



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 10/28/2019
Tracking No.: 213031

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.: 42-475-37576 County: WARD
Well No.: 7H RRC District No.: 08
Lease Name: UL LOVELAND 1920-17 Field Name: PHANTOM (WOLFCAMP)
RRC Lease No.: 51487 Field No.: 71052900
Location: Section: 18, Block: 17, Survey: UL, Abstract: U57
Latitude: Longitude:
This well is located 2.4 miles in a NW direction from PYOTE, 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: 01/22/2019
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 06/07/2018 840913
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 07/10/2018 Date of first production after rig released: 01/22/2019
Date plug back, deepening, recompletion, or drilling operation commenced: 07/10/2018 Date plug back, deepening, recompletion, or drilling operation ended: 10/10/2018
Number of producing wells on this lease in this field (reservoir) including this well: 2 Distance to nearest well in lease & reservoir (ft.): 822.0
Total number of acres in lease: 686.75 Elevation (ft.): 2645 GR
Total depth TVD (ft.): 10801 Total depth MD (ft.): 21685
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): 57.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : Yes
of lease on which this well is located: 648.0 Feet from the South Line and
2076.0 Feet from the East Line of the
UL LOVELAND 1920-17 Lease.

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.):** 1100.0      **Date:** 10/16/2017  
**SWR 13 Exception**      **Depth (ft.):**

**INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION**

**Date of test:** 02/27/2019      **Production method:** Flowing  
**Number of hours tested:** 24      **Choke size:** 30  
**Was swab used during this test?** No      **Oil produced prior to test:** 17745.00

**PRODUCTION DURING TEST PERIOD:**

**Oil (BBLs):** 861.00      **Gas (MCF):** 1001  
**Gas - Oil Ratio:** 1162      **Flowing Tubing Pressure:** 1880.00  
**Water (BBLs):** 3934

**CALCULATED 24-HOUR RATE**

**Oil (BBLs):** 861.0      **Gas (MCF):** 1001  
**Oil Gravity - API - 60.:** 42.7      **Casing Pressure:** 0.00  
**Water (BBLs):** 3934

**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
2	Surface	13 3/8	17 1/2	1220			C	1866	3266.2	0	Circulated to Surface
3	Intermediate	10 3/4	12 1/4	5086			C	1130	2484.0	0	Circulated to Surface
4	Intermediate	7 5/8	9 7/8	10256			C & H	490	1252.0	5233	Calculation
5	Intermediate	7 5/8	9 7/8	10256	5233		C	520	1183.0	643	Calculation
6	Conventional Production	5 1/2	6 3/4	21675			VERSACE M;	1390	1705.0	4674	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
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N/A

**TUBING RECORD**

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	10427	10413 / AS1X

**PRODUCING/INJECTION/DISPOSAL INTERVAL**

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 10945	21490.0

**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: 13498

Actual maximum pressure (PSIG) during hydraulic fracturing: 13494

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	Retainer	596,120 BBLS SLK WTR; 35,410,210 LBS PROPPANT	10945	21490

**FORMATION RECORD**

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RUSTLER	Yes	1778.0	1779.0	Yes	
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 HOLT	No			No	NOT PRESENT
CLEARFORK	No			No	NOT PRESENT
DELAWARE	Yes	4953.0	4963.0	Yes	
TUBB	No			No	NOT PRESENT
WICHITA ALBANY	No			No	NOT PRESENT
CHERRY CANYON	Yes	5846.0	5860.0	Yes	
WADDELL	No			No	NOT PRESENT
BONE SPRINGS	Yes	8304.0	8321.0	Yes	
WOLFCAMP	Yes	11148.0	11166.0	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 2019-08-08 14:23:05.756] EDL=10500 feet, max acres=704, TWO GEORGES (BONE SPRING) oil well;

take points: 10945-21490 feet

### CASING RECORD :

KOP 10300

TOP OFF SURFACE CMT W/ 495 SXS CLASS C; 851.4 SLURRY CIRCULATED TO SURFACE

### TUBING RECORD:

### PRODUCING/INJECTION/DISPOSAL INTERVAL :

### 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:** 06/11/2019



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: Felix Energy
Operator P-5 No.: 265322
Cementor Name: Schlumberger
Cementor P-5 No.: 754900

WELL INFORMATION

District No.: 03
County: Ward
Well No.: 7H
API No.: 42-475-37576
Lease Name: UL Loveland 1920-17
Lease No.:
Field Name: Phantom (Wolfcamp)
Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.): 17.5
Depth of drilled hole (ft.): 1235
Setting depth shoe (ft.): 1220
Hrs. waiting on cement before drill-out: NA

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

II. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.):
Depth of drilled hole (ft.):
Setting depth tool (ft.):

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

III. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.):
Depth of drilled hole (ft.):
Setting depth tool (ft.):

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

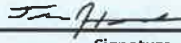
**CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON**

	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**

#1: 61 lb/sk D903; 26 lb/sk D035; 1% D079; .13 lb/sk; .02 gal/sk D047; 5 lb/sk B056; 2 lb/sk B288; 2 lb/sk B289; 0.02gal/sk D177  
 #2: 61 lb/sk D903; 26 lb/sk D035; 1% D079; .13 lb/sk D130  
 #3: 94 lb/sk D903; 2% D020; .1% D065; .02 gal/sk D047; .13 lb/sk D130; 0.01gal/sk D177  
 #4: No cement to surface, annular volume larger than expected. Will perform top out.

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.

<u>Tim Hammer, FS</u>	<u>Schlumberger</u>	
Name and title of cementer's representative	Cementing Company	Signature
<u>7104 W County Rd 116</u>	<u>Midland TX 79706</u>	<u>(432) 681-1100</u>
Address	City, State, Zip Code	Tel: Area Code Number
		<u>July 12, 2018</u>
		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.

<u>Fred Hartmann</u>	<u>Drilling Tech</u>	
Typed or printed name of operator's representative	Title	Signature
<u>1530 16th St #500 Denver, CO 80202</u>	<u>720-974-2054</u>	<u>07/12/2018</u>
Address	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](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

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

OPERATOR INFORMATION

Operator Name: Felix Energy
Operator P-5 No.: 265322
Cementor Name: Schlumberger
Cementor P-5 No.: 754900

WELL INFORMATION

District No.: 08
County: Ward
Well No.: 7H
API No.: 42-475-37576
Lease Name: UL Loveland 1920-17
Lease No.:
Field Name: Phantoms (Wolfcamp)
Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.): 17.5
Depth of drilled hole (ft.): 1235
Setting depth shoe (ft.): 1220
Cementing date: 12-Jul-18

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

II. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.):
Depth of drilled hole (ft.):
Setting depth tool (ft.):

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)

III. CASING CEMENTING DATA

Type of casing: Surface
Drilled hole size (in.):
Depth of drilled hole (ft.):
Setting depth tool (ft.):

SLURRY

Table with 6 columns: Slurry No., No. of Sacks, Class, Additives, Volume (cu.ft.), Height (ft.)


**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**

#1: 61 lb/sk D903; 26 lb/sk D035; 1% D079; .13 lb/sk D130  
 #2:  
 #3:  
 #4: Cement returns at surface : 50bbbls

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.

<u>Tim Hammer, FS</u>	<u>Schlumberger</u>	
Name and title of cementer's representative	Cementing Company	Signature
<u>7104 W County Rd 116</u>	<u>Midland TX 79706</u>	<u>(432) 681-1100</u>
Address	City, State, Zip Code	Tel: Area Code Number
		<u>July 12, 2018</u>
		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.

<u>Fred Hartmann</u>	<u>Drilling Tech</u>	
Typed or printed name of operator's representative	Title	Signature
<u>1530 16th St #500 Denver CO 80202</u>	<u>720-974-2054</u>	<u>07/12/2018</u>
Address	City, State, Zip Code	Tel: Area Code Number
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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.
- 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 12957  
Austin, Texas 78701-2957

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		Operator P-5 No.:	265322		
Cementer Name:	TRANS TEX CEMENTING SERVICES, LLC		Cementer P-5 No.:	864412		
WELL INFORMATION						
District No.:	03		County:	WARD		
Well No.:	7H		API No.:	42-475-37576	Drilling Permit No.:	840913
Lease Name:	UL LOVELAND 1920-17					
Field Name:	Phantom (Wolfcamp)		Field No.:	71052900		
I. CASING CEMENTING DATA						
Type of Casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input checked="" type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production	
Drilled hole size (in.):	12.25	Depth of drilled hole (ft.):	501	Est. % wash-out or hole enlargement:	20	
Size of casing in O.D. (in.):	10.75	Casing weight (lbs/ft) and grade:	45.5# J55	No. of centralizers used:	10	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If no for surface casing, explain in Remarks.		Setting depth shoe (ft.):	Top of liner (ft.):		
			5086			
Hrs. waiting on cement before drill-out:	NA	Calculated top of cement (ft.):	0	Cementing date:	8/6/2018	
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1	900	MULTI "C"	SEE REMARKS	2178	11573	
2	230	CLASS "C"	SEE REMARKS	306	1626	
3						
Total	1130			2484	13199	
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 sh	<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.)	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	Tapered string no. of centralizers used		
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	<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.)	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	Tapered string no. of centralizers used		
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						

**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**

MULTI "C" +10%GEL+3%SALT+.25LBS CF+.3%CFI+.2%CR-1+2#GIL  
 CLASS "C" +0.2%CR-1+0.3%CFR-1+0.3%CFI-1+0.25#CF  
 0  
 CIRCULATED 144 BBL = 334 SKS BACK TO SURFACE OF CEMENT

**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.

**HILARIO GALVAN**

Name and title of cementer's representative

**TRANS TEX CEMENTING**

Cementing Company

  
Signature

**5019 BASIN ST**

Address

**MIDLAND, TX 79703**

City, State, Zip Code

**432-694-4900**

Tel: Area Code Number

**8/6/2018**

Date: mo. day yr.

**OPERATOR'S CERTIFICATE:** I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, 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.

*Fred Hartmann*

Typed or printed name of operator's representative

*Darling Tech*

Title

  
Signature

**1530 16th St #506 Denver, CO 80202**

Address

City, State, Zip Code

**720-974-2054**

Tel: Area Code Number

**08/06/2018**

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 78712967).

**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 collar. 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\\_loc=&p\\_loc=&p\\_loc=&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_loc=&p_loc=&p_loc=&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.

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

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

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

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



# RAILROAD COMMISSION OF TEXAS

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

Form W-15

Rev. 08/2014

## CEMENTING REPORT

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

### OPERATOR INFORMATION

Operator Name: FELIX ENERGY	Operator P-5 No.: 265322
Cementer Name: HALLIBURTON ENERGY SERVICES	Cementer P-5 No.: 347151

### WELL INFORMATION

District No.: 08	County: WARD	
Well No.: 7H	API No.: 42-475-37576	Drilling Permit No.: 840913
Lease Name: UL LOVELAND 1920-17	Lease No.:	
Field Name: Phantom (with camp)	Field No.: 710 52900	

### 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? <input type="checkbox"/> YES <input type="checkbox"/> 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:

### SLURRY

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

### 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.): 10275	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 HCL 80	No. of centralizers used: 31
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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth shoe (ft.): 10256	
Hrs. waiting on cement before drill-out: NA	Calculated top of cement (ft.): 5233	Cementing date: 8/29/2018

### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	415	C	DL-SEAL, 0.125LBM POLY-E	1162	6232
2	75	H	5% HALAD(R)-9, 0.1% HR-6	90	671
3					
Total	490			1252	6903

### 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.): 10275	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 HCL 80	No. of centralizers used: 31
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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth tool (ft.): 5233	
Hrs. waiting on cement before drill-out: NA	Calculated top of cement (ft.): 643	Cementing date: 8/29/2018

### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	430	C	0.4% HR-800, 8LBM SALT	1083	4761
2			0.25 LBM D-AIR 5000		
3	90	C	0.3% HR-800	120	534
Total	520			1183	5295

**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**

SO# 0905085701

**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.

**CASEY WILSON - SERVICE SUPERVISOR**

**Halliburton**

Name and title of cementer's representative

Cementing Company

Signature

6155 W. Murphy St.

Odessa, TX, 79763

432-571-8600

8/29/18

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.

**COLE ORLEY**

**DRILLING CONSULTANT**

Signature

Typed or printed name of operator's representative

Title

Signature

1530 16<sup>TH</sup> STREET STE 500 DENVER CO 80202 720-974-2061

08/29/18

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](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- D. Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- E. Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- F. Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- G. Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



# RAILROAD COMMISSION OF TEXAS

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

Form W-15

Rev. 08/2014

## CEMENTING REPORT

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

### OPERATOR INFORMATION

Operator Name: FELIX ENERGY	Operator P-5 No.: 265322
Cementer Name: HALLIBURTON ENERGY SERVICES	Cementer P-5 No.: 347151

### WELL INFORMATION

District No.: 08	County: WARD	
Well No.: 7H	API No.: 42-475-37576	Drilling Permit No.: 840913
Lease Name: UL LOVELAND 1920-17	Lease No.:	
Field Name: Phantom (Wolfcamp)	Field No.: 71052900	

### 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.): 6.75	Depth of drilled hole (ft.): 21685	Est. % wash-out or hole enlargement: 20
Size of casing in O.D. (in.): 5.5	Casing weight (lbs/ft) and grade: 23 9110	No. of centralizers used: 0
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.): 21675	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: NA	Calculated top of cement (ft.): 4674	Cementing date: 10/9/2018

### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	365	VERSACEM	SEE REMARKS	447	5369
2	1025	GAS STOP	SEE REMARKS	1258	15033
3					
<b>Total</b>	1390			1705	20402

### 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.) 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? <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					
<b>Total</b>	0			0	0

### 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.) 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? <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: 10/8/2018

### SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
<b>Total</b>	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 SLURRY HAS .40% HALAD(R)-344, .25 LBM D-AIR 5000, .40% HR-601  
TAIL SLURRY HAS .40% HALAD(R)-344, .0250 % SA 1015, .25% HR-800

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.

LEROY WELCH

Halliburton

Name and title of cementer's representative

Cementing Company

6155 W. Murphy St.

Odessa, TX, 79763

Signature

432-571-8600

10/9/2018

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.

Brandon L. Haultzhaus  
Typed or printed name of operator's representative

Drilling Consultant  
Title

Signature

1530 16<sup>th</sup> ST STE 500  
Address

Denver, CO, 80202  
City, State, Zip Code

720-974-2061  
Tel: Area Code Number

10/09/2018  
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&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.: 213031

*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: 01/22/2019
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 840913	
Lease Name UL LOVELAND 1920-17	Lease/ID No. 51487	Well No. 7H
County WARD	API No. 42- 475-37576	

**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 ENERGY HOLDINGS II, LLC  
 \_\_\_\_\_  
 Name (print)

Felix Admin Services  
 \_\_\_\_\_  
 Title  
 (720) 974-2069  
 \_\_\_\_\_  
 Phone  
 04/27/2019  
 \_\_\_\_\_  
 Date

-FOR RAILROAD COMMISSION USE ONLY-

**CERTIFICATE OF COMPLIANCE  
 AND TRANSPORTATION AUTHORITY**

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.: 213031

1. Field name exactly as shown on proration schedule <b>PHANTOM (WOLFCAMP)</b>		2. Lease name as shown on proration schedule <b>UL LOVELAND 1920-17</b>					
3. Current operator name exactly as shown on P-5 Organization Report <b>FELIX ENERGY HOLDINGS II, LLC</b>		4. Operator P-5 no. <b>265322</b>	5. Oil Lse/Gas ID no. <b>51487</b>	6. County <b>WARD</b>	7. RRC district <b>08</b>		
8. Operator address including city, state, and zip code <b>FELIX ENERGY 1530 16TH ST SUITE 500 DENVER, CO 80202</b>		9. Well no(s) (see instruction E) <b>7H</b>			11. Effective Date <b>01/22/2019</b>		
		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other (see instruction A)					
12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G)							
a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____							
- - - OR - - -							
b. New RRC Number for: <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well <input type="checkbox"/> other well (specify) _____ Due to: <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> 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	
FELIX MIDSTREAM, LLC(265324)						98.0	
RMCO LOGISTICS LLC(714201)						1.0	
CONCORD CRUDE OIL MARKETING LLC(170262)						1.0	
<b>RRC USE ONLY:</b> Reviewer's initials: <u>RRC Staff</u> Approval date: <u>10/28/2019</u>							
<b>15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING.</b> 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) _____				<input type="checkbox"/> Authorized Employee of previous operator		<input type="checkbox"/> Authorized agent of previous operator (see instruction G)	
Title _____				Date _____		Phone with area code _____	
<b>16. CURRENT OPERATOR CERTIFICATION.</b> 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.							
Name (print) <u>FELIX ENERGY HOLDINGS II, LLC</u>				Signature <u>Heather Dahlgren</u>			
Title <u>Felix Admin Services</u>				<input checked="" type="checkbox"/> Authorized Employee of current operator		<input type="checkbox"/> Authorized agent of current operator (see instruction G)	
E-mail Address (optional) <u>heatherd@felix-energy.com</u>				Date <u>04/27/2019</u>		Phone with area code <u>(720) 974-2069</u>	

**CERTIFICATE OF  
 POOLING AUTHORITY**

**P-12**

Revised 05/2001

1. Field Name(s) Phantom (Wolfcamp)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Felix Energy Holdings II, LLC	5. Operator P-5 Number 265322	6. Well Number 7H
7. Pooled Unit Name UL Loveland 1920-17	8. API Number 42-475-37576	9. Purpose of Filing <input type="checkbox"/> Drilling Permit (W-1) <input checked="" type="checkbox"/> Completion Report
10. County Ward	11. Total acres in pooled unit 686.75	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	UL Lease 111459	320.35	<input type="checkbox"/>	<input type="checkbox"/>
2	UL Lease 111460	326.34	<input type="checkbox"/>	<input type="checkbox"/>
3	UL Lease 105885	40.06	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

	Crystal M Hink
Signature	Print Name
Land Admin Manager	10/23/2019
crystalh@felix-energy.com	(720) 974-2076
Title	Date
E-mail (if available)	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
- The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an \* to the left of the tract identifier.
- The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

Clear Form



## GROUNDWATER PROTECTION DETERMINATION

Form GW-2



## Groundwater Advisory Unit

**Date Issued:** 16 October 2017      **GAU Number:** 181787

<b>Attention:</b>	FELIX ENERGY HOLDINGS II, FELIX ENERGY DENVER, CO 80202	<b>API Number:</b>	
<b>Operator No.:</b>	265322	<b>County:</b>	WARD
		<b>Lease Name:</b>	UL LOVELAND 1920-17
		<b>Lease Number:</b>	
		<b>Well Number:</b>	1H
		<b>Total Vertical Depth:</b>	12000
		<b>Latitude:</b>	31.554103
		<b>Longitude:</b>	-103.157542
		<b>Datum:</b>	NAD27

**Purpose:** New Drill  
**Location:** Survey-UL; Abstract-U57; Block-17; Section-18

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 1100 feet must be protected.

This recommendation is applicable to all wells within a radius of 1100 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 10/11/2017. 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.

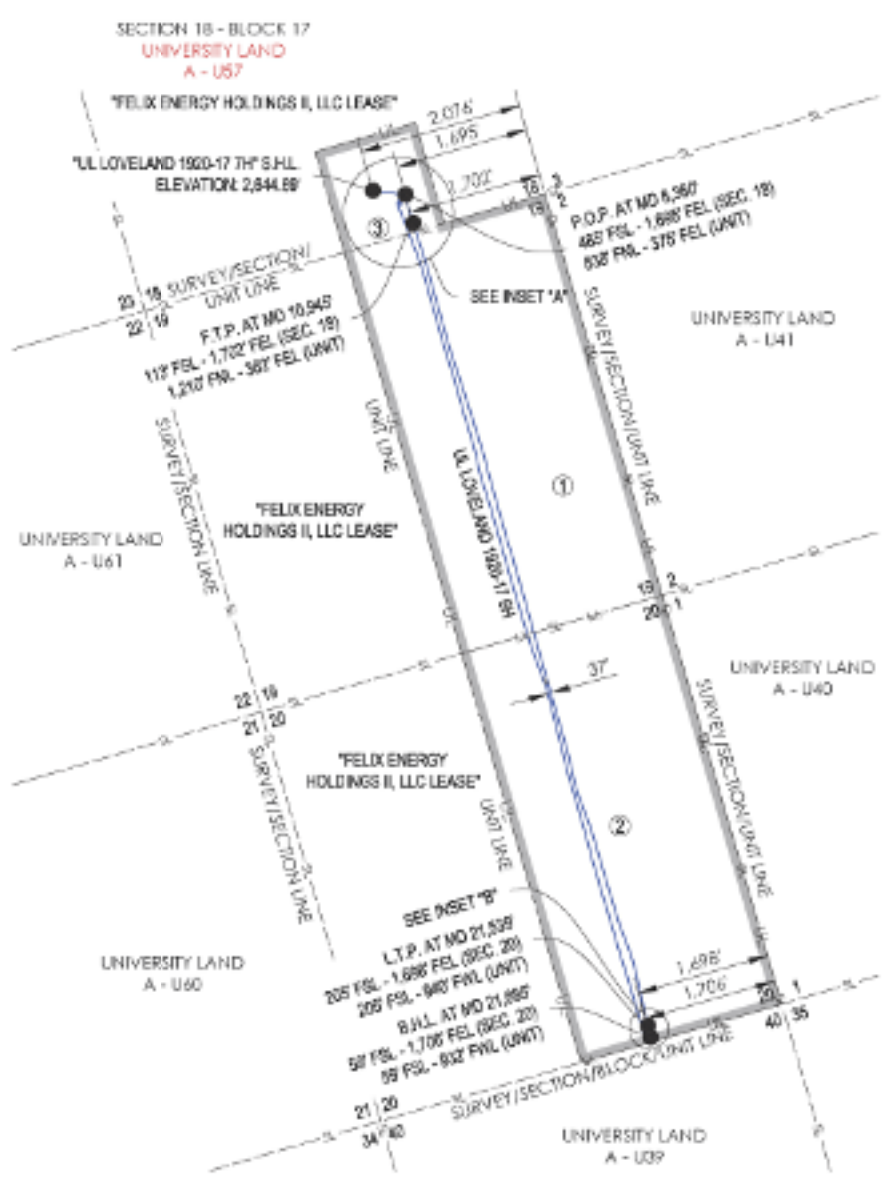
Groundwater Advisory Unit, Oil and Gas Division

Form GW-2      P.O. Box 12967 Austin, Texas 78771-2967      512-463-2741      Internet address: www.rrc.texas.gov  
Rev. 02/2014

**FELIX ENERGY HOLDINGS II, LLC**  
**WARD COUNTY, TEXAS**  
**S.H.L. 648' FSL - 2.076' FEL. SECTION 18, BLOCK 17**

**LEGEND**

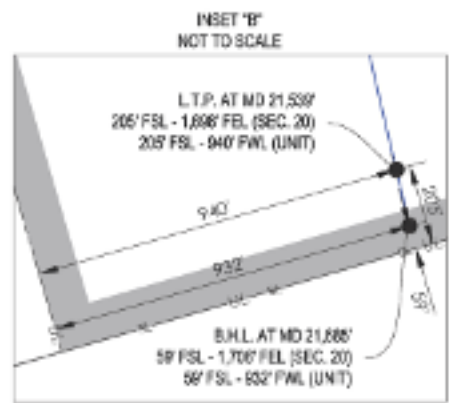
- UNIT LINE
- LEASE LINE
- SECTION LINE
- AS-DRILLED WELL PATH
- 100' UNIT OFFSET
- SURFACE HOLE LOCATION
- POINT OF PENETRATION
- FIRST TAKE POINT
- TURNING POINT
- LAST TAKE POINT
- BOTTOM HOLE LOCATION



①  
 E/2 - SECTION 19 - BLOCK 17  
 320.35 ACRES  
 UNIVERSITY LAND  
 A - U58  
 UL LEASE  
 #111459

②  
 E/2 - SECTION 20 - BLOCK 17  
 326.34 ACRES  
 UNIVERSITY LAND  
 A - U59  
 UL LEASE  
 #111460

③  
 SW1/4 SE1/4 - SECTION 18 - BLOCK 17  
 40.06 ACRES  
 UNIVERSITY LAND  
 A - U57  
 UL LEASE  
 #105885



OPERATOR: FELIX ENERGY HOLDINGS II, LLC  
 WELL NAME: UL LOVELAND 1920-17 WELL NO: 7H  
 TOPOGRAPHIC & VEGETATION: FLAT LOCATION WITH LOW LYING BRUSH  
 GOOD DRILL SITE: YES REFERENCE STAKES OR ALTERNATE LOCATION STAKES SET: NONE  
 BEST ACCESSIBILITY TO LOCATION: FROM NORTH

DISTANCE & DIRECTION FROM HWY JCT OR TOWN: 42.4 MILES NORTHWEST OF PYOTE, TX  
 FROM THE INTERSECTION OF HIGHWAY 247 AND RANCH ROAD 2355 TRAVEL 43.1 MILES, TURN RIGHT ON EXISTING LEASE ROAD, TRAVEL 20.1 MILES, TURN RIGHT ON EXISTING LEASE ROAD TRAVEL 20.8 MILES, TURN RIGHT ON PROPOSED LEASE ROAD TRAVEL 214 FEET TO WELL PAD.

**SURFACE HOLE LOCATION:**  
 648' FSL & 2.076' FEL (SEC. 18)  
 675' FNL & 564' FWL (UNIT)  
 GROUND ELEVATION: 2,644.69'  
 NAD 27 TEXAS CENTRAL ZONE  
 NORTHING: 697609.71, EASTING: 1119044.57  
 LATITUDE: N 31.55400601°, LONGITUDE: W 103.16182121°  
**NAD 83 TEXAS CENTRAL ZONE**  
 NORTHING: 10540185.22, EASTING: 1415510.48  
 LATITUDE: N 31.55413872°, LONGITUDE: W 103.16226179°

**POINT OF PENETRATION:**  
 485' FSL & 1,695' FEL (SEC. 18)  
 838' FNL & 375' FEL (UNIT)  
 NAD 27 TEXAS CENTRAL ZONE  
 NORTHING: 697559.91, EASTING: 1119455.76  
 LATITUDE: N 31.55389788°, LONGITUDE: W 103.16049750°

**LAST TAKE POINT:**  
 205' FSL & 1,698' FEL (SEC. 20)  
 205' FSL & 940' FWL (UNIT)  
 NAD 27 TEXAS CENTRAL ZONE  
 NORTHING: 687043.18, EASTING: 1122521.78  
 LATITUDE: N 31.52520786°, LONGITUDE: W 103.14980292°

**FIRST TAKE POINT:**  
 113' FSL & 1,702' FEL (SEC. 18)  
 1,210' FNL & 382' FEL (UNIT)  
 NAD 27 TEXAS CENTRAL ZONE  
 NORTHING: 697200.71, EASTING: 1119553.51  
 LATITUDE: N 31.55291749°, LONGITUDE: W 103.16015449°

**BOTTOM HOLE LOCATION:**  
 59' FSL & 1,706' FEL (SEC. 20)  
 59' FSL & 932' FWL (UNIT)  
 NAD 27 TEXAS CENTRAL ZONE  
 NORTHING: 686901.06, EASTING: 1122555.23  
 LATITUDE: N 31.52481961°, LONGITUDE: W 103.14968404°

**UNIT CORNERS**

LOCATION	NAD27	
	EVERSEAS TEXAS-CENTRAL (2008)	GEODESIC (NAD83)
NW CORNER UNIT	N = 68099.14 E = 1110314.80	LAT: 31.52530918° LONG: -103.16420389°
NE CORNER SW1/4 SE1/4	N = 68940.48 E = 1110801.38	LAT: 31.52648944° LONG: -103.16018917°
SE CORNER SW1/4 SE1/4	N = 687199.77 E = 1119561.06	LAT: 31.52342375° LONG: -103.16887569°
NE CORNER 18-17	N = 687089.70 E = 1121218.65	LAT: 31.52434808° LONG: -103.15480692°
SE CORNER 20-17	N = 687322.41 E = 1124208.11	LAT: 31.52632823° LONG: -103.14441159°
SW CORNER UNIT	N = 686582.83 E = 1121675.74	LAT: 31.52383631° LONG: -103.16247969°



**CONTACT INFORMATION**  
 Shannon D. Ogment  
 Crafter Tull (501)9715  
 1000 Ledgewood Dr  
 Conway, AR 72034

**GENERAL NOTES**  
 1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.  
 2. BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.  
 3. COMBINED SCALE FACTOR AT S.H.L. - 0.99981188  
 4. VERTICAL DATUM IS NAVD83  
 5. AREAS, DISTANCES, AND COORDINATES ARE "GROSS" BASED ON U.S. SURVEY FEET.  
 6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.



REVISION
1 UPDATE UNIT 5-15-19
2 ADDED UNIT CALLS 9-3-19

**"UL LOVELAND 1920-17 7H"**  
 E/2 SECTION 19, BLOCK 17 - 320.35 ACRES  
 E/2 SECTION 20, BLOCK 17 - 326.34 ACRES  
 SW1/4 SE1/4 SECTION 18, BLOCK 17 - 40.06 ACRES  
 FINAL AS-DRILLED PLAT  
 WARD COUNTY, TEXAS

SCALE: 1" = 2000'  
 PLOT DATE: 10-24-2019

CHECKED BY: KEVIN L.DOW  
 DRAWN BY: J.PARKER

APPROVED BY: SHEET NO.: 1 OF 1

