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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Lindsay Dumas	Contact Telephone 832-839-4585
Contact email LDumas@hilcorp.com	Incident # *(assigned by OCD)*
Contact mailing address 1111 Travis St. Houston, TX 77002	

Location of Release Source

Latitude 36.76545 Longitude -107.43572
(NAD 83 in decimal degrees to 5 decimal places)

Site Name San Juan 30-6 #446	Site Type Well site
Date Release Discovered 8/22/18	API# *(if applicable)* 30-039-24590

Unit Letter	Section	Township	Range	County
N	35	30N	06W	Rio Arriba

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) 60 bbls	Volume Recovered (bbls) 11 bbls
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Corrosion of produced water tank

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? 19.15.29.7(A)(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Lisa Hunter, Jim Griswold, Cory Smith, Vanessa Fields, and Whitney Thomas (BLM) by email 8/22/18 @ 4:53PM

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:
All actions above have been completed.

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: Lindsay Dumas Title: Environmental Specialist
Signature: Lindsay Dumas Date: 8/28/18
email: LDumas@hilcorp.com Telephone: 832-839-4585

OCD Only

Received by: _____ Date: _____

Lindsay Dumas

From: Lisa Hunter
Sent: Wednesday, August 22, 2018 4:53 PM
To: 'jim.griswold@state.nm.us'; Smith, Cory, EMNRD; 'Fields, Vanessa, EMNRD'; Thomas, Leigh
Cc: Lindsay Dumas
Subject: Release Notification - San Juan 30-6 Unit 446 - 60bbl Prod Water

All –

This is notification that at approximately 11:00 a.m. today, August 22, 2018, it was discovered that a Produced Water tank on the **San Juan 30-6 Unit 446, API# 30039245900000, Lat. 36.7653, Long. -107.43531, UL: N, Sec. 35, T30N, R06W** released **60bbls of Produced Water** into the earthen berm containment – 11bbls were recovered.

Lindsay Dumas, Environmental (281-794-9159) will follow up with a C-141 and remediation plans.

Thank you.

Lisa Hunter

Field Safety Specialist
Hilcorp Energy – L48 West
382 Road 3100
Aztec, NM 87410
Lhunter@Hilcorp.com

505.486.9494

"If your actions inspire others to dream more, learn more, do more and become more, you are a leader." – John Quincy Adams

State of New Mexico
Oil Conservation Division

Incident ID	
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	
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: Lindsay Dumas Title: Environmental Specialist

Signature: Lindsay Dumas Date: 9/4/18

email: LDumas@hilcorp.com Telephone: 832-839-4585

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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: Lindsay Dumas Title: Environmental Specialist

Signature: Lindsay Dumas Date: 9/4/18

email: LDumas@hilcorp.com Telephone: 832-839-4585

OCD Only

Received by: OCD Date: 8/20/2020

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: Cory Date: 8/20/2020

Printed Name: Cory Title: Environmental Specialist

Scaled Map


N
North
West
East
South
South of East Tank
0
15
30ft
Sample Locations
Impacted Area

Data table of soil contaminant concentration data

SOIL ANALYTICAL RESULTS
SJ 30-6 #446
HILCORP ENERGY - L48 WEST

Soil Sample Identification	Sample Date	Chloride (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO+DRO (mg/kg)	MRO (mg/kg)	TPH (mg/kg)
SOUTH OF TANK	8/27/2018	810	0.00245	0	0.000717	0.00184	0.01	0	10	10	0	10
WEST OF TANK	8/27/2018	857.0	0.00202	0	0.000501	0	0.00	0.0	12.4	12.4	0	12
NORTH OF TANK	8/27/2018	435	0.00179	0	0	0	0.00	0	28.6	29	15.7	44
EAST OF TANK	8/27/2018	370.0	0.00203	0	0	0	0.00	0.0	5	5.5	0	5
EAST TANK LOAD VALVE	8/27/2018	971	0.00203	0	0	0	0.00	0	8	8	0	8
NMOCD Standards		**20,000**	**10**				**50**			**1000**		**2,500**

Depth to water determination

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	Distance	Depth Well	Depth Water	Water Column
SJ 00040		SJ	RA	3	2	3	28	30N	06W	279427	4073418*	0	420		
SJ 00041		SJ	RA	3	2	3	28	30N	06W	279427	4073418*	0	349		
SJ 00741		SJ	RA	3	2	4	17	30N	06W	278707	4076656*	3317	2038	300	1738

Average Depth to Water: **300 feet**

Minimum Depth: **300 feet**

Maximum Depth: **300 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 279427 **Northing (Y):** 4073418 **Radius:** 3500

***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 – 8/27/18 Sampling Event

including date and GIS information

North Sample

South Sample

Photographs – 8/27/18 Sampling Event

Sampling technique: Grab Samples

East Sample

West Sample

South of East Tank Sample

Topographic/Aerial Maps

Lab Data

including chain of custody

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 31, 2018

HilCorp-Farmington, NM

Sample Delivery Group:	L1021110
Samples Received:	08/28/2018
Project Number:	
Description:	
Site:	S.J. 30-6 UNIT 446
Report To:	Kurt Hoekstra 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Kelly Mercer
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 National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SOUTH OF TANK L1021110-01 Solid

Collected by: Kurt | Collected date/time: 08/27/18 09:12 | Received date/time: 08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1158685	5	08/28/18 22:15	08/29/18 17:14	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1158709	1	08/28/18 12:56	08/29/18 07:13	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1158705	1	08/28/18 18:02	08/28/18 23:39	MG

WEST OF TANK L1021110-02 Solid

Collected by: Kurt | Collected date/time: 08/27/18 09:17 | Received date/time: 08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1158685	5	08/28/18 22:15	08/29/18 17:32	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1158709	1	08/28/18 12:56	08/29/18 07:37	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1158705	1	08/28/18 18:02	08/28/18 23:53	MG

NORTH OF TANK L1021110-03 Solid

Collected by: Kurt | Collected date/time: 08/27/18 09:20 | Received date/time: 08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1158685	5	08/28/18 22:15	08/29/18 17:40	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1158709	1	08/28/18 12:56	08/29/18 08:01	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1158705	1	08/28/18 18:02	08/29/18 00:07	MG

EAST OF TANK L1021110-04 Solid

Collected by: Kurt | Collected date/time: 08/27/18 09:23 | Received date/time: 08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1158685	5	08/28/18 22:15	08/29/18 17:49	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1158709	1	08/28/18 12:56	08/29/18 08:25	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1158705	1	08/28/18 18:02	08/29/18 00:20	MG

EAST TANK LOAD VALVE L1021110-05 Solid

Collected by: Kurt | Collected date/time: 08/27/18 09:28 | Received date/time: 08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9056A	WG1158685	5	08/28/18 22:15	08/29/18 17:58	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1158709	1	08/28/18 12:56	08/29/18 08:49	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1158705	1	08/28/18 18:02	08/29/18 00:34	MG

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.

Kelly Mercer
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	810	J3	50.0	5	08/29/2018 17:14	WG1158685

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00245		0.000500	1	08/29/2018 07:13	WG1158709
Toluene	ND		0.00500	1	08/29/2018 07:13	WG1158709
Ethylbenzene	0.000717		0.000500	1	08/29/2018 07:13	WG1158709
Total Xylene	0.00184		0.00150	1	08/29/2018 07:13	WG1158709
TPH (GC/FID) Low Fraction	ND		0.100	1	08/29/2018 07:13	WG1158709
(S) a,a,a-Trifluorotoluene(FID)	*97.4*		*77.0-120*		*08/29/2018 07:13*	WG1158709
(S) a,a,a-Trifluorotoluene(PID)	*97.5*		*72.0-128*		*08/29/2018 07:13*	WG1158709

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	10.0	J3	4.00	1	08/28/2018 23:39	WG1158705
C28-C40 Oil Range	ND		4.00	1	08/28/2018 23:39	WG1158705
(S) o-Terphenyl	*25.6*		*18.0-148*		*08/28/2018 23:39*	WG1158705

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	857		50.0	5	08/29/2018 17:32	WG1158685

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00202		0.000500	1	08/29/2018 07:37	WG1158709
Toluene	ND		0.00500	1	08/29/2018 07:37	WG1158709
Ethylbenzene	0.000501		0.000500	1	08/29/2018 07:37	WG1158709
Total Xylene	ND		0.00150	1	08/29/2018 07:37	WG1158709
TPH (GC/FID) Low Fraction	ND		0.100	1	08/29/2018 07:37	WG1158709
(S) a,a,a-Trifluorotoluene(FID)	*97.6*		*77.0-120*		*08/29/2018 07:37*	WG1158709
(S) a,a,a-Trifluorotoluene(PID)	*97.7*		*72.0-128*		*08/29/2018 07:37*	WG1158709

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	12.4	J3	4.00	1	08/28/2018 23:53	WG1158705
C28-C40 Oil Range	ND		4.00	1	08/28/2018 23:53	WG1158705
(S) o-Terphenyl	*32.0*		*18.0-148*		*08/28/2018 23:53*	WG1158705

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	435		50.0	5	08/29/2018 17:40	WG1158685

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00179		0.000500	1	08/29/2018 08:01	WG1158709
Toluene	ND		0.00500	1	08/29/2018 08:01	WG1158709
Ethylbenzene	ND		0.000500	1	08/29/2018 08:01	WG1158709
Total Xylene	ND		0.00150	1	08/29/2018 08:01	WG1158709
TPH (GC/FID) Low Fraction	ND		0.100	1	08/29/2018 08:01	WG1158709
(S) a,a,a-Trifluorotoluene(FID)	*97.1*		*77.0-120*		*08/29/2018 08:01*	WG1158709
(S) a,a,a-Trifluorotoluene(PID)	*97.5*		*72.0-128*		*08/29/2018 08:01*	WG1158709

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	28.6	J3	4.00	1	08/29/2018 00:07	WG1158705
C28-C40 Oil Range	15.7		4.00	1	08/29/2018 00:07	WG1158705
(S) o-Terphenyl	*37.5*		*18.0-148*		*08/29/2018 00:07*	WG1158705

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	370		50.0	5	08/29/2018 17:49	WG1158685

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00203		0.000500	1	08/29/2018 08:25	WG1158709
Toluene	ND		0.00500	1	08/29/2018 08:25	WG1158709
Ethylbenzene	ND		0.000500	1	08/29/2018 08:25	WG1158709
Total Xylene	ND		0.00150	1	08/29/2018 08:25	WG1158709
TPH (GC/FID) Low Fraction	ND		0.100	1	08/29/2018 08:25	WG1158709
(S) a,a,a-Trifluorotoluene(FID)	*97.2*		*77.0-120*		*08/29/2018 08:25*	WG1158709
(S) a,a,a-Trifluorotoluene(PID)	*97.4*		*72.0-128*		*08/29/2018 08:25*	WG1158709

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	5.49	J3	4.00	1	08/29/2018 00:20	WG1158705
C28-C40 Oil Range	ND		4.00	1	08/29/2018 00:20	WG1158705
(S) o-Terphenyl	*57.2*		*18.0-148*		*08/29/2018 00:20*	WG1158705

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	971		50.0	5	08/29/2018 17:58	WG1158685

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00203		0.000500	1	08/29/2018 08:49	WG1158709
Toluene	ND		0.00500	1	08/29/2018 08:49	WG1158709
Ethylbenzene	ND		0.000500	1	08/29/2018 08:49	WG1158709
Total Xylene	ND		0.00150	1	08/29/2018 08:49	WG1158709
TPH (GC/FID) Low Fraction	ND		0.100	1	08/29/2018 08:49	WG1158709
(S) a,a,a-Trifluorotoluene(FID)	*97.5*		*77.0-120*		*08/29/2018 08:49*	WG1158709
(S) a,a,a-Trifluorotoluene(PID)	*97.3*		*72.0-128*		*08/29/2018 08:49*	WG1158709

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	7.74	J3	4.00	1	08/29/2018 00:34	WG1158705
C28-C40 Oil Range	ND		4.00	1	08/29/2018 00:34	WG1158705
(S) o-Terphenyl	*32.6*		*18.0-148*		*08/29/2018 00:34*	WG1158705

Method Blank (MB)

(MB) R3337795-1 08/29/18 16:21

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

L1021110-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1021110-01 08/29/18 17:14 • (DUP) R3337795-4 08/29/18 17:23

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	810	596	5	30.3	J3	15

L1021246-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1021246-15 08/29/18 21:02 • (DUP) R3337795-7 08/29/18 21:11

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	215	203	1	5.75		15

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

(LCS) R3337795-2 08/29/18 16:29 • (LCSD) R3337795-3 08/29/18 16:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	200	201	204	101	102	80.0-120			1.29	15

Method Blank (MB)

(MB) R3337717-5 08/29/18 01:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		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	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.9*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*100*			*72.0-128*

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

(LCS) R3337717-1 08/28/18 22:36 • (LCSD) R3337717-2 08/28/18 23:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0555	0.0563	111	113	76.0-121			1.45	20
Toluene	0.0500	0.0529	0.0537	106	107	80.0-120			1.51	20
Ethylbenzene	0.0500	0.0544	0.0555	109	111	80.0-124			1.90	20
Total Xylene	0.150	0.167	0.170	111	113	37.0-160			1.84	20
(S) a,a,a-Trifluorotoluene(FID)				*100*	*99.9*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*99.1*	*98.9*	*72.0-128*				

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

(LCS) R3337717-3 08/28/18 23:57 • (LCSD) R3337717-4 08/29/18 00:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.55	5.63	101	102	72.0-127			1.34	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*104*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*104*	*105*	*72.0-128*				

L1020942-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1020942-01 08/29/18 09:13 • (MS) R3337717-6 08/29/18 09:37 • (MSD) R3337717-7 08/29/18 10:01

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 %
Benzene	0.0500	0.0509	1.47	1.50	114	116	25	10.0-155			2.01	32
Toluene	0.0500	0.168	1.53	1.52	109	108	25	10.0-160			0.207	34
Ethylbenzene	0.0500	ND	1.39	1.41	111	113	25	10.0-160			1.47	32
Total Xylene	0.150	ND	4.26	4.32	113	115	25	10.0-160			1.40	32
(S) a,a,a-Trifluorotoluene(FID)					*100*	*100*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*98.8*	*98.9*		*72.0-128*				

Method Blank (MB)

(MB) R3337464-1 08/28/18 22:17

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	*70.9*			*18.0-148*

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

(LCS) R3337464-2 08/28/18 22:31 • (LCSD) R3337464-3 08/28/18 22:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	35.0	43.6	70.0	87.2	50.0-150		J3	21.9	20
(S) o-Terphenyl				*76.3*	*93.8*	*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.

Abbreviations and Definitions

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.
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
J3	The associated batch QC was outside the established quality control range for precision.

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	T 104704245-17-14
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

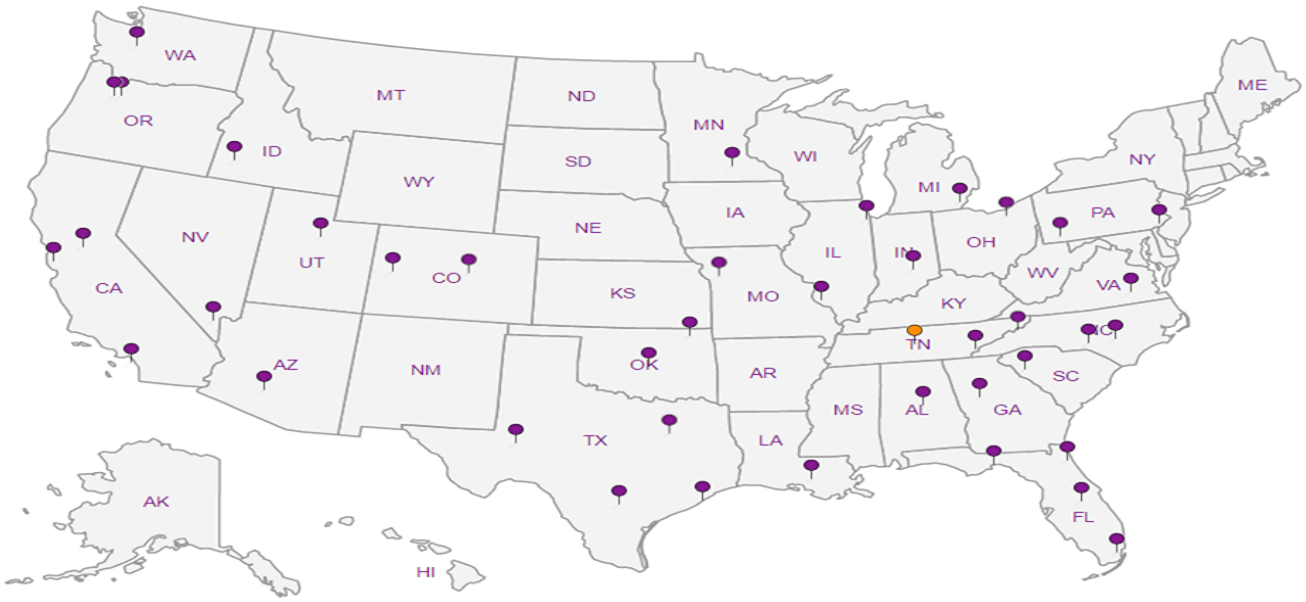
Third Party Federal Accreditations

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.



HilCorp
382 Road 3100
Aztec, NM 87401

Billing Information:

Pres Chk

Report to: LDUMAS
Kurt Hoekstra

Email To: LDumas@hilcorp.com
khoekstra@hilcorp.com

Project Description:

City/State Collected:

Phone: 505-486-9543
Fax:

Client Project #

Lab Project #

Collected by (print): KURT

Site/Facility ID # S.J. 30-6 UNIT 44b

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH 8015 - DRO, GRO, MRO	BTEX 8021	CHLORIDES										Remarks	Sample # (lab only)
SOUTH OF TANK	GRAB	SS	6"	8-27-18	9:12	1	X	X	X											-01
WEST OF TANK	"	"	"	"	9:17	1	X	X	X											-02
NORTH OF TANK	"	"	"	"	9:20	1	X	X	X											-03
EAST OF TANK	"	"	"	"	9:23	1	X	X	X											-04
EAST TANK LOAD VALVE	"	"	"	"	9:28	1	X	X	X											-05

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1021110
D046

Acctnum: HILCORANM
Template:
Prelogin:
TSR:
PB:
Shipped Via:

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

Remarks: RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

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

Samples returned via: UPS X FedEx Courier

Tracking # 4130 3426 2667

Trip Blank Received: Yes (No)
HCL / MeoH
TBR

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Kurt Hoekstra	8-27-18	12:20	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Temp: 1.4 °C Bottles Received: 5

If preservation required by Login: Date/Time

Date: 8/28/18 Time: 8:45

Hold:

Condition: NCF (OK)

Lindsay Dumas

From: Abiodun Adeloye <aadeloye@blm.gov>
Sent: Thursday, August 23, 2018 2:29 PM
To: Lindsay Dumas
Cc: Smith, Cory, EMNRD; Fields, Vanessa, EMNRD; Leigh Thomas; Kurt Hoekstra
Subject: Re: [EXTERNAL] RE: Release Notification - San Juan 30-6 Unit 446 - 60bbl Prod Water

I will not be able to attend the sampling. I got another sampling scheduled sampling with another operator. Thanks

On Thu, Aug 23, 2018 at 7:26 AM Lindsay Dumas <ldumas@hilcorp.com> wrote:

> Just to clarify, Hilcorp plans to use these samples for closure. Thank you!
>
> **From:** Lindsay Dumas
> **Sent:** Thursday, August 23, 2018 8:22 AM
> **To:** Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; 'Fields, Vanessa, EMNRD' <Vanessa.Fields@state.nm.us>; Thomas, Leigh <l1thomas@blm.gov>; Abiodun Adeloye <aadeloye@blm.gov>
> **Cc:** Kurt Hoekstra <khoekstra@hilcorp.com>
> **Subject:** RE: Release Notification - San Juan 30-6 Unit 446 - 60bbl Prod Water
>
> This release will be sampled on Monday August 27, 2018 at 9am. Kurt Hoekstra will be onsite from Hilcorp. Please let me know if this time works for anyone who plans to witness.
>
> Kind regards,
>
> *Lindsay Dumas*
> Environmental Specialist
>
> **Hilcorp Energy – L48 West**
>
> Office: 832-839-4585
>
> Mobile: 281-794-9159

From: Lisa Hunter
Sent: Wednesday, August 22, 2018 4:53 PM
To: 'jim.griswold@state.nm.us' <jim.griswold@state.nm.us>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; 'Fields, Vanessa, EMNRD' <Vanessa.Fields@state.nm.us>; Thomas, Leigh <l1thomas@blm.gov>
Cc: Lindsay Dumas <ldumas@hilcorp.com>
Subject: Release Notification - San Juan 30-6 Unit 446 - 60bbl Prod Water

All –

This is notification that at approximately 11:00 a.m. today, August 22, 2018, it was discovered that a Produced Water tank on the **San Juan 30-6 Unit 446, API# 30039245900000, Lat. 36.7653, Long. -107.43531, UL: N, Sec. 35, T30N, R06W** released **60bbls of Produced Water** into the earthen berm containment – 11bbls were recovered.

Lindsay Dumas, Environmental (281-794-9159) will follow up with a C-141 and remediation plans.

Thank you.

Lisa Hunter

Field Safety Specialist

Hilcorp Energy – L48 West

382 Road 3100

Aztec, NM 87410

Lhunter@Hilcorp.com

505.486.9494

"If your actions inspire others to dream more, learn more, do more and become more, you are a leader." — John Quincy Adams

---

Hilcorp Energy Company's address is 1111 Travis St, Houston, TX 77002

--
Abiodun Adeloye (Emmanuel)
Natural Resource Specialist
6251 College Blvd. Suite A
BLM - FFO
Phone: 505-564-7665
Cell #: 505-635-0984