



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 01/24/2018
Tracking No.: 180257

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

OPERATOR INFORMATION	
Operator Name: FDL OPERATING, LLC	Operator No.: 263924
Operator Address: ATTN ROBIN SWANNER PO BOX 472 JUDSON, TX 75660-0000	

WELL INFORMATION	
API No.: 42-383-38226	County: REAGAN
Well No.: 2704H	RRC District No.: 7C
Lease Name: UNIVERSITY 10	Field Name: LIN (WOLFCAMP)
RRC Lease No.: 17844	Field No.: 53613750
Location: Section: 27, Block: 10, Survey: UL, Abstract: U233	
Latitude:	Longitude:
This well is located 4.9 miles in a NW direction from BIG LAKE, which is the nearest town in the county.	

FILING INFORMATION		
Purpose of filing: Initial Potential		
Type of completion: Other/Recompletion		
Well Type: Producing	Completion or Recompletion Date:	08/07/2017
Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	03/03/2017	823481
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION	
Spud date: 09/15/2013	Date of first production after rig released: 08/07/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 11/02/2016	Date plug back, deepening, recompletion, or drilling operation ended: 08/04/2017
Number of producing wells on this lease in this field (reservoir) including this well: 17	Distance to nearest well in lease & reservoir (ft.): 1316.0
Total number of acres in lease: 7906.26	Elevation (ft.): 2723 GL
Total depth TVD (ft.): 7909	Total depth MD (ft.): 15991
Plug back depth TVD (ft.):	Plug back depth MD (ft.): 15897
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 210.0
Recompletion or reclass? Yes	Is Cementing Affidavit (Form W-15) attached? Yes
Type(s) of electric or other log(s) run: Combo of Induction/Neutron/Density/Sonic	Multiple completion? No
Electric Log Other Description:	
Location of well, relative to nearest lease boundaries	Off Lease : No
of lease on which this well is located: 7946.0 Feet from the East Line and 7564.0 Feet from the South Line of the UNIVERSITY 10 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.): 750.0	Date: 02/12/2013
SWR 13 Exception		Depth (ft.):	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION		
Date of test: 08/10/2017		Production method: Flowing
Number of hours tested: 24		Choke size: 34
Was swab used during this test?	No	Oil produced prior to test: 3832.00
PRODUCTION DURING TEST PERIOD:		
Oil (BBLs): 486.00		Gas (MCF): 180
Gas - Oil Ratio: 370		Flowing Tubing Pressure: 595.00
Water (BBLs): 1205		
CALCULATED 24-HOUR RATE		
Oil (BBLs): 486.0		Gas (MCF): 180
Oil Gravity - API - 60.:	52.0	Casing Pressure: 1039.00
Water (BBLs): 1205		

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	859			C	870	1522.5	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	6617			H & C	730	1386.0	4015	Calculation
3	Intermediate	9 5/8	12 1/4	6617	4015		C	1404	3005.0	0	Calculation
4	Conventional Production	5 1/2	8 3/4	15989			H	2560	4454.0	2200	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			
<u>Row</u>	<u>Size (in.)</u>	<u>Depth Size (ft.)</u>	<u>Packer Depth (ft.)/Type</u>
1	2 7/8	7585	/

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 8010	15882.0

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:		8500	
Actual maximum pressure (PSIG) during hydraulic fracturing:		7935	
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	368289 BBLS SLICKWATER, 1357020# 100 MESH SAND, 5776060# 40/70, 8232590# 30/50 SAND	8010 15882

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
YATES	Yes	1774.0	1774.0	Yes	
SEVEN RIVERS	Yes	1927.0	1927.0	Yes	
SAN ANDRES	Yes	2850.0	2850.0	Yes	
SPRABERRY	Yes	5870.0	5870.0	Yes	
DEAN	Yes	7263.0	7263.0	Yes	
WOLFCAMP	Yes	7423.0	7423.0	Yes	
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
KOP - 7380

RRC REMARKS	
PUBLIC COMMENTS: [RRC Staff 2018-01-18 10:52:21.338] EDL=7817 feet, max acres=320, LIN (WOLFCAMP) oil well	
CASING RECORD :	
TUBING RECORD:	
PRODUCING/INJECTION/DISPOSAL INTERVAL :	
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :	
POTENTIAL TEST DATA:	

OPERATOR'S CERTIFICATION	
Printed Name: Robin Swanner	Title: Consulting Agent
Telephone No.: (903) 930-1532	Date Certified: 01/18/2018

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

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Form W-15
Cementing Report
Rev. 4/1/83
483-045

TR. #115318

1. Operator's Name (As shown on Form P-5, Organization Report) DEVON ENERGY PRODUCTION Co.	2. RRC Operator No. 216378	3. RRC District No. 7C	4. County of Well Site REAGAN
5. Field Name (Wildcat or exactly as shown on RRC Records) L.P. LIN (Wolfcamp)	6. API No. 42-383-38226	7. Drilling Permit No. 756398	
8. Lease Name UNIVERSITY 10	9. Rule 37 Case No.	10. Oil Lease/Gas ID No. 17844	11. Well No. #2704H

CASING CEMENTING DATA:		SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date		9/18/13					
13. • Drilled Hole Size		17 1/2"					
• Est. % wash or hole enlargement							
14. Size of casing (in. O.D.)		13 3/8"					
15. Top of liner (ft.)							
16. Setting depth (ft.)		859'					
17. Number of centralizers used		10					
18. Hrs. Waiting on cement before drill-out		8+					
1 st Slurry	19. API cement used: No. of sacks ▶	870					
	Class ▶	"C"					
	Additives ▶	#22					
2 nd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
3 rd Slurry	No. of sacks ▶						
	Class ▶						
	Additives ▶						
1st	20. Slurry pumped: Volume (cu. ft.) ▶	1522.5					
	Height (ft.) ▶	2192					
2nd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
3rd	Volume (cu. ft.) ▶						
	Height (ft.) ▶						
Total	Volume (cu. ft.) ▶	1522.5					
	Height (ft.) ▶	2192					
21. Was cement circulated to ground surface (or bottom of cellar) outside casing ?		YES					

Remarks: SLURRY CLASS C + 4%GEL + 2% CaCl₂ + .125 PPS CELLOFLAKE + .01% STATIC FREE
CIRCULATED 92 BBLs OF LEAD CEMENT OR 295 SACKS

Tr. #115318

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date								
24. Size of hole or pipe plugged (in.)								
25. Depth to bottom of tubing or drill pipe (ft.)								
26. Sacks of cement used (each plug)								
27. Slurry volume pumped (cu. ft.)								
28. Calculated top of plug (ft.)								
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lb/gal)								
31. Type cement								

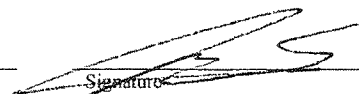
CEMENTER'S CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this Certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my Supervision, and that the 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.

JASON EVANS, Service Supervisor

Name and title of cementer's representative

Baker Hughes Incorporated

Cementing Company


Signature

P.O. Box 1135

Address Eldorado Texas 76936 (325) 853-2553 9/18/2013
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.

Annette Raines

Typed or printed name of operator's representative

Se. Reg. Specialist

Title

Annette Raines
Signature

333 W. Sheridan Ave. OKC OK 73162 405-228-8217 9/15/14
Address City, State, Zip Code Tel.: Area Code Number Date: mo. day yr.

Instructions to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide Rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion), and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

- 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. Form W-15 should be filed with the following.
- An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rates;
 - Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
 - Form W-3, Plugging Record, unless the 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. Where to file. The appropriate Commission District Office for the county in which the well is located.
- C. Surface Casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Committee.
- D. Centralizers. Surface Casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In Non-deviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.
- E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.
- F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (3) and (4).
- G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three foot below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. 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.

**RAILROAD COMMISSION OF TEXAS**

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

Form W-15

Rev. 08/2014

CEMENTING REPORT

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

OPERATOR INFORMATION

Operator Name: FDL Energy Operator P-5 No.: 263924
Cementor Name: Crest Pumping Technologies Cementor P-5 No.: 189898

WELL INFORMATION

District No.: 7C County: Reagan
Well No.: 2704H API No.: 42-383-38226 Drilling Permit No.: 823481
Lease Name: University 10 Lease No.: 17844
Field Name: Lin (Wolfcamp) Field No.: 53613750

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:

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.): 12 1/4 Depth of drilled hole (ft.): 6,617 Est. % wash-out or hole enlargement: 20
Size of casing in O.D. (in.): 9 5/8 Casing weight (lbs/ft) and grade: 40# L-80 No. of centralizers used: 42
Tapered string drilled hole size (in.): Tapered string depth of drilled hole (ft.)
Upper: Lower: Upper: Lower:
Tapered string size of casing in O.D. (in.): Tapered string casing weight (lbs/ft) and grade Tapered string no. of centralizers used
Upper: Lower: Upper: Lower: Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☒ NO Setting depth shoe (ft.): 6,617
Hrs. waiting on cement before drill-out: +/- 12 Calculated top of cement (ft.): 4015 Cementing date: 11/12/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	414	Class H 50/50	Remarks 1	989	3,159
2	316	Class C 50/50	Remarks 2	376	1,201
3					
Total	730			1,365	4,360

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☒ Intermediate ☐ Production ☐ Tapered production ☒ Multi-stage cement/DV tool ☐ Multiple parallel strings
Drilled hole size (in.): 12 1/4 Depth of drilled hole (ft.): 6,617 Est. % wash-out or hole enlargement: 20
Size of casing in O.D. (in.): 9 5/8 Casing weight (lbs/ft) and grade: 40# L-80 No. of centralizers used: 38
Tapered string drilled hole size (in.): Tapered string depth of drilled hole (ft.)
Upper: Lower: Upper: Lower:
Tapered string size of casing in O.D. (in.): Tapered string casing weight (lbs/ft) and grade Tapered string no. of centralizers used
Upper: Lower: Upper: Lower: Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☒ NO Setting depth tool (ft.): 4015
Hrs. waiting on cement before drill-out: +/- 12 Calculated top of cement (ft.): 2240 Cementing date: 11/12/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1,103	Class C 50/50	Remarks 3	2,647	8,453
2	301	Class C 50/50	Remarks 4	358	1,144
3					
Total	1,404			3,005	9,596

**RAILROAD COMMISSION OF TEXAS**

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

Form W-15

Rev. 08/2014

CEMENTING REPORT

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

OPERATOR INFORMATION

Operator Name: FDL Energy Operator P-S No.: 263924
Cementor Name: Crest Pumping Technologies Cementor P-S No.: 15885

WELL INFORMATION

District No.: 7C County: Reagan
Well No.: 2704H API No.: 42-383-38226 Drilling Permit No.: 823481
Lease Name: University 10 Lease No.: 17844
Field Name: Lin (Wolfcamp) Field No.: 53613750

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 (lb/ft) and grade: No. of centralizers used:
Was cement circulated to ground surface (or bottom of collar) 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:

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

SLURRY

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

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement/DV tool ☐ Multiple parallel strings
Drilled hole size (in.): Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): Casing weight (lb/ft) and grade: No. of centralizers used:
Tapered string drilled hole size (in.) Tapered string depth of drilled hole (ft.)
Upper: Lower: Upper: Lower:
Tapered string size of casing in O.D. (in.) Tapered string casing weight (lb/ft) and grade Tapered string no. of centralizers used
Upper: Lower: Upper: Lower:
Was cement circulated to ground surface (or bottom of collar) outside casing? ☐ YES ☐ NO Setting depth tool (ft.):
Hrs. waiting on cement before drill-out: Calculated top of cement (ft.): Cementing date:

SLURRY

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

CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date	12/1/2016	12/1/2016					
Size of hole or pipe (in.)	8 3/4	8 3/4					
Depth to bottom of tubing or drill pipe (ft.)	9694	7360					
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used	215	320					
Slurry volume pumped (cu. ft.)	253	304					
Calculated top of plug (ft.)	9056	8654					
Measured top of plug, if tagged (ft.)							
Slurry weight (lb/gal)	15.0	17.5					
Class/type of cement	H	H					
Perforate and squeeze (YES/NO)							

REMARKS

- 1 0.3% CD-3; 0.1% CPT-23
- 2 8% Salt; 0.3% CD-3; 0.2% CPT-23
- 3
- 4

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.

Roberto Garcia / Cementer

Crest Pumping Technologies

Name and title of cementer's representative

Cementing Company

P.O. Box 117 Jacksonville, TX 76456

940-567-3392

12/1/2016

Address

City

State, Zip Code

Tel: Area Code

Number

Date: mth. 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 the 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.

Robin Swanner

Consultant

Typed or printed name of operator's representative

Title

P.O. Box 472 Judson, TX 75660

903 930 1532

Address

City

State, Zip Code

Tel: Area Code

Number

Date:

Instructions for Form W-16, Cementing Report

NOTICE: The Form W-16 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-16 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-16 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-16, 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-16 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/readac9ext.TacPage?st=R&app=64p_dir=8p_hoc=8p_hoc=8p_ploc=8pg=1&plac=44=1&st=1&ch=3&n=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 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 II, Casing Cementing Data section by selecting the type of casing and Multi-stage cement/OT tool.
- F. Multiple parallel strings: An operator should file the Form W-16 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-16's to show all data for multiple parallel strings.
- G. Slurry date: If cement job exceeds three sluries, continue the list of sluries 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
Operator: Fill in other

OPERATOR INFORMATION					
Operator Name: FDL Operating			Operator P-5 No.: 263924		
Cementer Name: Crest Pumping Technologies			Cementer P-5 No.: 189898		
WELL INFORMATION					
District No.: 7C			County: Reagan		
Well No.: 2704H			API No.: 42-383-38226		Drilling Permit No.: 823481
Lease Name: University 10			Lease No.: 17844		
Field Name: Lin (Wolfcamp)			Field No.: 53613750		
I. CASING CEMENTING DATA					
Type of Casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Production					
Drilled hole size (in.): 8 3/4		Depth of drilled hole (ft.): 15991		Est. % wash-out or hole enlargement: 20	
Size of casing in O.D. (in.): 5 1/2		Casing weight (lbs/ft) and grade: 17# P110		No. of centralizers used: 75	
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.): 15989		Top of liner (ft.):
			Setting depth liner (ft.):		
Hrs. waiting on cement before drill-out: +/- 72		Calculated top of cement (ft.): 2200		Cementing date: 05/20/17	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	810	Class H	See Remarks	1,636	6,477
2	1750	Class H	See Remarks	2,818	11,156
Total	2,560			4,454	17,633
II. CASING CEMENTING DATA					
Type of Casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered Production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO				Setting depth shoe (ft.):	
If no for surface casing, explain in Remarks.					
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.)
Total					
III. CASING CEMENTING DATA					
Type of Casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered Production <input type="checkbox"/> Multi-stage cement/DV Tool <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO				Setting depth shoe (ft.):	
If no for surface casing, explain in Remarks.					
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.)
Total					

3 lb/row Sodium Chloride, 1 % Bentonite Gel, 0.7 % CPT-19, 0.3 % CD-3, 0.25 % CPT-503P, 0.25 % CPT-20A.

Timothy Chandler

Signature _____

05/19/2017

Date: mo. day yr.

and facts presented on both sides of
a, Raji Swarnu

Signature _____

10/3/17

Date: mo. day yr.

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.

Tracking No.: 180257

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: FDL OPERATING, LLC	District No. 7C	Completion Date: 08/07/2017
Field Name LIN (WOLFCAMP)	Drilling Permit No. 823481	
Lease Name UNIVERSITY 10	Lease/ID No. 17844	Well No. 2704H
County REAGAN	API No. 42- 383-38226	

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). _____

Robin Swanner

Signature

Name (print)

Consulting Agent

Title

(903) 930-1532

Phone

10/02/2017

Date

-FOR RAILROAD COMMISSION USE ONLY-

Company: Fleur De Lis Energy, LLC

Well: University 10 2704H

Field: LIN (Wolfcamp)

County: Reagan State: Texas

County: Reagan	Field: LIN (Wolfcamp)	Location: 2235' FSL & 2606' FWL	Well: University 10 2704H	Company: Fleur De Lis Energy, LLC
Platform Express				
Compensated Neutron Log				
Three Detector Litho-Density				
Location:		2235' FSL & 2606' FWL Section 27, Block 10, Abstract N/A University Lands Survey	Elev.: K.B. 2735.00 ft G.L. 2721.00 ft D.F. 2734.00 ft	
Permanent Datum:		Ground Level	Elev.: 2721.00 f	
Log Measured From:		Kelly Bushing	14.00 ft	above Perm.Datum
Drilling Measured From:		Kelly Bushing		
API Serial No. 42-383-38226		Section: 27	Block: 10	Abstract: N/A

Logging Date		28-Nov-2016	
Run Number		1A	
Depth Driller		10300.00 ft	
Schlumberger Depth		10312.00 ft	
Bottom Log Interval		10312.00 ft	
Top Log Interval		200.00 ft	
Casing Driller Size @ Depth		9.625 in @ 6614.00 ft	
Casing Schlumberger		6614 ft	
Bit Size		8.75 in	
Type Fluid In Hole		Diesel	
MUD	Density	Viscosity	8.6 lbm/gal
	Fluid Loss	PH	11 cm3
	Source of Sample		
RM @ Meas Temp		N/A	
RMF @ Meas Temp		N/A	
RMC @ Meas Temp		N/A	
Source RMF	RMC	N/A	N/A
RM @ BHT	RMF @ BHT	N/A	N/A
Max Recorded Temperatures		174 degF	
Circulation Stopped	Time	27-Nov-2016	22:30:00
Logger on Bottom	Time	28-Nov-2016	12:00:00
Unit Number	Location:	2224	Midland
Recorded By		Evan Loen	
Witnessed By		Tyler Chesworth	

Disclaimer

THE USE OF AND RELIANCE UPON THIS RECORDED DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED DATA.

Contents

1. Header
2. Disclaimer
3. Contents
4. Remarks and Equipment Summary
5. Depth Summary
6. Composite 1 Main Pass 2" = 100'
 - 6.1 Integration Summary
 - 6.2 Software Version
 - 6.3 Composite Summary
 - 6.4 Log (Porosity 2 inch General)
7. Composite 1 Main Pass 5" = 100'
 - 7.1 Integration Summary
 - 7.2 Composite Summary
 - 7.3 Log (Porosity .5 Inch)
 - 7.4 Parameter Listing
8. Composite 1 Repeat Pass 5" = 100'
 - 8.1 Composite Summary

1. Field name exactly as shown on proration schedule LIN (WOLFCAMP)		2. Lease name as shown on proration schedule UNIVERSITY 10			
3. Current operator name exactly as shown on P-5 Organization Report FDL OPERATING, LLC		4. Operator P-5 no. 263924	5. Oil Lse/Gas ID no 17844	6. County REAGAN	
8. Operator address including city, state, and zip code ATTN ROBIN SWANNER PO BOX 472 JUDSON, TX 75660		9. Well no(s) <i>(see instruction E)</i> 2704H			
		10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other <i>(see instruction A)</i>		11. Effective Date 08/07/2017	
12. Purpose of Filing. (Complete section a or b below.) <i>(See instructions B and G)</i>					
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 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"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)					
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). <i>(See instruction G).</i>					
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left <i>(Attach an additional sheet in same format if more space is needed)</i>	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X		DCP OPERATING COMPANY, LP(195959)		100.0	
	X	COKINOS ENERGY, L.L.C.(167016)	0001	100.0	
14. Authorized OIL or CONDENSATE Gatherer(s). <i>(See instruction G).</i>					
Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First <i>(Attach an additional sheet in same format if more space is needed)</i>				Percent of Take	
PLAINS PIPELINE L.P.(667884)				50.0	
SHELL TRADING (US) COMPANY(774715)				50.0	
RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>01/24/2018</u>					
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 _____ Name (print) _____ Title _____			Signature _____ <input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator <i>(see instruction G)</i> 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.					
Name (print) _____ <u>Consulting Agent</u> Title _____ <u>robinswanner@sbcglobal.net</u> E-mail Address (optional) _____			Signature _____ <input type="checkbox"/> Authorized Employee of current operator <input checked="" type="checkbox"/> Authorized agent of current operator <i>(see instruction G)</i> <u>10/02/2017</u> <u>(903) 930-1532</u> Date _____ 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: FDL Operating, LLC Operator P-5 No.: 263824
Operator Address: 909 Lake Carolyn Parkway, Suite 500 Irving, TX 75039

SECTION II. WELL INFORMATION

District No.: 7C	County: Reagan	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.: 2704H	API No.: 38338226	
Total Lease Acres: 7906.26	Drilling Permit No.: 623481	
Lease Name: University 10	Lease No.: 17844	
Field Name: Lin (Wolfcamp)	Field No.: 53813750	

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)
17844	2801HR	H	University 10	38337819	280	N	
17844	3801H	H	University 10	38337818	320	N	
17844	2802H	H	University 10	38337911	320	N	
17844	3802H	H	University 10	38338152	320	N	
17844	3803H	H	University 10	38338153	320	N	
17844	3804H	H	University 10	38338154	320	N	
17844	3805H	H	University 10	38338155	320	N	
17844	2803H	H	University 10	38338215	320	N	
17844	2804H	H	University 10	38338216	320	N	
17844	2805H	H	University 10	38338217	320	N	
17844	2806H	H	University 10	38338218	320	N	
17844	2807H	H	University 10	38338219	320	N	
17844	2808H	H	University 10	38338220	320	N	
17844	2701H	V	University 10	38338224	40	N	
17844	2703H	H	University 10	38338225	320	N	
17844	2704H	H	University 10	38338226	320	N	
17844	2702H	H	University 10	38338227	280	N	

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

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

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

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

Robin Swanner
Signature

Robin Swanner - Consultant
Name and title (type or print)

robinswanner@sbcglobal.net

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

P.O. Box 472
Address

Judson TX 75660
City, State, Zip Code

903
Tel: Area Code

930-1532
Number

10/02/2017
Date: mo. day yr.

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Date February 12, 2013

GAU File No.: SC- 11286

***** EXPEDITED APPLICATION *****

API Number 38338225

Attention: ANNETTE RAINES

RRC Lease No. 000000

SC_216378_38338225_000000_11286.pdf

DEVON ENERGY PRODUCTION CO LP
333 W SHERIDAN AVE
OKLAHOMA CITY OK 73102

--Measured--

2630 ft FEL

2235 ft FSL

MRL:SECTION

Digital Map Location:

X-coord/Long 101.52614

Y-coord/Lat 31.23525

Datum 83 Zone

P-5# 216378

County REAGAN

Lease & Well No. UNIVERSITY 10 #2703H&PAD

Purpose ND

Location SUR-UL, BLK-10, SEC-27, -- [TD=6800], [RRC 7C],

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

The interval from the land surface to a depth of 750 feet must be protected.

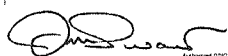
This recommendation is applicable to all wells drilled on this PAD.

University 10 #2704H

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

If you have any questions, please contact us at 512-463-2741, gau@rrc.state.tx.us, or by mail.

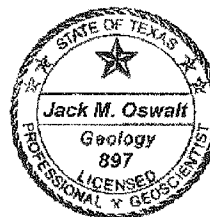
Sincerely,



Digitally signed by Jack Oswalt
DN: c=US, st=TEXAS, l=Austin,
o=Railroad Commission of Texas,
cn=Jack Oswalt,
email=jack.oswalt@rrc.state.tx.us
Date: 2013.02.12 13:16:04 -06'00'

Jack M. Oswalt, P.G.

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 2/12/2013
Note: Alteration of this electronic document will invalidate the digital signature.

Block 10, University Land Survey Reagan County, Texas

GRID N: (Y) 580888.900
GRID E: (X) 1624862.764

GRID N: 580782.102
GRID E: 1630137.235



N 01°09'14" E 5327.49'

S 01°09'13" W 5327.94'

N 01°11'23" E 5330.42'

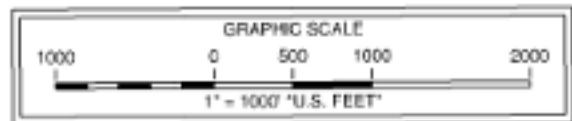
S 01°10'49" W 5329.79'

GRID N: (Y) 575562.573
GRID E: (X) 1624755.489

GRID N: 575455.244
GRID E: 1630029.859

GRID N: 570233.302
GRID E: 1624644.819

GRID N: 570126.586
GRID E: 1629920.170



Surface Hole Location (SHL)
GRID N: (Y) 572413.962
GRID E: (X) 1627297.099
NAD83 Lat/Long
Lat: 31°14'06.905" N
Long: 101°31'34.572" W

Penetration Point (PP)/
First Take Point (FTP)
GRID N: (Y) 572780.822
GRID E: (X) 1627533.203
NAD83 Lat/Long
Lat: 31°14'10.561" N
Long: 101°31'31.898" W

Last Take Point (LTP)
GRID N: (Y) 580637.860
GRID E: (X) 1627817.283
NAD83 Lat/Long
Lat: 31°15'28.354" N
Long: 101°31'29.505" W

Bottom Hole Location (BHL)
GRID N: (Y) 580684.848
GRID E: (X) 1627821.500
NAD83 Lat/Long
Lat: 31°15'28.817" N
Long: 101°31'29.552" W

Driving Directions To Location:
From the intersection of Highway 137 and U.S.
Highway 67 in Big Lake, Texas:
Drive West on U.S. Hwy 67 5.5 miles to trail road at
Lat: 31°12'44.95", Long: 101°33'52.96".
Turn right (North) on to trail road, drive 2.9 miles to
lease road at Lat: 31°14'04.77", Long:
101°31'44.13".
Turn right (East) on to lease road, drive 0.2 miles to
Lat: 31°14'04.78", Long: 101°31'33.91".
Location is left (North) 220 feet.

Note: Well is located 4.9 miles Northwest of the city of Big Lake, Texas.
Note: Survey Reconstruction filed in the Office of Pennell & Marlowe Land Surveyors, Inc.
Note: Well bore location determined from survey report provided by client.
Note: Location of surface hole is as-staked and was not re-surveyed for this plat.
Note: Coordinates shown herein are on The Texas Coordinate System of 1927, Central Zone.
Note: Latitudes and Longitudes shown are on NAD83 Datum.
Note: Bearings and distances are based on The Texas Coordinate System of 1927, Central Zone.
Note: Example: (S-99999) indicates General Land Office file number.

WELL BORE LENGTHS	
SHL - PP/FTP	574.43'
PP/FTP - LTP	7866.27'
LTP - BHL	46.98'
SHL - BHL	8487.68'

USGS Quadrangle Sheet: Gardener Draw, Tex.
USGS Quadrangle Sheet: Best, Tex.
Railroad Commission Permit Plat

FDL OPERATING, LLC
University 10 #2704H (As-Drilled)
2234' FROM SOUTH LINE
2606' FROM WEST LINE
Sections 22 & 27, Block 10
University Lands Survey
Reagan County, Texas



Stephen P. Marlowe
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5715

August 09, 2017
170809K1-KRM

Scale: 1" = 1000'

Block 10, University Land Survey Reagan County, Texas

GRID N: (Y) 580888.900
GRID E: (X) 1624862.764

GRID N: 580782.102
GRID E: 1630137.235



N 01°09'14" E 5327.49'

S 01°09'13" W 5327.94'

N 01°11'23" E 5330.42'

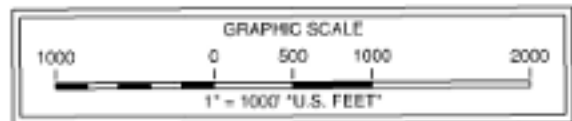
S 01°10'49" W 5329.79'

GRID N: (Y) 575562.573
GRID E: (X) 1624755.489

GRID N: 575455.244
GRID E: 1630029.859

GRID N: 570233.302
GRID E: 1624644.819

GRID N: 570126.586
GRID E: 1629920.170



Surface Hole Location (SHL)
GRID N: (Y) 572413.962
GRID E: (X) 1627297.099
NAD83 Lat/Long
Lat: 31°14'06.905" N
Long: 101°31'34.572" W

Penetration Point (PP)/
First Take Point (FTP)
GRID N: (Y) 572780.822
GRID E: (X) 1627533.203
NAD83 Lat/Long
Lat: 31°14'10.561" N
Long: 101°31'31.898" W

Last Take Point (LTP)
GRID N: (Y) 580637.860
GRID E: (X) 1627817.283
NAD83 Lat/Long
Lat: 31°15'28.354" N
Long: 101°31'29.505" W

Bottom Hole Location (BHL)
GRID N: (Y) 580684.848
GRID E: (X) 1627821.500
NAD83 Lat/Long
Lat: 31°15'28.817" N
Long: 101°31'29.552" W

Driving Directions To Location:
From the intersection of Highway 137 and U.S.
Highway 67 in Big Lake, Texas:
Drive West on U.S. Hwy 67 5.5 miles to trail road at
Lat: 31°12'44.95", Long: 101°33'52.96".
Turn right (North) on to trail road, drive 2.9 miles to
lease road at Lat: 31°14'04.77", Long:
101°31'44.13".
Turn right (East) on to lease road, drive 0.2 miles to
Lat: 31°14'04.78", Long: 101°31'33.91".
Location is left (North) 220 feet.

Note: Well is located 4.9 miles Northwest of the city of Big Lake, Texas.
Note: Survey Reconstruction filed in the Office of Pennell & Marlowe Land Surveyors, Inc.
Note: Well bore location determined from survey report provided by client.
Note: Location of surface hole is as-staked and was not re-surveyed for this plat.
Note: Coordinates shown herein are on The Texas Coordinate System of 1927, Central Zone.
Note: Latitudes and Longitudes shown are on NAD83 Datum.
Note: Bearings and distances are based on The Texas Coordinate System of 1927, Central Zone.
Note: Example: (S-99999) indicates General Land Office file number.

WELL BORE LENGTHS	
SHL - PP/FTP	574.43'
PP/FTP - LTP	7866.27'
LTP - BHL	46.98'
SHL - BHL	8487.68'

USGS Quadrangle Sheet: Gardener Draw, Tex.
USGS Quadrangle Sheet: Best, Tex.
Railroad Commission Permit Plat



Stephen P. Marlowe
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5715

August 09, 2017
170809K1-KRM

FDL OPERATING, LLC
University 10 #2704H (As-Drilled)
2234' FROM SOUTH LINE
2606' FROM WEST LINE
Sections 22 & 27, Block 10
University Lands Survey
Reagan County, Texas

Scale: 1" = 1000'