Actual perf interval 11583-16343

RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 11/06/2017
Tracking No.: 175794

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

OPERATOR INFORMATION

Operator Name: FELIX ENERGY HOLDINGS II, LLC **Operator No.:** 265322
Operator Address: FELIX ENERGY 1530 16TH ST SUITE 500 DENVER, CO 80202-0000

WELL INFORMATION

API No.: 42-475-37142 **County:** WARD
Well No.: 2H **RRC District No.:** 08
Lease Name: UL ECHO CANYON 20-17 **Field Name:** PHANTOM (WOLFCAMP)
RRC Lease No.: 48943 **Field No.:** 71052900
Location: Section: 21, Block: 17, Survey: UL, Abstract: U60

Latitude: **Longitude:**
This well is located 2.4 **miles in a** W **direction from** PYOTE, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: New Well
Well Type: Producing **Completion or Recompletion Date:** 05/20/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	03/31/2017	819007
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 03/23/2017 **Date of first production after rig released:** 05/20/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 03/23/2017 **Date plug back, deepening, recompletion, or drilling operation ended:** 04/17/2017
Number of producing wells on this lease in this field (reservoir) including this well: 1 **Distance to nearest well in lease & reservoir (ft.):** 0.0
Total number of acres in lease: 320.00 **Elevation (ft.):** 2619 GR
Total depth TVD (ft.): 11318 **Total depth MD (ft.):** 16544
Plug back depth TVD (ft.): **Plug back depth MD (ft.):**
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 43.5
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 240.0 **Feet from the** North **Line and** 526.0 **Feet from the** East **Line of the** UL ECHO CANYON 20-17 **Lease.** **Off Lease :** Yes

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.):** 1075.0 **Date:** 10/04/2016

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

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: **Production method:**

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

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

PRODUCTION DURING TEST PERIOD:

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

Gas - Oil Ratio: 0 **Flowing Tubing Pressure:**

Water (BBLS):

CALCULATED 24-HOUR RATE

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

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

Water (BBLS):

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	13 3/8	17 1/2	1181			C	1415	2459.0	SURFACE	Circulated to Surface
2	Intermediate	10 3/4	12 1/4	5045			C	850	2097.0	0	Circulated to Surface
3	Intermediate	7 5/8	9 7/8	10443	4697		C, NEOCEM	665	1592.3	4697	Circulated to Surface
4	Intermediate	7 5/8	9 7/8	10443			C, NEOCEM	460	1157.9	0	Circulated to Surface
5	Conventional Production	5 1/2	6 3/4	16544			H	2390	3783.0	3301	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	10770	10755 / AS1-X

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11277	16395.0

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):

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 13540

Actual maximum pressure (PSIG) during hydraulic fracturing: 12079

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	403,164 BBLS SLICKWTR, 14,357,129 LBS PROPPANT	11583	16343

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RUSTLER	Yes	1722.0	1722.0	Yes	EST NOT LOGGED
YATES	No			No	NOT PRESENT
SEVEN RIVERS	No			No	NOT PRESENT
QUEEN	No			No	NOT PRESENT
GLORIETA	No			No	NOT PRESENT
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE	No			No	NOT PRESENT
HOLT	No			No	NOT PRESENT
CLEARFORK	No			No	NOT PRESENT
DELAWARE	Yes	5033.0	5033.0	Yes	EST NOT LOGGED
TUBB	No			No	NOT PRESENT
WICHITA ALBANY	No			No	NOT PRESENT
CHERRY CANYON	Yes	5921.0	5954.0	Yes	
WADDELL	No			No	NOT PRESENT
BONE SPRINGS	Yes	8295.0	8333.0	Yes	
WOLFCAMP	Yes	11168.0	11257.0	Yes	
MONTOYA	No			No	NOT PENETRATED
PENNSYLVANIAN	No			No	NOT PENETRATED
ATOKA	No			No	NOT PENETRATED
FUSSELMAN	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

PUBLIC COMMENTS:

[RRC Staff 2017-07-13 15:04:22.161] Well-record-only approved with 0 max acres due to lacking complete as-drilled plat. The operator must provide a complete as-drilled plat when filing the initial potential. The location of the current perfs has been reviewed and is approved based on the permitted plat.

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

KOP: 10,929'

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

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION

Printed Name: Heather Dahlgren **Title:** Felix Admin Services

Telephone No.: (720) 974-2069 **Date Certified:** 09/27/2017

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: FELIX ENERGY Holdings II, LLC	Operator P-5 No.: 265322
Cementer Name: HALLIBURTON ENERGY SERVICES	Cementer P-5 No.: 347151

WELL INFORMATION

District No.: 08	County: WARD	
Well No.: 2H	API No.: 42-475-37142	Drilling Permit No.: 819007
Lease Name: UL ECHO CANYON 20-17	Lease No.:	
Field Name: Phantom (Wolfcamp)	Field No.: 71052900	

I. CASING CEMENTING DATA

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

Drilled hole size (in.): 17 1/2"	Depth of drilled hole (ft.): 1200	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 13 3/8"	Casing weight (lbs/ft) and grade: 54.5 J55	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.): 1181	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 21	Calculated top of cement (ft.): Surface	Cementing date: 3-24-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	915	C	SEE REMARKS	1793	2582
2	500	C	SEE REMARKS	666	899
3					
Total	1415			2459	3481

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	0			0	0

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	0			0	0

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 = KOL-SEAL, POLY-E-FLAKE CEMENT TO SURFACE = 216BBLS/619SKS

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.

LOUIS GENOVESI SERVICE SUPERVISOR	Halliburton		
Name and title of cementer's representative	Cementing Company	Signature	
6155 W. Murphy St.	Odessa, TX, 79763	432-571-8600	03-24-17
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.

Alex Earhardt	Drilling Mgr.		
Typed or printed name of operator's representative	Title	Signature	
1530 16th St. Ste 500 Denver CO 80202	720-974-2071		6-26-17
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

CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name: FELIX Energy Holdings II, LLC	Operator P-5 No.: 265322
Cementer Name: Halliburton Energy Services	Cementer P-5 No.: 347151

WELL INFORMATION

District No.: 08	County: WARD
Well No.: 2H	API No.: 42-475-37142 Drilling Permit No.: 819007
Lease Name: UL ECHO CANYON 20-17	Lease No.:
Field Name: Phantom (Wolfcamp)	Field No.: 71052900

I. CASING CEMENTING DATA

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

Drilled hole size (in.): 12 1/2	Depth of drilled hole (ft.): 5060	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 10 3/4	Casing weight (lbs/ft) and grade: 45.5 J55	No. of centralizers used: 19
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.): 5045	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 13	Calculated top of cement (ft.): Surface	Cementing date: 3/28/17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	655	C	N/A	1837	9763
2	195	C	.1% HR 800	260	1382
3					
Total	850			2097	11145

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	0			0	0

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	0			0	0

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							
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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

SO# 0903918018
CIRCULATED 71 BBL 142 SKS 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.

QUINCY EDWARDS SERVICE SUPERVISOR	Halliburton	Quincy Edwards	
Name and title of cementer's representative	Cementing Company	Signature	
6155 W. Murphy St.	Odessa, TX, 79763	432-571-8600	3/28/17
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

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Alex Eastwood	Drilling Mgr.		
Typed or printed name of operator's representative	Title	Signature	
1530 16th St. Ste 500	Denver CO 80202	720-974-2071	6-26-17
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

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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

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CEMENTING REPORT

Form W-15
Rev. 08/2014

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Operator: Fill in other items.

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Operator Name: FELIX ENERGY Holding II, LLC	Operator P-5 No.: 265327
Cementer Name: HALLIBURTON ENEGY SERVICES	Cementer P-5 No.: 347151

WELL INFORMATION

District No.: 08	County: WARD
Well No.: 2H	API No.: 42-475-37142 Drilling Permit No.: 819007
Lease Name: UL ECHO CANYON 20-17	Lease No.:
Field Name: Phantom (Wolfcamp)	Field No.: 71052900

I. CASING CEMENTING DATA

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

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:
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.):	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 3-21-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total	0			0	0

II. CASING CEMENTING DATA

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

Drilled hole size (in.): 9 7/8	Depth of drilled hole (ft.): 10,456	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 7 5/8	Casing weight (lbs/ft) and grade: 29.7 P110	No. of centralizers used: 81
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.): 10443
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 4697	Cementing date: 4-5-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	460	NEOCEM TM		1292.14	5946
2	205	NEOCEM TM		300.12	1398
3					
Total	665			1592.26	7344

III. CASING CEMENTING DATA

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

Drilled hole size (in.): 9 7/8	Depth of drilled hole (ft.): 10,456	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 7 5/8	Casing weight (lbs/ft) and grade: 29.7 P110	No. of centralizers used: 81
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.): 4697
Hrs. waiting on cement before drill-out: 8	Calculated top of cement (ft.): Surface	Cementing date: 4-5-17

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	370	NEOCEM TM		1038.22	4160.9
2	90	C	0.10% HR-800	119.7	536.5
3					
Total	460			1157.92	4697.4

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

SALES ORDER # 0903917822
CIRCULATED 15 BBLS / 30 SKS OF LEAD CEMENT ON 2ND STAGE

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.

BRANDON MACHADO SERVICE SUPERVISOR	Halliburton		
Name and title of cementer's representative	Cementing Company	Signature	
1301 W. Webb St.	Brownfield, Tx, 79316	575-392-0700	4-5-17
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.

Alex Earhardt	Drilling Mgr.		
Typed or printed name of operator's representative	Title	Signature	
15660 16th St. Ste 500	Denver CO 80202	720-974-2071	6-26-17
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

CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name: FELIX ENERGY HOLDING II LLC EBUS	Operator P-5 No.: 265322
Cementer Name: HALLIBURTON	Cementer P-5 No.: 347151

WELL INFORMATION

District No.: 08	County: WARD
Well No.: 2H	API No.: 42-475-37142 Drilling Permit No.: 819007
Lease Name: UL ECHO CANYON 20-17	Lease No.:
Field Name: Phantom (Wolfcamp)	Field No.: 71052900

I. CASING CEMENTING DATA

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

Drilled hole size (in.): 6 3/4	Depth of drilled hole (ft.): 16,544	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 5 1/2	Casing weight (lbs/ft) and grade: 23# P110	No. of centralizers used: 0
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.): 16,544	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.): 3301	Cementing date: 04/16/2017

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	310	H	SEE REMARKS	871.1	3340.51
2	2080	H	SEE REMARKS	2912	9327.58
3					
Total	2390			3783.1	12668.09

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	0			0	0

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	0			0	0

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 ADDITIVES: 0.40 % HALAD(R)-344, 0.35% HR-601, 0.25 LBM D-AIR 5000.

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.

RUBEN MEDINA SERVICE SUPERVISOR	Halliburton			
Name and title of cementer's representative	Cementing Company	Signature		
6155 W. Murphy St.	Odessa, TX, 79763	432-571-8600		04/16/2017
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.

Freddie Haverston JR	CO-Man	Freddie Haverston		
Typed or printed name of operator's representative	Title	Signature		
1530 16th St. Ste 500	Denver CO 80202	720-944-2071		4/16/2017
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.

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
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 175794

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: FELIX ENERGY HOLDINGS II, LLC	District No. 08	Completion Date: 05/20/2017
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 819007	
Lease Name UL ECHO CANYON 20-17	Lease/ID No. 48943	Well No. 2H
County WARD	API No. **42-** 475-37142	

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). _____

Heather Dahlgren Signature	Felix Admin Services Title
FELIX ENERGY HOLDINGS II, LLC Name (print)	(720) 974-2069 Phone 06/26/2017 Date

-FOR RAILROAD COMMISSION USE ONLY-

HALLIBURTON | Sperry Drilling

RATE OF PENETRATION
TEMPERATURE
GAMMA RAY

Powered by INSITE™

1" / 5" TVD LOG
1:1200 / 1:240

County : Ward County, Texas
Field : Phantom Wolfcamp
Location : Lat: 31° 32' 5.46" North Long: 103° 10' 2.04" West
Well : UL Echo Canyon 20-17 2H
Company : Felix Energy
Rig : Cactus 139

Company : **Felix Energy**
Rig : **Cactus 139**
Well : **UL Echo Canyon 20-17 2H**
Field : **Phantom Wolfcamp**
County : **Ward County, Texas**
API Number : **42-475-37142-0000**

LOCATION
Latitude : 31° 32' 5.46" North
Longitude : 103° 10' 2.04" West
StatePlane X = 1,117,181.690 usft
StatePlane Y = 690,687.050 usft

Other Services
Directional Drilling

Permanent Datum : Ground Level
Log Measured From : Drill Floor
Drilling Measured From : Drill Floor
Elevation : 2619.00 ft
25.00 ft Above Permanent Datum

TVD LOG

Elev. KB N/A
DF 2644.00 ft
GL 2619.00 ft
WD N/A

Depth Logged : 5,032.91 ft To 11,317.93 ft
Date Logged : 21-Mar-17 To 14-Apr-17
Total Depth MD : 16,544.00 ft TVD: 11,317.93 ft
Spud Date : 22-Mar-17

Unit No. : 11498526
Job No. : MO-XX-0903889493
Plot Type : Final
Plot Date : 13-Apr-17

Run No.	Borehole Record (TVD)			Size	Casing Record (TVD)		
	Size	From	To		Weight	From	To
0400	9.875 in	5,032.91 ft	8,434.01 ft	20.000 in	120.00 lbpf	SURFACE	80.00 ft
0500	9.875 in	8,434.01 ft	8,861.90 ft	13.375 in	68.00 lbpf	SURFACE	1,199.26 ft
0600	9.875 in	8,861.90 ft	10,417.49 ft	10.750 in	45.50 lbpf	SURFACE	5,016.02 ft
0700	6.750 in	10,417.49 ft	10,856.62 ft	7.625 in	29.70 lbpf	SURFACE	10,404.49 ft
0800	6.750 in	10,856.62 ft	11,382.45 ft				
0900	6.750 in	11,382.45 ft	11,393.55 ft				
1000	6.750 in	11,393.55 ft	11,344.07 ft				
1100	6.750 in	11,344.07 ft	11,317.93 ft				

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.texas.gov

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 175794

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
PHANTOM (WOLFCAMP)	UL ECHO CANYON 20-17			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
FELIX ENERGY HOLDINGS II, LLC	265322	48943	WARD	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
FELIX ENERGY 1530 16TH ST SUITE 500 DENVER, CO 80202	2H			
	10. Classification			11. Effective Date
	☒ Oil ☐ Gas ☐ Other *(see instruction A)*			05/20/2017

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: ☐ operator ☐ oil or condensate gatherer ☐ gas gatherer ☐ gas purchaser ☐ gas purchaser system code
☐ field name from _____
☐ lease name from _____

OR

b. New RRC Number for: ☒ oil lease ☐ gas well ☐ other well (specify) _____ **Due to:** ☐ new completion or recompletion ☐ reclass oil to gas ☐ reclass gas to oil ☐ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	TARGA DELAWARE LLC(836022)	0001	100.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
LION OIL TRADING & TRANS, LLC(501751)	100.0

RRC USE ONLY: Reviewer's initials: RRC Staff Approval date: 11/06/2017

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator

Signature

Name (print)

☐ **Authorized Employee of previous operator**

☐ **Authorized agent of previous operator** *(see instruction G)*

Title

Date

Phone with area code

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

FELIX ENERGY HOLDINGS II, LLC
Name (print)

Heather Dahlgren
Signature

Felix Admin Services
Title

☒ **Authorized Employee of current operator**

☐ **Authorized agent of current operator** *(see instruction G)*

heatherd@felix-energy.com
E-mail Address (optional)

06/26/2017
Date

(720) 974-2069
Phone with area code

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: Felix Energy Holdings II, LLC	**Operator P-5 No.:** 265322
Operator Address: 1530 16th Street, Suite 500, Denver, CO 80202	

SECTION II. WELL INFORMATION

District No.: 08	**County:** WARD	**Purpose of Filing:**
Well No.: 2H	**API No.:** 42-475-37142	☐ Drilling Permit Application (Form W-1)
Total Lease Acres: 320.00	**Drilling Permit No.:** 819007	■ Completion Report (Form G-1/W-2)
Lease Name: UL ECHO CANYON 20-17	**Lease No.:**	
Field Name: Phantom (Wolfcamp)	**Field No.:** 71052900	

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)
819007	2H	H	UL ECHO CANYON 20-17	42-475-37142	320.00	N	

Total Well Count >	1	320.00	< A. Total Assigned Horiz. Acreage	320.00	< C. Total Assigned Acreage
		0	< Total Remaining Horiz. Acreage	0	< Total Remaining Acreage
		0	< B. Total Assigned Vert./Dir. Acreage		
		0	< 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 *only* if you affirmatively consent to its public release)
	Heather Dahlgren Eng Tech	heatherd@felix-energy.com

Address	City,	State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
1530 16th Street, Suite 500	Denver	CO	80202	720	974-2069	06/24/2017

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	04 October 2016	**GAU Number:**	161077

Attention:	FELIX ENERGY HOLDINGS II, FELIX ENERGY DENVER, CO 80202	**API Number:**	
		County:	WARD
		Lease Name:	UL Loveland 1902-17
		Lease Number:	
Operator No.:	265322	**Well Number:**	1H
		Total Vertical Depth:	14000
		Latitude:	31.534915
		Longitude:	-103.167257
		Datum:	NAD27

Purpose: New Drill

Location: Survey-UL; Block-17; Section-21

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 1075 feet must be protected.

This recommendation is applicable to all wells within a radius of 500 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).

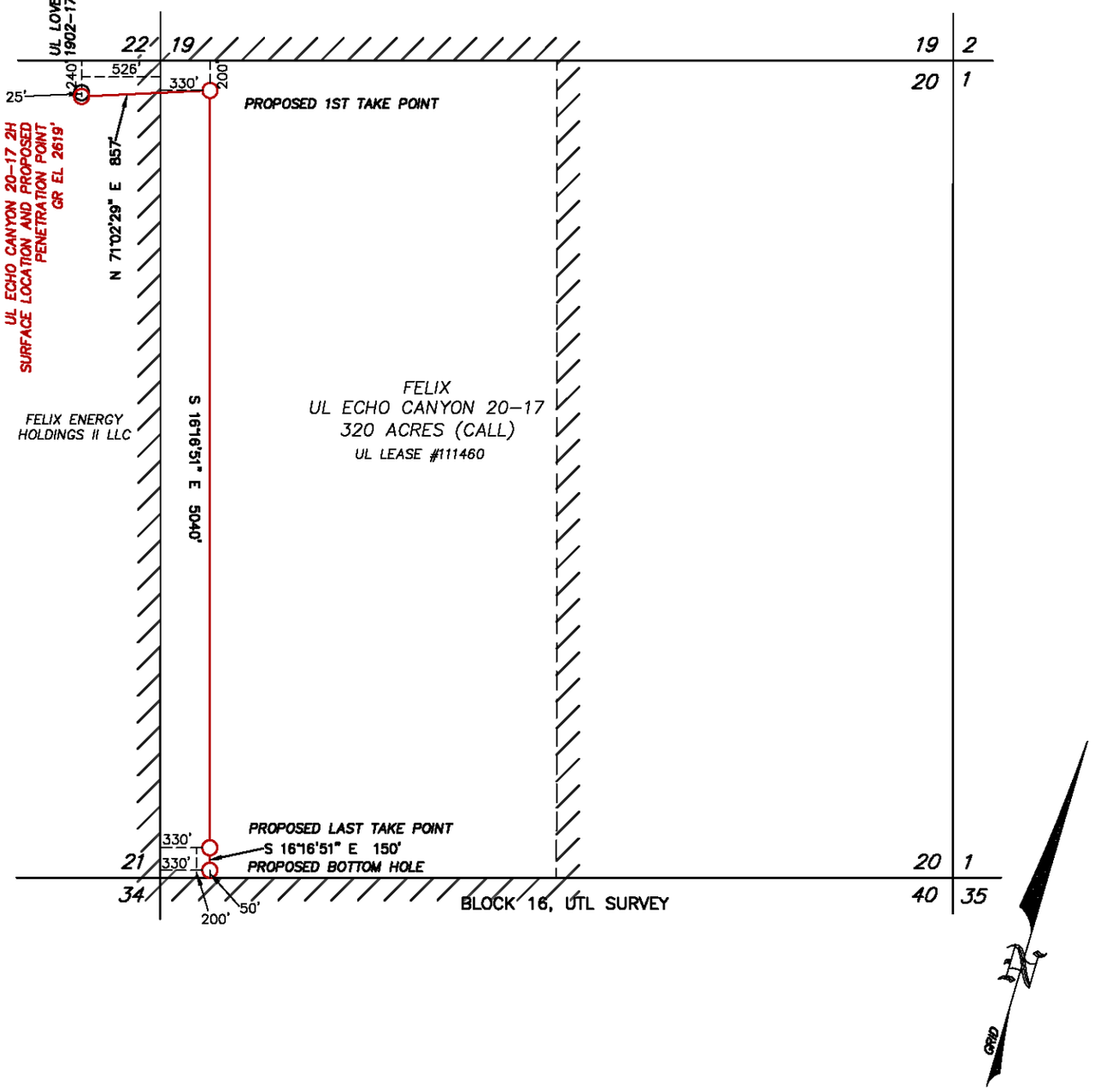
This determination is based on information provided when the application was submitted on 10/03/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

PERMIT PLAT

A–U59

SECTION 20, BLOCK 17, UNIVERSITY LAND SURVEY



NAD 83, TEXAS CENTRAL ZONE		NAD 27, TEXAS CENTRAL ZONE	
S/L: N=10533262.5', E=1413647.6'	LAT=31.5349828 N, LONG=103.1676744 W.	S/L: N=690687.1', E=1117181.7'	LAT=31.5348498 N, LONG=103.1672338 W.
1ST/P: N=10533540.9', E=1414458.1'	LAT=31.5358047 N, LONG=103.1650964 W.	1ST/P: N=690965.4', E=1117992.1'	LAT=31.5356716 N, LONG=103.1646560 W.
L/P: N=10528703.2', E=1415871.0'	LAT=31.5226082 N, LONG=103.1601683 W.	L/P: N=686127.8', E=1119404.9'	LAT=31.5224748 N, LONG=103.1597282 W.
B/H: N=10528559.2', E=1415913.0'	LAT=31.5222154 N, LONG=103.1600216 W.	B/H: N=685983.8', E=1119447.0'	LAT=31.5220820 N, LONG=103.1595815 W.

APPROXIMATELY 2.4 MILES W OF PYOTE, TEXAS

NOTES:
1. COORDINATES AND BEARINGS ARE BASED ON LAMBERT CONICAL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM NAD 83, CORS 96, TEXAS CENTRAL ZONE WITH A CONVERGENCE ANGLE OF −01.46967462° AND DISTANCES ARE OF GRID VALUE WITH A CENTRAL COMBINED SCALE FACTOR OF 0.99980548.
2. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND REVIEW OF THE ABSTRACT OF TITLE. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON. LOCATION OF IMPROVEMENTS AND/OR EASEMENTS WERE BEYOND COMMISSIONED SCOPE OF THIS PROJECT AND HAVE BEEN SPECIFICALLY OMITTED. VESTING DOCUMENTS NOT FURNISHED FOR THIS SURVEY.
3. SEE DOCUMENTS AND ELECTRONIC DATA FILED IN THE OFFICE OF WPG INC FOR COMPLETE RECONSTRUCTION OF THESE SECTIONS OR BLOCKS.
4. REVISED 2/21/17 TO CHANGE UNIT AND LATERAL. REVISED 3/21/17 TO CHANGE UNIT AND LATERAL.

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON–THE–GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR THE PRIVATE USE OF THE PARTY NAMED IN THE "REFERENCE PORTION" OF THE TITLE BLOCK AND DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE "PROFESSIONAL LAND SURVEYING PRACTICES ACT."

STATE OF TEXAS
REGISTERED
THAIS WATSON AHLSTRAND
6359
PROFESSIONAL
LAND SURVEYOR

- GAS WELL
- WATER INJECTION WELL
- OIL WELL
- LOCATED WELL
- DRY HOLE
- WATER WELL
- SHUT IN WELL

1000 0 1000 2000 FEET

~~9/30/16~~, REVISED 3/21/17
DATE

Thais Watson Ahlstrand TEXAS R.P.L.S. No. 6359

FILE: T:\WARD\BLOCK 17.dwg

Watson Professional Group Inc
CONSULTING ENGINEERS, LAND SURVEYORS & PLANNERS
P.O. DRAWER 11186
MIDLAND, TEXAS 79702
(432) 520-9200
FAX (432) 520-9212
tahlstrand@wpg-us.com

PERMIT PLAT

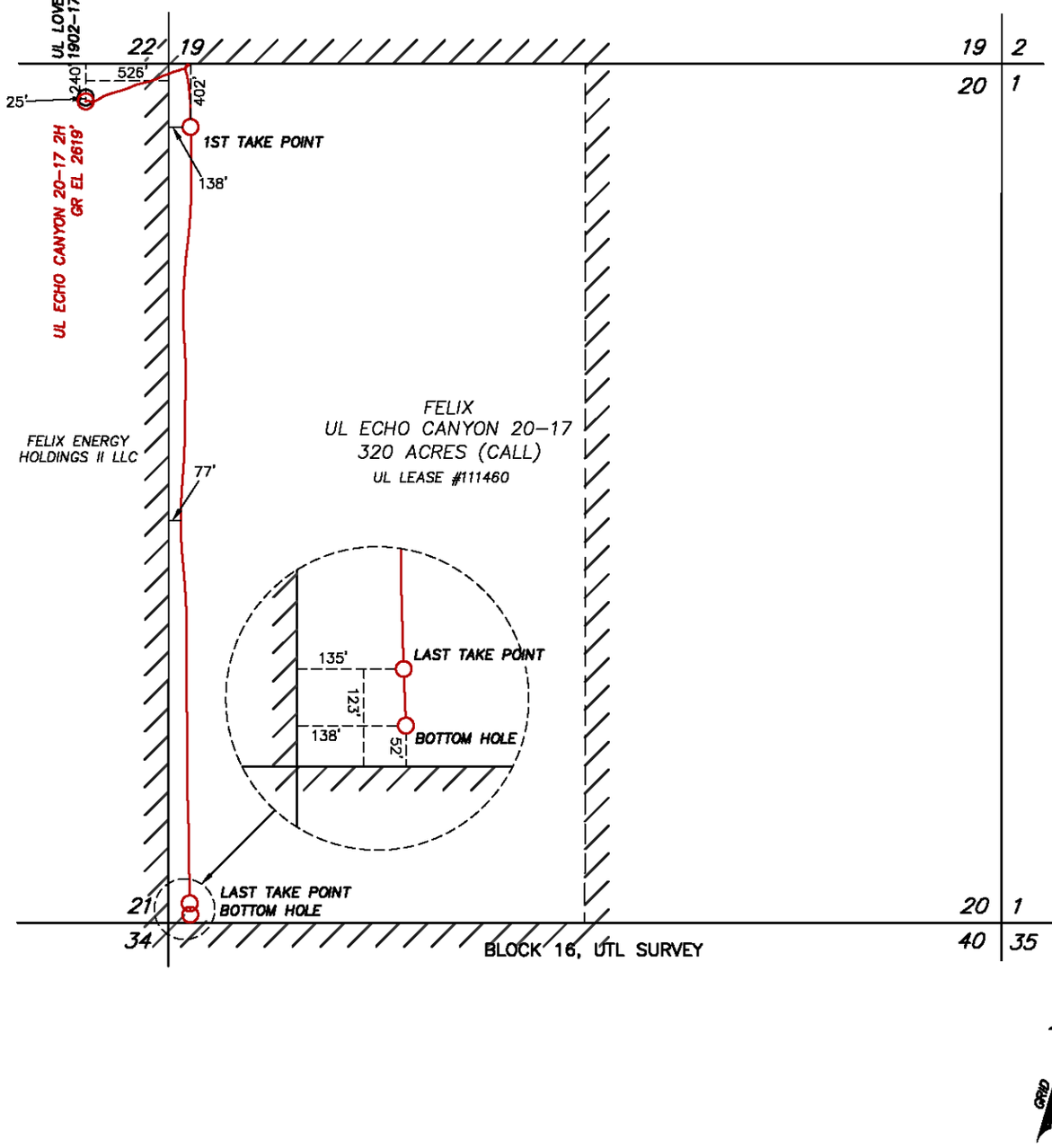
FELIX ENERGY HOLDINGS II LLC
UL ECHO CANYON 20–17 2H
S/L & PROPOSED P/P: 240' FNL & 526' FEL
SECTION 21, BLOCK 17, UNIVERSITY LAND SURVEY
PROPOSED 1ST T/P: 200' FNL & 330' FWL
PROPOSED LAST T/P: 200' FSL & 330' FWL
PROPOSED B/H: 50' FSL & 330' FWL
SEC. 20, BLK. 17, UNIVERSITY LAND SURVEY, WARD COUNTY, TEXAS

DATE: SEPTEMBER 27, 2016 DATE SURVEYED: 9/16/16
JOB NO.: 16-1202-00 FIELD BOOK 817/33 DRAFT TA REV. 2

AS-DRILLED PLAT

A-U59

SECTION 20, BLOCK 17, UNIVERSITY LAND SURVEY



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1ST/P: N=10533293.5', E=1414330.6'	LAT=31.5351159 N, LONG=103.1654852 W.	1ST/P: N=690718.1', E=1117864.7'	LAT=31.5349828 N, LONG=103.1650448 W.
L/P: N=10528575.1', E=1415705.5'	LAT=31.5222445 N, LONG=103.1606886 W.	L/P: N=685999.7', E=1119239.5'	LAT=31.5221111 N, LONG=103.1602485 W.
B/H: N=10528507.1', E=1415728.5'	LAT=31.5220592 N, LONG=103.1606095 W.	B/H: N=685931.7', E=1119262.4'	LAT=31.5219259 N, LONG=103.1601694 W.
APPROXIMATELY 2.4 MILES W OF PYOTE, TEXAS			

NOTES:
1. COORDINATES AND BEARINGS ARE BASED ON LAMBERT CONICAL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM NAD 83, CORS 96, TEXAS CENTRAL ZONE WITH A CONVERGENCE ANGLE OF -01.46967462° AND DISTANCES ARE OF GRID VALUE WITH A CENTRAL COMBINED SCALE FACTOR OF 0.99980548.
2. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND REVIEW OF THE ABSTRACT OF TITLE. THERE MAY BE EASEMENTS AND/OR COVENANTS AFFECTING THIS PROPERTY NOT SHOWN HEREON. LOCATION OF IMPROVEMENTS AND/OR EASEMENTS WERE BEYOND COMMISSIONED SCOPE OF THIS PROJECT AND HAVE BEEN SPECIFICALLY OMITTED. VESTING DOCUMENTS NOT FURNISHED FOR THIS SURVEY.
3. SEE DOCUMENTS AND ELECTRONIC DATA FILED IN THE OFFICE OF WPG INC FOR COMPLETE RECONSTRUCTION OF THESE SECTIONS OR BLOCKS.
4. DOWNHOLE INFORMATION PROVIDED BY FELIX PERSONNEL.
5. SURFACE LOCATION IN THE AS-STAKED POSITION.

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY. THE INFORMATION PRESENTED HEREON IS FOR THE PRIVATE USE OF THE PARTY NAMED IN THE "REFERENCE PORTION" OF THE TITLE BLOCK AND DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AS DEFINED BY THE "PROFESSIONAL LAND SURVEYING PRACTICES ACT."

PRELIMINARY

THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

- GAS WELL
- WATER INJECTION WELL
- OIL WELL
- LOCATED WELL
- DRY HOLE
- WATER WELL
- SHUT IN WELL

1000 0 1000 2000 FEET

Thais Watson Ahlstrand TEXAS R.P.L.S. No. 6359

DATE

FILE: T:\WARD\BLOCK 17.dwg

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AS-DRILLED PLAT

FELIX ENERGY HOLDINGS II LLC
UL ECHO CANYON 20-17 2H
SURFACE LOCATION: 240' FNL & 526' FEL
SECTION 21, BLOCK 17, UNIVERSITY LAND SURVEY
1ST TAKE POINT: 402' FNL & 138' FWL
LAST TAKE POINT: 123' FSL & 135' FWL
BOTTOM HOLE: 52' FSL & 138' FWL
SEC. 20, BLK. 17, UNIVERSITY LAND SURVEY, WARD COUNTY, TEXAS

DATE: APRIL 20, 2017 DATE SURVEYED: 9/16/16

JOB NO.: 16-1202-00 FIELD BOOK 817/33 DRAFT TA REV. 0