

API No. 42-383-38937		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <small>This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.</small>				FORM W-1 07/2004		
Drilling Permit # 787569 SWR Exception Case/Docket No.						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 09		5. Well No. 0921H						
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 checked="" 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 9000		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 11.2 miles in a NW direction from BIG LAKE which is the nearest town in the county of the well site.								
15. Section 9		16. Block 9		17. Survey UL		18. Abstract No. A-U179		
				19. Distance to nearest lease line: 100 ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: 4522.2		
21. Lease Perpendiculars: 268.5 ft from the NORTH line and 3011.2 ft from the WEST line.								
22. Survey Perpendiculars: 268.5 ft from the NORTH line and 3011.2 ft from the WEST 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	32. Number of Wells on this lease in this Reservoir
7C	53613750	LIN (WOLFCAMP)			Oil or Gas Well	9000	330.00	66
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)								
Remarks [FILER Oct 23, 2014 2:43 PM]: Stacked Lateral to 787567; [RRC STAFF Oct 28, 2014 5:21 PM]: There have been problems identified with this permit (see problem letter attachment). Notification sent.; [RRC STAFF Nov 24, 2014 9:29 AM]: Problems identified with this permit are resolved.; [RRC STAFF Nov 24, 2014 9:31 AM]: Cameron Hughes sent revised p-12.; [RRC STAFF Nov 24, 2014 9:38 AM]: Surface not moved - quad busy.; [RRC STAFF Nov 24, 2014 9:41 AM]: Changed bottom survey information to match RRC GIS.					Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge.			
					Cameron Hughes, Regulatory Analyst Oct 28, 2014 Name of filer Date submitted (405)6085477 cameron.hughes@aep-lp.com Phone E-mail Address (OPTIONAL)			
RRC Use Only Data Validation Time Stamp: Nov 24, 2014 10:08 AM(Current Version)								

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

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

Form W-1H
Supplemental Horizontal Well Information

07/2004

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

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Permit #	787569
Approved Date:	Nov 24, 2014

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 09	4. Well No. 0921H
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 LIN (WOLFCAMP) (Field # 53613750, RRC District 7C)			
6. Section 16	7. Block 9	8. Survey UL	9. Abstract
		10. County of BHL REAGAN	
11. Terminus Lease Line Perpendiculars 100 ft. from the SOUTH line. and 3300 ft. from the WEST line			
12. Terminus Survey Line Perpendiculars 100 ft. from the SOUTH line. and 3300 ft. from the WEST line			
13. Penetration Point Lease Line Perpendiculars 543.5 ft. from the NORTH line. and 3300 ft. from the WEST 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 <div style="text-align: right;">787569</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED) <div style="text-align: right;">Nov 24, 2014</div>	DISTRICT <div style="text-align: right;">* 7C</div>	
API NUMBER <div style="text-align: right;">42-383-38937</div>	FORM W-1 RECEIVED <div style="text-align: right;">Oct 28, 2014</div>	COUNTY <div style="text-align: right;">REAGAN</div>	
TYPE OF OPERATION <div style="text-align: right;">NEW DRILL</div>	WELLBORE PROFILE(S) <div style="text-align: right;">Horizontal</div>	ACRES <div style="text-align: right;">4522.2</div>	
OPERATOR <div style="text-align: right;">017996</div> <div style="text-align: right;">AMERICAN ENERGY-PERM BASIN, LLC</div> <div style="text-align: right;">PO BOX 13710</div> <div style="text-align: right;">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: right;">(325) 657-7450</div>	
LEASE NAME <div style="text-align: right;">UNIVERSITY 09</div>		WELL NUMBER <div style="text-align: right;">0921H</div>	
LOCATION <div style="text-align: right;">11.2 miles NW direction from BIG LAKE</div>		TOTAL DEPTH <div style="text-align: right;">9000</div>	
Section, Block and/or Survey <div style="display: flex; justify-content: space-between;"> <div>SECTION ◀ 9</div> <div>BLOCK ◀ 9</div> <div>ABSTRACT ◀ U179</div> </div> <div style="display: flex; justify-content: space-between;"> <div>SURVEY ◀ UL</div> <div></div> <div></div> </div>			
DISTANCE TO SURVEY LINES <div style="text-align: right;">268.5 ft. NORTH 3011.2 ft. WEST</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: right;">100 ft.</div>	
DISTANCE TO LEASE LINES <div style="text-align: right;">268.5 ft. NORTH 3011.2 ft. WEST</div>		DISTANCE TO NEAREST WELL ON LEASE <div style="text-align: right;">See FIELD(s) Below</div>	
FIELD(s) and LIMITATIONS: <div style="text-align: center;">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div>			
FIELD NAME <div style="text-align: right;">LEASE NAME</div>		ACRES <div style="text-align: right;">NEAREST LEASE</div>	DEPTH <div style="text-align: right;">NEAREST WE</div>
<div style="text-align: right;">LIN (WOLFCAMP)</div> <div style="text-align: right;">UNIVERSITY 09</div>		<div style="text-align: right;">4522.20</div> <div style="text-align: right;">100</div>	<div style="text-align: right;">9,000</div> <div style="text-align: right;">330</div>
<div style="text-align: right;">WELLBORE PROFILE(s) FOR FIELD: Horizontal</div>			
RESTRICTIONS: <div style="display: flex; justify-content: space-between;"> <div> Lateral: TH1 Penetration Point Location Lease Lines: 543.5 F NORTH L 3300.0 F WEST L Terminus Location BH County: REAGAN Section: 16 Survey: UL Lease Lines: 100.0 F SOUTH L 3300.0 F WEST L Survey Lines: 100.0 F SOUTH L 3300.0 F WEST L </div> <div> Block: 9 Abstract: </div> </div>			
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS			
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.			

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

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Section, Block and/or Survey <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> SECTION 9 SURVEY UL </div> <div style="width: 30%;"> BLOCK 9 </div> <div style="width: 30%;"> ABSTRACT U179 </div> </div>												
DISTANCE TO SURVEY LINES <div style="text-align: center;">268.5 ft. NORTH 3011.2 ft. WEST</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: center;">100 ft.</div>										
DISTANCE TO LEASE LINES <div style="text-align: center;">268.5 ft. NORTH 3011.2 ft. WEST</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; margin-top: 20px;">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">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> 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.			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE	
FIELD NAME	ACRES	DEPTH	WELL #	DIST								
LEASE NAME	NEAREST LEASE		NEAREST WE									

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.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Date **May 30, 2014**

GAU File No.: **11914**

***** EXPEDITED APPLICATION *****

API Number **38338928**

Attention: **AL ARLIAN**

RRC Lease No. **017946**

SC_252014_38338928_017946_11914.pdf

ENDURING RESOURCES LLC
511 16TH ST
STE 70
DENVER CO 80202

--Measured--

3011 ft FWL

268 ft FNL

MRL:SECTION

P-5# 252014

Digital Map Location:

X-coord/Long **1601698**

Y-coord/Lat **591745**

Datum **27** Zone **C**

County **REAGAN**

Lease & Well No. **UNIVERSITY 09 #0912H&PAD**

Purpose **ND**

Location **SUR-UL,BLK-9,SEC-9,--[TD=8600],[RRC 7C],**

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 475 feet must be protected.

This recommendation is applicable to all wells drilled on this pad.

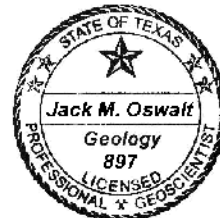
Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form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

If you have any questions, please contact us at 512-463-2741, gau@rrc.state.tx.us, or by mail.

Sincerely,

Jack M. Oswalt, P.G.

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 5/30/2014
Note: Alteration of this electronic document will invalidate the digital signature.

