

API No. <u>42-383-39596</u> Drilling Permit # <u>814374</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. 017996		2. Operator's Name (as shown on form P-5, Organization Report) AMERICAN ENERGY-PERM BASIN, LLC		3. Operator Address (include street, city, state, zip): PO BOX 13710 OKLAHOMA CITY, OK 73113-0000			
4. Lease Name UNIVERSITY 10 RE		5. Well No. 0632HE					
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 8500		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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
SURFACE LOCATION AND ACREAGE INFORMATION							
11. RRC District No. 7C		12. County REAGAN		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>6.74</u> miles in a <u>N</u> direction from <u>Big Lake</u> which is the nearest town in the county of the well site.							
15. Section 6		16. Block 10		17. Survey UNIVERSITY LANDS		18. Abstract No. A-	
				19. Distance to nearest lease line: 100 ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: 630.9	
21. Lease Perpendiculars: <u>674</u> ft from the <u>SOUTH</u> line and <u>1283</u> ft from the <u>EAST</u> line. 22. Survey Perpendiculars: <u>674</u> ft from the <u>SOUTH</u> line and <u>1283</u> ft from the <u>EAST</u> line.							
23. Is this a pooled unit? <input checked="" type="checkbox"/> Yes <input 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	
7C	53613750	LIN (WOLFCAMP)		Oil or Gas Well	8500	320.00	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks [RRC STAFF Mar 14, 2016 9:36 AM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Mar 14, 2016 11:24 AM]: Problems identified with this permit are resolved.				Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="text-align: center;"> Rena Carter, Senior Regulatory Specialist _____ Name of filer </div> <div style="text-align: right;"> Mar 11, 2016 _____ Date submitted </div> <div style="text-align: center;"> (405)6075559 _____ Phone </div> <div style="text-align: right;"> rena.carter@aep-lp.com _____ E-mail Address (OPTIONAL) </div>			
RRC Use Only Data Validation Time Stamp: Mar 14, 2016 3:32 PM(Current Version)							

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 #	814374
Approved Date:	Mar 14, 2016

1. RRC Operator No. 017996	2. Operator's Name (exactly as shown on form P-5, Organization Report) AMERICAN ENERGY-PERM BASIN, LLC	3. Lease Name UNIVERSITY 10 RE	4. Well No. 0632HE
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 LIN (WOLFCAMP) (Field # 53613750, RRC District 7C)			
6. Section 32	7. Block 58	8. Survey UNIVERSITY LANDS	9. Abstract
		10. County of BHL REAGAN	
11. Terminus Lease Line Perpendiculars 15 ft. from the north line. and 1288 ft. from the east line			
12. Terminus Survey Line Perpendiculars 15 ft. from the north line. and 1288 ft. from the east line			
13. Penetration Point Lease Line Perpendiculars 15 ft. from the south line. and 1317 ft. from the east 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 814374	DATE PERMIT ISSUED OR AMENDED Mar 14, 2016	DISTRICT * 7C	
API NUMBER 42-383-39596	FORM W-1 RECEIVED Mar 11, 2016	COUNTY REAGAN	
TYPE OF OPERATION NEW DRILL	WELLBORE PROFILE(S) Horizontal	ACRES 630.9	
OPERATOR AMERICAN ENERGY-PERM BASIN, LLC PO BOX 13710 OKLAHOMA CITY, OK 73113-0000		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: (325) 657-7450	
LEASE NAME UNIVERSITY 10 RE		WELL NUMBER 0632HE	
LOCATION 6.74 miles N direction from BIG LAKE		TOTAL DEPTH 8500	
Section, Block and/or Survey SECTION ◀ 6 BLOCK ◀ 10 ABSTRACT ◀ SURVEY ◀ UNIVERSITY LANDS			
DISTANCE TO SURVEY LINES 674 ft. SOUTH 1283 ft. EAST		DISTANCE TO NEAREST LEASE LINE 100 ft.	
DISTANCE TO LEASE LINES 674 ft. SOUTH 1283 ft. EAST		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 WE
----- LIN (WOLFCAMP) UNIVERSITY 10 RE -----		630.90 100	8,500 320
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----			
RESTRICTIONS: Lateral: TH1 Penetration Point Location Lease Lines: 15.0 F SOUTH L 1317.0 F EAST L Terminus Location BH County: REAGAN Section: 32 Block: 58 Abstract: Survey: UNIVERSITY LANDS Lease Lines: 15.0 F NORTH L 1288.0 F EAST L Survey Lines: 15.0 F NORTH L 1288.0 F EAST L			
<p align="center">THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS</p> <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>			

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;">814374</div>	DATE PERMIT ISSUED OR AMENDED <div style="text-align: center;">Mar 14, 2016</div>	DISTRICT <div style="text-align: center;">* 7C</div>										
API NUMBER <div style="text-align: right;">42-383-39596</div>	FORM W-1 RECEIVED <div style="text-align: center;">Mar 11, 2016</div>	COUNTY <div style="text-align: center;">REAGAN</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;">630.9</div>										
OPERATOR <div style="text-align: right;">017996</div> <div style="text-align: center;">AMERICAN ENERGY-PERM BASIN, LLC</div> <div style="text-align: center;">PO BOX 13710</div> <div style="text-align: center;">OKLAHOMA CITY, OK 73113-0000</div>		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: <div style="text-align: center;">(325) 657-7450</div>										
LEASE NAME <div style="text-align: center;">UNIVERSITY 10 RE</div>		WELL NUMBER <div style="text-align: center;">0632HE</div>										
LOCATION <div style="text-align: center;">6.74 miles N direction from BIG LAKE</div>		TOTAL DEPTH <div style="text-align: center;">8500</div>										
Section, Block and/or Survey SECTION 6 BLOCK 10 ABSTRACT SURVEY UNIVERSITY LANDS												
DISTANCE TO SURVEY LINES <div style="text-align: center;">674 ft. SOUTH 1283 ft. EAST</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">100 ft.</div>										
DISTANCE TO LEASE LINES <div style="text-align: center;">674 ft. SOUTH 1283 ft. EAST</div>		DISTANCE TO NEAREST WELL ON LEASE <div style="text-align: center;">See FIELD(s) Below</div>										
FIELD(s) and LIMITATIONS: <div style="text-align: center;">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div>												
<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">FIELD NAME</td> <td style="width: 15%;">ACRES</td> <td style="width: 15%;">DEPTH</td> <td style="width: 10%;">WELL #</td> <td style="width: 10%;">DIST</td> </tr> <tr> <td>LEASE NAME</td> <td>NEAREST LEASE</td> <td></td> <td>NEAREST WE</td> <td></td> </tr> </table>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE	
FIELD NAME	ACRES	DEPTH	WELL #	DIST								
LEASE NAME	NEAREST LEASE		NEAREST WE									
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.												

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

REAGAN (383) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
GRAYBURG	1,500	2,500		1	12/17/2013
QUEEN	1,900	2,500		2	12/17/2013
SAN ANDRES	2,000	5,000	saltwater flow, possibly heavy	3	12/17/2013
CLEARFORK	3,300	4,000		4	12/17/2013
SPRABERRY	3,300	10,000		5	12/17/2013
STRAWN	9,300	10,200		6	12/17/2013
FUSSELMAN	8,800	11,000		7	12/17/2013
ELLENBURGER	8,700	10,500		8	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>

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 14 March 2016**GAU Number:** 152286**Attention:** AMERICAN ENERGY-PERM
PO BOX 13710
OKLAHOMA CITY, OK 73113**Operator No.:** 017996**API Number:**
County: REAGAN
Lease Name: University 10 RE
Lease Number:
Well Number: 0620HD
Total Vertical Depth: 13000
Latitude: 31.288955
Longitude: -101.470382
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Block-10; Section-6

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 550 feet must be protected.

This recommendation is applicable to all wells within a radius of 500 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 03/14/2016. 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.

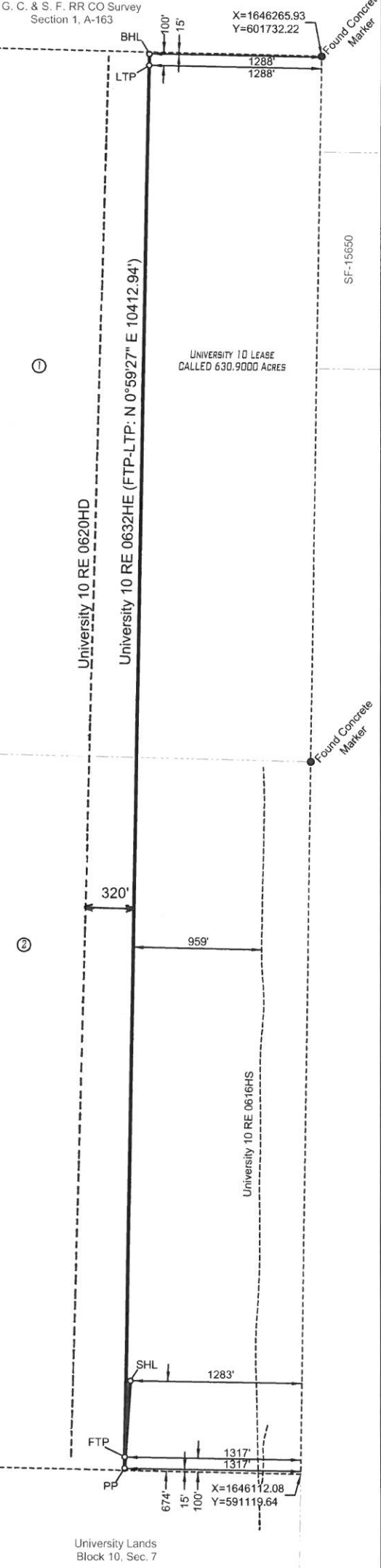
Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov
Rev. 02/2014

NAD 27, Central Zone 4203
Surface Hole Location (SEC. 6)
Latitude: 31.288955° N
Longitude: 101.470382° W
X=1644839.60
Y=591819.33
Elev.=2538'
674' FSL & 1283' FEL
Point of Penetration (SEC. 6)
Latitude: 31.287144° N
Longitude: 101.470502° W
X=1644795.37
Y=591161.16
15' FSL & 1317' FEL
First Take Point (SEC. 6)
Latitude: 31.287378° N
Longitude: 101.470500° W
X=1644796.85
Y=591246.15
100' FSL & 1317' FEL
Last Take Point (SEC. 32)
Latitude: 31.316007° N
Longitude: 101.470264° W
X=1644976.91
Y=601657.53
100' FNL & 1288' FEL
Bottom Hole Location (SEC. 32)
Latitude: 31.316241° N
Longitude: 101.470262° W
X=1644978.38
Y=601742.52
15' FNL & 1288' FEL

Unit Boundary Distance	
SHL	674' FSL & 1283' FEL
PP	15' FSL & 1317' FEL
FTP	100' FSL & 1317' FEL
LTP	100' FNL & 1288' FEL
BHL	15' FNL & 1288' FEL

Tract	Lessor	Called Acreage	% of Total
1	University Lands	313.1000 Acres	49.6275
2	University Lands	317.8000 Acres	50.3725
Total		630.9000 Acres	100.0000



University Lands
Block 58, Sec. 31

University Lands
Block 10, Sec. 5


University Lands
Block 10, Sec. 6

University 10 RE 0620HD

University 10 RE 0632HE (FTP-LTP: N 0°59'27" E 10412.94')

University 10 RE 0616HS

University Lands
Block 10, Sec. 7



AMERICAN ENERGY
PERMIAN BASIN

Well Name
University 10 RE 0632HE
Drilling Field
LIN (WOLFCAMP) FIELD
Nearest Town
6.74 MILES NORTH OF BIG LAKE, TEXAS



NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Survey. Shown Acreages were furnished by others. The information contained on this plat is intended for the sole use of AMERICAN ENERGY-PERM BASIN, LLC.

NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

Damian M. Jagers 03/11/2016
Damian M. Jagers
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269



CROSS TIMBERS SURVEYING, LLC

1583 Darnmouth St. Longview, TX 75601
Phone: 254-965-8686
email: cross@timbersurveying.com
web: www.ctsurvey.net

Well Plat
for
American Energy-Perm Basin, LLC

University 10 RE 0632HE
University Lands Block 10, Section 6,
Reagan County, Texas