RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 05/16/2017
Tracking No.: 168687

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT,

OPERATOR INFORMATION

Operator PIONEER NATURAL RES. USA, INC. **Operator** 665748
Operator AMBER MCFADDEN PO BOX 3178 MIDLAND, TX 79702-0000

WELL INFORMATION

API 42-003-47354 **County:** ANDREWS
Well No.: 46H **RRC District** 08
Lease UNIVERSITY "7-43" **Field** SPRABERRY (TREND AREA)
RRC Lease 40532 **Field No.:** 85280300
Location Section: 37, Block: 7, Survey: UNIVERSITY LAND, Abstract:

Latitude **Longitud**
This well is 17.1 **miles in a** EAST **direction from** ANDREWS, **which is the nearest town in the**

FILING INFORMATION

Purpose of Initial Potential
Type of New Well
Well Type: Producing **Completion or Recompletion** 12/01/2016

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or	03/31/2016	814655
Rule 37 Exception		
Fluid Injection		
O&G Waste Disposal		
Other:		

COMPLETION INFORMATION

Spud 08/11/2016 **Date of first production after rig** 12/01/2016
Date plug back, deepening, drilling operation 08/11/2016 **Date plug back, deepening, recompletion, drilling operation** 09/22/2016
Number of producing wells on this lease this field (reservoir) including this 24 **Distance to nearest well in lease & reservoir** 755.0
Total number of acres in 6615.70 **Elevation** 2993 RKB
Total depth TVD 9539 **Total depth MD** 19715
Plug back depth TVD **Plug back depth MD**
Was directional survey made other inclination (Form W- Yes **Rotation time within surface casing** 36.8 **Is Cementing Affidavit (Form W-15)** Yes
Recompletion or No **Multiple** No
Type(s) of electric or other log(s) Acceptable cased hole logs
Electric Log Other Description:
Location of well, relative to nearest lease of lease on which this well is 5525.0 **Feet from the** South **Line and** 6614.0 **Feet from the** West **Line of the** UNIVERSITY 7-43 **Lease.** **Off Lease :** No

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

Field & Reservoir	Gas ID or Oil Lease	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**	1750.0	**Date**	04/01/2016
SWR 13 Exception		**Depth**	2000.0		

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of	01/01/2017	**Production**	Gas Lift
Number of hours	24	**Choke**	
Was swab used during this	No	**Oil produced prior to**	10722.00

PRODUCTION DURING TEST PERIOD:

Oil	1079.00	**Gas**	602
Gas - Oil	557	**Flowing Tubing**	
Water	1118		

CALCULATED 24-HOUR RATE

Oil	1079.0	**Gas**	602
Oil Gravity - API - 60.:	41.3	**Casing**	
Water	1118		

CASING RECORD

Ro	Type of Casing	Casing Size (in.)	Hole Size	Setting Depth	Multi - Stage Tool	Multi - Stage Shoe	Cement Class	Cement Amoun	Slurry Volume (cu.	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	2042			CLASS C	1702	2806.2	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	6006			CLASS C	1146	2614.0	1202	Calculation
3	Conventional Production	5 1/2	8 1/2	19713			CLASS H	2064	3562.6	5730	Cement Evaluation Log

LINER RECORD

Ro	Liner Size	Hole Size	Liner Top	Liner Bottom	Cement Class	Cement Amoun	Slurry Volume (cu.	Top of Cement (ft.)	TOC Determined

N/A

TUBING RECORD

Ro	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	9331	/

PRODUCING/INJECTION/DISPOSAL INTERVAL

Ro	Open hole?	From (ft.)	To (ft.)
1	No	L1 9725	19576.0

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

Was hydraulic fracturing treatment Yes

Is well equipped with a downhole sleeve? Yes

If yes, actuation pressure 9601.0

Production casing test pressure (PSIG) hydraulic fracturing 9601

Actual maximum pressure (PSIG) during fracturin 8548

Has the hydraulic fracturing fluid disclosure been Yes

Ro	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)

1	SEE FRAC FOCUS	9725	19576

FORMATION RECORD

Formations	Encountere	Depth TVD	Depth MD	Is formation	Remarks
YATES	Yes	3138.0	3138.0	Yes	
SEVEN RIVERS	Yes	3419.0	3419.0	Yes	
QUEEN	Yes	4077.0	4079.0	Yes	
GRAYBURG	Yes	4571.0	4575.0	Yes	
SAN ANDRES - CO2 FLOOD, HIGH FLOWS, H2S, CORROSIVE	Yes	4729.0	4733.0	Yes	
HOLT	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
GLORIETA	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
TUBB	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
CLEARFORK	Yes	6766.0	6771.0	Yes	
PERMIAN DETRITAL	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
LEON	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
WICHITA ALBANY	No			No	THIS FORMATION IS NON-EXISTENT IN THE AREA.
SPRABERRY	Yes	8388.0	8393.0	Yes	
DEAN	No			No	WELL IS NOT DEEP ENOUGH.
WOLFCAMP	No			No	WELL IS NOT DEEP ENOUGH.
CANYON	No			No	WELL IS NOT DEEP ENOUGH.
PENNSYLVANIAN	No			No	WELL IS NOT DEEP ENOUGH.
MCKEE	No			No	WELL IS NOT DEEP ENOUGH.
STRAWN	No			No	WELL IS NOT DEEP ENOUGH.
FUSSELMAN	No			No	WELL IS NOT DEEP ENOUGH.
DEVONIAN	No			No	WELL IS NOT DEEP ENOUGH.
SILURIAN	No			No	WELL IS NOT DEEP ENOUGH.
ELLENBURGER	No			No	WELL IS NOT DEEP ENOUGH.

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm No

Is the completion being downhole commingled No

REMARKS

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2017-02-27 14:11:38.316] EDL=9851 feet, max acres=640, SPRABERRY (TREND AREA) oil well

CASING RECORD :

20% IS REFLECTED ON THE W-15 IN THE EST. % WASH-OUT OR HOLE ENLARGEMENT SECTION PER DISTRICT GUIDANCE. VOLUME AND HEIGHT VALUES ON THE W-15 ARE USING AN EXCESS CEMENT PUMPED OF 100%, INDICATING THE INCREASE IN ANNULAR OPEN HOLE VOLUME WHEN COMPARED TO GAUGE OPEN HOLE VOLUME.

TUBING RECORD:

PRODUCTION HOLE CROSSES OVER FROM 8 3/4" TO 8 1/2" AT 9943'.

PRODUCING/INJECTION/DISPOSAL INTERVAL :

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

POTENTIAL TEST DATA:

NEW WELL KOP ~8862', LOG WILL BE UPLOADED TO RRC THROUGH WEBSITE.

OPERATOR'S CERTIFICATION

Printed	KIKI BRADFORD	**Title:**	Senior Regulatory Specialist
Telephone	(972) 444-9001	**Date**	02/20/2017

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name: PIONEER NATURAL RES. USA, INC.	Operator P-5 No.: 665748
Cementer Name: Schlumberger	Cementer P-5 No.: 754900

WELL INFORMATION

District No.: 08	County: ANDREWS
Well No.: 46H	API No.: 42003473354 Drilling Permit No.: 814655
Lease Name: University 7-43	Lease No.: 40532
Field Name: SPRABERRY (TREND AREA)	Field No.: 85280300

I. CASING CEMENTING DATA

Type of casing: [ ] Conductor [X] Surface [ ] Intermediate [ ] Liner [ ] Production

Drilled hole size (in.): 17 1/2"	Depth of drilled hole (ft.): 2060'	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 13 3/8"	Casing weight (lbs/ft) and grade: 54.5 J55	No. of centralizers used: 13
Was cement circulated to ground surface (or bottom of cellar) outside casing? [X] Yes [ ] No If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 2042'	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 12	Calculated top of cement (ft.): Ø	Cementing date: 13-Aug-16

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	1330	C	Remarks	2181.2	1600
2	372	C	Remarks	625.0	400
3					
Total	1702			2806.2	2000.0

II. CASING CEMENTING DATA

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

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? [ ] Yes [ ] No		Setting depth 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					

III. CASING CEMENTING DATA

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

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

SLURRY

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

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: D903 61 lb/sk+D035 26 lb/sk+D079 0.5 %+D047 0.02 gal/sk+D130 0.13 lb/sk

#2: D903 94 lb/sk+D020 3 % +D047 0.02 gal/sk+D065 0.2 %+D013 0.1 %

#3:

#4: 125 BBL. BACK TO SURFACE

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

CLAUDE PEUWE, FE	Schlumberger	
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100	August 13, 2016
Addreess	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.

Kiki Bradford, Senior Regulatory Specialist
5205 N. O'Connor Blvd., Suite 200
Irving, TX 75039
972.969.5767

Title

Kiki Bradford
Signature

Tel: Area Code Number

2/7/17
Date: mo. day yr.

·15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. What to file: An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. How to file: An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

C. Surface casing: An operator must set and cement sufficient surface casing to protect all usable quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

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

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

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

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

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION

Operator Name:	PIONEER NATURAL RES. USA, INC.	Operator P-5 No.:	665748
Cementer Name:	Schlumberger	Cementer P-5 No.:	754900

WELL INFORMATION

District No.:	08	County:	Andrews
Well No.:	46H	API No.:	42003473554 Drilling Permit No.: 814655
Lease Name:	University 7-43	Lease No.:	40532
Field Name:	SPRABERRY (TREND AREA)	Field No.:	85280300

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.): 6020'	Est. % wash-out or hole enlargement: 20%
Size of casing in O.D. (in.): 9 5/8"	Casing weight (lbs/ft) and grade: 40 L80	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? ☐ Yes ☒ No		Setting depth shoe (ft.): 6006'
Hrs. waiting on cement before drill-out: 12	Calculated top of cement (ft.): 1202	Cementing date: 24-Aug-16

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	886	50:50 Poz:C	Remarks	2268.2	3700
2	260	Class C	Remarks	345.8	500
3					
Total	1146			2614.0	4200

III. CASING CEMENTING DATA

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

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

SLURRY

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

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

Stage 1 Lead Additives:

Stage 1 Tail Additives: 94ppsD903+.02gpsD047+.04gpsD177

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.

Adam Vink, FE	Schlumberger	
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100	August 24, 2016
Addreess	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.

Kiki Bradford, Senior Regulatory Specialist
5205 N. O'Connor Blvd., Suite 200
Irving, TX 75039
972.969.5767

e — Signature

Tel: Area Code Number — Date: 2/7/17 mo. day yr.

, Cementing Report

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

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

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

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

RAILROAD COMMISSION OF TEXAS
1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967
CEMENTING REPORT

Form W-15
Rev. 08/2014

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

OPERATOR INFORMATION			
Operator Name:	PIONEER NATURAL RES. USA, INC.	Operator P-5 No.:	665748
Cementer Name:	Schlumberger	Cementer P-5 No.:	754900

WELL INFORMATION					
District No.:	08		County:	ANDREWS	
Well No.:	46H		API No.:	42003473 54	Drilling Permit No.: 814655
Lease Name:	University 7-43		Lease No.:	40532	
Field Name:	SPRABERRY (TREND AREA)		Field No.:	85280300	

I. CASING CEMENTING DATA

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

Drilled hole size (in.): 8 3/4" / 8 1/2"	Depth of drilled hole (ft.): 19715'	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 5 1/2"	Casing weight (lbs/ft) and grade: 20 P110 IC	No. of centralizers used: 38
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.): 19713'	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 72	Calculated top of cement (ft.): 5730	Cementing date: 21-Sep-16

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	354	50:50 POZ:H	Remarks	877.9	3310
2	1710	50:50 POZ:H	Remarks	2684.7	11083
3					
Total	2064			3562.6	14393

II. CASING CEMENTING DATA

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

Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:
Tapered string drilled hole size (in.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ Yes ☐ No		Setting depth 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					

III. CASING CEMENTING DATA

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

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

SLURRY

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

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: 50:50 Poz:H + 4% D020 + 0.5% D079 + 3lb/sk D042 + 0.02gal/sk D047 + 0.25% D238 + 3% D154 + 0.4% D013 + 0.15% D208

#2: 50:50 Poz:H + 3.5% D020 + 0.3% D079 + 0.25% D013 + 0.1% D065 + 0.3% D238 + 0.1% D208 + 0.02gal/sk D047 + 3lb/sk D042

#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.

Ann Lu, FE	Schlumberger	Ann Lu
Name and title of cementer's representative	Cementing Company	Signature

7104 W County Rd 116	Midland	TX	79706	(432) 681-1100	September 21, 2016
Addreess	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.

Kiki Bradford, Senior Regulatory Specialist
5205 N. O'Connor Blvd., Suite 200
Irving, TX 75039
972.969.5767

Kiki Bradford
Signature

el: Area Code Number

2/7/17
Date: mo. day yr.

Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

A. **What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711- 2967).

C. **Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 (http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

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

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

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

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

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

OPERATOR Name: PIONEER NATURAL RES. USA, INC.
Address1: ATTN WELDON PIERSON
Address2: 5205 N O'CONNOR BLVD SUITE 200
City: IRVING
State: TX

RE: Lease: UNIVERSITY 7-43
Well No: 46H
Sec: 37 **Block:** 7
County: ANDREWS
Survey Name: UNIVERSITY LAND

SWR13EX Application Number: 7442
Drilling Permit No: 814655

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** UNIVERSITY 7-43 ;
WELL NUMBER: 46H has been approved by the Railroad Commission of Texas District Office.

a. A copy of this approved letter must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing Program on the original application without additional approval from the Railroad Commission of Texas District Office.

b. Any substantive modifications to the cement program require prior approval from the Railroad Commission of Texas District Office, and may require re-submission of the SWR 13 (Statewide Rule 13) Alternate Surface Casing Application. Contact the Railroad Commission of Texas District Office for more information.

c. The tail slurry must be sufficient to fill the Zone of Critical Cement as described in Statewide Rule 13(b)(1)(H)(i). In addition, all cement slurries must be mixed on location as described in Application for Alternate Surface Casing Program.

d. The casing and cement program shall adhere to the following specifications:

Set 2000 feet of surface casing and circulate cement from the shoe to the ground surface.

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(b)(1)(H)(iii) OR AS REQUIRED BY THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE.

You must comply with all other provisions of SWR 13 (Statewide Rule 13) and a representative of the cementing company who performs the cementing job for the protection of usable quality water strata must sign the Form W-15 attesting to the information regarding cementing operations performed; including circulation of cement. (Note: If surface casing is set below the approved depth, this can result in denial of future Statewide Rule 13(b)(1)(H)(i) requests.) A condition of the approved drilling permit requires notification to the Railroad Commission of Texas District Office eight (8) hours prior to the time casing is to be set/cemented in the well. If your exception request was submitted after the subject well has been drilled and completed, the operator may be referred for enforcement action.

This authorization shall expire within five (5) years from the date the Groundwater Protection Determination was issued, or at the expiration of the drilling permit (if the well is not spudded prior to expiration) for the referenced well, whichever occurs first. Furthermore, this authorization supersedes any prior authorizations issued for the referenced well.

This exception is based on information provided when the application was submitted on 04/04/2016 .
If any information has changed, you must contact the appropriate Railroad Commission of Texas District Office, and submit a new application if applicable. If you have questions, please contact the appropriate Oil and Gas District office.

RRC APPROVAL BY: Erik Hanson DATE: 04/05/2016

DISTRICT DIRECTOR

From: Erik Hanson
To: Bradford, Kiki
Cc: Renfro, Casi; Jeffery Morgan
Subject: RE: University 7-43 45H, 46H & 47H
Date: Tuesday, February 21, 2017 10:39:57 AM
Attachments: image001.jpg

Those depths will be fine.

Respectfully,

Erik Hanson
Oil & Gas Technical Specialist
Railroad Commission of Texas
Oil & Gas Division/Field Ops
10 Desta Drive, Suite 500E
Midland, TX 79705-4515
432-684-5581 ext. 415

From: Bradford, Kiki [mailto:Kiki.Bradford@pxd.com]
Sent: Monday, February 20, 2017 3:36 PM
To: Erik Hanson <Erik.Hanson@rrc.texas.gov>
Cc: Renfro, Casi <Casi.Renfro@pxd.com>
Subject: RE: University 7-43 45H, 46H & 47H

Hi Erik,

I just wanted to follow-up with you on the below email. It was also brought to my attention when the 47H WRO completion was filed, Casi Renfro had already reached out to you and you approved her request. See attached. We will just need to know about the 45H and the 46H wells.

Thank you again for your assistance.

Kiki Bradford
Lead Regulatory Specialist
Pioneer Natural Resources USA, Inc.
Permian Asset Team – Corporate Regulatory Affairs
5205 N. O'Connor Blvd., Ste. 200
Irving, Texas 75039
Direct: 972-969-5767
Fax: 972-969-3518
mailto:kiki.bradford@pxd.com

From: Bradford, Kiki
Sent: Thursday, February 16, 2017 3:56 PM
To: 'erik.hanson@rrc.texas.gov' <erik.hanson@rrc.texas.gov>
Cc: Renfro, Casi <Casi.Renfro@pxd.com>

Subject: University 7-43 45H, 46H & 47H

Erik,

I have an approved SWR-13 for the above wells to 2000' each, but surface casing was set at 2029', 2042' and 2037' respectively. Is this acceptable, or do we need to revise the SWR-13?

45H (42-003-47353)
46H (42-003-47354)
47H (42-003-47355)

Thank you for your help!

Kiki Bradford
Lead Regulatory Specialist
Pioneer Natural Resources USA, Inc.
Permian Asset Team – Corporate Regulatory Affairs
5205 N. O'Connor Blvd., Ste. 200
Irving, Texas 75039
Direct: 972-969-5767
Fax: 972-969-3518
mailto:kiki.bradford@pxd.com

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Tracking No.: 168687

ELECTRIC LOG STATUS REPORT

This facsimile L-1 was generated electronically from data submitted to the RRC.

FORM L-1

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: PIONEER NATURAL RES. USA, INC.	District No. 08	Completion Date: 12/01/2016
Field Name SPRABERRY (TREND AREA)	Drilling Permit No. 814655	
Lease Name UNIVERSITY "7-43"	Lease/ID No. 40532	Well No. 46H
County ANDREWS	API No. **42-** 003-47354	

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). _____

KIKI BRADFORD
Signature

Senior Regulatory Specialist
Title

PIONEER NATURAL RES. USA, INC.
Name (print)

(972) 444-9001
Phone

02/07/2017
Date

-FOR RAILROAD COMMISSION USE ONLY-

Radial Cement Bond With/ Variable Density Gamma Ray/ CCL

Company Pioneer Natural Resources
Well University 7-43 46H
Field Spraberry
County Andrews
State Texas

Company Pioneer Natural Resources
Well University 7-43 46H
Field Spraberry
County Andrews
State Texas

Location: API # : 42-003-47354-0000

210' FSL/ 1,260' FWL, SEC: 37, BLK: 7

SEC TWP RGE

Other Services
JB/GR
4.625"

Elevation
K.B. 2,993'
D.F. 2,992'
G.L. 2,964'

Permanent Datum	Ground Level	Elevation	2,964'
Log Measured From	Kelly Bushing @ 29' APD		
Drilling Measured From	Kelly Bushing		

Date	Oct 14, 2016		
Run Number	1		
Depth Driller	19,715'		
Depth Logger	9,625'		
Bottom Logged Interval	9,623'		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Water		
Density / Viscosity			
Max. Recorded Temp.	166 Deg F		
Estimated Cement Top	5,980'		
Time Well Ready	On Arrival		
Time Logger on Bottom	13:00		
Equipment Number	113		
Location	Midland, Texas		
Recorded By	Jack T. Hiatt		
Witnessed By	Mike Madrid		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13.375	54.5#	29.1'	2,042'
Prot. String	9.625"	40#	-4	6,006'
Production String	5.5"	20#	32.6'	19,715'
Liner				

<<< Fold Here >>>

Comments

Log Measured From KB=29'

Log Correlated To Pipe Tally Marker Joints

Marker Joints @ 8,596'-8,616' & 8,833'- 8,853'

Thank You for Choosing Nine Energy Service

Main Pass

0 PSI

RAILROAD COMMISSION OF TEXAS

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

Acreage Designation

P-16 Data Sheet
Page 1

Rev. 01/2016

SECTION I. OPERATOR INFORMATION

Operator Name:	PIONEER NATURAL RES. USA, INC.	Operator P-5 No.:	665748
Operator Address:	5205 N. O'CONNOR BLVD., SUITE 200, IRVING, TEXAS 75039		

SECTION II. WELL INFORMATION

District No.:	08	County:	ANDREWS	Purpose of Filing:
Well No.:	46H	API No.:	42-003-47354	☐ Drilling Permit Application (Form W-1)
Total Lease Acres:	6615.7	Drilling Permit No.:	814655	
Lease Name:	UNIVERSITY 7-43	Lease No.:	40532	☑ Completion Report
Field Name:	SPRABERRY (TREND AREA)	Field No.:	85280300	

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)
45032	1	V	UNIVERSITY 7-43	42-003-41559	80		
45032	2	V	UNIVERSITY 7-43	42-003-43427	80		
45032	3	V	UNIVERSITY 7-43	42-003-43433	80		
45032	4	V	UNIVERSITY 7-43	42-003-43434	80		
45032	5	V	UNIVERSITY 7-43	42-003-43438	80		
45032	6	V	UNIVERSITY 7-43	42-003-44080	80		
45032	7	V	UNIVERSITY 7-43	42-003-44099	80		
45032	8	V	UNIVERSITY 7-43	42-003-41996	80		
45032	9	V	UNIVERSITY 7-43	42-003-40740	80		
45032	10	V	UNIVERSITY 7-43	42-003-41429	80		
45032	11	V	UNIVERSITY 7-43	42-003-42920	80		
45032	12	V	UNIVERSITY 7-43	42-003-43411	80		
45032	14	V	UNIVERSITY 7-43	42-003-41430	80		
45032	15	V	UNIVERSITY 7-43	42-003-41561	80		
45032	16	V	UNIVERSITY 7-43	42-003-41431	80		
45032	17	V	UNIVERSITY 7-43	42-003-43430	80		
45032	18	V	UNIVERSITY 7-43	42-003-40818	80		
Total Well Count>	17		< A. Total Assigned Horiz. Acreage		1360		< 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)

VERTICAL WELLS: 60
HORIZONTAL WELLS: ~~23~~ 24

Attach Additional Pages As Needed. ☐ No additional pages ☑ Additional Pages: 2 (No. of additional pages)

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

Signature	Name and title (type or print)	Email (include email address *only* if you affirmatively consent to its public release)
Kiki Bradford	LEAD REGULATORY SPECIALIST	kiki.bradford@pxd.com

Address	City, State,	Zip Code	Tel: Area Code	Number	Date: mo. day yr.
5205 N. O'CONNOR BLVD., SUITE 200, IRVING, TX		75039	972-969-5767		2/7/2017

RAILROAD COMMISSION OF TEXAS

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

Form P-16
Attachment
Page 1A
Rev. 01/2016

Acreage Designation Attachment

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 (CONTINUED). 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)
45032	19	V	UNIVERSITY 7-43	42-003-42466	80.00		
45032	20	V	UNIVERSITY 7-43	42-003-42467	80.00		
45032	21	V	UNIVERSITY 7-43	42-317-35825	80.00		
45032	22	V	UNIVERSITY 7-43	42-003-41558	80.00		
45032	23	V	UNIVERSITY 7-43	42-003-42762	80.00		
45032	24	V	UNIVERSITY 7-43	42-317-37279	80.00		
45032	25	V	UNIVERSITY 7-43	42-003-43697	80.00		
45032	26	V	UNIVERSITY 7-43	42-003-43699	80.00		
45032	27	V	UNIVERSITY 7-43	42-003-44045	80.00		
45032	28	V	UNIVERSITY 7-43	42-003-44046	80.00		
45032	29	V	UNIVERSITY 7-43	42-003-42891	80.00		
45032	30	V	UNIVERSITY 7-43	42-003-42916	80.00		
45032	31	V	UNIVERSITY 7-43	42-003-42917	80.00		
45032	32	V	UNIVERSITY 7-43	42-003-42918	80.00		
45032	33	V	UNIVERSITY 7-43	42-003-42919	80.00		
45032	34	V	UNIVERSITY 7-43	42-003-42430	80.00		
45032	35	V	UNIVERSITY 7-43	42-003-41428	80.00		
45032	36	V	UNIVERSITY 7-43	42-003-42431	80.00		
45032	37	V	UNIVERSITY 7-43	42-003-42432	80.00		
45032	38	V	UNIVERSITY 7-43	42-003-42420	80.00		
45032	39	V	UNIVERSITY 7-43	42-003-42426	80.00		
45032	40	V	UNIVERSITY 7-43	42-003-42158	80.00		
45032	41	V	UNIVERSITY 7-43	42-003-43297	80.00		
45032	42	V	UNIVERSITY 7-43	42-003-43301	80.00		
45032	43	V	UNIVERSITY 7-43	42-003-43302	80.00		
45032	44	V	UNIVERSITY 7-43	42-003-43303	80.00		
45032	45	V	UNIVERSITY 7-43	42-003-42921	80.00		
45032	46	V	UNIVERSITY 7-43	42-003-42922	80.00		
45032	47	V	UNIVERSITY 7-43	42-003-42923	80.00		
45032	48	V	UNIVERSITY 7-43	42-003-42924	80.00		
45032	49	V	UNIVERSITY 7-43	42-003-43298	80.00		
45032	50	V	UNIVERSITY 7-43	42-003-40820	80.00		
45032	51	V	UNIVERSITY 7-43	42-003-41584	80.00		
45032	52	V	UNIVERSITY 7-43	42-003-41585	80.00		
45032	53	V	UNIVERSITY 7-43	42-003-42763	80.00		
45032	54	V	UNIVERSITY 7-43	42-003-42154	80.00		
45032	55	V	UNIVERSITY 7-43	42-003-43450	80.00		
45032	57	V	UNIVERSITY 7-43	42-003-42064	80.00		
45032	58	V	UNIVERSITY 7-43	42-003-40877	80.00		

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		

RAILROAD COMMISSION OF TEXAS

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

Form P-16
Attachment
Page 1A
Rev. 01/2016

Acreage Designation Attachment

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 (CONTINUED). 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)
40532	60	V	UNIVERSITY 7-43	42-003-41421	80		
40532	61	V	UNIVERSITY 7-43	42-003-41960	80		
40532	62	V	UNIVERSITY 7-43	42-003-41961	80		
40532	63	V	UNIVERSITY 7-43	42-003-41962	80		
40532	9HR	H	UNIVERSITY 7-43	42-003-45873	264.6		
40532	10H	H	UNIVERSITY 7-43	42-003-45309	264.6		
40532	16H	H	UNIVERSITY 7-43	42-003-45496	264.6		
40532	17H	H	UNIVERSITY 7-43	42-003-45749	264.6		
40532	18H	H	UNIVERSITY 7-43	42-003-45750	264.6		
40532	21H	H	UNIVERSITY 7-43	42-003-46351	264.6		
40532	22H	H	UNIVERSITY 7-43	42-003-46352	264.6		
40532	23H	H	UNIVERSITY 7-43	42-003-47204	264.6		
40532	24H	H	UNIVERSITY 7-43	42-003-47205	264.6		
40532	25H	H	UNIVERSITY 7-43	42-003-46410	264.6		
40532	26H	H	UNIVERSITY 7-43	42-003-46411	264.6		
40532	27H	H	UNIVERSITY 7-43	42-003-46077	264.6		
40532	28H	H	UNIVERSITY 7-43	42-003-46078	264.6		
40532	31H	H	UNIVERSITY 7-43	42-003-46957	264.6		
40532	32H	H	UNIVERSITY 7-43	42-003-46956	264.6		
40532	30H	H	UNIVERSITY 7-43	42-003-46955	264.6		
40532	33H	H	UNIVERSITY 7-43	42-003-47208	264.6		
40532	34H	H	UNIVERSITY 7-43	42-003-47209	264.6		
40532	35H	H	UNIVERSITY 7-43	42-003-47210	264.6		
40532	42H	H	UNIVERSITY 7-43	42-003-47293	264.6		
40532	43H	H	UNIVERSITY 7-43	42-003-47294	264.6		
40532	44H	H	UNIVERSITY 7-43	42-003-47295	264.6		
40532	45H	H	UNIVERSITY 7-43	42-003-47353	264.6		
40532	46H	H	UNIVERSITY 7-43	42-003-47354	264.6		
Total Well Count >	84	6350.4	< A. Total Assigned Horiz. Acreage		11150.4	< C. Total Assigned Acreage	
		265.3	< Total Remaining Horiz. Acreage		2081.0	< Total Remaining Acreage	
		4800.0	< B. Total Assigned Vert./Dir. Acreage				
		1815.7	< Total Remaining Vert./Dir. Acreage				

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	01 April 2016	**GAU Number:**	153020

Attention:	PIONEER NATURAL RES. USA, ATTN WELDON PIERSON IRVING, TX 75039	**API Number:**	
		County:	ANDREWS
		Lease Name:	UNIVERSITY 7-43
		Lease Number:	
Operator No.:	665748	**Well Number:**	45H
		Total Vertical Depth:	11600
		Latitude:	32.341689
		Longitude:	-102.240423
		Datum:	NAD27

Purpose: New Drill

Location: Survey-UL; Block-7; Section-37

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

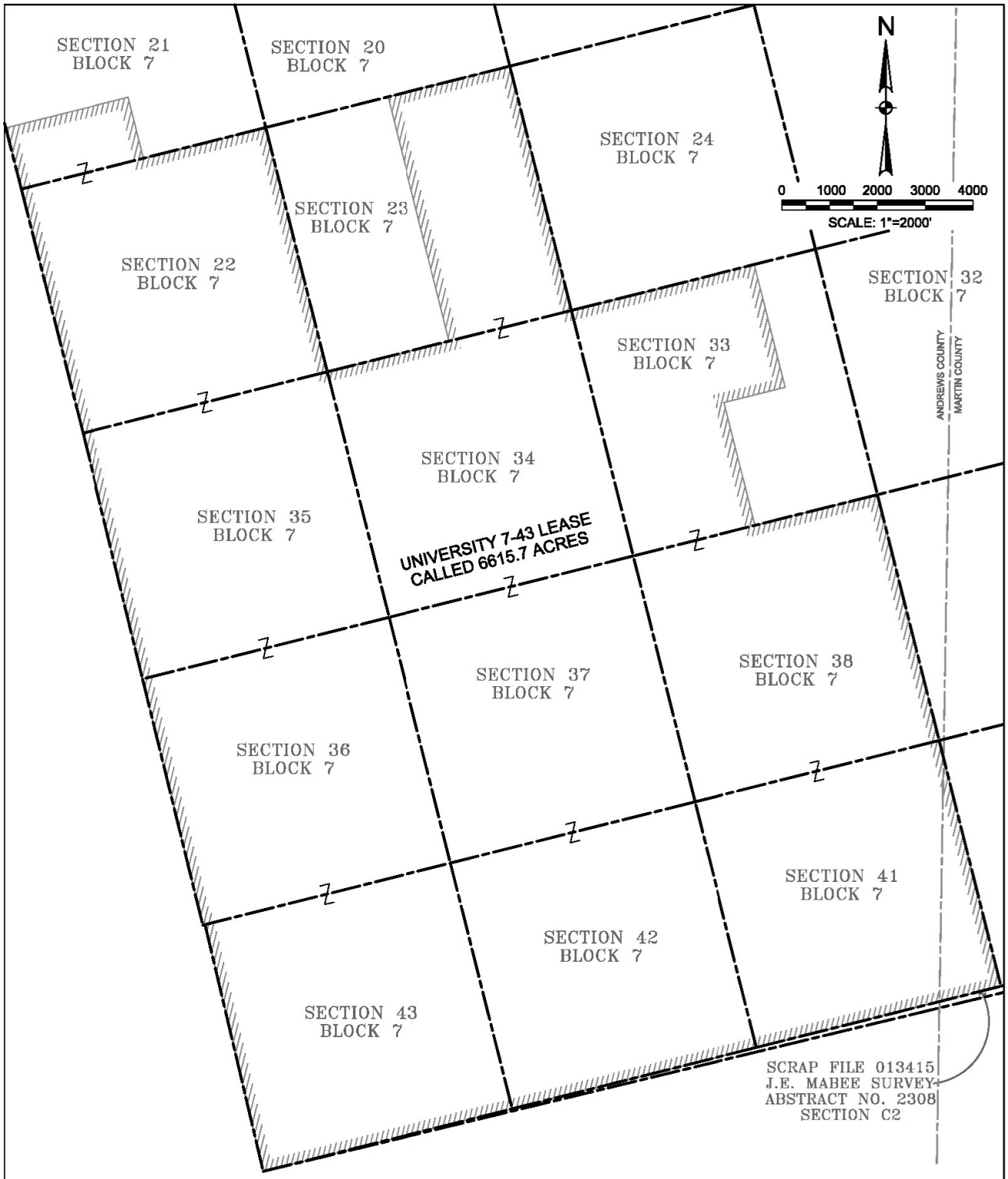
The interval from the land surface to a depth of 300 feet, and the zone from 1350 to 1750 feet must be protected.

This recommendation is applicable for all wells drilled in this Section 37 on this lease.

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 04/01/2016. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division



LEGEND

	LEASE LINE
	WELL LATERAL
	SECTION LINE
Z	LAND HOOK
	COUNTY LINE
FIR	FOUND IRON ROD
C.M.	CONTROLLING MONUMENT
N.T.S.	NOT TO SCALE
CONC B/D	CONCRETE BRASS DISK
CONC BRKN/BD	CONCRETE BROKEN BRASS DISK
STNMND	STONE MOUND
GIP	GALVANIZED IRON PIPE
FN	FND NAIL
FIP	FOUND IRON PIPE
FIR	FOUND IRON ROD

ALL OF SECTION 22, SECTION 34, SECTION 35, SECTION 36, SECTION 37, SECTION 38 SECTION 41, SECTION 42, SECTION 43, THE S/2 OF THE SW/4 OF SECTION 21, THE E/2 OF SECTION 23, THE W/2 OF SECTION 33 AND THE W/2 OF THE NE/4 OF SECTION 33 ALL IN BLOCK 7, UNIVERSITY LAND SURVEY, ANDREWS COUNTY, TEXAS AND MARTIN COUNTY, TEXAS

NOTE: WELL IS LOCATED ABOUT 19.4 MILES EAST OF ANDREWS, ANDREWS COUNTY, TEXAS.

PIONEER NATURAL RESOURCES
UNIVERSITY 7-43 LEASE

PIONEER
NATURAL RESOURCES

HALFF

DATED: 10/5/2015
BY: JUAN GONZALEZ

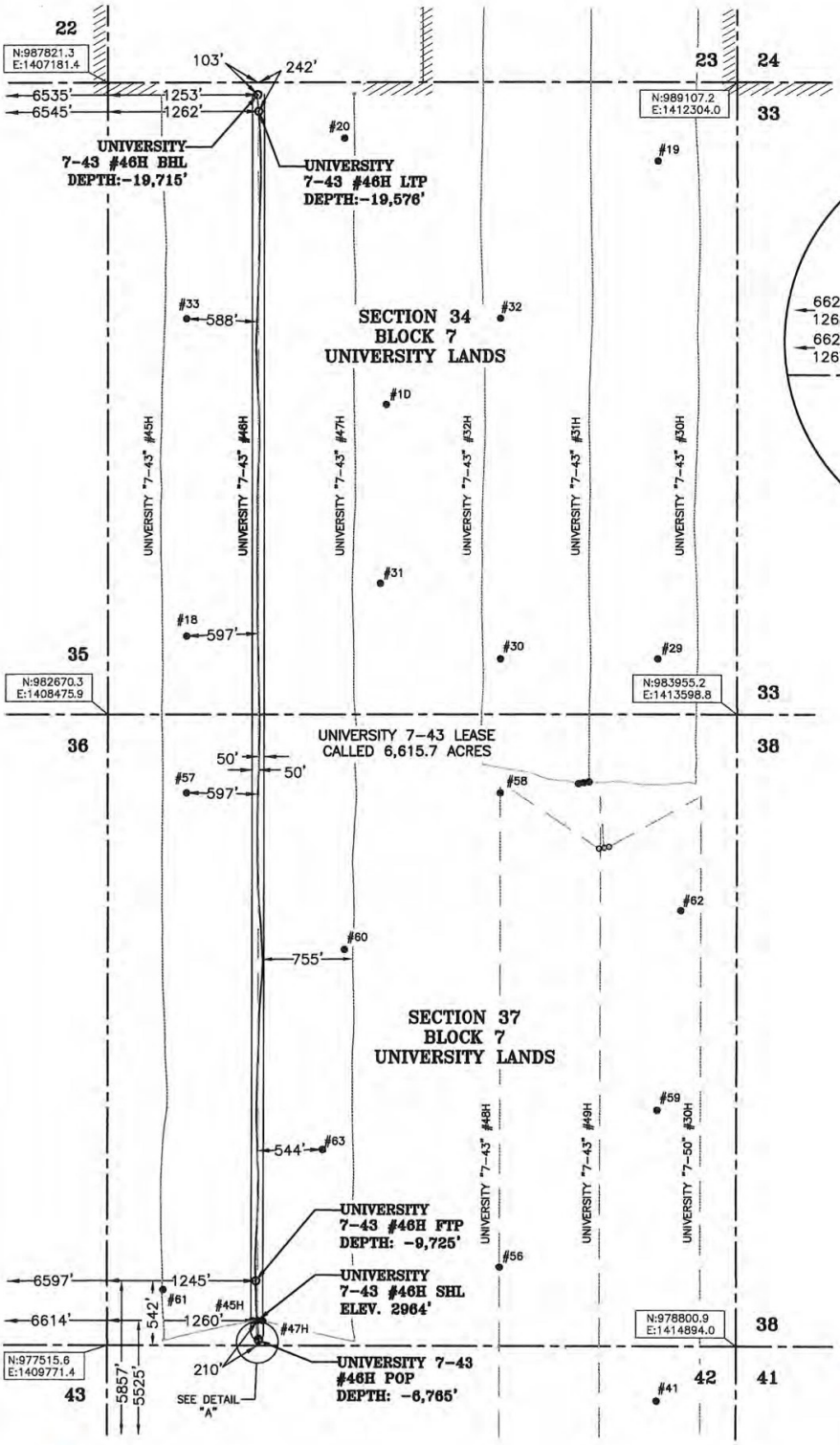
TBPLS FIRM NO. 10193998
HALFF ASSOCIATES INC., ENGINEERS ~ SURVEYORS
4500 W Illinois Ave Ste 301 D~ Midland, TEXAS ~ 79703
SCALE: 1"=2000' (432)-695-6110 AVO. 29678-W038

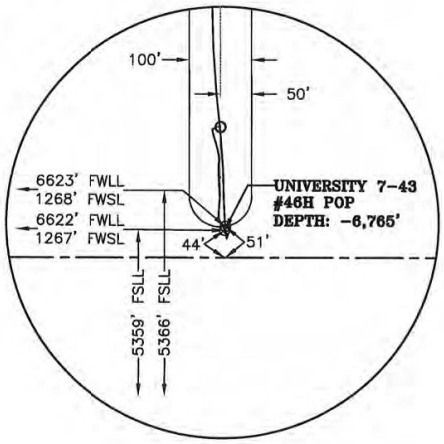
10/5/2015 2:26:27 PM sh2803 HALFF I:\29000s\29678\WO38\CADD\Sheets\VEXH-29678-UL7-38-ConsolidatingLeaseBoundaryTOTAL.dgn

UNIVERSITY 7-43 #46H	NORTHING (NAD27)	EASTING (NAD27)	LATITUDE (NAD 27)	LONGITUDE (NAD27)	SECTION LINE		LEASE LINE	
SURFACE HOLE LOCATION (SHL)	978026.4	1410942.4	32.341723	102.040283	210' S	1260' W	5525' S	6614' W
POINT OF PENETRATION (POP) DEPTH: -6,765	977867.0	1410989.3	32.341287	102.240122	44 ' S	1267' W	5359' S	6622' W
FIRST TAKE POINT (FTP) DEPTH: -9,725	978344.6	1410847.1	32.342593	102.240609	542' S	1245' W	5857' S	6597' W
LAST TAKE POINT (LTP) DEPTH: -19,576	987893.6	1408464.1	32.368720	102.248854	242' N	1262' W	242' N	6545' W
BOTTOM HOLE LOCATION (BHL) DEPTH: -19,715	988026.1	1408421.6	32.369082	102.248999	103' N	1253' W	103' N	6535' W

0 1000 2000

SCALE: 1 = 1000'





DETAIL "A"
1" = 200'

NOTES:

THE BASIS OF BEARING OF THE SURVEY IS THE TEXAS COORDINATE SYSTEM, NORTH AMERICAN DATUM 1927 (NAD 27), CENTRAL ZONE (4203).

ELEVATIONS SHOWN HEREON ARE NAVD88 AS DERIVED BY GPS.

ALL TEXAS STATE PLANE COORDINATES AND GEOGRAPHIC COORDINATES SHOWN HEREON ARE NAD 27 GRID COORDINATES AS COMPUTED BY CORPSCON VERSION 6.0.1.

UNLESS OTHERWISE NOTED, ALL DISTANCES SHOWN HEREON ARE GRID DISTANCES AND THEY CAN BE CONVERTED TO SURFACE WHEN MULTIPLIED WITH A "SURFACE ADJUSTMENT FACTOR" OF 1.000188348 AS CALCULATED BY CORPSCON.

ALL MEASUREMENTS TO LEASE, UNIT, AND SURVEY LINES ARE PERPENDICULAR TO SAID LINES.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.

11/14/2016

NOTE: WELL IS LOCATED APPROXIMATELY 17.1 MILES EAST OF ANDREWS, ANDREWS COUNTY, TEXAS

HALFF

DATED: 11/15/2016
BY: MATTHEW NICHOLS
TBPLS FIRM NO. 10193998
HALFF ASSOCIATES INC., ENGINEERS - SURVEYORS
3300 N. A STREET, BLDG. 1 STE. 114,
MIDLAND, TX 79705
(432) 253-3250
SCALE: 1" = 1000' AVO 29678-WO156

LEGEND

- EXISTING WELL
- SECTION LINE
- LEASE LINE
- WELL LATERAL
- PROPOSED WELL BORE
- PERMITTED WELL BORE
- AS-DRILLED WELL BORE

PIONEER
NATURAL RESOURCES

AS-DRILLED PLAT

UNIVERSITY "7-43" #46H
LOCATED IN
SECTIONS 34 & 37,
BLOCK 7, UNIVERSITY LANDS,
ANDREWS COUNTY, TEXAS

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