



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 07/18/2018
Tracking No.: 194160

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

OPERATOR INFORMATION

Operator Name: FELIX WATER, LLC Operator No.: 265326
Operator Address: % FELIX ENERGY 1530 16TH ST STE 500 DENVER, CO 80202-0000

WELL INFORMATION

API No.: 42-475-37414 County: WARD
Well No.: 1D RRC District No.: 08
Lease Name: UNIVERSITY 45-20 Field Name: WAR-WINK (CHERRY CANYON)
RRC Lease No.: 50099 Field No.: 95122200
Location: Section: 45, Block: 20, Survey: UL, Abstract: U134
Latitude: Longitude:
This well is located 11 miles in a SW direction from WINK, which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Active UIC Completion or Recompletion Date: 06/09/2018
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 05/11/2018 834825
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 05/16/2018 Date of first production after rig released: 06/09/2018
Date plug back, deepening, recompletion, or drilling operation commenced: 05/16/2018 Date plug back, deepening, recompletion, or drilling operation ended: 06/09/2018
Number of producing wells on this lease in this field (reservoir) including this well: 1 Distance to nearest well in lease & reservoir (ft.): 0.0
Total number of acres in lease: 640.00 Elevation (ft.): 2770 GL
Total depth TVD (ft.): 7450 Total depth MD (ft.):
Plug back depth TVD (ft.): 7391 Plug back depth MD (ft.):
Was directional survey made other than inclination (Form W-12)? Yes Rotation time within surface casing (hours): 88.5
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Combo of Induction/Neutron/Density
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 1176.0 Feet from the South Line and
1069.0 Feet from the East Line of the
UNIVERSITY 45-20 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.):** 300.0 **Date:** 12/13/2017
SWR 13 Exception **Depth (ft.):**

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: **Production method:**
Number of hours tested: 24 **Choke size:**
Was swab used during this test? No **Oil produced prior to test:**

PRODUCTION DURING TEST PERIOD:

Oil (BBLs): **Gas (MCF):**
Gas - Oil Ratio: 0 **Flowing Tubing Pressure:**
Water (BBLs):

CALCULATED 24-HOUR RATE

Oil (BBLs): **Gas (MCF):**
Oil Gravity - API - 60.: **Casing Pressure:**
Water (BBLs):

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage 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	421			TRANS-TEX-LITE	540	864.0	SURF ACE	Circulated to Surface
2	Tapered Production	9 5/8	12 1/4	7450		7439	TRANS-TEX-LITE, H	1170	2215.0	5169	Calculation
3	Tapered Production	9 5/8	12 1/4	7450	5169		TRANS-TEX MULTI C,	2060	4603.0	SURF ACE	Circulated to Surface

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
N/A									

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	5 1/2	5101	/

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L 5166	7328.0

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

Was hydraulic fracturing treatment performed? No

Is well equipped with a downhole actuation sleeve? No

If yes, actuation pressure (PSIG):

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

Actual maximum pressure (PSIG) during hydraulic fracturing:

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? No

<u>Row</u>	<u>Type of Operation</u>	<u>Amount and Kind of Material Used</u>	<u>Depth Interval (ft.)</u>	
1	Acid	30,000 GALS 15% HCL	5166	7328

FORMATION RECORD

<u>Formations</u>	<u>Encountered</u>	<u>Depth TVD (ft.)</u>	<u>Depth MD (ft.)</u>	<u>Is formation isolated?</u>	<u>Remarks</u>
RUSTLER	Yes	807.0		Yes	
SALADO	Yes	1120.0		Yes	
CASTILE	Yes	4774.0		Yes	
YATES	No			No	FORMATION NOT PRESENT
SEVEN RIVERS	No			No	FORMATION NOT PRESENT
QUEEN	No			No	FORMATION NOT PRESENT
GLORIETA	No			No	FORMATION NOT PRESENT
SAN ANDRES - HIGH FLOWS, H2S, CORROSIVE HOLT	No			No	FORMATION NOT PRESENT
CLEARFORK	No			No	FORMATION NOT PRESENT
DELAWARE	Yes	5154.0		Yes	
TUBB	No			No	FORMATION NOT PRESENT
WICHITA ALBANY	No			No	FORMATION NOT PRESENT
CHERRY CANYON	Yes	6103.0		Yes	
BRUSHY CANYON	Yes	7331.0		Yes	
WADDELL	No			No	NOT DRILLED DEEP
BONE SPRINGS	No			No	NOT DRILLED DEEP
WOLFCAMP	No			No	NOT DRILLED DEEP
MONTOYA	No			No	NOT DRILLED DEEP
PENNSYLVANIAN	No			No	NOT DRILLED DEEP
ATOKA	No			No	NOT DRILLED DEEP
FUSSELMAN	No			No	NOT DRILLED DEEP
DEVONIAN	No			No	NOT DRILLED DEEP
ELLENBURGER	No			No	NOT DRILLED DEEP

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 2018-06-15 16:47:30.278] Notification ID: 134232

Caller Information

First Name:

MICHAEL

Last Name:

HOWARD

Company:

FELIX WATER, LLC.

Phone:

(580) 571-7950

Type: *

Industry Activity

Category: *

Testing

Date/Time:

06/06/2018 13:06

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: Bill Spencer

Title: Consultant

Telephone No.: (512) 918-1062

Date Certified: 06/14/2018



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 WATER Water LLC		Operator P-5 No.:	265326		
Cementer Name:	TRANS TEX CEMENTING SERVICES, LLC		Cementer P-5 No.:	864412		
WELL INFORMATION						
District No.:	08		County:	WARD		
Well No.:	1D		API No.:	42-475-37414	Drilling Permit No.:	834825
Lease Name:	UNIVERSITY 45-20		Lease No.:			
Field Name:	War-Wink (Cherry Canyon)		Field No.:	95122200		
I. CASING CEMENTING DATA						
Type of Casing:	<input type="checkbox"/> Conductor	<input checked="" type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production	
Drilled hole size (in.):	17.5	Depth of drilled hole (ft.):	436	Est. % wash-out or hole enlargement: 20%		
Size of casing in O.D. (in.):	13.375	Casing weight (lbs/ft) and grade:	54.5 J-55	No. of centralizers used: 6		
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.):		
			421			
Setting depth liner (ft.):						
Hrs. waiting on cement before drill-out:	24	Calculated top of cement (ft.):	Surface	Cementing date: 5/16/2018		
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1	540	TRANS-TEX-LITE	SEE REMARKS	864	1244	
2						
3						
Total	540			864	1244	
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 slurry	<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:		Upper:				
Lower:		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:		Upper:		Upper:		
Lower:		Lower:		Lower:		
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES <input type="checkbox"/> NO <input type="checkbox"/>			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/DVT	<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:		Upper:				
Lower:		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:		Upper:		Upper:		
Lower:		Lower:		Lower:		
Was cement circulated to ground surface (or bottom of cellar) outside casing? YES <input type="checkbox"/> NO <input type="checkbox"/>			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						



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Cementer Name:	TRANS TEX CEMENTING SERVICES, LLC		Cementer P-5 No.:	864412		
WELL INFORMATION						
District No.:	08		County:	Ward		
Well No.:	1D		API No.:	42-475-37414	Drilling Permit No.:	834825
Lease Name:	University 45-20		Lease No.:			
Field Name:	War-Wink (Cherry Canyon)		Field No.:	95122200		
I. CASING CEMENTING DATA						
Type of Casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production	
Drilled hole size (in.):	12.25	Depth of drilled hole (ft.):	7450	Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):	9.625	Casing weight (lbs/ft) and grade:	40#	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.):		
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:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input checked="" type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement slurry	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):	12 1/4"	Depth of drilled hole (ft.):	7450'	Est. % wash-out or hole enlargement: 20%		
Size of casing in O.D. (in.):	9 5/8"	Casing weight (lbs/ft) and grade:	40# UCL-80	No. of centralizers used: 58		
Tapered string drilled hole size (in.)	Upper: Lower:		Tapered string depth of drilled hole (ft.)			
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?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Setting depth shoe (ft.):	7439		
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):		5169'			
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1	760	TRANS-TEX MULTI "H"	SEE REMARKS	1732	5530	
2	410	CLASS "H"	SEE REMARKS	483	1542	
3						
Total	1170			2215	7072	
III. CASING CEMENTING DATA						
Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input checked="" type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement/DV	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):	12 1/4"	Depth of drilled hole (ft.):	7450'	Est. % wash-out or hole enlargement: 20%		
Size of casing in O.D. (in.):	9 5/8"	Casing weight (lbs/ft) and grade:	40# UCL-80	No. of centralizers used: 58		
Tapered string drilled hole size (in.)	Upper: Lower:		Tapered string depth of drilled hole (ft.)			
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?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Setting depth shoe (ft.):	5169'		
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):		Surface			
SLURRY						
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)	
1	1710	TRANS-TEX MULTI "C"	SEE REMARKS	4138	13212	
2	350	CLASS "C"	SEE REMARKS	465	1484	
3						
Total	2060			4603	14696	

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

7%GEL + 3%SALT, + .2% cr-1, + .3% CFL-1, + .2% CR-1, + .3% CFL-1, + .1% CFR-1, + 2# GILS, + .25# CF
 3%CFR-1, + .4CFL-1, + .1%CR-1 /// CIRCULATE CEMENT TO SURFACE 18 BBLs OR 44 SKS ON 1ST STG
 10%GEL, + 3%SALT, + .25# CELOFLAKE + .3%CFL-1, + .2%CR-1
 .2%CR-1, + 3%CFR 1, + .3%CFL-1, .25# CELLOFLAKE CIRCULATE CEMEN TO SURFACE ON 2ND STG 281 BBLs OR 651 SKS

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Jose Reynoso cementer

Name and title of cementer's representative

TRANS TEX CEMENTING

Cementing Company

Jose L. Reynoso
Signature

5019 BASIN ST

Address

MIDLAND, TX 79703

City, State, Zip Code

432-694-4900

Tel: Area Code Number

5/27/2018

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.

Matt Peterson

Typed or printed name of operator's representative

Operations Manager

Title

Matt Peterson
Signature

1530 16th St., Suite 500 Denver, CO 80202 (720) 974-2085

Address

City, State, Zip Code

Tel: Area Code Number

5/27/18
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 787112967).

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_doc=&p_loc=&p_plac=&pg=1&p_tac=&ti=16&pt=1&ch=3&rb=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_doc=&p_loc=&p_plac=&pg=1&p_tac=&ti=16&pt=1&ch=3&rb=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.

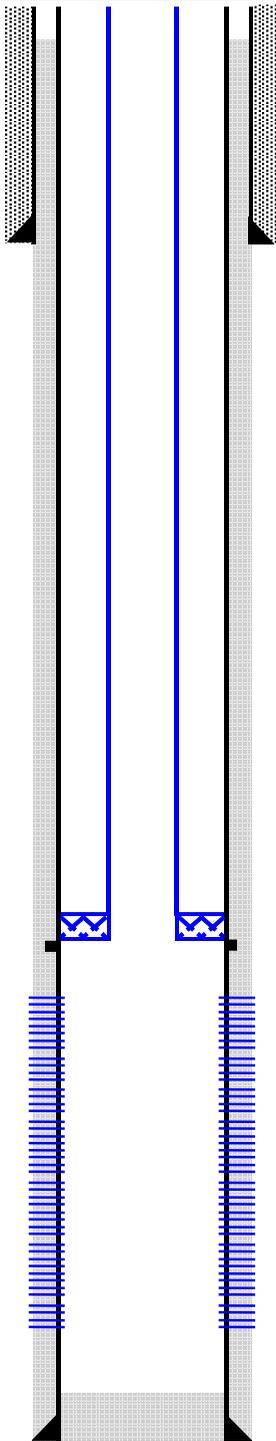
**CERTIFICATE OF COMPLIANCE
 AND TRANSPORTATION AUTHORITY**

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.: 194160

1. Field name exactly as shown on proration schedule WAR-WINK (CHERRY CANYON)		2. Lease name as shown on proration schedule UNIVERSITY 45-20					
3. Current operator name exactly as shown on P-5 Organization Report FELIX WATER, LLC		4. Operator P-5 no. 265326	5. Oil Lse/Gas ID no. 50099	6. County WARD	7. RRC district 08		
8. Operator address including city, state, and zip code % FELIX ENERGY 1530 16TH ST STE 500 DENVER, CO 80202		9. Well no(s) (see instruction E) 1D			11. Effective Date 06/09/2018		
		10. Classification <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input checked="" 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 type="checkbox"/> oil lease <input type="checkbox"/> gas well <input checked="" 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
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
N/A							
RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>07/18/2018</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				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	
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)				Signature			
<u>Consultant</u>				<input type="checkbox"/> Authorized Employee of current operator		<input checked="" type="checkbox"/> Authorized agent of current operator (see instruction G)	
Title				Date		Phone with area code	
<u>bill@spencerconsulting.org</u>				<u>06/14/2018</u>		<u>(512) 918-1062</u>	
E-mail Address (optional)				Date		Phone with area code	

SWD Wellbore Schematic



TOC (13.375) @ Surf-Circ
 TOC (9.625) @ 59' by CBL

13.375 Surf Csg @ 421'

5 1/2" 15.5# J-55 IPC Coated Tbg
 Injection Packer @ 5101.29'
 DV Tool @ 5169'

Cherry Canyon Top Perf @ 5166'

Cherry Canyon Bottom Perf @ 7328'

PBTD: @ 7391'
 9.625 Production Csg @ 7439'

PIPE RECORD				HOLE DATA				CEMENT DATA									
	OD	GRADE	THD	WEIGHT (ppf)	TOP	BTM	# JTS	BIT SIZE	DEPTH	SX	YIELD (cu ft/sk)	Wt. (ppg)	Lead Class	TOC			
Surf Csg	13.375"	J-55	STC	54.5#	0'	421'		17.500"	436'	543	1.60	13.8	Lead Class C	Surf-Circ			
Production Csg	9.625"	HCL-80	BTC	40#	0'	7439'		12.250"	7450'	1710	2.42	11.8	Lead Class C	59'			
					DV Tool	5169'				350	1.33	14.8	Tail Class C				
										760	2.28	11.9	Lead Class H	DV			
										410	1.18	15.6	Tail Class H				
Tubing	5 1/2"	J-55	EUE	15.50#	0'	5101'											
Formation	Top Perf	Btm Perf	Net Feet	JSPF	Holes	Top Perf	Btm Perf	Net Feet	JSPF	Holes	Top Perf	Btm Perf	Net Feet	JSPF	Holes		
Bell-Cherry Canyon	5166	5176	10	6	60	6453	6463	10	6	60				6			
Bell-Cherry Canyon	5182	5212	30	6	180	6470	6480	10	6	60				6			
Bell-Cherry Canyon	5220	5250	30	6	180	6488	6498	10	6	60				6			
Bell-Cherry Canyon	5278	5308	30	6	180	6508	6533	25	6	150				6			
Bell-Cherry Canyon	5324	5344	20	6	120	6546	6556	10	6	60				6			
Bell-Cherry Canyon	5360	5420	60	6	360	6566	6596	30	6	180				6			
Bell-Cherry Canyon	5446	5471	25	6	150	6604	6614	10	6	60				6			
Bell-Cherry Canyon	5496	5516	20	6	120	6626	6632	6	6	36				6			
Bell-Cherry Canyon	5544	5554	10	6	60	6660	6670	10	6	60				6			
Bell-Cherry Canyon	5558	5588	30	6	180	6691	6756	65	6	390				6			
Bell-Cherry Canyon	5598	5608	10	6	60	6782	6802	20	6	120				6			
Bell-Cherry Canyon	5630	5645	15	6	90	6840	6850	10	6	60				6			
Bell-Cherry Canyon	5688	5728	40	6	240	6930	6970	40	6	240				6			
Bell-Cherry Canyon	5748	5798	50	6	300	6988	6994	6	6	36				6			
Bell-Cherry Canyon	5822	5872	50	6	300	7002	7012	10	6	60				6			
Bell-Cherry Canyon	5880	5910	30	6	180	7016	7026	10	6	60				6			
Bell-Cherry Canyon	5954	5994	40	6	240	7086	7106	20	6	120				6			
Bell-Cherry Canyon	5998	6008	10	6	60	7136	7146	10	6	60				6			
Bell-Cherry Canyon	6074	6094	20	6	120	7176	7196	20	6	120				6			
Bell-Cherry Canyon	6130	6136	6	6	36	7220	7250	30	6	180				6			
Bell-Cherry Canyon	6154	6184	30	6	180	7280	7290	10	6	60				6			
Bell-Cherry Canyon	6208	6228	20	6	120	7308	7328	20	6	120				6			
Bell-Cherry Canyon	6276	6306	30	6	180				6					6			
Bell-Cherry Canyon	6332	6342	10	6	60				6					6			
Bell-Cherry Canyon	6360	6375	15	6	90				6					6			
Bell-Cherry Canyon	6388	6418	30	6	180				6					6	0		
Totals =			671	4026		Totals =		392	2352		Totals =		0	0			
TUBING/BHA Detail as of TBD				ID (in)	OD (in)	Jts	Length (ft)	Depth (ft)	Grand Total Net Ft of Perfs = 1063						Grand Total Number of Perf Holes = 6378		
KB Correction							13.00	13.00									
Tubing Hanger (LTC Box down)							0.5	13.50									
5 1/2" LTC Pin by 5 1/2" LTC Pin - IPC				4.950	5.500		1	14.50									
5-1/2" 15.5# J-55 IPC LTC Tbg				4.950	5.500	1	42.15	56.65									
5-1/2" 15.5# J-55 IPC LTC Pups (4', 6', 8', 10')				4.950	5.500	4	28.54	85.19									
5-1/2" 15.5# J-55 IPC LTC Tbg				4.950	5.500	119	5000	5085.19									
5 1/2" LTC Box by 4 1/2" EUE Stainless XO				3.958	5.500		0.60	5085.79									
3.812" Baker Model F Stainless Profile Nipple				3.812	4.500		1.05	5086.84									
4-1/2" 12.75# L-80 IPC Coated EUE 8rd				3.958	4.500		4.23	5091.07									
9-5/8" X 4-1/2" T-2 On/Off Tool NC				3.750	4.500		2.00	5093.07									
9-5/8" X 4-1/2" 32.3-43.5# AS1-X NP w/ SS 3.75" Baker F Profile Sti				3.750	5.887		8.22	5101.29									
6 ft. X 4 1/2" EUE Nickel Coated Sub				3.958	4.500		6.27	5107.56									
3.750" Baker R Stainless Profile Nipple				3.750			1.30	5108.86									
4 1/2" Aluminum Pump-out plug w/ WL entry guide				2.992	4.500		0.62	5109.48									
								EOT (KB)	5108.86							Updated by: M. Peterson 6/11/18	

N-ZONE GUIDANCE LLC.

Railroad Commission of Texas
Oil and Gas Division
PO Box 12967
Capitol Station
Austin, TX 78711

Attention:

Re Felix Energy
University 45-20 #1D
Ward County, Texas
API # 42-475-37414

Enclosed, please find the original and one copy of the survey performed on the referenced well by N-Zone Guidance MWD TECH., a division of N-Zone Guidance LLC. Other information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
<u>Dennis Scully</u>	<u>#1H</u>	<u>0' to 7540'</u>	<u>05/17/2018' - 05/24/2018'</u>	<u>Gama/MWD</u>

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,

Enclosures: 2

State of Texas

N-ZONE GUIDANCE LLC.



Felix Energy
University 45-20 #1D
Ward County, Texas
API# : 42-475-37414
Job# : FE-18-1095

Prepared By
Perry Reed
MWD Coordinator
@ N-Zone Guidance



Job Number FE-18-1095	Operator Felix Energy	Rig Name Capstar 122	
Start Date 2018-05-15	Well Name University 45-20 1D	Legal Well Name AFE University 45-20 1D 4249500232D	Well Path Name Vertical Control
Play SWD	State TX	County Ward County	Company Man
Lat 31.641926	Lon -103.298188	Rig Floor Elevation (ft) 12.00	VS Plane AZI 0.0

Surveys

MD (ft)	INC (°)	AZI (°)	TVD (ft)	North (ft)	East (ft)	VS (ft)	Clos Dist (ft)	Clos Azi (°)	Dogleg (°/100 ft)	B Rate (°/100 ft)	T Rate (°/100 ft)	Bit to Sensor (ft)	Calc TF (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00			N/A	N/A	N/A	58.00	N/A
168.00	0.60	194.90	168.00	-0.85	-0.23	-0.85	0.88	194.90	0.36	0.36	-98.27	58.00	-165.10
342.00	0.40	193.40	341.99	-2.32	-0.60	-2.32	2.40	194.52	0.12	-0.11	-0.86	58.00	-177.01
752.00	0.20	97.50	751.99	-3.81	-0.22	-3.81	3.81	183.36	0.11	-0.05	-23.39	52.00	-154.68
1165.00	0.30	44.00	1164.98	-3.12	1.24	-3.12	3.36	158.31	0.06	0.02	-12.95	52.00	-95.11
1593.00	0.40	48.30	1592.97	-1.32	3.14	-1.32	3.40	112.88	0.02	0.02	1.00	52.00	16.87
2022.00	0.40	98.20	2021.97	-0.54	5.74	-0.54	5.76	95.39	0.08	0.00	11.63	52.00	114.95
2451.00	1.80	62.30	2450.88	2.38	13.18	2.38	13.40	79.78	0.35	0.33	-8.37	52.00	-44.93
2877.00	0.70	9.20	2876.78	8.06	19.52	8.06	21.12	67.58	0.35	-0.26	-12.46	52.00	-157.91
3304.00	0.50	58.50	3303.76	11.61	21.53	11.61	24.46	61.67	0.12	-0.05	11.55	52.00	134.61
3732.00	0.30	35.20	3731.75	13.50	23.77	13.50	27.33	60.41	0.06	-0.05	-5.44	52.00	-152.14
4158.00	1.20	65.10	4157.71	16.29	28.46	16.29	32.79	60.22	0.22	0.21	7.02	52.00	38.94
4543.00	1.90	75.70	4542.57	19.56	38.30	19.56	43.00	62.95	0.20	0.18	2.75	48.00	27.63
4969.00	0.70	53.90	4968.45	22.84	47.25	22.84	52.48	64.20	0.30	-0.28	-5.12	48.00	-168.25
5437.00	0.40	49.70	5436.43	25.58	50.80	25.58	56.88	63.27	0.06	-0.06	-0.90	48.00	-174.44
5864.00	0.40	38.80	5863.42	27.70	52.87	27.70	59.69	62.35	0.02	0.00	-2.55	48.00	-95.45
6331.00	0.30	89.70	6330.41	28.98	55.12	28.98	62.27	62.26	0.07	-0.02	10.90	48.00	132.16
6801.00	0.50	155.10	6800.40	27.13	57.21	27.13	63.32	64.63	0.10	0.04	13.91	48.00	101.42
7270.00	0.40	162.20	7269.39	23.71	58.57	23.71	63.19	67.96	0.02	-0.02	1.51	48.00	154.37
7402.00	0.30	195.20	7401.39	22.94	58.62	22.94	62.95	68.63	0.17	-0.08	25.00	48.00	132.25
7450.00	0.30	195.20	7449.39	22.70	58.56	22.70	62.80	68.81	0.00	0.00	0.00	0.00	

Comments: Projection to BHL

N-ZONE GUIDANCE LLC.

County of Winkler

I, Dennis Scully, certify that; I am employed by N-Zone Guidance LLC.; that I did on the days of 05/17/2018 through 05/24/2018 conduct or supervise the taking of MWD surveys from a depth of 0' feet to a depth of 7450' feet that the data is true, correct, complete and within the limitations of the tool as set forth by N-Zone Guidance MWD, a division of N-Zone Guidance LLC.; that I am authorized and qualified to make this report; that this survey was conducted at the request of Felix Energy , API# 42-475-37414 in Ward County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by N-Zone Guidance MWD. A division of N-Zone Guidance LLC.

Dennis Scully,
MWD Supervisor



RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

PERMIT TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL AND GAS

PROJECT NO. F-21024 AMENDMENT

FELIX WATER, LLC
% FELIX ENERGY
1530 16TH ST STE 500
DENVER CO 80202

Authority is granted to inject into the well identified herein in accordance with Statewide Rule 46 of the Railroad Commission of Texas and based on the information contained in the application (Forms H-1 and H-1A) dated May 2, 2018 for the permitted interval of the DELAWARE MOUNTAIN GROUP formation and subject to the following terms and special conditions:

UNIVERSITY 45-20 (000000) LEASE
WAR-WINK (CHERRY CANYON) FIELD
WARD COUNTY
DISTRICT 08

WELL IDENTIFICATION AND PERMIT PARAMETERS:

Well No.	API No.	UIC Number	Permitted Fluids	Top Interval (feet)	Bottom Interval (feet)	Maximum Liquid Daily Injection Volume (BBL/day)	Maximum Gas Daily Injection Volume (MCF/day)	Maximum Surface Injection Pressure for Liquid (PSIG)	Maximum Surface Injection Pressure for Gas (PSIG)
1D	47537414	000116216	Salt Water, and Other Non-Hazardous O/G Waste	5250	8575	15000		2625	

SPECIAL CONDITIONS:

Well No.	API No.	Special Conditions
1D	47537414	1. Open hole completions shall have a plug back depth no deeper than the bottom of the permitted injection interval.

STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer.
2. The District Office must be notified 48 hours prior to:
 - a. running tubing and setting packer;
 - b. beginning any work over or remedial operation;
 - c. conducting any required pressure tests or surveys.
3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.
4. Prior to beginning injection and subsequently after any work over, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed and the results submitted in accordance with the instructions of Form H-5.
5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin office.
6. Within 30 days after completion, conversion to disposal, or any work over which results in a change in well completion, a new Form W-2 or G-1 must be filed to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.
7. Written notice of intent to transfer the permit to another operator by filing Form P-4 must be submitted to the Commission at least 15 days prior to the date of the transfer.
8. A well herein authorized cannot be converted to a producing well and have an allowable assigned without filing an amended Form W-1 and receiving Commission approval.
9. Unless otherwise required by conditions of the permit, completion and operations of the well shall be in accordance with the information represented on the application (Forms H-1 and H-1A).
10. This permit will expire when the Form W-3, Plugging Record, is filed with the Commission. Furthermore, permits issued for wells to be drilled will expire three (3) years from the date of the permit unless drilling operations have commenced.

Provided further that, should it be determined that such injection fluid is not confined to the approved interval, then the permission given herein is suspended and the fluid injection operation must be stopped until the fluid migration from such interval is eliminated. Failure to comply with all of the conditions of this permit may result in the operator being referred to enforcement to consider assessment of administrative penalties and/or the cancellation of the permit.

APPROVED AND ISSUED ON May 8, 2018.



Sean Avitt, Manager
Injection-Storage Permits Unit

Amendment Comments:

Well No.	API No.	Amendment Comments
1D	47537414	1. Changes operator from OLIFANT ENERGY LLC (#621479) to FELIX WATER, LLC (#265326).

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued:	13 December 2017	GAU Number:	185137
Attention:	OLIFANT ENERGY LLC 15 W 6TH ST SUITE 2200 TULSA, OK 74119	API Number:	47500000
Operator No.:	621479	County:	WARD
		Lease Name:	St Sec No. 45, Blk 20, SWD
		Lease Number:	
		Well Number:	1
		Total Vertical Depth:	8900
		Latitude:	31.641924
		Longitude:	-103.298188
		Datum:	NAD27

Purpose: Injection into Producing Zone (H1)
Location: Survey-UL; Abstract-U134; Block-20; Section-45

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 the base of the Alluvium, which is estimated to occur at a depth of 300 feet, must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1150 feet at the site of the referenced well.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

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

This determination is based on information provided when the application was submitted on 12/06/2017. 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

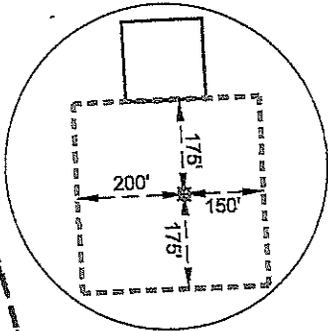
WARD COUNTY, TEXAS

WINKLER COUNTY
WARD COUNTY

SECTION LINE
N 73°42'05" E 5283.64'

641.02 ACRE
LEASE UNIT

University 45-20 # 1D
WELL LOCATION
TX-CENTRAL ZONE 4203
NAD 27 N:730684.85
NAD 27 E:1077434.02
NAD 27 LAT:31.641926
NAD 27 LON:-103.298188
NAD 83 N:10573260.86
NAD 83 E:1373898.98
NAD 83 LAT:31.642057
NAD 83 LON:-103.298635
ELEVATION: 2770'



WELL LOCATION DETAIL
N.T.S.

SECTION 45, BLOCK 20
UNIVERSITY LANDS SURVEY,
ABSTRACT NO. U134
WARD COUNTY, TEXAS

SECTION LINE
S 73°42'24" W 5282.15'

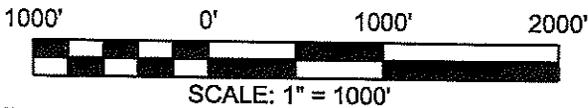


THE STATE SECTION NO. 45, BLOCK 20 SWD #1 IS
LOCATED APPROXIMATELY 11.08 MILES SOUTHWEST OF
THE TOWN OF WINK, TEXAS

I HEREBY STATE THAT THIS PLAT WAS MADE
FROM NOTES TAKEN IN THE FIELD IN A BONA
FIDE SURVEY MADE UNDER MY SUPERVISION

W. E. Wilson
W. E. WILSON
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF TEXAS # 4652

- LEGEND
- SURVEY LINE
 - OVERHEAD ELECTRIC
 - EXISTING PIPELINE
 - FENCE LINE
 - PROPOSED WELL PAD LOCATION
 - PROPOSED LEASE AREA
 - ★ PROPOSED WELL LOCATION
 - ⊗ APPROXIMATE DRY HOLE LOCATION
 - ⊙ EXISTING WELL
 - ⊙ POWER POLE
 - FOUND MONUMENT
 - CALCULATED CORNER



- NOTES:
- 1.) THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. THE REGISTRANT DOES NOT CLAIM HEREIN ADHERENCE TO THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS.
 - 2.) OWNERSHIP INFORMATION WAS SUPPLIED BY OTHERS.
 - 3.) COORDINATES AND BEARINGS AS SHOWN ARE GRID AS DERIVED FROM GPS OBSERVATION AND ARE BASED ON THE STATE PLANE COORDINATES FOR THE TEXAS CENTRAL ZONE 4203 NAD 83
 - 4.) THIS PLAT IS PREPARED FOR TEXAS RAILROAD COMMISSION PERMITTING PURPOSES ONLY.
 - 5.) THIS PLAT AND THE SURVEY IT IS BASED ON DOES NOT CONSTITUTE AN:
 - A.) ENVIRONMENTAL ASSESSMENT
 - B.) WETLANDS DETERMINATION
 - C.) SUBSURFACE DETERMINATION



Felix Water, LLC
University 45-20 #1D
1069' FEL & 1776' FSL
SITUATED IN THE
SECTION 45, BLOCK 20, UNIVERSITY LANDS SURVEY,
ABSTRACT NO. U134
WARD COUNTY, TEXAS

#	DATE	BY:	DESCRIPTION	CHK
#1	11/20/17	JLW	UPDATED PAD AND SURFACE LOCATION	JAH

PROJECT NO. 1711010



8205 Camp Bowie West - Suite 204
Fort Worth, Texas 76116
Phone: 817-386-0362
TBPLS # 10193740

DRAWN BY:	DATE:	DWG. NO.	REV.
JLW	01-03-2018	(Title Resources) Title Resources Team Felix/Offshore/WD	1
CHECKED BY:	DATE:		
JAH	01-03-2018		
SCALE:	1"=1000'	AFE #	