# RAILROAD COMMISSION OF TEXAS

**Form W-2**

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

**Status:** Approved
**Date:** 03/22/2017
**Tracking No.:** 164999

# OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

## OPERATOR INFORMATION

**Operator Name:** EP ENERGY E&P COMPANY, L.P. **Operator No.:** 253385
**Operator Address:** ATTN CHELSEA CANTRELLE PO BOX 4660 HOUSTON, TX 77210-4660

## WELL INFORMATION

**API No.:** 42-105-42313 **County:** CROCKETT
**Well No.:** 4101GH **RRC District No.:** 7C
**Lease Name:** UNIVERSITY SALT DRAW **Field Name:** LIN (WOLFCAMP)
**RRC Lease No.:** 18942 **Field No.:** 53613750
**Location:** Section: 1, Block: 41, Survey: UNIVERSITY LANDS, Abstract:

**Latitude:** **Longitude:**
**This well is located** 6.98 **miles in a** SOUTHEAST **direction from** BARNHART, **which is the nearest town in the county.**

## FILING INFORMATION

**Purpose of filing:** Initial Potential
**Type of completion:** New Well
**Well Type:** Producing **Completion or Recompletion Date:** 10/06/2016

| Type of Permit | Date | Permit No. |
|---|---|---|
| Permit to Drill, Plug Back, or Deepen | 12/11/2015 | 811281 |
| Rule 37 Exception | | |
| Fluid Injection Permit | | |
| O&G Waste Disposal Permit | | |
| Other: | | |

## COMPLETION INFORMATION

**Spud date:** 01/06/2016 **Date of first production after rig released:** 10/06/2016
**Date plug back, deepening, recompletion, or drilling operation commenced:** 01/06/2016 **Date plug back, deepening, recompletion, or drilling operation ended:** 10/06/2016
**Number of producing wells on this lease in this field (reservoir) including this well:** 32 **Distance to nearest well in lease & reservoir (ft.):** 407.0
**Total number of acres in lease:** 34139.43 **Elevation (ft.):** 2624 GL
**Total depth TVD (ft.):** 6531 **Total depth MD (ft.):** 17295
**Plug back depth TVD (ft.):** **Plug back depth MD (ft.):** 17246
**Was directional survey made other than inclination (Form W-12)?** Yes **Rotation time within surface casing (hours):** 81.0
**Is Cementing Affidavit (Form W-15) attached?** Yes
**Recompletion or reclass?** No **Multiple completion?** No
**Type(s) of electric or other log(s) run:** None
**Electric Log Other Description:**
**Location of well, relative to nearest lease boundaries of lease on which this well is located:** 8321.0 **Feet from the** North **Line and** 8407.0 **Feet from the** West **Line of the** UNIVERSITY SALT DRAW **Lease.** **Off Lease :** No

## FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

| Field & Reservoir | Gas ID or Oil Lease No. | Well No. | Prior Service Type |
|---|---|---|---|

PACKET: N/A

W2: N/A

**FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:**

**GAU Groundwater Protection Determination** **Depth (ft.):** 800.0 **Date:** 10/16/2015

**SWR 13 Exception** **Depth (ft.):**

## INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

**Date of test:** 11/08/2016 **Production method:** Gas Lift

**Number of hours tested:** 24 **Choke size:** 64

**Was swab used during this test?** No **Oil produced prior to test:** 14637.00

**PRODUCTION DURING TEST PERIOD:**

**Oil (BBLS):** 1197.00 **Gas (MCF):** 706

**Gas - Oil Ratio:** 589 **Flowing Tubing Pressure:** 381.00

**Water (BBLS):** 1288

**CALCULATED 24-HOUR RATE**

**Oil (BBLS):** 1197.0 **Gas (MCF):** 706

**Oil Gravity - API - 60.:** 41.5 **Casing Pressure:** 983.00

**Water (BBLS):** 1288

## CASING RECORD

| Row | Type of Casing | Casing Size (in.) | Hole Size (in.) | Setting Depth (ft.) | Multi - Stage Tool Depth (ft.) | Multi - Stage Shoe Depth (ft.) | Cement Class | Cement Amount (sacks) | Slurry Volume (cu. ft.) | Top of Cement (ft.) | TOC Determined By |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Surface | 9 5/8 | 12 1/4 | 1008 | | | C/POZ | 335 | 641.0 | 0 | Circulated to Surface |
| 2 | Conventional Production | 5 1/2 | 8 3/4 | 17290 | | | C/H | 2510 | 4149.0 | 0 | Calculation |

## LINER RECORD

| Row | Liner Size (in.) | Hole Size (in.) | Liner Top (ft.) | Liner Bottom (ft.) | Cement Class | Cement Amount (sacks) | Slurry Volume (cu. ft.) | Top of Cement (ft.) | TOC Determined By |
|---|---|---|---|---|---|---|---|---|---|

N/A

## TUBING RECORD

| Row | Size (in.) | Depth Size (ft.) | Packer Depth (ft.)/Type |
|---|---|---|---|
| 1 | 2 7/8 | 6524 | 6514 / RETRIEVABLE |

## PRODUCING/INJECTION/DISPOSAL INTERVAL

| Row | Open hole? | From (ft.) | To (ft.) |
|---|---|---|---|
| 1 | No | L1 7046 | 17196.0 |

## ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

**Was hydraulic fracturing treatment performed?** Yes

**Is well equipped with a downhole actuation sleeve?** No

**If yes, actuation pressure (PSIG):** 8850.0

**Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:** 8000

**Actual maximum pressure (PSIG) during hydraulic fracturing:** 8076

**Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)?** Yes

| Row | Type of Operation | Amount and Kind of Material Used | Depth Interval (ft.) | |
|---|---|---|---|---|
| 1 | Fracture | ADD PERFS AND FRAC (SEE FRACFOCUS FOR DETAILS) | 7046 | 17196 |

## FORMATION RECORD

| Formations | Encountered | Depth TVD (ft.) | Depth MD (ft.) | Is formation isolated? | Remarks |
|---|---|---|---|---|---|
| QUEEN | Yes | 1116.8 | 1116.8 | Yes | LOGGED |
| SAN ANDRES | Yes | 1477.3 | 1478.1 | Yes | LOGGED |
| LEONARD | Yes | 3473.3 | 3514.9 | Yes | ESTIMATED |
| WOLFCAMP | Yes | 5765.3 | 6171.4 | Yes | RODUCING |
| CANYON | No | | | No | NOT PENETRATED |
| STRAWN | No | | | No | NOT PENETRATED |
| DEVONIAN | No | | | No | NOT PENETRATED |
| ELLENBURGER | No | | | No | NOT PENETRATED |

**Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?** No

**Is the completion being downhole commingled (SWR 10)?** No

## REMARKS

UNIVERSITY SALT DRAW 4101GH. KOP=6181'. ALL REQUIRED ADDITIONAL FORMS OR ATTACHMENTS WERE PREVIOUSLY SUBMITTED WITH WRO W-2, TRACKING #156619.

## RRC REMARKS

**PUBLIC COMMENTS:**

[RRC Staff 2016-12-05 17:14:30.328] EDL=10120 feet, max acres=400, LIN (WOLFCAMP) oil well

**CASING RECORD :**

**TUBING RECORD:**

**PRODUCING/INJECTION/DISPOSAL INTERVAL :**

**ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :**

**POTENTIAL TEST DATA:**

## OPERATOR'S CERTIFICATION

**Printed Name:** Jessica High **Title:** Regulatory Analyst II

**Telephone No.:** (713) 997-6632 **Date Certified:** 01/05/2017

# RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

## CEMENTING REPORT

**Form W-15**
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

### OPERATOR INFORMATION

| | |
|---|---|
| **Operator Name:** Ep Energy E&P Company, L.P. | **Operator P-5 No.:** 253385 |
| **Cementer Name:** Compass Cementing Services | **Cementer P-5 No.:** 169789 |

### WELL INFORMATION

| | | |
|---|---|---|
| **District No.:** 7C | **County:** Crockett | |
| **Well No.:** 4101 GH | **API No.:** 42-105-42313 | **Drilling Permit No.:** 811281 |
| **Lease Name:** University Salt Draw | **Lease No.:** 18942 | |
| **Field Name:** Lin (Wolfcamp) | **Field No.:** 53613750 | |

### I. CASING CEMENTING DATA

**Type of casing:** ☐ Conductor ☑ Surface ☐ Intermediate ☐ Liner ☐ Production

| | | |
|---|---|---|
| **Drilled hole size (in.):** 12 1/4 | **Depth of drilled hole (ft.):** 1008 | **Est. % wash-out or hole enlargement:** |
| **Size of casing in O.D. (in.):** 9 5/8 | **Casing weight (lbs/ft) and grade:** 40 | **No. of centralizers used:** 8 |
| **Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☑ YES ☐ NO **If no for surface casing, explain in Remarks.** | **Setting depth shoe (ft.):** ~~1013~~ 1008' | **Top of liner (ft.):** / **Setting depth liner (ft.):** |
| **Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** Surface 0' | **Cementing date:** 1/7/16 |

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | 185 | C/Poz | See Remarks | 438.5 | 1340 |
| 2 | 150 | C | See Remarks | 202.5 | 646.5 |
| 3 | | | | | |
| Total | 335 | | | 640.95 | 1986 |

### II. CASING CEMENTING DATA

**Type of casing:** ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

| | | |
|---|---|---|
| **Drilled hole size (in.):** | **Depth of drilled hole (ft.):** | **Est. % wash-out or hole enlargement:** |
| **Size of casing in O.D. (in.):** | **Casing weight (lbs/ft) and grade:** | **No. of centralizers used:** |
| **Tapered string drilled hole size (in.)** Upper: Lower: | **Tapered string depth of drilled hole (ft.)** Upper: Lower: | |
| **Tapered string size of casing in O.D. (in.)** Upper: Lower: | **Tapered string casing weight(lbs/ft) and grade** Upper: Lower: | **Tapered string no. of centralizers used** Upper: Lower: |
| **Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☐ YES ☐ NO | | **Setting depth shoe (ft.):** |
| **Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** | **Cementing date:** |

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| Total | | | | | |

### III. CASING CEMENTING DATA

**Type of casing:** ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

| | | |
|---|---|---|
| **Drilled hole size (in.):** | **Depth of drilled hole (ft.):** | **Est. % wash-out or hole enlargement:** |
| **Size of casing in O.D. (in.):** | **Casing weight (lbs/ft) and grade:** | **No. of centralizers used:** |
| **Tapered string drilled hole size (in.)** Upper: Lower: | **Tapered string depth of drilled hole (ft.)** Upper: Lower: | |
| **Tapered string size of casing in O.D. (in.)** Upper: Lower: | **Tapered string casing weight(lbs/ft) and grade** Upper: Lower: | **Tapered string no. of centralizers used** Upper: Lower: |
| **Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☐ YES ☐ NO | | **Setting depth tool (ft.):** |
| **Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** | **Cementing date:** |

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| Total | | | | | |

| CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date | | | | | | | |
| Size of hole or pipe (in.) | | | | | | | |
| Depth to bottom of tubing or drill pipe (ft.) | | | | | | | |
| Cement retainer setting depth (ft.) | | | | | | | |
| CIBP setting depth (ft.) | | | | | | | |
| Amount of cement on top of CIBP (ft.) | | | | | | | |
| Sacks of cement used | | | | | | | |
| Slurry volume pumped (cu. ft.) | | | | | | | |
| Calculated top of plug (ft.) | | | | | | | |
| Measured top of plug, if tagged (ft.) | | | | | | | |
| Slurry weight (lbs/gal) | | | | | | | |
| Class/type of cement | | | | | | | |
| Perforate and squeeze (YES/NO) | | | | | | | |

**REMARKS**

Lead: 85% Class C, 15% Poz-Mix, 6% Bentonite, 1.25% C-45, .75% C-41p, 5.44% Salt, 6% Kol-Seal, 2% Phenoseal. Tail: 100% Class C .25% C-41p, 1.61% Salt. Circulated 40bbls (95sks) cement to surface

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

| Dustin Nestor SS II | Compass Cementing Services | | |
|---|---|---|---|
| Name and title of cementer's representative | Cementing Company | Signature | |
| 1930 S HWY 277 | Sonora, TX 76950 | 325-387-2940 | 1/7/16 |
| Address | City, State, Zip Code | Tel: Area Code Number | Date: mo. day yr. |

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

| Linda Renken | Sr. Regulatory Analyst | Linda Renken | Digitally signed by Linda Renken DN: cn=Linda Renken, o=EP Energy E&P Company, L.P., ou=HSER, email=linda.renken@epenergy.com, c=US Date: 2016.06.07 14:26:58 -05'00' |
|---|---|---|---|
| Typed or printed name of operator's representative | Title | Signature | |
| P.O. Box 4660, Houston, TX 77210-4660 | | (713) 997-5138 | June 7, 2016 |
| Address | City, State, Zip Code | Tel: Area Code Number | Date: mo. day yr. |

# Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.

The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

# RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

**Form W-15**
Rev. 08/2014

Cementer: Fill in shaded areas.
Operator: Fill in other items.

## CEMENTING REPORT

### OPERATOR INFORMATION

**Operator Name:** EP ENERGY E&P Company, L.P. | **Operator P-5 No.:** 253385
**Cementer Name:** Compass Cementing Services, LLC | **Cementer P-5 No.:** 169789

### WELL INFORMATION

**District No.:** 7C | **County:** Crockett | **Drilling Permit No.:** 811281
**Well No.:** 4101GH | **API No.:** 42-105-42313
**Lease Name:** University Salt Draw | **Lease No.:** 17576
**Field Name:** Lin (Wolfcamp) | **Field No.:** 53613750

### I. CASING CEMENTING DATA

**Type of casing:** ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☑ Production

**Drilled hole size (in.):** 9 3/4" X 8 1/2" | **Depth of drilled hole (ft.):** 17,295' | **Est. % wash-out or hole enlargement:** 0
**Size of casing in O.D. (in.):** 5 1/2" | **Casing weight (lbs/ft) and grade:** 17# HC-P110 | **No. of centralizers used:** 92
**Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☑ YES ☐ NO If no for surface casing, explain in Remarks. | **Setting depth shoe (ft.):** 17,290' | **Top of liner (ft.):** | **Setting depth liner (ft.):**
**Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** 0' | **Cementing date:** 06/16/2016

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | 575 | C | See Remarks | 1575.5 | 6167' |
| 2 | 1935 | H | See Remarks | 2573.55 | 11123' |
| 3 | | | | | |
| Total | 2510 | | | 4149.05 | 17290' |

### II. CASING CEMENTING DATA

**Type of casing:** ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ Multiple parallel strings

**Drilled hole size (in.):** | **Depth of drilled hole (ft.):** | **Est. % wash-out or hole enlargement:**
**Size of casing in O.D. (in.):** | **Casing weight (lbs/ft) and grade:** | **No. of centralizers used:**
**Tapered string drilled hole size (in.)** Upper: Lower: | **Tapered string depth of drilled hole (ft.)** Upper: Lower:
**Tapered string size of casing in O.D. (in.)** Upper: Lower: | **Tapered string casing weight(lbs/ft) and grade** Upper: Lower: | **Tapered string no. of centralizers used** Upper: Lower:
**Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☐ YES ☐ NO | **Setting depth shoe (ft.):**
**Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** | **Cementing date:**

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| Total | | | | | |

### III. CASING CEMENTING DATA

**Type of casing:** ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings

**Drilled hole size (in.):** | **Depth of drilled hole (ft.):** | **Est. % wash-out or hole enlargement:**
**Size of casing in O.D. (in.):** | **Casing weight (lbs/ft) and grade:** | **No. of centralizers used:**
**Tapered string drilled hole size (in.)** Upper: Lower: | **Tapered string depth of drilled hole (ft.)** Upper: Lower:
**Tapered string size of casing in O.D. (in.)** Upper: Lower: | **Tapered string casing weight(lbs/ft) and grade** Upper: Lower: | **Tapered string no. of centralizers used** Upper: Lower:
**Was cement circulated to ground surface (or bottom of cellar) outside casing?** ☐ YES ☐ NO | **Setting depth tool (ft.):**
**Hrs. waiting on cement before drill-out:** | **Calculated top of cement (ft.):** | **Cementing date:**

**SLURRY**

| Slurry No. | No. of Sacks | Class | Additives | Volume (cu. ft.) | Height (ft.) |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| Total | | | | | |

| CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PLUG #1 | PLUG #2 | PLUG #3 | PLUG #4 | PLUG #5 | PLUG #6 | PLUG #7 |
| Cementing Date | | | | | | | |
| Size of hole or pipe (in.) | | | | | | | |
| Depth to bottom of tubing or drill pipe (ft.) | | | | | | | |
| Cement retainer setting depth (ft.) | | | | | | | |
| CIBP setting depth (ft.) | | | | | | | |
| Amount of cement on top of CIBP (ft.) | | | | | | | |
| Sacks of cement used | | | | | | | |
| Slurry volume pumped (cu. ft.) | | | | | | | |
| Calculated top of plug (ft.) | | | | | | | |
| Measured top of plug, if tagged (ft.) | | | | | | | |
| Slurry weight (lbs/gal) | | | | | | | |
| Class/type of cement | | | | | | | |
| Perforate and squeeze (YES/NO) | | | | | | | |

**REMARKS**

Slurry 1: Gel,C-45,C-47B,Citric Acid,CSA-1000,Kol Seal,Gyp Seal. Slurry 2: Gel,C-20,C-47B,CSA-1000, COMENTS: Circulated 1 bbls Of Cement To Surface

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

| Jose M Perez / Cementer | Compass Cementing Services, LLC | Jose |
|---|---|---|
| Name and title of cementer's representative | Cementing Company | Signature |

| 10013 West County Rd. 157 | Midland, TX 79706 | 432-561-5970 | 06/16/2016 |
|---|---|---|---|
| Address | City, State, Zip Code | Tel: Area Code Number | Date: mo. day yr. |

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

| Joe Wilkerson | Site Supervisor | |
|---|---|---|
| Typed or printed name of operator's representative | Title | Signature |

| EP Energy E&P Company , L.P.,P.O. Box 4660, Houston Tx 77210-4660 | (713) 997-1000 | 06/16/2016 |
|---|---|---|
| Address City, State, Zip Code | Tel: Area Code Number | Date: mo. day yr. |

## Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

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B. ***How to file:*** *An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System* (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing **and** Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

G. **Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

**RAILROAD COMMISSION OF TEXAS**
**Oil and Gas Division**

# ELECTRIC LOG STATUS REPORT

# FORM L-1

Tracking No.: 164999

*This facsimile L-1 was generated electronically from data submitted to the RRC.*

Instructions

**When to File Form L-1:**
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

**When is Form L-1 NOT required:**
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

**Where to File Form L-1:**
- with the appropriate Commission district office

**Filling out Form L-1:**
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

**Type of log required:**
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

## SECTION I. IDENTIFICATION

| | | |
|---|---|---|
| Operator Name: EP ENERGY E&P COMPANY, L.P. | District No. 7C | Completion Date: 10/06/2016 |
| Field Name LIN (WOLFCAMP) | Drilling Permit No. 811281 | |
| Lease Name UNIVERSITY SALT DRAW | Lease/ID No. 18942 | Well No. 4101GH |
| County CROCKETT | API No. **42-** 105-42313 | |

## SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

☐ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.

☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).

☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).

☒ 4. Log attached to (select one):

☒ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: GAMMA RAY LOG ATTACHED

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

| | |
|---|---|
| Jessica High<br>Signature | Regulatory Analyst II<br>Title |
| EP ENERGY E&P COMPANY, L.P.<br>Name (print) | (713) 997-6632<br>Phone<br>01/05/2017<br>Date |

-FOR RAILROAD COMMISSION USE ONLY-

# RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

**Form P-16**
**Page 1**
Rev. 01/2016

## Acreage Designation

### SECTION I. OPERATOR INFORMATION

| | |
|---|---|
| **Operator Name:** EP ENERGY E&P COMPANY, L.P. | **Operator P-5 No.:** 253385 |
| **Operator Address:** P.O. BOX 4660, HOUSTON, TX 77210-4660 | |

### SECTION II. WELL INFORMATION

| | | |
|---|---|---|
| **District No.:** 7C | **County:** CROCKETT | **Purpose of Filing:** |
| **Well No.:** SEE BELOW | **API No.:** SEE BELOW | ☐ Drilling Permit Application (Form W-1) |
| **Total Lease Acres:** 34,139.427 | **Drilling Permit No.:** | ☑ Completion Report (Form G-1/W-2) |
| **Lease Name:** UNIVERSITY SALT DRAW | **Lease No.:** 18942 | |
| **Field Name:** LIN (WOLFCAMP) | **Field No.:** 53613750 | |

**Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.**

### SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

| RRC ID No. or Lease No. | Well No. | H-Horizontal D-Directional V-Vertical | Lease Name | API No. | Acres Assigned | SWR 38 Except. (Y/N) | Operator Name and Operator No. (if different from filing operator) |
|---|---|---|---|---|---|---|---|
| 18942 | 4102AH | H | UNIVERSITY SALT DRAW | 42-105-42187 | 300 | N | |
| 18942 | 4102BH | H | UNIVERSITY SALT DRAW | 42-105-42188 | 300 | N | |
| 18942 | 4102CH | H | UNIVERSITY SALT DRAW | 42-105-42189 | 300 | N | |
| 18942 | 4102DH | H | UNIVERSITY SALT DRAW | 42-105-42190 | 300 | N | |
| 18942 | 4102EH | H | UNIVERSITY SALT DRAW | 42-105-42191 | 300 | N | |
| 18942 | 4102FH | H | UNIVERSITY SALT DRAW | 42-105-42192 | 300 | N | |
| 18942 | 4102GH | H | UNIVERSITY SALT DRAW | 42-105-42208 | 300 | N | |
| 18942 | 4102HH | H | UNIVERSITY SALT DRAW | 42-105-42209 | 300 | N | |
| 18942 | 4102IH | H | UNIVERSITY SALT DRAW | 42-105-42210 | 300 | N | |
| 18942 | 4102JH | H | UNIVERSITY SALT DRAW | 42-105-42211 | 300 | N | |
| 18942 | 4102KH | H | UNIVERSITY SALT DRAW | 42-105-42212 | 300 | N | |
| 18942 | 4102LH | H | UNIVERSITY SALT DRAW | 42-105-42213 | 300 | N | |
| 18942 | 4125AH | H | UNIVERSITY SALT DRAW | 42-105-42225 | 300 | N | |
| 18942 | 5505AH | H | UNIVERSITY SALT DRAW | 42-105-41561 | 300 | N | |
| 18942 | 4101AH | H | UNIVERSITY SALT DRAW | 42-105-42269 | 300 | N | |
| 18942 | 4101BH | H | UNIVERSITY SALT DRAW | 42-105-42278 | 300 | N | |
| 18942 | 4101CH | H | UNIVERSITY SALT DRAW | 42-105-42270 | 300 | N | |

| | | | | | |
|---|---|---|---|---|---|
| **Total Well Count >** | 17 | 5100 | **< A. Total Assigned Horiz. Acreage** | 5100 | **< C. Total Assigned Acreage** |
| | | 29039.427 | **< Total Remaining Horiz. Acreage** | 29039.427 | **< Total Remaining Acreage** |
| | | | **< B. Total Assigned Vert./Dir. Acreage** | | |
| | | | **< Total Remaining Vert./Dir. Acreage** | | |

### SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

TOTALS ON PG 1A.

**Attach Additional Pages As Needed.** ☐ **No additional pages** ☑ **Additional Pages:** 1 **(No. of additional pages)**

**CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.**

Jessica D. High — Digitally signed by Jessica D. High DN: cn=Jessica D. High, o=EP Energy EP Company, L.P., ou=Regulatory, email=jessica.high@epenergy.com, c=US

**Signature**

Jessica High Regulatory Analyst II

**Name and title (type or print)**

jessica.high@epenergy.com

**Email (include email address *only* if you affirmatively consent to its public release)**

PO BOX 4660 HOUSTON, TX 77210

**Address City, State, Zip Code**

(713) 997-6632

**Tel: Area Code Number**

11/23/16

**Date: mo. day yr.**

# RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

## Acreage Designation Attachment

**Form P-16**
**Attachment**
**Page 1A**
Rev. 01/2016

**Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.**

**SECTION III (CONTINUED). LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER**

| RRC ID No. or Lease No. | Well No. | H-Horizontal D-Directional V-Vertical | Lease Name | API No. | Acres Assigned | SWR 38 Except. (Y/N) | Operator Name and Operator No. (if different from filing operator) |
|---|---|---|---|---|---|---|---|
| 18942 | 4101EH | H | UNIVERSITY SALT DRAW | 42-105-42272 | 300 | N | |
| 18942 | 4101FH | H | UNIVERSITY SALT DRAW | 42-105-42273 | 300 | N | |
| 18942 | 4101GH | H | UNIVERSITY SALT DRAW | 42-105-42313 | 300 | N | |
| 18942 | 4101HH | H | UNIVERSITY SALT DRAW | 42-105-42313 | 300 | N | |
| 18942 | 4101IH | H | UNIVERSITY SALT DRAW | 42-105-42315 | 300 | N | |
| 18942 | 4114AH | H | UNIVERSITY SALT DRAW | 42-105-42325 | 300 | N | |
| 18942 | 4114BH | H | UNIVERSITY SALT DRAW | 42-105-42326 | 300 | N | |
| 18942 | 4114CH | H | UNIVERSITY SALT DRAW | 42-105-42327 | 300 | N | |
| 18942 | 4114DH | H | UNIVERSITY SALT DRAW | 42-105-42328 | 300 | N | |
| 18942 | 4101DH | H | UNIVERSITY SALT DRAW | 42-105-42271 | 300 | N | |
| 18942 | 4102LH | H | UNIVERSITY SALT DRAW | 42-105-42213 | 300 | N | |
| 18942 | 4114AH | H | UNIVERSITY SALT DRAW | 42-105-42325 | 300 | N | |
| 18942 | 4114BH | H | UNIVERSITY SALT DRAW | 42-105-42326 | 300 | N | |
| 18942 | 4114CH | H | UNIVERSITY SALT DRAW | 42-105-42327 | 300 | N | |
| 18942 | 4114DH | H | UNIVERSITY SALT DRAW | 42-105-42328 | 300 | N | |

| | | | | | |
|---|---|---|---|---|---|
| **Total Well Count >** | 32 | 9600 | **< A. Total Assigned Horiz. Acreage** | 9600 | **< C. Total Assigned Acreage** |
| | | 24539.427 | **< Total Remaining Horiz. Acreage** | 24539.427 | **< Total Remaining Acreage** |
| | | | **< B. Total Assigned Vert./Dir. Acreage** | | |
| | | | **< Total Remaining Vert./Dir. Acreage** | | |

# GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date: 08 July 2015

GAU Number: 11186

Attention: EP ENERGY E&P COMPANY, L.P.
ATTN CHELSEA CHAPMAN
HOUSTON, TX 77210

P-5#: 253385

API Number:

County: CROCKETT

Lease Name: University Salt Draw

RRC Lease Number:

Well Number: 4101DH

Total Vertical Depth: 8999

Latitude: 31.036887

Longitude: -101.117949

Datum: NAD27

Purpose: New Drill

Location: Survey-UL; Block-41; Section-1

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to a depth of 825 feet must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

This determination is based on information provided when the application was submitted on 07/07/2015. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

NAD 83, Zone 4203

Surface Hole Location (SHL Sec. 1)
Latitude: 31.037053° N
Longitude: 101.118147° W
X=2050801.14
Y=10341772.17
Elev.=2624'
2565' FSL & 2538' FEL

NAD 27, Zone 4203

Surface Hole Location (SHL Sec. 1)
Latitude: 31.036888° N
Longitude: 101.117758° W
X=1754334.08
Y=489193.45
Elev.=2624'
2565' FSL & 2538' FEL

Point of Penetration (PP Sec. 1)
Latitude: 31.037781° N
Longitude: 101.119764° W
X=1753708.05
Y=489522.70
2550' FNL & 2492' FWL

First Take Point (FTP Sec. 1)
Latitude: 31.036172°N
Longitude: 101.119876° W
X=1753668.96
Y=488937.86
2307' FSL & 2455' FWL

Last Take Point (LTP Sec.13)
Latitude: 31.008285° N
Longitude: 101.119836° W
X=1753609.74
Y=488795.93
2398' FNL & 2426' FWL

Bottom Hole Location
(BHL Sec.13)
Latitude: 31.008015° N
Longitude: 101.119796° W
X=1753621.56
Y=488697.64
2498' FNL & 2438' FWL

EP ENERGY

Lease Name and Well Number
**UNIVERSITY SALT DRAW 4101GH AS-DRILLED**

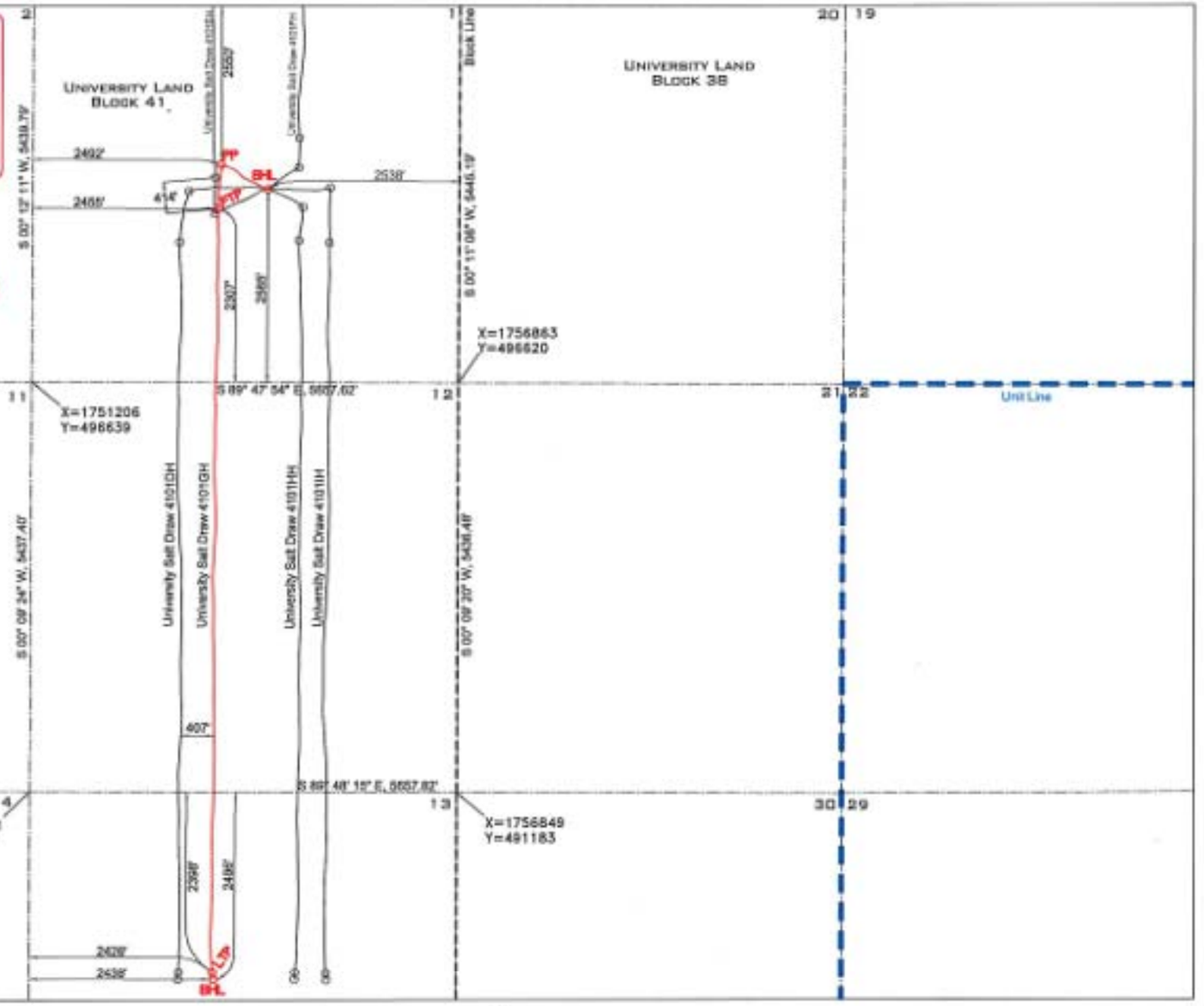
Topography and Vegetation
SCATTERED MESQUITE and CACTUS

6.96 MILES SOUTHEAST OF BARNHART, TEXAS

| Unit Boundary Distance | |
|---|---|
| SHL | 8321' FNL & 8407' FWL |
| PP | 7992' FNL & 7780' FWL |
| FTP | 8577' FNL & 7743' FWL |
| LTP | 18719' FNL & 7716' FWL |
| BHL | 18817' FNL & 7728' FWL |

FTP–LTP 10150'

EP ENERGY
E&P COMPANY, L.P.
34,139.427 Acres (Called)
"University Salt Draw"


NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.S.P.L.S. Minimum Standards of Procedures for Boundary Survey. Acreage shown herein were furnished by others. The information contained on this plat is intended for the sole use of EP ENERGY E&P COMPANY, L.P.

NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Jeffrey Elsworth Hudson do hereby certify that the above described well location was staked on the ground under my supervision, as shown.

22Nov 2016
DATE

JEFFREY ELSWORTH HUDSON
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 4850

STATE OF TEXAS
REGISTERED
JEFFREY ELSWORTH HUDSON
4850
PROFESSIONAL
LAND SURVEYOR

KSA Energy Services

EP ENERGY E&P COMPANY, L.P.

EPEN.454

University Salt Draw 4101GH
Block 41, Section 1
Crockett County, Texas

NAD 83, Zone 4203

Surface Hole Location (SHL Sec. 1)
Latitude: 31.037053° N
Longitude: 101.118147° W
X=2050801.14
Y=10341772.17
Elev.=2624'
2565' FSL & 2538' FEL

NAD 27, Zone 4203

Surface Hole Location (SHL Sec. 1)
Latitude: 31.036888° N
Longitude: 101.117758° W
X=1754334.08
Y=499193.45
Elev.=2624'
2565' FSL & 2538' FEL

Point of Penetration (PP Sec. 1)
Latitude: 31.037781° N
Longitude: 101.119764° W
X=1753708.05
Y=499522.70
2550' FNL & 2492' FWL

First Take Point (FTP Sec. 1)
Latitude: 31.036172°N
Longitude: 101.119876° W
X=1753668.96
Y=498937.86
2307' FSL & 2455' FWL

Last Take Point (LTP Sec.13)
Latitude: 31.008285° N
Longitude: 101.119836° W
X=1753609.74
Y=488795.93
2398' FNL & 2426' FWL

Bottom Hole Location
(BHL Sec.13)
Latitude: 31.008015° N
Longitude: 101.119796° W
X=1753621.56
Y=488697.64
2496' FNL & 2438' FWL

EP ENERGY

Lease Name and Well Number

**UNIVERSITY SALT DRAW 4101GH AS-DRILLED**

Topography and Vegetation

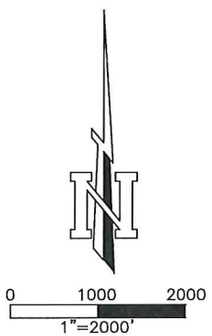
SCATTERED MESQUITE and CACTUS

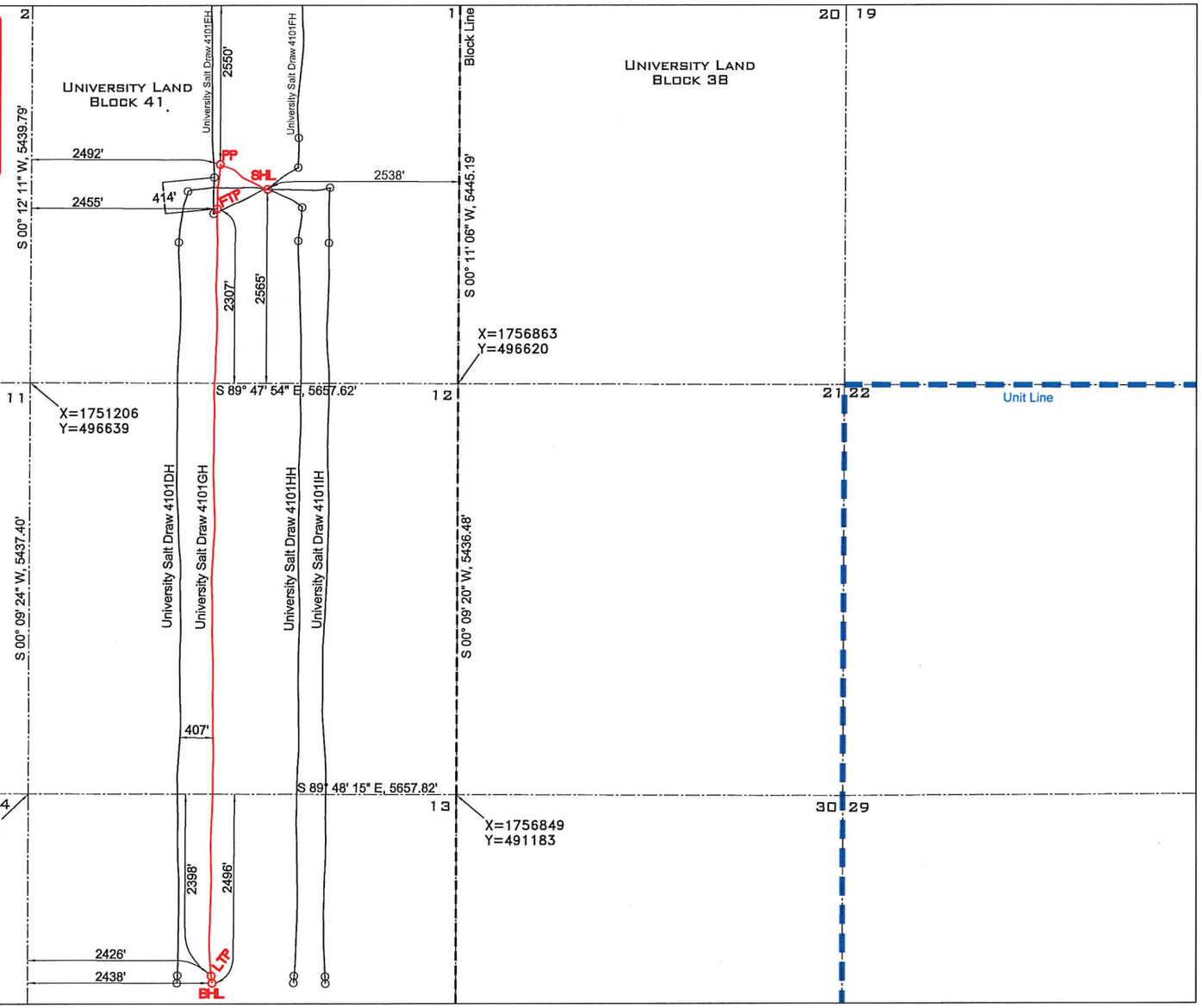
6.98 MILES SOUTHEAST OF BARNHART, TEXAS

| Unit Boundary Distance | |
|---|---|
| SHL | 8321' FNL & 8407' FWL |
| PP | 7992' FNL & 7780' FWL |
| FTP | 8577' FNL & 7743' FWL |
| LTP | 18719' FNL & 7716' FWL |
| BHL | 18817' FNL & 7728' FWL |

FTP–LTP 10150'

EP ENERGY
E&P COMPANY, L.P.
34,139.427 Acres (Called)
"University Salt Draw"

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NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Jeffrey Elsworth Hudson do hereby certify that the above described well location was staked on the ground under my supervision, as shown.

STATE OF TEXAS
REGISTERED
JEFFREY ELSWORTH HUDSON
4850
PROFESSIONAL
LAND SURVEYOR

22 Nov 2016
DATE

JEFFREY ELSWORTH HUDSON
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 4850

KSA Energy Services
140 E. Tyler St. Ste 600 Longview, Texas 75601
T.903-236-7700 F.903-236-7779
www.ksaeng.com
tbpls firm reg. no. 1011500

EP ENERGY E&P COMPANY, L.P.

EPEN.454

University Salt Draw 4101GH
Block 41, Section 1
Crockett County, Texas