



Pima Environmental Services, LLC
1601 N. Turner Ste 500
Hobbs, NM 88240
575-964-7740

August 4th, 2020

NMOCD District 2
Mr. Mike Bratcher
811 S. First Street
Artesia, NM 88210

Bureau of Land Management
Mr. Jim Amos
620 East Green Street
Carlsbad, NM 88220

**Re: Site Assessment and Closure Report
Love Shack Federal Com #111H
API No. 30-025-48401
GPS: Latitude 32.03678858 Longitude -103.39598297
UL "M", Sec. 17, T26S, R35E
Lea County, NM
NMOCD Ref. No. NAPP2118732162**

Dear Mr. Bratcher and Mr. Amos,

Pima Environmental Services, LLC (Pima) has been contracted by Titus Oil & Gas (Titus) to perform a spill assessment and has prepared this closure report for an acid release that occurred at the Love Shack Federal Com #111H (Love Shack). The initial C-141 was submitted on July 6th, 2021 (Appendix C). This incident was assigned Incident ID NAPP2118732162, by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Love Shack is located approximately thirteen (13) miles southwest of Jal, NM. This spill site is in Unit M, Section 17, Township 26S, Range 35E, Latitude 32.03678858, Longitude -103.39598297, Lea County, NM. Figure 1 references a location map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation- Eolian and piedmont deposits (Holocene to middle Pleistocene). Interlayered eolian sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad. Typically capped by thin eolian deposits. The soil in this area is made up of Kermit-Palomas fine sands, 0 to 12 percent slopes according to the United States Department of Agriculture Natural Resources Conservation Service soil survey (Appendix B). The drainage courses in this area are excessively drained. There is a low potential for karst geology to be present in the area of the Love Shack (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 230 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the nearest groundwater is 198 feet BGS. The closest waterway is a playa located approximately 9.03 miles to the southeast of this location. See Appendix A for referenced water surveys and a surface water map.

| Table 1 NMAC and Closure Criteria 19.15.29 | | | | | |
|--|----------------------|-------------|-------------|----------|----------|
| Depth to Groundwater (Appendix B) | Constituent & Limits | | | | |
| | Chlorides | Total TPH | GRO+DRO | BTEX | Benzene |
| 230' | 20,000 mg/kg | 2,500 mg/kg | 1,000 mg/kg | 50 mg/kg | 10 mg/kg |
| Lack of GW data | 600 mg/kg | 100 mg/kg | | 50 mg/kg | 10 mg/kg |
| If the release occurred within any of the following areas, the responsible party would treat the release as if the groundwater was less than 50 feet per Rule 19.15.29 | | | | | |
| Water Issues | | | | Yes | No |
| Within 300 feet of any continuously flowing watercourse or any other significant watercourse | | | | | x |
| Within 200 feet of any lakebed, sinkhole or playa lake (measures from the ordinary high-water mark) | | | | | x |
| Within 300 feet from an occupied permanent residence, school, hospital, institution or church | | | | | x |
| Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes | | | | | x |
| Within 1000 feet of any freshwater well or spring | | | | | x |
| Within incorporated municipal boundaries or within a defined municipal freshwater well field | | | | | x |
| Within 300 feet of a wetlands | | | | | x |
| Within the area overlying a subsurface mine | | | | | x |
| Within an unstable area (Karst) | | | | | x |
| Within a 100-year floodplain | | | | | x |

Reference Figure 2 for a Topographic Map.

Release Information

NAPP2118732162: On July 3rd, 2021, during the frac on the Love Shack pad, there was a failure at the acid tanks resulting in a leak from the bottom of the poly-lined tank. A portion of the release went outside the secondary containment onto the pad surface. All fluid stayed on the pad. A hazmat team was dispatched immediately and used sodium bicarbonate to neutralize the acid. The calculated volume of acid released was approximately 87 barrels (bbls). The emergency hazmat crew was able to neutralize and recover approximately 50 bbls from the area.

Site Assessment and Soil Sampling Results

On July 28th, 2021 Pima conducted a site assessment and obtained soil samples. The laboratory results of this sampling event can be found in the following data table.

7-28-20 Soil Sample Results

| NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100') | | | | | | | |
|--|-------------|--------------------------------|--|--|--|--|----------------------------|
| Titus Oil & Gas - Love Shack Fed Com #111H | | | | | | | |
| Date 7-28-21 | | NM Approved Laboratory Results | | | | | |
| Sample ID | Depth (BGS) | | | | | | Total Corrosivity pH Units |
| S1 | 6" | | | | | | 7.48 |
| S2 | 6" | | | | | | 7.53 |
| S3 | 6" | | | | | | 7.82 |
| S4 | 6" | | | | | | 7.76 |
| S5 | 6" | | | | | | 7.86 |

ND- Analyte Not Detected

Complete Laboratory results can be found attached in Appendix D.

Remediation Activities

Due to the immediate emergency response activities, all contamination from this release was neutralized. Based on these findings, no remediation activities were needed at this location.

Closure Request

After careful review, Pima requests that this incident, NAPP2118732162, be closed. Titus has complied with the applicable closure requirements set forth in rule 19.15.19.12 NMAC.

Should you have any questions or need additional information, please feel free to contact Tom Bynum at 575-964-7740 or tom@pimaoil.com.

Respectfully,

Tom Bynum

Tom Bynum
Environmental Project Manager
Pima Environmental Services, LLC

Attachments

Figures:

- 1- Location Map
- 2- Topographic Map
- 3- Karst Map
- 4- Site Map

Appendices:

- Appendix A - Referenced Water Surveys
- Appendix B - Soil Survey and Geological Data
- Appendix C - C-141's
- Appendix D - Photographic Documentation
- Appendix E - Laboratory Reports



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Figures:

1 - Location Map

2 - Topo Map

3 - Karst Map

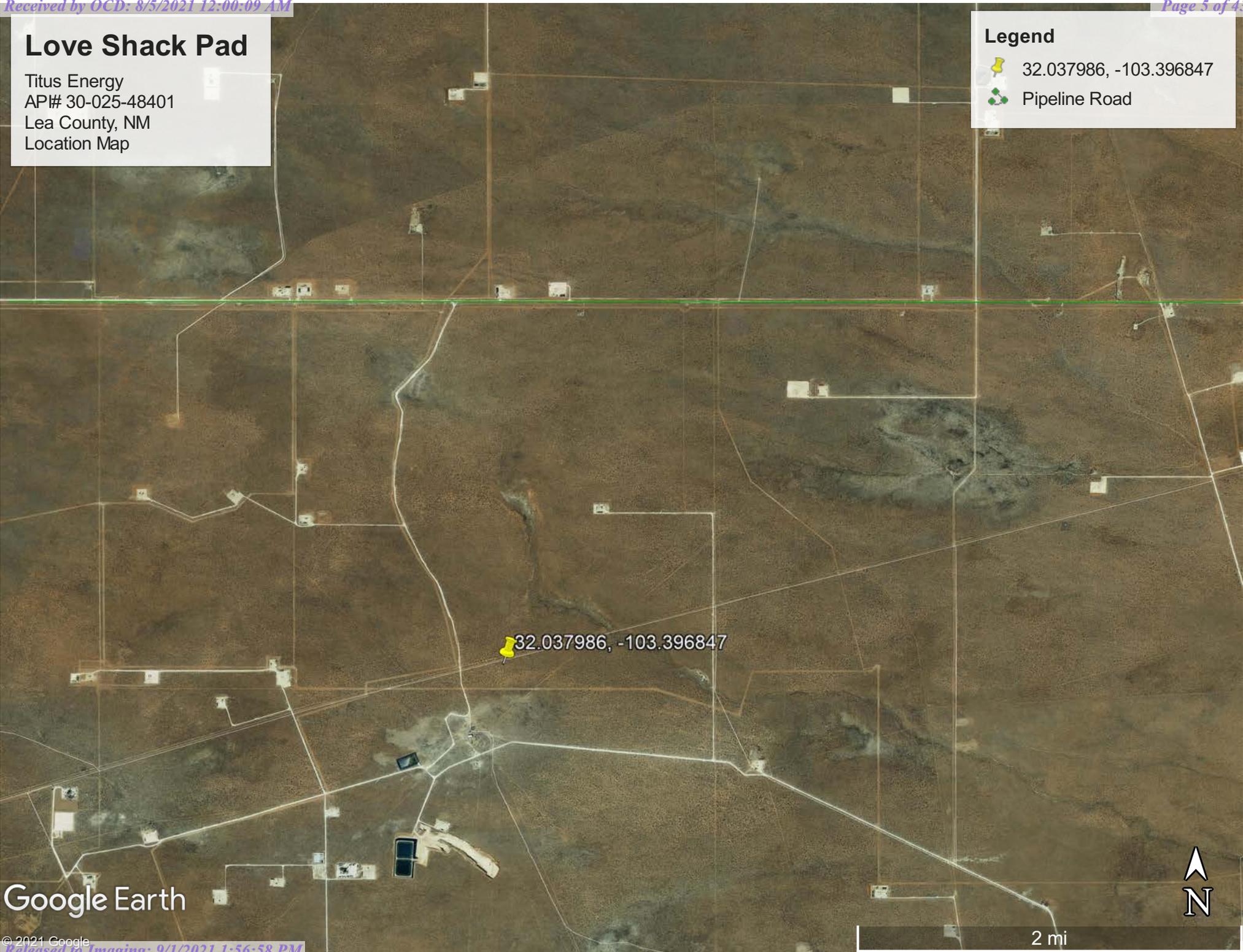
4 - Site Map

Love Shack Pad

Titus Energy
API# 30-025-48401
Lea County, NM
Location Map

Legend

-  32.037986, -103.396847
-  Pipeline Road



Google Earth

2 mi

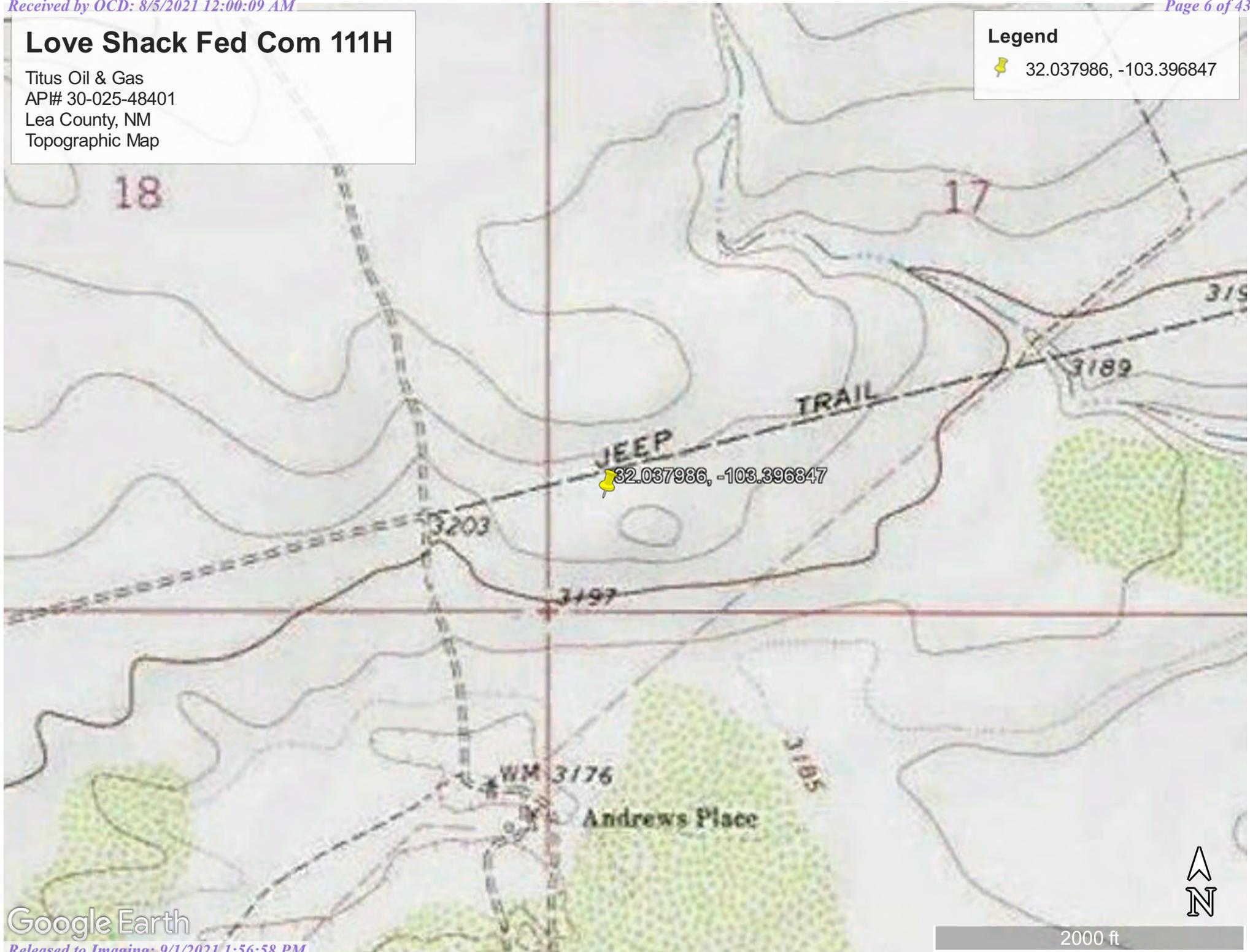


Love Shack Fed Com 111H

Titus Oil & Gas
AP# 30-025-48401
Lea County, NM
Topographic Map

Legend

-  32.037986, -103.396847



Love Shack Fed Com 111H

Titus Oil & Gas
API# 30-025-48401
Lea County, NM
Karst Map

Legend

-  High Karst
-  Low Karst
-  Medium Karst

 32.037986, -103.396847



Google Earth

Love Shack Fed Com 111H
 Titus Oil & Gas
 AP# 30-025-48401
 Lea County, NM
 Site Map

Legend

-  Acid Tanks
-  Frac Sand Tanks
-  Samples
-  Spill Area
-  Wellheads

Frac Sand Tanks

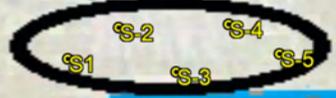


 32.037986, -103.396847

Wellheads



Spill Area



Acid Tanks



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Appendix A

Water Surveys:

OSE

USGS

Surface Water Map



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 | POD Code | Sub-basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X | Y | Distance | DepthWell | DepthWater | Water Column |
|-------------------------------|----------|-----------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|-----------|------------|--------------|
| CP 01305 POD1 | | CP | LE | 1 | 4 | 31 | 25S | 37E | | 655628 | 3551065 | 6845 | 420 | 230 | 190 |
| C_03795 POD1 | | C | LE | 4 | 4 | 3 | 24 | 26S | 35E | 658419 | 3544221 | 7104 | 496 | 250 | 246 |
| J_00005 POD1 | | J | LE | 2 | 2 | 2 | 13 | 26S | 35E | 659200 | 3547174* | 7893 | 601 | 230 | 371 |
| J_00041 POD1 | | J | LE | 1 | 1 | 1 | 19 | 26N | 36E | 659404 | 3545621 | 7947 | | 270 | |
| J_00001 | R | J | LE | 1 | 1 | 3 | 18 | 26S | 36E | 659416 | 3546374* | 7992 | 550 | 253 | 297 |
| J_00001 POD3 | | J | LE | 1 | 1 | 3 | 18 | 26S | 36E | 659416 | 3546374* | 7992 | 550 | 253 | 297 |

Average Depth to Water: **247 feet**
 Minimum Depth: **230 feet**
 Maximum Depth: **270 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 651457

Northing (Y): 3545637.64

Radius: 8000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/3/21 3:26 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home
Contact USGS
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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for the Nation

* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

site_no list =

- 320150103235501

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320150103235501 26S.35E.19.142

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°01'53", Longitude 103°24'25" NAD27

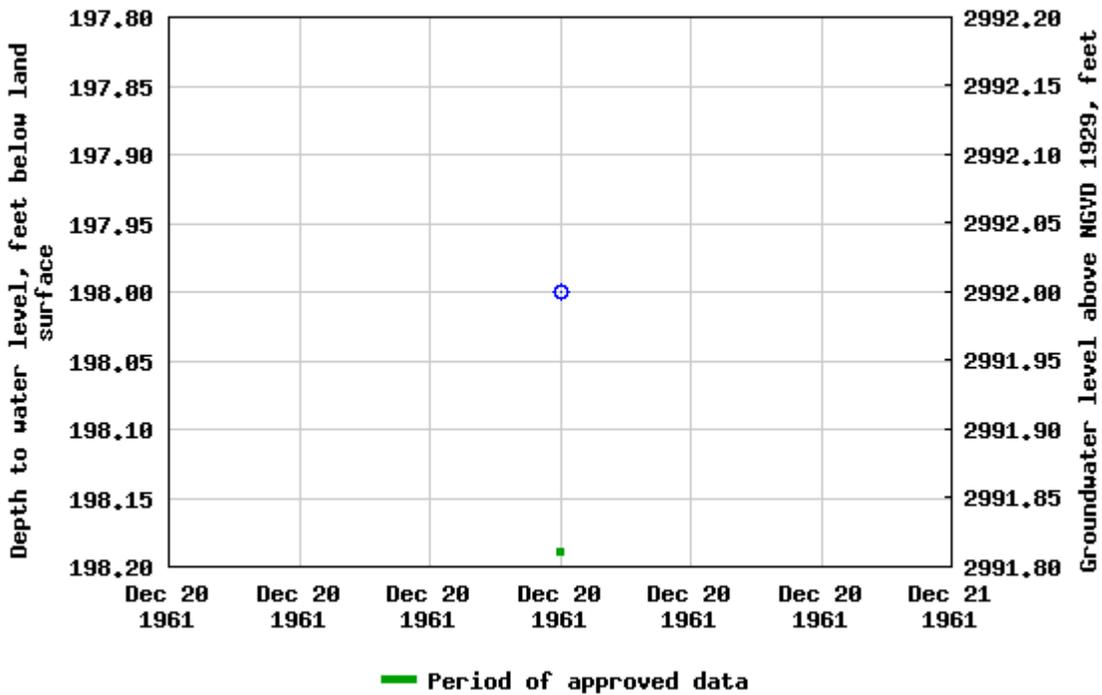
Land-surface elevation 3,190 feet above NGVD29

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

Output formats

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

USGS 320150103235501 26S.35E.19.142



Breaks in the plot represent a gap of at least one year between field measurements.
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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-08-03 17:28:22 EDT

0.57 0.48 nadww02



USGS Home
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Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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- [Full News](#) 

Groundwater levels for the Nation

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Search Results -- 1 sites found

site_no list =

- 320108103191301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320108103191301 26S.35E.24.342444

Available data for this site

Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°01'08", Longitude 103°19'13" NAD27

Land-surface elevation 2,965 feet above NAVD88

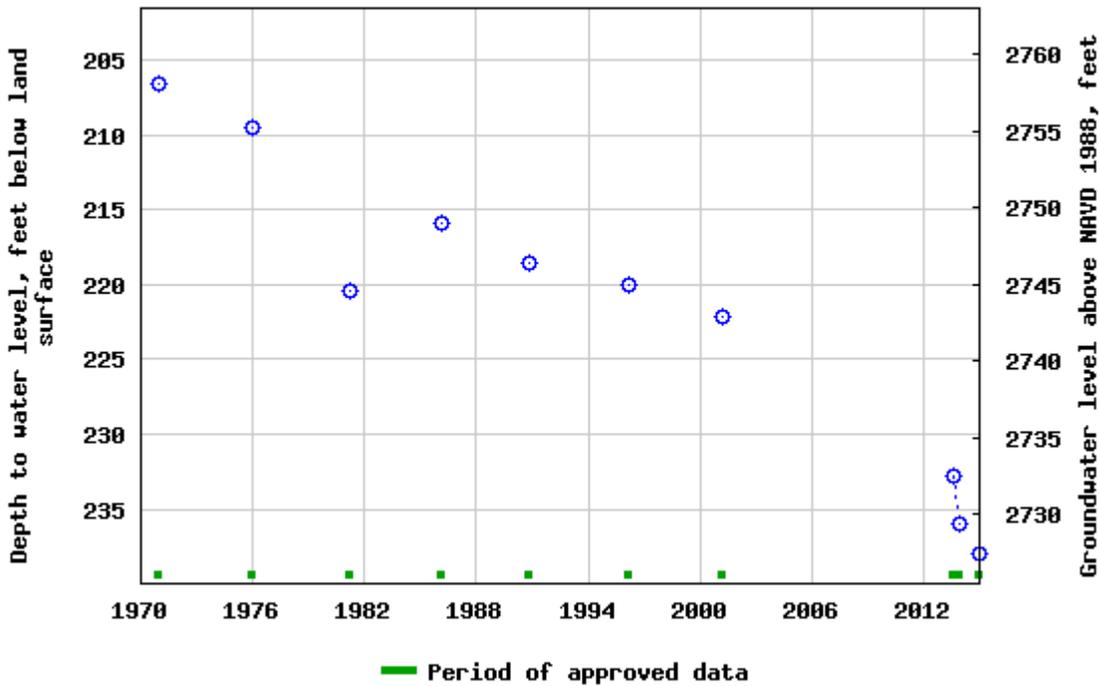
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

USGS 320108103191301 26S.35E.24.342444



Breaks in the plot represent a gap of at least one year between field measurements. [Download a presentation-quality graph](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-08-03 17:29:08 EDT

0.57 0.49 nadww02

Love Shack Fed Com 111H

Titus Oil & Gas
API# 30-025-48401
Lea County, NM
Surface Water Map

Legend

-  9.03 Miles
-  Playa

 32.037986, -103.396847

 Playa

Google Earth

© 2021 Google

4 mi





Pima Environmental Services

Appendix B

Soil Survey & Geological Data

FEMA Flood Map

Map Unit Description: Kermit-Palomas fine sands, 0 to 12 percent slopes---Lea County, New Mexico

Lea County, New Mexico

KD—Kermit-Palomas fine sands, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpv
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 70 percent
Palomas and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand
C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 3 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e

Map Unit Description: Kermit-Palomas fine sands, 0 to 12 percent slopes---Lea County, New Mexico

Hydrologic Soil Group: A
Ecological site: R042XC005NM - Deep Sand
Hydric soil rating: No

Description of Palomas

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex
Parent material: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand
Bt - 16 to 60 inches: sandy clay loam
Bk - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Pyote

Percent of map unit: 4 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Maljamar

Percent of map unit: 4 percent
Ecological site: R042XC003NM - Loamy Sand

Map Unit Description: Kermit-Palomas fine sands, 0 to 12 percent slopes---Lea County, New Mexico

Hydric soil rating: No

Palomas

Percent of map unit: 1 percent

Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

Dune land

Percent of map unit: 1 percent

Hydric soil rating: No

Data Source Information

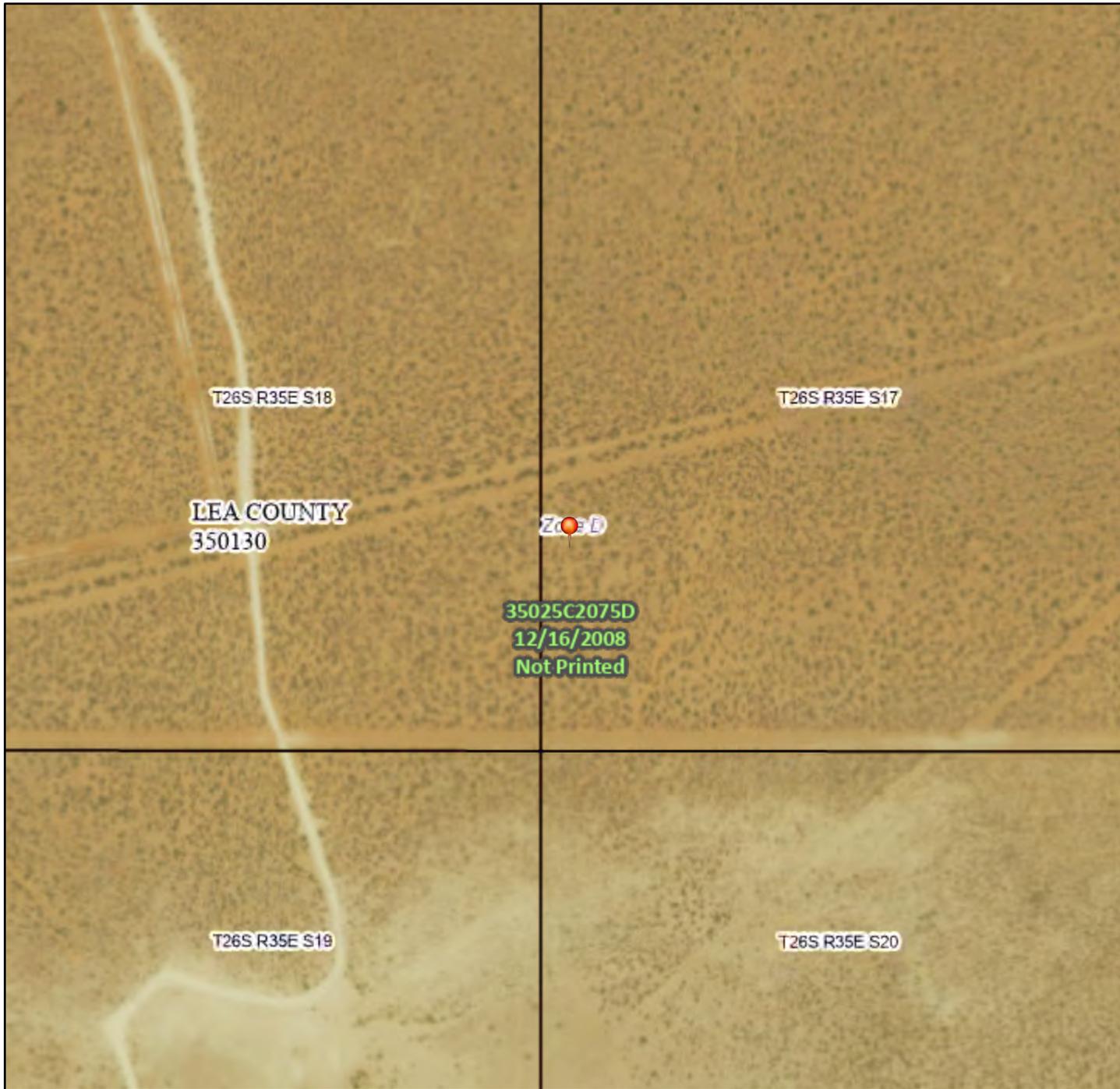
Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 17, Jun 8, 2020

National Flood Hazard Layer FIRMMette



103°24'11"W 32°2'31"N



35025C2075D
12/16/2008
Not Printed

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

| | | |
|-----------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance |
| | | 17.5 Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



Pima Environmental Services

Appendix C

C-141's:

Initial

Final

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 | nAPP2118732162 |
| District RP | |
| Facility ID | |
| Application ID | |

Release Notification

Responsible Party

| | |
|--|---|
| Responsible Party Titus Oil & Gas Production, LLC. | OGRID 373986 |
| Contact Name Ryan DeLong | Contact Telephone 817-852-6370 |
| Contact email rdelong@titusoil.com | Incident # (assigned by OCD) nAPP2118732162 |
| Contact mailing address 420 Throckmorton St, Ste 1150, Fort Worth, TX, 76012 | |

Location of Release Source

Latitude 32.03678858 Longitude -103.39598297
(NAD 83 in decimal degrees to 5 decimal places)

| | |
|--|-----------------------------------|
| Site Name Love Shack Federal Com #111H | Site Type Oil |
| Date Release Discovered 7/3/2021 | API# (if applicable) 30-025-48401 |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| M | 17 | 26S | 35E | Lea |

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 type="checkbox"/> Crude Oil | Volume Released (bbls) | Volume Recovered (bbls) |
| <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 checked="" type="checkbox"/> Other (describe) Acid | Volume/Weight Released (provide units) 87 bbls | Volume/Weight Recovered (provide units) 50 bbls |

Cause of Release During the frac on the Love Shack pad, there was a failure in the acid tank resulting in a leak from the bottom of the poly-lined tank. A portion of the release went outside the secondary containment onto the pad surface. All fluids stayed on the pad. A hazmat team was dispatched immediately and used sodium bicarbonate to neutralize the acid.

State of New Mexico
Oil Conservation Division

| | |
|----------------|----------------|
| Incident ID | nAPP2118732162 |
| District RP | |
| Facility ID | |
| Application ID | |

| | |
|---|--|
| Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If YES, for what reason(s) does the responsible party consider this a major release? This release was over 25 bbls. |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, via email from Pima Environmental on 7/3/21 at 6:44 p.m. to OCD Online, Mike Bratcher, Chad Hensley, Ramona Marcus, Cristina Eads, Robert Hamlet, Cory Smith, Victoria Venegas, and Brad Billings. | |

Initial Response

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

| |
|--|
| <input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately. |
| If all the actions described above have <u>not</u> been undertaken, explain why: |
| 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: <u>Tom Bynum-Pima Environmental Services</u> Title: <u>Environmental Project Manager</u> Signature: <u><i>Tom Bynum</i></u> Date: <u>7/6/2021</u> email: <u>tom@pimaoil.com</u> Telephone: <u>580-748-1613</u> |
| <u>OCD Only</u> Received by: _____ Date: _____ |

| | |
|----------------|----------------|
| Incident ID | NAPP2118732162 |
| 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? | 198 (ft bgs) |
| Did this release impact groundwater or surface water? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas not on an exploration, development, production, or storage site? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

Page 4

| | |
|----------------|----------------|
| Incident ID | NAPP2118732162 |
| 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: Ryan DeLong Title: Regulatory Manager
 Signature:  Date: 8/4/2021
 email: rdelong@titusoil.com Telephone: 817-852-6370

OCD Only

Received by: _____ Date: _____

| | |
|----------------|----------------|
| Incident ID | NAPP2118732162 |
| 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: Ryan DeLong Title: Regulatory Manager
 Signature:  Date: 8/4/2021
 email: rdelong@titusoil.com Telephone: 817-852-6370

OCD Only

Received by: Chad Hensley Date: 09/01/2021

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.

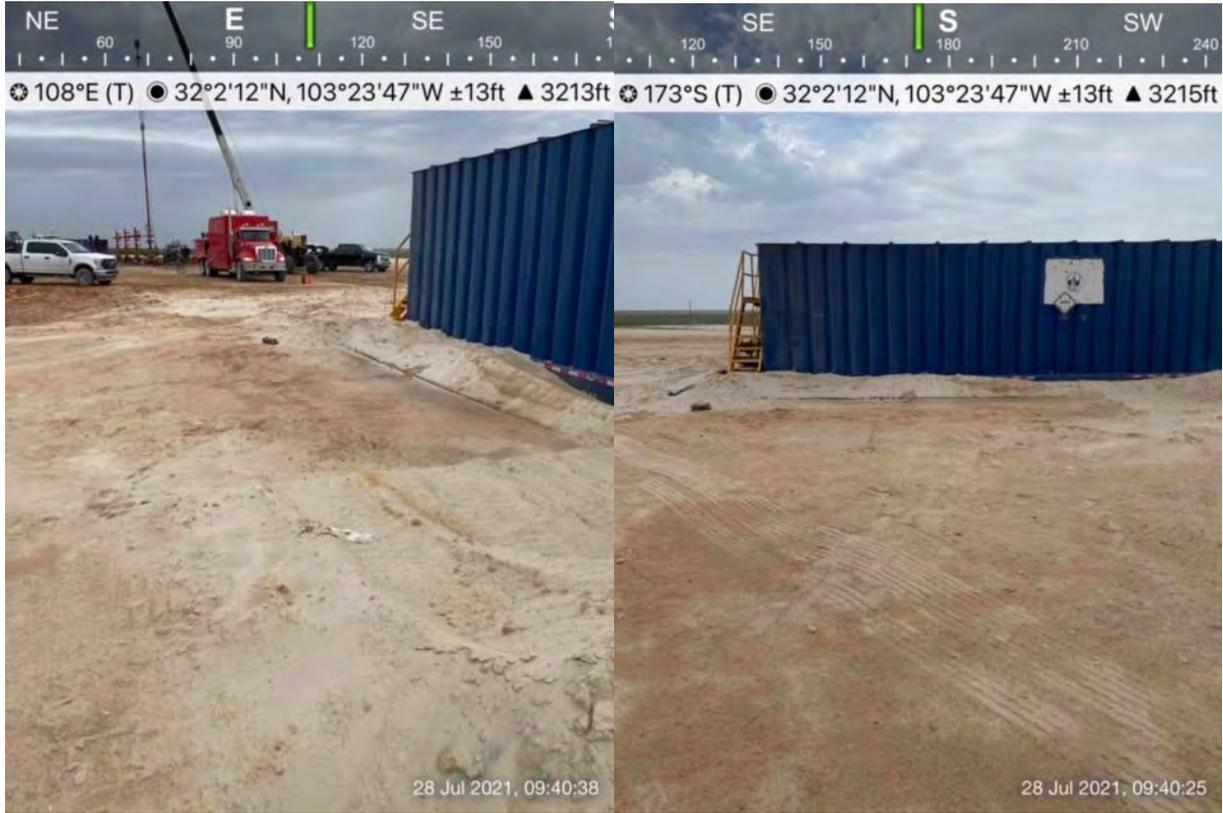
Closure Approved by:  Date: 09/01/2021
 Printed Name: Chad Hensley Title: Environmental Specialist Advanced



Pima Environmental Services

Appendix D

Photographic Documentation





Pima Environmental Services

Appendix E

Laboratory Reports

Report to:
Tom Bynum



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Pima Environmental Services-Carlsbad

Project Name: Love Shack Pad

Work Order: E108002

Job Number: 21064-0001

Received: 7/31/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/3/21

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.



Date Reported: 8/3/21

Tom Bynum
PO Box 247
Plains, TX 79355-0247

Project Name: Love Shack Pad
Workorder: E108002
Date Received: 7/31/2021 6:30:00PM

Tom Bynum,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/31/2021 6:30:00PM, under the Project Name: Love Shack Pad.

The analytical test results summarized in this report with the Project Name: Love Shack Pad apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Tom Brown
Technical Representative
Cell: 832-444-7704
tbrown@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

| | | |
|---|--|------------------------------------|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 08/03/21 11:16 |
|---|--|------------------------------------|

| Client Sample ID | Lab Sample ID | Matrix | Sampled | Received | Container |
|------------------|---------------|--------|----------|----------|------------------|
| S1 | E108002-01A | Soil | 07/28/21 | 07/31/21 | Glass Jar, 4 oz. |
| S2 | E108002-02A | Soil | 07/28/21 | 07/31/21 | Glass Jar, 4 oz. |
| S3 | E108002-03A | Soil | 07/28/21 | 07/31/21 | Glass Jar, 4 oz. |
| S4 | E108002-04A | Soil | 07/28/21 | 07/31/21 | Glass Jar, 4 oz. |
| S5 | E108002-05A | Soil | 07/28/21 | 07/31/21 | Glass Jar, 4 oz. |



Sample Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

S1

E108002-01

| Analyte | Result | Reporting Limit | Dilution | Prepared | Analyzed | Notes |
|-----------------------------------|----------|-----------------|--------------|----------------|----------------|----------------|
| Corrosivity by 9045D/9040C | pH Units | pH Units | Analyst: RAS | | | Batch: 2132004 |
| pH @25°C | 7.48 | | 1 | 08/02/21 16:09 | 08/02/21 17:35 | |



Sample Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

S2

E108002-02

| Analyte | Result | Reporting Limit | Dilution | Prepared | Analyzed | Notes |
|---|--------|-----------------|----------|--------------------------------|----------------|----------------|
| Corrosivity by 9045D/9040C pH @25°C | 7.53 | pH Units | 1 | Analyst: RAS 08/02/21 16:09 | 08/02/21 17:35 | Batch: 2132004 |



Sample Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

S3

E108002-03

| Analyte | Result | Reporting Limit | Dilution | Prepared | Analyzed | Notes |
|---|-------------|-----------------|----------|--------------------------------|----------------------------------|-------|
| Corrosivity by 9045D/9040C pH @25°C | 7.82 | pH Units | 1 | Analyst: RAS 08/02/21 16:09 | Batch: 2132004 08/02/21 17:35 | |



Sample Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

S4

E108002-04

| Analyte | Result | Reporting Limit | Dilution | Prepared | Analyzed | Notes |
|---|--------|-----------------|----------|--------------------------------|----------------|----------------|
| Corrosivity by 9045D/9040C pH @25°C | 7.76 | pH Units | 1 | Analyst: RAS 08/02/21 16:09 | 08/02/21 17:35 | Batch: 2132004 |



Sample Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

S5

E108002-05

| Analyte | Result | Reporting Limit | Dilution | Prepared | Analyzed | Notes |
|---|-------------|-----------------|----------|--------------------------------|----------------------------------|-------|
| Corrosivity by 9045D/9040C pH @25°C | 7.86 | pH Units | 1 | Analyst: RAS 08/02/21 16:09 | Batch: 2132004 08/02/21 17:35 | |



QC Summary Data

| | | |
|---|--|---|
| Pima Environmental Services-Carlsbad PO Box 247 Plains TX, 79355-0247 | Project Name: Love Shack Pad Project Number: 21064-0001 Project Manager: Tom Bynum | Reported: 8/3/2021 11:16:23AM |
|---|--|---|

Corrosivity by 9045D/9040C

Analyst: RAS

| Analyte | Result | Reporting Limit | Spike Level | Source Result | Rec | Rec Limits | RPD | RPD Limit | Notes |
|---------|----------|-----------------|-------------|---------------|-----|------------|-----|-----------|-------|
| | pH Units | pH Units | pH Units | pH Units | % | % | % | % | |

LCS (2132004-BS1)

Prepared: 08/02/21 Analyzed: 08/02/21

| | | | | | | | | | |
|----|------|--|------|--|------|--------------|--|--|--|
| pH | 7.99 | | 8.00 | | 99.9 | 98.75-101.25 | | | |
|----|------|--|------|--|------|--------------|--|--|--|

Duplicate (2132004-DUP1)

Source: E107062-01 Prepared: 08/02/21 Analyzed: 08/02/21

| | | | | | | | | | |
|----|------|--|--|------|--|--|------|----|--|
| pH | 12.4 | | | 12.4 | | | 0.00 | 20 | |
|----|------|--|--|------|--|--|------|----|--|

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Definitions and Notes

| | | | |
|--------------------------------------|------------------|----------------|------------------|
| Pima Environmental Services-Carlsbad | Project Name: | Love Shack Pad | |
| PO Box 247 | Project Number: | 21064-0001 | Reported: |
| Plains TX, 79355-0247 | Project Manager: | Tom Bynum | 08/03/21 11:16 |

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|---|--|--|--|-----------------------------------|--|--|--|---|--|--|--|
| Client: Pima Environmental Services Project: <u>Love Shack Pad</u> Project Manager: Tom Bynum Address: 1601 N Turner St., Suite 500 City, State, Zip Hobbs, NM, 88240 Phone: 580-748-1613 Email: tom@pimaoil.com Report due by: | | | | Bill To Attention: Pima Environmental Services Address: 1601 N Turner St., Suite 500 City, State, Zip Hobbs, NM, 88240 Phone: 575-964-7740 Email: mae@pimaoil.com Pima Project # | | | | Lab Use Only Lab WO# <u>E108002</u> Job Number <u>21064-001</u> Analysis and Method | | | | TAT 1D 2D 3D Standard <u>X</u> | | | | EPA Program CWA SDWA RCRA State NM CO UT AZ TX <u>X</u> | | | |
|--|--|--|--|--|--|--|--|---|--|--|--|-----------------------------------|--|--|--|---|--|--|--|

| Time Sampled | Date Sampled | Matrix | No. of Containers | Sample ID | Lab Number | DRO/DRO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | EPA Method <u>9040/14045</u> | BGDOC NM | BGDOC TX | Remarks |
|--------------|--------------|--------|-------------------|-----------|------------|-----------------|-----------------|--------------|-------------|-------------|----------------|------------------------------|----------|----------|---------|
| | 7/28/21 | Soil | 1-402 | S1 | 1 | | | | | | | X | | | |
| | | | | S2 | 2 | | | | | | | | | | |
| | | | | S3 | 3 | | | | | | | | | | |
| | | | | S4 | 4 | | | | | | | | | | |
| | | | | S5 | 5 | | | | | | | | | | |

Additional Instructions:

| | | | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|--|--|
| I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. | | | | | | Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. | | | | | |
| Relinquished by: (Signature) <u>[Signature]</u> Date <u>7/28/21</u> Time <u>3:25pm</u> | | | | | | Received by: (Signature) <u>[Signature]</u> Date <u>7-28-21</u> Time <u>1525</u> | | | | | |
| Relinquished by: (Signature) <u>[Signature]</u> Date <u>7-30-21</u> Time <u>0800</u> | | | | | | Received by: (Signature) <u>[Signature]</u> Date <u>7/31/21</u> Time <u>18:30</u> | | | | | |
| Relinquished by: (Signature) _____ Date _____ Time _____ | | | | | | Received by: (Signature) _____ Date _____ Time _____ | | | | | |
| Sample Matrix: <u>S</u> - Soil, <u>Sd</u> - Solid, <u>Sg</u> - Sludge, <u>A</u> - Aqueous, <u>O</u> - Other _____ | | | | | | Container Type: <u>g</u> - glass, <u>p</u> - poly/plastic, <u>ag</u> - amber glass, <u>v</u> - VOA | | | | | |

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 8/2/2021 10:06:50AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Pima Environmental Services-Carlsbad Date Received: 07/31/21 18:30 Work Order ID: E108002
Phone: (575) 631-6977 Date Logged In: 08/02/21 09:37 Logged In By: Raina Schwanz
Email: tom@pimaoil.com Due Date: 08/03/21 17:00 (1 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Lab Carrier

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instruction.

Comments/Resolution

Large empty box for comments/resolution.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 40036

CONDITIONS

| | |
|--|---|
| Operator: Pima Environmental Services, LLC 1601 N. Turner Hobbs, NM 88240 | OGRID: 329999 |
| | Action Number: 40036 |
| | Action Type: [C-141] Release Corrective Action (C-141) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|-----------|----------------|
| chensley | None | 9/1/2021 |