		12-18	10:00	1	X	X	X		-05

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 479488413902

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Kurt Hoekstra	12-19-19	7:30			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 °C 1.7 Bottles Received: 5	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) W Taylor	Date: 12/20/19 Time: 0930	Hold: Condition: NCF / OK