

API No. <u>42-003-47294</u> Drilling Permit # <u>812044</u> SWR Exception Case/Docket No. _____	<b>RAILROAD COMMISSION OF TEXAS</b> <b>OIL &amp; GAS DIVISION</b> <b>APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER</b> <i>This facsimile W-1 was generated electronically from data submitted to the RRC.</i> <i>A certification of the automated data is available in the RRC's Austin office.</i>	<b>FORM W-1</b> 07/2004 Permit Status: <b>Approved</b>
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1. RRC Operator No. <b>665748</b>	2. Operator's Name (as shown on form P-5, Organization Report) <b>PIONEER NATURAL RES. USA, INC.</b>	3. Operator Address (include street, city, state, zip): <b>ATTN CINDY WHIDDON P O BOX 3178 MIDLAND, TX 79702-0000</b>
4. Lease Name <b>UNIVERSITY 7-43</b>		5. Well No. <b>28H</b>

**GENERAL INFORMATION**

6. Purpose of filing (mark ALL appropriate boxes):					
<input checked="" type="checkbox"/> New Drill	<input type="checkbox"/> Recompletion	<input type="checkbox"/> Reclass	<input type="checkbox"/> Field Transfer	<input type="checkbox"/> Re-Enter	
<input type="checkbox"/> Amended	<input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D)				
7. Wellbore Profile (mark ALL appropriate boxes):					
<input type="checkbox"/> Vertical	<input checked="" type="checkbox"/> Horizontal (Also File Form W-1H)	<input type="checkbox"/> Directional (Also File Form W-1D)	<input type="checkbox"/> Sidetrack		
8. Total Depth <b>11600</b>	9. Do you have the right to develop the minerals under any right-of-way ?		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)?		
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

**SURFACE LOCATION AND ACREAGE INFORMATION**

11. RRC District No. <b>08</b>	12. County <b>ANDREWS</b>	13. Surface Location			
		<input checked="" type="checkbox"/> Land	<input type="checkbox"/> Bay/Estuary	<input type="checkbox"/> Inland Waterway	<input type="checkbox"/> Offshore
14. This well is to be located <u>17.2</u> miles in a <u>E</u> direction from <u>ANDREWS</u> which is the nearest town in the county of the well site.					
15. Section <b>36</b>	16. Block <b>7</b>	17. Survey <b>UL</b>	18. Abstract No. <b>A-U211</b>	19. Distance to nearest lease line: <b>100</b> ft.	20. Number of contiguous acres in lease, pooled unit, or unitized tract: <b>2673.9</b>
21. Lease Perpendiculars: <u>10261</u> ft from the <u>SOUTH</u> line and <u>3375</u> ft from the <u>WEST</u> line.					
22. Survey Perpendiculars: <u>367</u> ft from the <u>NORTH</u> line and <u>1948</u> ft from the <u>EAST</u> line.					
23. Is this a pooled unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		24. Unitization Docket No:		25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes (attach Form W-1A) <input checked="" type="checkbox"/> No	

**FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.**

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	85280300	SPRABERRY (TREND AREA)	Oil or Gas Well	11600	318.00	14

**BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)**

<b>Remarks</b> [RRC STAFF Nov 19, 2015 9:50 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Nov 19, 2015 3:31 PM]: Problems identified with this permit are resolved.	<b>Certificate:</b> I certify that information stated in this application is true and complete, to the best of my knowledge.  <u>CASI RENFRO, Regulatory Specialist II</u> <u>Nov 18, 2015</u> Name of filer Date submitted <u>(972)4449001</u> <u>casi.renfro@pxd.com</u> Phone E-mail Address (OPTIONAL)
<b>RRC Use Only</b> Data Validation Time Stamp: Nov 20, 2015 9:08 AM( Current Version )	

**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

**Form W-1H** 07/2004  
**Supplemental Horizontal Well Information**

Permit Status: **Approved**  
*The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.*

**APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER**

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A certification of the automated data is available in the RRC's Austin office.*

Permit # **812044**  
Approved Date: **Nov 19, 2015**

1. RRC Operator No. <b>665748</b>	2. Operator's Name (exactly as shown on form P-5, Organization Report) <b>PIONEER NATURAL RES. USA, INC.</b>	3. Lease Name <b>UNIVERSITY 7-43</b>	4. Well No. <b>28H</b>
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**Lateral Drainhole Location Information**

5. Field as shown on Form W-1 **SPRABERRY (TREND AREA) (Field # 85280300, RRC District 08)**

6. Section <b>43</b>	7. Block <b>7</b>	8. Survey <b>UNIVERSITY LAND</b>	9. Abstract	10. County of BHL <b>ANDREWS</b>
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11. Terminus Lease Line Perpendiculars <b>100</b> ft. from the <b>SOUTH</b> line. and <b>3338</b> ft. from the <b>WEST</b> line
12. Terminus Survey Line Perpendiculars <b>100</b> ft. from the <b>SOUTH</b> line. and <b>2048</b> ft. from the <b>EAST</b> line
13. Penetration Point Lease Line Perpendiculars <b>10261</b> ft. from the <b>SOUTH</b> line. and <b>3375</b> ft. from the <b>WEST</b> line





**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION  
SWR #13 Formation Data**

**ANDREWS (003) County**

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
YATES	2,500	3,200		1	12/17/2013
SEVEN RIVERS	3,000	3,000		2	12/17/2013
QUEEN	3,600	4,800		3	12/17/2013
GRAYBURG	3,100	5,000		4	12/17/2013
SAN ANDRES	3,700	5,300	CO2 flood, high flows, H2S, corrosive	5	12/17/2013
HOLT	5,000	5,500		6	12/17/2013
GLORIETA	5,100	6,000		7	12/17/2013
TUBB	6,100	6,300		8	12/17/2013
CLEARFORK	5,600	7,600		9	12/17/2013
PERMIAN DETRITAL	7,800	7,900		10	12/17/2013
LEON	7,900	7,900		11	12/17/2013
WICHITA ALBANY	6,500	8,100		12	12/17/2013
SPRABERRY	7,300	8,600		13	12/17/2013
DEAN	9,200	9,500		14	12/17/2013
WOLFCAMP	7,500	9,900		15	12/17/2013
CANYON	8,600	10,200		16	12/17/2013
PENNSYLVANIAN	8,700	10,200		17	12/17/2013
MCKEE	8,300	10,600		18	12/17/2013
STRAWN	8,800	11,000		19	12/17/2013
FUSSELMAN	8,400	11,900		20	12/17/2013
DEVONIAN	7,600	12,500		21	12/17/2013
SILURIAN	8,000	12,500		22	12/17/2013
ELLENBURGER	7,900	13,900		23	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.  
<http://www.rrc.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

## GROUNDWATER PROTECTION DETERMINATION

Form GW-2



## Groundwater Advisory Unit

**Date Issued:** 18 November 2015      **GAU Number:** 19028

<b>Attention:</b>	PIONEER NATURAL RES. USA, ATTN WELDON PIERSON IRVING, TX 75039	<b>API Number:</b>	
<b>Operator No.:</b>	665748	<b>County:</b>	ANDREWS
		<b>Lease Name:</b>	UNIVERSITY 7-43
		<b>Lease Number:</b>	
		<b>Well Number:</b>	27H
		<b>Total Vertical Depth:</b>	9500
		<b>Latitude:</b>	32.351969
		<b>Longitude:</b>	-102.254447
		<b>Datum:</b>	NAD27

**Purpose:** New Drill  
**Location:** Survey-UL; Block-7; Section-36

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 to all wells within a radius of 200 feet of this location.

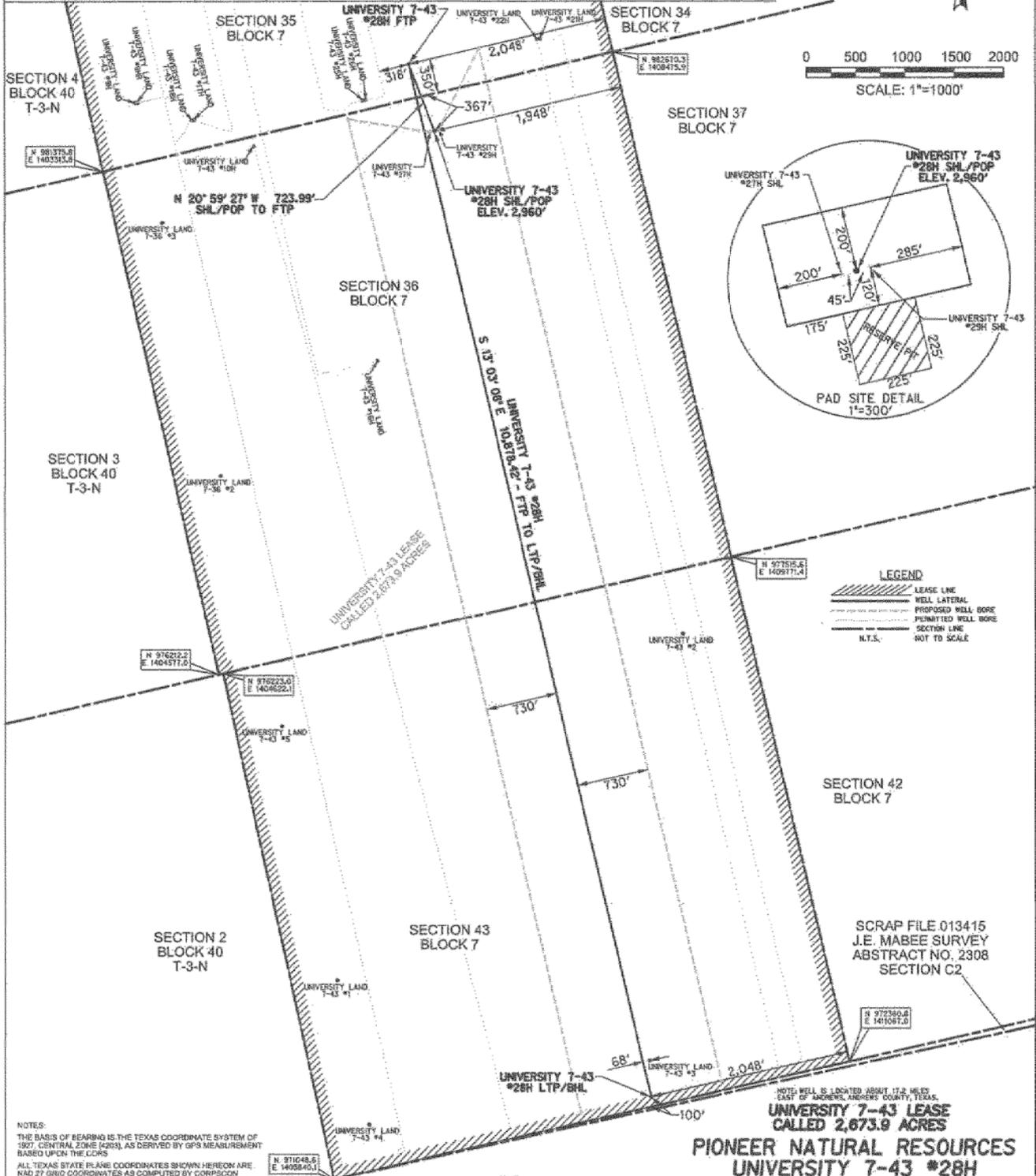
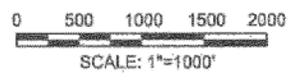
Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 11/18/2015. 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

UNIVERSITY 7-43 #23H	NORTHING (NAD27)	EASTING (NAD27)	LATITUDE (NAD 27)	LONGITUDE (NAD 27)	SECTION LINE		LEASE LINE	
SURFACE HOLE LOCATION/ POINT OF PENETRATION (SHL/POP)	981840.3	1408675.5	32.3520015	102.2549068	367' N (SECT 36)	1948' E (SECT 36)	3,375' W (SECT 36)	10,261' S (SECT 43)
FIRST TAKE POINT (FTP)	982511.5	1408403.7	32.3538329	102.2552243	350' S (SECT 35)	2,048' E (SECT 36)	3,278' W (SECT 35)	10,478' S (SECT 43)
LAST TAKE POINT/ BOTTOM HOLE LOCATION (LTP/BHL)	971959.0	1409055.9	32.3249617	102.2460514	100' S (SECT 43)	2,048' E (SECT 43)	3,338' W (SECT 43)	100' S (SECT 43)



**LEGEND**  
 --- LEASE LINE  
 --- WELL LATERAL  
 --- PROPOSED WELL BORE  
 --- PERMITTED WELL BORE  
 --- SECTION LINE  
 N.T.S. NOT TO SCALE

SCRAP FILE 013415  
 J.E. MABEE SURVEY  
 ABSTRACT NO. 2308  
 SECTION C2

NOTE: WELL IS LOCATED ABOUT 17.2 FEET EAST OF ANDREWS, ANDREWS COUNTY, TEXAS.  
**UNIVERSITY 7-43 LEASE  
 CALLED 2,673.9 ACRES**  
**PIONEER NATURAL RESOURCES  
 UNIVERSITY 7-43 #28H  
 WELL PLAT**  
 LOCATED IN  
 SECTION 35, SECTION 36 AND SECTION 43,  
 BLOCK 7, UNIVERSITY LAND SURVEY, ANDREWS  
 COUNTY, TEXAS



**PIONEER**  
 NATURAL RESOURCES

**HALFF**

DATED: 11/17/2015  
 BY: JUAN GONZALEZ  
 TBPLS. FIRM NO. 10193998  
 HALFF ASSOCIATES INC., ENGINEERS & SURVEYORS  
 4500 W Illinois Ave. Ste 301 D- Midland, TEXAS - 79703  
 SCALE: 1"=1000' (432)-695-6110 AVO. 29678-W060

**NOTES:**  
 THE BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM OF 1927, CENTRAL ZONE (4203), AS DERIVED BY GPS MEASUREMENT BASED UPON THE LCORS.  
 ALL TEXAS STATE PLANE COORDINATES SHOWN HEREON ARE NAD 27 GRID COORDINATES AS COMPUTED BY CORPSON VERSION 6.3.1. ALL GEOGRAPHIC COORDINATES SHOWN HEREON WERE CONVERTED USING CORPSON VERSION 6.1. 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 1.00021 AS PUBLISHED BY THE TEXAS DEPARTMENT OF TRANSPORTATION FOR ANDREWS COUNTY, TEXAS.  
 ELEVATIONS SHOWN HEREON ARE NAVD83 AS DERIVED BY GPS.  
 THIS EXHIBIT IS FOR TEXAS RAILROAD COMMISSION WELL PERMITTING PURPOSES ONLY. BOUNDARY LINES AND ACRESAGES SHOWN HEREON REFLECT THE SURVEYORS PROFESSIONAL OPINION OF MINERAL RIGHTS AS DETERMINED FROM CLIENT-PROVIDED OIL AND GAS MINERAL LEASE DOCUMENTATION. THE INFORMATION DEPICTED HEREON SHALL NOT BE USED IN THE CONVEYANCE OF FEE TITLE TO REAL PROPERTY.  
 ALL MEASUREMENTS TO LEASE, UNIT, AND SURVEY LINES ARE PERPENDICULAR TO SAID LINES.  
 THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.