

API No. <u>42-105-42313</u>	<b>RAILROAD COMMISSION OF TEXAS OIL &amp; GAS DIVISION</b>				<b>FORM W-1</b> 07/2004	
Drilling Permit # <u>811281</u>	<b>APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER</b>				Permit Status: <b>Approved</b>	
SWR Exception Case/Docket No. _____		<i>This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.</i>				
1. RRC Operator No. <b>253385</b>		2. Operator's Name (as shown on form P-5, Organization Report) <b>EP ENERGY E&amp;P COMPANY, L.P.</b>		3. Operator Address (include street, city, state, zip): <b>ATTN CHELSEA CHAPMAN PO BOX 4660 HOUSTON, TX 77210-4660</b>		
4. Lease Name <b>UNIVERSITY SALT DRAW</b>			5. Well No. <b>4101GH</b>			
<b>GENERAL INFORMATION</b>						
6. Purpose of filing (mark ALL appropriate boxes): <input checked="" type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-Enter <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D)						
7. Wellbore Profile (mark ALL appropriate boxes): <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal (Also File Form W-1H) <input type="checkbox"/> Directional (Also File Form W-1D) <input type="checkbox"/> Sidetrack						
8. Total Depth <b>8999</b>		9. Do you have the right to develop the minerals under any right-of-way ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>SURFACE LOCATION AND ACREAGE INFORMATION</b>						
11. RRC District No. <b>7C</b>		12. County <b>CROCKETT</b>		13. Surface Location <input checked="" type="checkbox"/> Land <input type="checkbox"/> Bay/Estuary <input type="checkbox"/> Inland Waterway <input type="checkbox"/> Offshore		
14. This well is to be located <u>6.98</u> miles in a <u>SE</u> direction from <u>Barnhart</u> which is the nearest town in the county of the well site.						
15. Section <b>1</b>	16. Block <b>41</b>	17. Survey <b>UNIVERSITY LANDS</b>		18. Abstract No. <b>A-</b>	19. Distance to nearest lease line: <b>7622</b> ft.	20. Number of contiguous acres in lease, pooled unit, or unitized tract: <b>34139.43</b>
21. Lease Perpendiculars: <u>8321</u> ft from the <u>NORTH</u> line and <u>8407</u> ft from the <u>WEST</u> line.						
22. Survey Perpendiculars: <u>2567</u> ft from the <u>SOUTH</u> line and <u>2538</u> ft from the <u>EAST</u> line.						
23. Is this a pooled unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		24. Unitization Docket No:		25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes (attach Form W-1A) <input checked="" type="checkbox"/> No		
<b>FIELD INFORMATION</b> List all fields of anticipated completion including Wildcat. List one zone per line.						
26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)		29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir
<b>7C</b>	<b>53613750</b>	<b>LIN (WOLFCAMP)</b>		<b>Oil or Gas Well</b>	<b>7000</b>	<b>668.00</b>
<b>BOTTOMHOLE LOCATION INFORMATION</b> is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)						
<b>Remarks</b> [FILER Dec 11, 2015 2:42 PM]: This well is located within the University Salt Draw Drilling and Development Unit.  FTP = 8212' FNL & 7622' FWL LTP = 16245' FNL & 7623' FWL				<b>Certificate:</b> I certify that information stated in this application is true and complete, to the best of my knowledge. <b>LINDA RENKEN, Sr. Regulatory Analyst</b> _____ Name of filer <b>Dec 11, 2015</b> Date submitted		
<b>RRC Use Only</b> Data Validation Time Stamp: Dec 15, 2015 8:06 AM( Current Version )				<u>(713)9975138</u> <u>linda.renken@epenergy.com</u> Phone    E-mail Address (OPTIONAL)		

**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

**Form W-1H** 07/2004  
**Supplemental Horizontal Well Information**

Permit Status: **Approved**  
*The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.*

**APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER**

*This facsimile W-1 was generated electronically from data submitted to the RRC.  
A certification of the automated data is available in the RRC's Austin office.*

Permit # **811281**  
Approved Date: **Dec 11, 2015**

1. RRC Operator No. <b>253385</b>	2. Operator's Name (exactly as shown on form P-5, Organization Report) <b>EP ENERGY E&amp;P COMPANY, L.P.</b>	3. Lease Name <b>UNIVERSITY SALT DRAW</b>	4. Well No. <b>4101GH</b>
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**Lateral Drainhole Location Information**

5. Field as shown on Form W-1 **LIN (WOLFCAMP) (Field # 53613750, RRC District 7C)**

6. Section <b>12</b>	7. Block <b>41</b>	8. Survey <b>UNIVERSITY LANDS</b>	9. Abstract	10. County of BHL <b>CROCKETT</b>
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11. Terminus Lease Line Perpendiculars <b>16320</b> ft. from the <b>North</b> line. and <b>7623</b> ft. from the <b>West</b> line
12. Terminus Survey Line Perpendiculars <b>1</b> ft. from the <b>South</b> line. and <b>2334</b> ft. from the <b>West</b> line
13. Penetration Point Lease Line Perpendiculars <b>8307</b> ft. from the <b>North</b> line. and <b>8308</b> ft. from the <b>West</b> line





**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION  
SWR #13 Formation Data**

**CROCKETT (105) County**

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
QUEEN	1,000	2,300		1	12/17/2013
SAN ANDRES	1,000	3,700		2	12/17/2013
LEONARD	3,100	4,200		3	12/17/2013
WOLFCAMP	3,400	6,300		4	12/17/2013
CANYON	4,000	8,800		5	12/17/2013
STRAWN	7,100	11,600		6	12/17/2013
DEVONIAN	8,900	11,900		7	12/17/2013
ELLENBURGER	6,500	13,400		8	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.  
<http://www.rrc.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

## 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.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2

P.O. Box 12967 Austin, Texas 78771-2967

512-463- 2741

Rev. 02/2014

Internet address: [www.rrc.texas.gov](http://www.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=499193.45  
 Elev.=2624'  
 2565' FSL & 2538' FEL

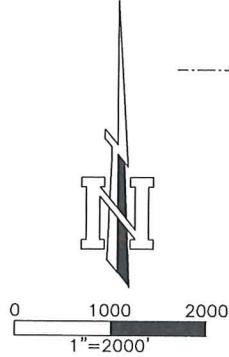
Point of Penetration (PP Sec. 1)  
 Latitude: 31.036924° N  
 Longitude: 101.118074° W  
 X=1754235.04  
 Y=499207.30  
 2579' FSL & 2637' FEL

First Take Point (FTP Sec. 1)  
 Latitude: 31.037174° N  
 Longitude: 101.120266° W  
 X=1753549.21  
 Y=499303.20  
 2672' FSL & 2334' FWL

Last Take Point (LTP Sec.12 Blk.41)  
 Latitude: 31.015087° N  
 Longitude: 101.120162° W  
 X=1753524.99  
 Y=491270.43  
 76' FSL & 2334' FWL

Bottom Hole Location  
 (BHL Sec.12 Blk.41)  
 Latitude: 31.014881° N  
 Longitude: 101.120161° W  
 X=1753524.79  
 Y=491195.43  
 1' FSL & 2334' FWL

Unit Boundary Distance	
SHL	8321' FNL & 8407' FWL
PP	8307' FNL & 8308' FWL
FTP	8212' FNL & 7622' FWL
LTP	16245' FNL & 7623' FWL
BHL	16320' FNL & 7623' FWL



NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.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.

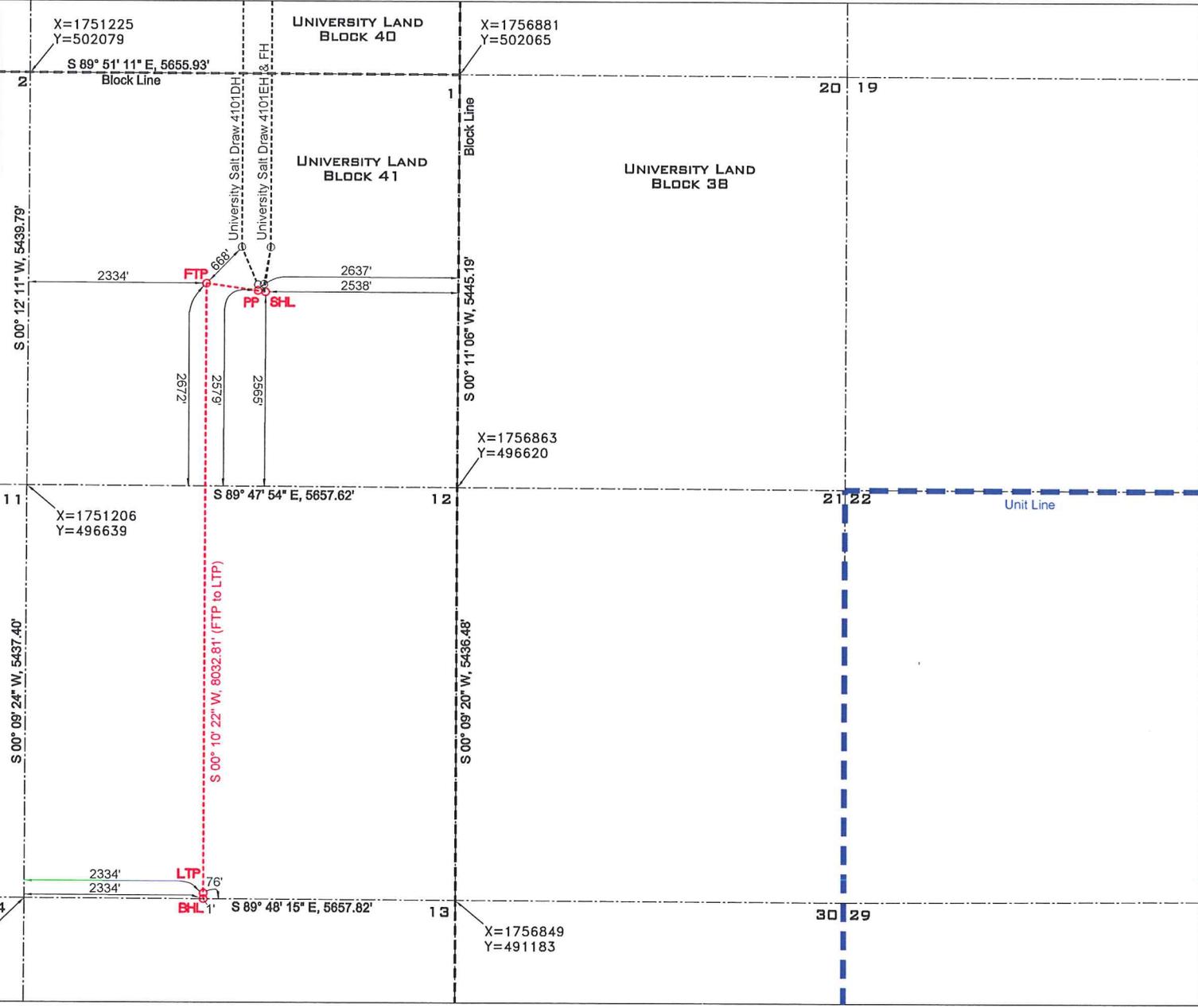
*Jeffrey Elsworth Hudson*  
 JEFFREY ELSWORTH HUDSON  
 REGISTERED PROFESSIONAL LAND SURVEYOR  
 TEXAS REGISTRATION NO. 4850

11 Dec 2015  
 DATE



**EP ENERGY**  
 Lease Name and Well Number  
**UNIVERSITY SALT DRAW 4101GH**  
 Topography and Vegetation  
 SCATTERED MESQUITE and CACTUS  
 6.98 MILES SOUTHEAST OF BARNHART, TEXAS

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



**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.178

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