



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 09/27/2017
Tracking No.: 177286

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.: 42-105-42353 County: CROCKETT
Well No.: 3820GH RRC District No.: 7C
Lease Name: UNIVERSITY SALT DRAW Field Name: LIN (WOLFCAMP)
RRC Lease No.: 18942 Field No.: 53613750
Location: Section: 20, Block: 38, Survey: UL, Abstract: U262

Latitude: Longitude:
This well is located 7.43 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: 03/27/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	01/09/2017	821507
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 01/24/2017	Date of first production after rig released: 03/27/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 01/24/2017	Date plug back, deepening, recompletion, or drilling operation ended: 03/27/2017
Number of producing wells on this lease in this field (reservoir) including this well: 39	Distance to nearest well in lease & reservoir (ft.): 331.0
Total number of acres in lease: 32786.63	Elevation (ft.): 2613 GL
Total depth TVD (ft.): 6726	Total depth MD (ft.): 14835
Plug back depth TVD (ft.):	Plug back depth MD (ft.): 14775
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 81.0
Recompletion or reclass? No	Is Cementing Affidavit (Form W-15) attached? Yes
Type(s) of electric or other log(s) run: None	Multiple completion? No
Electric Log Other Description:	
Location of well, relative to nearest lease boundaries	Off Lease : No
of lease on which this well is located: 8320.0 Feet from the North Line and 12812.0 Feet from the West Line of the UNIVERSITY SALT DRAW Lease.	

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

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type
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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: 12/30/2016
SWR 13 Exception		Depth (ft.):	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION		
Date of test: 07/30/2017		Production method: Gas Lift
Number of hours tested: 24		Choke size: 64
Was swab used during this test?	No	Oil produced prior to test: 5920.00
PRODUCTION DURING TEST PERIOD:		
Oil (BBLs): 1072.00		Gas (MCF): 1391
Gas - Oil Ratio: 1297		Flowing Tubing Pressure: 271.00
Water (BBLs): 1682		
CALCULATED 24-HOUR RATE		
Oil (BBLs): 1072.0		Gas (MCF): 1391
Oil Gravity - API - 60.:	40.9	Casing Pressure: 991.00
Water (BBLs): 1682		

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage 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	963			C/POZ, C	345	648.2	0	Circulated to Surface
2	Conventional Production	5 1/2	8 1/2	14826			C/POZ;H/P OZ	2090	3602.4	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	6592		6581 / EUE AS1-X

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 7134	14732.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.				
Was hydraulic fracturing treatment performed? Yes				
Is well equipped with a downhole actuation sleeve? Yes				
If yes, actuation pressure (PSIG): 8750.0				
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 8500				
Actual maximum pressure (PSIG) during hydraulic fracturing: 8013				
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)		7134 14732

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
QUEEN	Yes	1210.0	1210.3	Yes	LOGGED MWD GR
SAN ANDRES	Yes	1400.0	1401.8	Yes	LOGGED MWD GR
LEONARD	Yes	3281.0	3329.3	Yes	LOGGED MWD GR
WOLFCAMP	Yes	5698.0	5761.8	Yes	PRODUCING INTERVAL
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

RRC REMARKS
<div>PUBLIC COMMENTS: [RRC Staff 2017-09-18 10:52:38.62] EDL=7639 feet, max acres=320, LIN (WOLFCAMP) oil well</div> <div>CASING RECORD :</div> <div>TUBING RECORD:</div> <div>PRODUCING/INJECTION/DISPOSAL INTERVAL :</div> <div>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</div> <div>POTENTIAL TEST DATA:</div>

OPERATOR'S CERTIFICATION	
Printed Name: Rita Martinez-Dean	Title: Associate Analyst
Telephone No.: (713) 997-6212	Date Certified: 09/26/2017



RAILROAD COMMISSION OF TEXAS

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

CEMENTING REPORT

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 LLC

Cementer P-5 No.: 169789

WELL INFORMATION

District No.: 7C

County: REAGAN

Well No.: 3820GH

API No.: 42-105-42353

Drilling Permit No.: 821507

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.): 963

Est. % wash-out or hole enlargement: 0%

Size of casing in O.D. (in.): 9 5/8

Casing weight (lbs/ft) and grade: #36 J-55

No. of centralizers used: 6

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.): 963

Top of liner (ft.):

Setting depth liner (ft.):

Hrs. waiting on cement before drill-out:

Calculated top of cement (ft.): SURFACE

Cementing date: 1/24/2017

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	190	C/POZ	SEE REMARKS	438.9	1401
2	155	C	SEE REMARKS	209.25	609
3					
Total	345			648.15	2010

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.)

Tapered string depth of drilled hole (ft.)

Upper:

Lower:

Upper:

Lower:

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper:

Lower:

Upper:

Lower:

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.)

Tapered string depth of drilled hole (ft.)

Upper:

Lower:

Upper:

Lower:

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper:

Lower:

Upper:

Lower:

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: CLASS C 85%, POZ 15%, BENTONITE, SALT, C-45, PHENOSEAL, KOL SEAL, DEFOAMER C-41L TAIL: CLASS C100%, SALT, C-45 TOP OUT 1/24/17 175 SKS (42 BBLS) CIRCULATING 5 BBLS 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.

Ben Cordoba

COMPASS CEMENTING LLC

Ben Cordoba
Signature

Name and title of cementer's representative

Cementing Company

1930 S US HWY 277

SONORA TX, 76950

325-387-2940

01/24/2017

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.

Dusty Johnson

Site Supervisor

Dusty Johnson
Signature

Typed or printed name of operator's representative

Title

P.O. BOX 4660

HOUSTON, TX 77210-4660

713-997-1160

01/24/2017

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.

- 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.
- 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).
- 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&ri=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&ri=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.
- 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.
- 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.
- 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.
- 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

CEMENTING REPORT**Form W-15**

Rev. 08/2014

Cementor: 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		
Cementor Name: Compass Cementing Services, LLC			Cementor P-5 No.: 169789		
WELL INFORMATION					
District No.: 7C		County: REAGAN			
Well No.: 3820GH		API No.: 42-105-42353		Drilling Permit No.: 821507	
Lease Name: UNIVERSITY SALT DRAW		Lease No.: 18942			
Field Name: LIN (WOLFCAMP)		Field No.: 53813750			
I. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Production					
Drilled hole size (in.): 8.5		Depth of drilled hole (ft.): 14835		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.): 5.5		Casing weight (lbs/ft) and grade: 17# HCP-110		No. of centralizers used: 72	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.		Setting depth shoe (ft.): 14,826		Top of liner (ft.):	
				Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.): 0'		Cementing date: 03/27/2017	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	570	C/Poz	See Remarks	1586	8,243'
2	1520	H/Poz	See Remarks	2006.4	8,866'
3					
Total	2090			3,602.4	14,909'
II. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> 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.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> 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.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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 8.00%, C-45 53%, C-47B 10%, Citric Acid 325%, CSA-1000 10%, Kol Seal 5.00 #/sk, Gyp Seal 4.00 #/sk, Slurry 2: C-20 10%, C-45 125%, C-47B 10%, CSA-1000 10%

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 Service Supervisor

Compass Cementing Services, LLC

Name and title of cementer's representative

Cementing Company

Signature

1930 S US HWY 277

Sonora TX 76950

(325) 387-2940

03/27/2017

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.

Charles Pannell

Drilling Consultant

Typed or printed name of operator's representative

Title

Signature

P.O.Box 154 Houston Texas 77001

713-997-1205

3/27/2017

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.

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

Tracking No.: 177286

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: 03/27/2017
Field Name LIN (WOLFCAMP)	Drilling Permit No. 821507	
Lease Name UNIVERSITY SALT DRAW	Lease/ID No. 18942	Well No. 3820GH
County CROCKETT	API No. 42- 105-42353	

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: _____

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). _____

Rita Martinez-Dean

Signature

EP ENERGY E&P COMPANY, L.P.

Name (print)

Associate Analyst

Title

(713) 997-6212

Phone

08/01/2017

Date

-FOR RAILROAD COMMISSION USE ONLY-



Gamma Log

MD
1":100'

Company: EP Energy E&P Company
Well Name: University Salt Draw 3820 GH
API: 42-105-42353
County/Parish: Crockett County
State/Prov: Texas
Country: USA
Job #: B0221

Company: EP Energy E&P Company
Well Name: University Salt Draw 3820 GH
API: 42-105-42353
County/Parish: Crockett County
State or Prov: Texas
Country: USA
Job number: B0221
Field: Wolfcamp Shale
Rig Identification: Nabors F-34
Survey Company: Nabors Drilling Solutions
MWD Operator 1 David Foley
MWD Operator 2 Remote Operating Center
Geologist Lauren Robinson
Drilling Engineer Ryan Williams
Coordinates N: 499189.220 E:1758758.310

Log measurements: GR, ROP
Depth measured from: Drill Floor - 30 ft
Maximum temperature: 195 F

Depth	Date
Start: 993 ft	03/19/2017
End: 14835 ft	03/26/2017

Casing	Depth	Size	Mud type: Oil based	Elevations
Surface:	993 ft	9 5/8"	Density: 8.85 ppg	KB2643.00 ft
Intermediate:			Viscosity: 57 sec/qt	DF: 30 ft
			Rm: Rmf: Rmc:	GL2613.00 ft

Run	Bit Size	Offsets		Depths		Dates	
		Gamma	Survey	Start	End	Start	End
1	8 3/4"	48.00 ft	49.00 ft	993 ft	6215 ft	03/20/2017	03/21/2017
2	8 3/4"	49.00 ft	50.00 ft	6215 ft	6791 ft	03/21/2017	03/22/2017
3	8 1/2"	48.00 ft	49.00 ft	6791 ft	10190 ft	03/22/2017	03/24/2017
4	8 1/2"	48.00 ft	49.00 ft	10190 ft	14835 ft	03/24/2017	03/26/2017
5							
6							
7							
8							
9							
10							

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:	Operator P-5 No.:
Operator Address:	

SECTION II. WELL INFORMATION

District No.:	County:	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.:	API No.:	
Total Lease Acres:	Drilling Permit No.:	
Lease Name:	Lease No.:	
Field Name:	Field No.:	

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

[illegible]

Total Well Count >		< A. Total Assigned Horiz. Acreage		< C. Total Assigned Acreage
		< Total Remaining Horiz. Acreage		< Total Remaining Acreage
		< B. Total Assigned Vert./Dir. Acreage		
		< Total Remaining Vert./Dir. Acreage		

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

--

Attach Additional Pages As Needed. ☐ No additional pages ☐ Additional Pages: _____ (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.

Signature	Name and title (type or print)	Email (include email address <i>only</i> if you affirmatively consent to its public release)
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Address			City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
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GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued: 30 December 2016**GAU Number:** 164940**Attention:** EP ENERGY E&P COMPANY,
ATTN JOSEPH ARAIZA
HOUSTON, TX 77210**Operator No.:** 253385**API Number:**
County: CROCKETT
Lease Name: UNIVERSITY SALT DRAW
Lease Number: 18942
Well Number: 3820GH
Total Vertical Depth: 8999
Latitude: 31.036960
Longitude: -101.103695
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Abstract-U262; Block-38; Section-20

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 20 feet below the base of the Cretaceous-age beds must be protected. The base of the Cretaceous is estimated to occur at a depth of 800 feet.

This recommendation is applicable to all wells within a radius of 2000 feet of this location.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 12/21/2016. 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 Internet address: www.rrc.texas.gov
Rev. 02/2014

NAD 83, Central Zone 4203

Surface Hole Location (SHL Sec. 20)
Latitude: 31.007120° N
Longitude: 101.104084° W
X=1750820.35
Y=5075127.70
Elev.=2613'
2575' FSL & 1862' FWL

NAD 27, Central Zone 4203
Surface Hole Location (SHL Sec. 20)
Latitude: 31.038960° N
Longitude: 101.103605° W
X=1750738.31
Y=499189.15
Elev.=2613'
2575' FSL & 1862' FWL

Point of Penetration (PP Sec. 20)
Latitude: 31.038960° N
Longitude: 101.103605° W
X=1750738.31
Y=499189.15
2472' FSL & 1247' FWL

First Take Point (FTP Sec. 20)
Latitude: 31.038960° N
Longitude: 101.103605° W
X=1750738.31
Y=499189.15
2308' FSL & 1251' FWL

Last Take Point (LTP Sec. 11)
Latitude: 31.038960° N
Longitude: 101.103605° W
X=1750738.31
Y=499189.15
163' FSL & 1299' FWL

Bottom Hole Location (BHL Sec. 11)
Latitude: 31.038960° N
Longitude: 101.103605° W
X=1750738.31
Y=499189.15
80' FSL & 1298' FWL

Unit Boundary Distances	
SHL	8530' FSL & 5235' FWL
PP	8423' FSL & 3851' FWL
FTP	7755' FSL & 3851' FWL
LTP	185' FSL & 3861' FWL
BHL	80' FSL & 3852' FWL

EP ENERGY E&P COMPANY, L.P.
UNIVERSITY SALT DRAW
32,706.627 ACRES (CALLED)



EP ENERGY

Well Name
UNIVERSITY SALT DRAW 3820GH AS DRILLED
Drilling Field
LIN (WOLF CAMP) FIELD
Nearest Town
7.43 MILES SOUTHEAST OF BARNHART, TEXAS

NOTE: This Plat does not, in any way, represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Surveys. Shown Acreages 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, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

Damian M. Jagers 7/31/2017
DATE

DAMIAN M. JAGERS
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269



10000 WILLOW CREEK DRIVE
FORT WORTH, TEXAS 76154-0000
Phone: (817) 435-1000
Fax: (817) 435-1001

EP ENERGY E&P COMPANY, L.P.

University Salt Draw 3820GH AS DRILLED
Block 38, Section 11
Block 38, Section 20
Crockett County, Texas

NAD 83, Central Zone 4203
Surface Hole Location (SHL Sec. 20)
Latitude: 31.037126° N
Longitude: 101.104084° W
X=2055205.35
Y=10341767.99
Elev.=2613'
2576' FSL & 1862' FWL

NAD 27, Central Zone 4203
Surface Hole Location (SHL Sec. 20)
Latitude: 31.036960° N
Longitude: 101.103695° W
X=1758738.31
Y=499189.16
Elev.=2613'
2576' FSL & 1862' FWL

Point of Penetration (PP Sec. 20)
Latitude: 31.036669° N
Longitude: 101.105660° W
X=1758122.34
Y=499087.51
2472' FSL & 1247' FWL

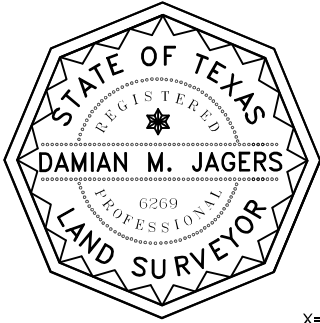
First Take Point (FTP Sec. 20)
Latitude: 31.038505° N
Longitude: 101.105622° W
X=1758138.70
Y=499755.05
2308' FNL & 1261' FWL

Last Take Point (LTP Sec. 11)
Latitude: 31.059379° N
Longitude: 101.105603° W
X=1758197.39
Y=507346.49
163' FNL & 1299' FWL

Bottom Hole Location (BHL Sec. 11)
Latitude: 31.059662° N
Longitude: 101.105609° W
X=1758196.31
Y=507449.47
60' FNL & 1298' FWL

Unit Boundary Distance	
SHL	8320' FNL & 3235' FEL
PP	8423' FNL & 3851' FEL
FTP	7755' FNL & 3837' FEL
LTP	163' FNL & 3801' FEL
BHL	60' FNL & 3802' FEL

EP ENERGY E&P COMPANY, L.P.
UNIVERSITY SALT DRAW
32,786.627 ACRES (CALLED)



Well Name
UNIVERSITY SALT DRAW 3820GH AS DRILLED
Drilling Field
LIN (WOLFCAMP) FIELD
Nearest Town
7.43 MILES SOUTHEAST OF BARNHART, TEXAS

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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, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

Damian M. Jagers 7/31/2017

DAMIAN M. JAGERS
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269

DATE



1503 DARTMOUTH ST., LONGVIEW, TX 75601
Phone: 254-965-8686 Fax: 254-968-5715
www.xtsurvey.com

EP ENERGY E&P COMPANY, L.P.

University Salt Draw 3820GH AS DRILLED
Block 38, Section 11
Block 38, Section 20
Crockett County, Texas