

API No. <u>42-475-37187</u> Drilling Permit # <u>822323</u> SWR Exception Case/Docket No. _____		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <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>				FORM W-1 07/2004 Permit Status: Approved	
1. RRC Operator No. 276868		2. Operator's Name (as shown on form P-5, Organization Report) FORGE ENERGY, LLC		3. Operator Address (include street, city, state, zip): 10999 IH 10 WEST SUITE 900 SAN ANTONIO, TX 78230-0000			
4. Lease Name UL 18 DYK		5. Well No. 2H					
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 13000		9. Do you have the right to develop the minerals under any right-of-way ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
SURFACE LOCATION AND ACREAGE INFORMATION							
11. RRC District No. 08		12. County WARD		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>7.9</u> miles in a <u>NW</u> direction from <u>PYOTE</u> which is the nearest town in the county of the well site.							
15. Section 18		16. Block 18		17. Survey UNIVERSITY LANDS		18. Abstract No. A-	
				19. Distance to nearest lease line: 200 ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: 480.53	
21. Lease Perpendiculars: <u>331</u> ft from the <u>EAST</u> line and <u>287</u> ft from the <u>SOUTH</u> line. 22. Survey Perpendiculars: <u>2310</u> ft from the <u>WEST</u> line and <u>287</u> ft from the <u>SOUTH</u> line.							
23. Is this a pooled unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		24. Unitization Docket No: P-12		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	
08	71052900	PHANTOM (WOLFCAMP)		Oil or Gas Well	13000	1843.00	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks [RRC STAFF Jan 27, 2017 9:11 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Jan 27, 2017 3:57 PM]: Problems identified with this permit are resolved.; [RRC STAFF Jan 27, 2017 4:07 PM]: Katrina Boyd sent revised plat.; [RRC STAFF Jan 31, 2017 8:01 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Jan 31, 2017 8:03 AM]: Changed distance to nearest lease line to match plat. Changed BHL survey information to match RRC GIS and plat.; [RRC STAFF Jan 31, 2017 12:03 PM]: Problems identified with this permit are resolved.; [RRC STAFF Jan 31, 2017 12:03 PM]: P12 attached.				Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="display: flex; justify-content: space-between;"> <div> <u>Katrina Boyd, Operations Assistant</u> Name of filer </div> <div> <u>Jan 20, 2017</u> Date submitted </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(432)5241301</u> Phone </div> <div> <u>kboyd@forgenergy.com</u> E-mail Address (OPTIONAL) </div> </div>			
RRC Use Only <div style="float: right;">Data Validation Time Stamp: Jan 31, 2017 1:30 PM(Current Version)</div>							

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

RAILROAD COMMISSION OF TEXAS
 OIL & GAS DIVISION

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 #	822323
Approved Date:	Jan 31, 2017

1. RRC Operator No. 276868	2. Operator's Name (exactly as shown on form P-5, Organization Report) FORGE ENERGY, LLC	3. Lease Name UL 18 DYK	4. Well No. 2H
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)			
6. Section 19	7. Block 18	8. Survey UNIVERSITY LANDS	9. Abstract
		10. County of BHL WARD	
11. Terminus Lease Line Perpendiculars 331 ft. from the EAST line. and 200 ft. from the NORTH line			
12. Terminus Survey Line Perpendiculars 2310 ft. from the WEST line. and 2442 ft. from the SOUTH line			
13. Penetration Point Lease Line Perpendiculars 331 ft. from the EAST line. and 287 ft. from the SOUTH line			

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER 822323	DATE PERMIT ISSUED OR AMENDED Jan 31, 2017	DISTRICT * 08	
API NUMBER 42-475-37187	FORM W-1 RECEIVED Jan 20, 2017	COUNTY WARD	
TYPE OF OPERATION NEW DRILL	WELLBORE PROFILE(S) Horizontal	ACRES 480.53	
OPERATOR FORGE ENERGY, LLC 10999 IH 10 WEST SUITE 900 SAN ANTONIO, TX 78230-0000		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: (432) 684-5581	
LEASE NAME UL 18 DYK		WELL NUMBER 2H	
LOCATION 7.9 miles NW direction from PYOTE		TOTAL DEPTH 13000	
Section, Block and/or Survey SECTION 18 BLOCK 18 ABSTRACT 1 SURVEY UNIVERSITY LANDS			
DISTANCE TO SURVEY LINES 2310 ft. WEST 287 ft. SOUTH		DISTANCE TO NEAREST LEASE LINE 200 ft.	
DISTANCE TO LEASE LINES 331 ft. EAST 287 ft. SOUTH		DISTANCE TO NEAREST WELL ON LEASE See FIELD(s) Below	
FIELD(s) and LIMITATIONS: <p align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</p>			
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST LEASE
PHANTOM (WOLFCAMP) UL 18 DYK		480.53 200	13,000 1843
WELLBORE PROFILE(s) FOR FIELD: Horizontal			
RESTRICTIONS: This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office. Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production. Lateral: TH1 Penetration Point Location Lease Lines: 331.0 F EAST L 287.0 F SOUTH L Terminus Location BH County: WARD Section: 19 Block: 18 Abstract: Survey: UNIVERSITY LANDS Lease Lines: 331.0 F EAST L 200.0 F NORTH L Survey Lines: 2310.0 F WEST L 2442.0 F SOUTH L			
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS			

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <div style="text-align: right;">822323</div>	DATE PERMIT ISSUED OR AMENDED <div style="text-align: center;">Jan 31, 2017</div>	DISTRICT <div style="text-align: center;">* 08</div>															
API NUMBER <div style="text-align: right;">42-475-37187</div>	FORM W-1 RECEIVED <div style="text-align: center;">Jan 20, 2017</div>	COUNTY <div style="text-align: center;">WARD</div>															
TYPE OF OPERATION <div style="text-align: center;">NEW DRILL</div>	WELLBORE PROFILE(S) <div style="text-align: center;">Horizontal</div>	ACRES <div style="text-align: center;">480.53</div>															
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LOCATION <div style="text-align: center;">7.9 miles NW direction from PYOTE</div>		TOTAL DEPTH <div style="text-align: center;">13000</div>															
Section, Block and/or Survey <div style="display: flex; justify-content: space-between;"> <div>SECTION ◀ 18</div> <div>BLOCK ◀ 18</div> <div>ABSTRACT ◀</div> </div> <div style="display: flex; justify-content: space-between;"> <div>SURVEY ◀ UNIVERSITY LANDS</div> <div></div> </div>																	
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<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">FIELD NAME</th> <th style="width: 10%;">ACRES</th> <th style="width: 10%;">DEPTH</th> <th style="width: 10%;">WELL #</th> <th style="width: 10%;">DIST</th> </tr> <tr> <th>LEASE NAME</th> <th>NEAREST LEASE</th> <th></th> <th>NEAREST WE</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="5" style="padding-top: 10px;"> <p>This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.</p> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p> </td> </tr> </tbody> </table>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE		<p>This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.</p> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p>				
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**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
SWR #13 Formation Data**

WARD (475) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	1,700	1,700		1	12/17/2013
YATES	2,000	2,800		2	12/17/2013
SEVEN RIVERS	2,375	2,375		3	12/17/2013
QUEEN	2,200	3,200		4	12/17/2013
GLORIETA	3,900	4,000		5	12/17/2013
SAN ANDRES	2,000	4,500	high flows, H2S, corrosive	6	12/17/2013
HOLT	4,600	4,800		7	12/17/2013
CLEARFORK	4,500	5,000		8	12/17/2013
DELAWARE	2,300	5,000		9	12/17/2013
TUBB	4,600	5,300		10	12/17/2013
WICHITA ALBANY	6,000	6,200		11	12/17/2013
CHERRY CANYON	4,800	7,800		12	12/17/2013
WADDELL	7,600	9,700		13	12/17/2013
BONE SPRINGS	4,700	9,800		14	12/17/2013
WOLFCAMP	6,000	12,750		15	12/17/2013
MONTOYA	14,500	14,500		16	12/17/2013
PENNSYLVANIAN	7,500	14,900		17	12/17/2013
ATOKA	12,000	15,000		18	12/17/2013
FUSSELMAN	6,400	17,500		19	12/17/2013
DEVONIAN	6,200	17,800		20	12/17/2013
ELLENBURGER	7,900	20,800		21	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.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

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OIL & GAS DIVISION
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GLORIETA	3,900	4,000		5	12/17/2013
SAN ANDRES	2,000	4,500	high flows, H2S, corrosive	6	12/17/2013
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CLEARFORK	4,500	5,000		8	12/17/2013
DELAWARE	2,300	5,000		9	12/17/2013
TUBB	4,600	5,300		10	12/17/2013
WICHITA ALBANY	6,000	6,200		11	12/17/2013
CHERRY CANYON	4,800	7,800		12	12/17/2013
WADDELL	7,600	9,700		13	12/17/2013
BONE SPRINGS	4,700	9,800		14	12/17/2013
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GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 20 January 2017**GAU Number:** 166223**Attention:** FORGE ENERGY, LLC
10999 IH 10 WEST SUITE 900
SAN ANTONIO, TX 78230**Operator No.:** 276868**API Number:**
County: WARD
Lease Name: UL 18 DYK
Lease Number:
Well Number: 2H
Total Vertical Depth: 13000
Latitude: 31.543780
Longitude: -103.250691
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UNIVERSITY LANDS; Block-18; Section-18

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

The interval from the land surface to a depth of 350 feet must be protected.

This recommendation is applicable for all wells drilled in this sec. 18.

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 01/20/2017. 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

