



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Submitted
Date: 03/12/2015
Tracking No.: 130108

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: AMERICAN ENERGY-PERM BASIN, LLC Operator No.: 017996
Operator Address: PO BOX 13710 OKLAHOMA CITY, OK 73113-0000

WELL INFORMATION

API No.: 42-383-39288 County: REAGAN
Well No.: 1828H RRC District No.: 7C
Lease Name: UNIVERSITY 09 Field Name: LIN (WOLFCAMP)
RRC Lease No.: Field No.: 53613750
Location: Section: 18, Block: 9, Survey: UL, Abstract: U188
Latitude: Longitude:
This well is located 10.15 miles in a NW
direction from BIG LAKE,
which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Well Record Only
Type of completion: New Well
Well Type: Shut-In Producer Completion or Recompletion Date: 02/10/2015
Type of Permit Date Permit No.
Permit to Drill, Plug Back, or Deepen 11/25/2014 800869
Rule 37 Exception
Fluid Injection Permit
O&G Waste Disposal Permit
Other:

COMPLETION INFORMATION

Spud date: 11/23/2014 Date of first production after rig released: 02/10/2015
Date plug back, deepening, recompletion, or drilling operation commenced: 11/24/2014 Date plug back, deepening, recompletion, or drilling operation ended: 02/10/2015
Number of producing wells on this lease in this field (reservoir) including this well: 43 Distance to nearest well in lease & reservoir (ft.): 330.0
Total number of acres in lease: 4522.29 Elevation (ft.): 2714 GL
Total depth TVD (ft.): 14894 Total depth MD (ft.): 14894
Plug back depth TVD (ft.): 14894 Plug back depth MD (ft.): 14894
Was directional survey made other than inclination (Form W-12)? Yes Rotation time within surface casing (hours): 8.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No Multiple completion? No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries Off Lease : No
of lease on which this well is located: 5819.3 Feet from the South Line and
2174.3 Feet from the East Line of the
UNIVERSITY 09 Lease.

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

Field & Reservoir Gas ID or Oil Lease No. 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 (ft.):** 625.0                      **Date:** 10/31/2013  
**SWR 13 Exception**    **Depth (ft.):**

**INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION**

**Date of test:**    **Production method:**  
**Number of hours tested:** 24    **Choke size:**  
**Was swab used during this test?** No    **Oil produced prior to test:**

**PRODUCTION DURING TEST PERIOD:**

**Oil (BBLs):**    **Gas (MCF):**  
**Gas - Oil Ratio:** 0    **Flowing Tubing Pressure:**  
**Water (BBLs):**

**CALCULATED 24-HOUR RATE**

**Oil (BBLs):**    **Gas (MCF):**  
**Oil Gravity - API - 60.:**    **Casing Pressure:**  
**Water (BBLs):**

**CASING RECORD**

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	751			PREM PLUS	785	1222.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	6206			PREM PLUS & UNIV	800	2074.0	2200	Calculation
3	Conventional Production	5 1/2	8 3/4	14894			UNIV MAXLITE	2540	4064.0	300	Calculation

**LINER RECORD**

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
N/A									

**TUBING RECORD**

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
N/A			

**PRODUCING/INJECTION/DISPOSAL INTERVAL**

Row	Open hole?	From (ft.)	To (ft.)
N/A			

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

**Was hydraulic fracturing treatment performed?** No

**Is well equipped with a downhole actuation sleeve?** No    **If yes, actuation pressure (PSIG):**

**Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:**    **Actual maximum pressure (PSIG) during hydraulic fracturing:**

**Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)?** No

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)
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N/A

### FORMATION RECORD

<u>Formations</u>	<u>Encountered</u>	<u>Depth TVD (ft.)</u>	<u>Depth MD (ft.)</u>	<u>Is formation isolated?</u>	<u>Remarks</u>
GRAYBURG	Yes	3038.0	3038.0	Yes	
QUEEN	Yes	2697.0	2697.0	Yes	
SAN ANDRES - SALTWATER FLOW, POSSIBLY HEAVY CLEARFORK	Yes	3332.0	3332.0	Yes	
SPRABERRY	Yes	6072.0	6073.0	Yes	
STRAWN	No			No	NOT ENCOUNTERED
FUSSELMAN	No			No	NOT ENCOUNTERED
ELLENBURGER	No			No	NOT ENCOUNTERED

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No  
Is the completion being downhole commingled (SWR 10)? No

### REMARKS

### RRC REMARKS

**PUBLIC COMMENTS:**

**CASING RECORD :**

**TUBING RECORD:**

TUBING WILL BE RECORDED WITH W2-IP.

**PRODUCING/INJECTION/DISPOSAL INTERVAL :**

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

**POTENTIAL TEST DATA:**

### OPERATOR'S CERTIFICATION

**Printed Name:** Laura Winkler  
**Telephone No.:** (405) 608-5608

**Title:** Sr. Regulatory Analyst  
**Date Certified:** 03/11/2015

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

Form W-15  
 Cementing Report

RAILROAD COMMISSION OF TEXAS  
 Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) <b>American Energy Permian Basin</b>		2. RRC Operator No. 017996	3. RRC District No. 7C	4. County of Well Site <b>Reagan</b>
5. Field Name (Wildcat or Exactly as Shown on RRC Records) Lin (Wolfcamp)		6. API No. 42-383-39288	7. Drilling Permit No. 800869	
8. Lease Name <b>University 09</b>		9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well Number <b>1828H</b>

CASING CEMENTING DATA:		SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				SINGLE STRING	MULTIPLE PARALLEL STRINGS	TOOL	SHOE
12. Cementing Date		11/24/2014					
13. *Drilled Hole Size		17 1/2					
*Ext. % Wash or Hole Enlargement							
14. Size of Casing (in. O.D.)		13 3/8					
15. Top of Liner (ft)							
16. Setting Depth (ft)		751					
17. Number of Centralizers Used		5					
18. Hrs. Waiting on Cement Before Drill-Out		6.5 hours					
1st Slurry	19. API Cement Used: No. of Sacks >						
	Class >						
	Additives >						
2nd Slurry	No. of Sacks >						
	Class >						
	Additives >						
3rd Slurry	No. of Sacks >						
	Class >						
	Additives >						
1st	20. Slurry Pumped: Volume (cu.ft.) >						
	Height (ft) >						
2nd	Volume (cu.ft.) >						
	Height (ft) >						
3rd	Volume (cu.ft.) >						
	Height (ft) >						
Total	Volume (cu.ft.) >						
	Height (ft) >						
21. Was Cement Circulated to Ground Surface (or Bottom of Cellar) Outside Casing?							
22. Remarks							

OVER →

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing Date	10/29/2014							
24. Size of Hole or Pipe Plugged (in)								
25. Depth to Bottom of Tubing or Drill Pipe (ft)								
26. Sacks of Cement Used (each plug)	425							
27. Slurry Volume Pumped (cu.ft.)	561							
28. Calculated Top of Plug (ft)	surface							
29. Measured Top of Plug, If Tagged (ft)								
30. Slurry Wt. (lbs/gal)	14.80							
31. Type Cement	Class C							

CEMENTERS 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.

Jason Gray Service Supervisor Universal Pressure Pumping, Inc. Signature  
 Name and Title of Cementer's Representative Cementing Company

P. O. BOX 60268 San Angelo TX 76906 (325) 651 - 5700 October 29, 2014  
 Address 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 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.

Rian Hinds regulatory technician Signature  
 Typed or Printed Name of Operator Representative Title  
 301 NW U.S. Hwy. OKC OK 73110 405-608-5977 3/9/15  
 Address City State Zip Code Tel: Area Code Number Date: Mo. Day Yr.

### Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

- 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. Form W-15 should be filed with the following:
- \* An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
  - \* Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
  - \* Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. Where to file. The appropriate Commission District Office for the county in which the well is located.
- C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
- D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.
- E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written applications, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.
- F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 12 (b) (3) and (4).
- G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1000 feet of depth from the ground surface to the bottom of the plug.
- To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. 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.

Cementor: Fill in shaded areas  
Operator: Fill in other items

Form W-15  
Cementing Report

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report) <b>American Energy Permian Basin</b>		2. RRC Operator No. <b>017996</b>	3. RRC District No. <b>7C</b>	4. County of Well Site <b>Reagan</b>
5. Field Name (Wildcat or Exactly as Shown on RRC Records) <b>Lin (Wolfcamp)</b>		6. API No. <b>42-383-38288</b>		7. Drilling Permit No. <b>800869</b>
8. Lease Name <b>University 09</b>		9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well Number <b>1828H</b>

CASING CEMENTING DATA:		SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				SINGLE STRING	MULTIPLE PARALLEL STRINGS	TOOL	SHOE
12. Cementing Date			1/31/2015				
13. *Drilled Hole Size			12 1/4				
*Ext. % Wash or Hole Enlargement							
14. Size of Casing (in. O.D.)			9 5/8"				
15. Top of Liner (ft)							
16. Setting Depth (ft)			6206				
17. Number of Centralizers Used			51				
18. Hrs. Waiting on Cement Before Drill-Out							
1st Slurry	19. API Cement Used: No. of Sacks >		525				
	Class >		Prem Plus				
	Additives >		see remarks				
2nd Slurry	No. of Sacks >		275				
	Class >		Univ Prem				
	Additives >		see remarks				
3rd Slurry	No. of Sacks >						
	Class >						
	Additives >						
1st	20. Slurry Pumped: Volume (cu.ft.) >		1675				
	Height (ft) >		5345				
2nd	Volume (cu.ft.) >		399				
	Height (ft) >		1215				
3rd	Volume (cu.ft.) >						
	Height (ft) >						
Total	Volume (cu.ft.) >		2074				
	Height (ft) >		6560				
21. Was Cement Circulated to Ground Surface (or Bottom of Casing) Outside Casing?			NO				
22. Remarks							
1st slurry 525sk Premium Plus w/ 4% Plexcrete STE, 2% CAS-1, 5# Gilsonite, 1/4# Celloflake, 1/4# Superfiber, 0.3%CFL-2,0.7%CR-1							
2nd slurry 275sk Universal Premium MAXlite w/ 0.7% CAS-1,0.3% CFL-2,5# Gilsonite, 1/4# Celloflake, 1/4# Superfiber							

OVER →

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing Date								
24. Size of Hole or Pipe Plugged (in)								
25. Depth to Bottom of Tubing or Drill Pipe (ft)								
26. Sacks of Cement Used (each plug)								
27. Slurry Volume Pumped (cu.ft.)								
28. Calculated Top of Plug (ft)								
29. Measured Top of Plug, If Tagged (ft)								
30. Slurry Wt. (lbs/gal)								
31. Type Cement								

CEMENTERS 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.

Del Neddo Service Supervisor Universal Pressure Pumping, Inc. Signature  
 Name and Title of Cementer's Representative Cementing Company

P. O. BOX 60268 San Angelo TX. 76906 (325)651-5700 January 31, 2015  
 Address 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.

Rian Hinds Regulatory Technician Signature  
 Typed or Printed Name of Operator's Representative Title  
 301 NW 63rd St. OKC OK 73114 4056085477 3/9/15  
 Address City State Zip Code Tel: Area Code Number Date: Mo. Day Yr.

**Instruction to Form W-15, Cementing Report**

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

- 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. Form W-15 should be filed with the following:
  - \* An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;
  - \* Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
  - \* Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete W-15, in addition to Form W-3, to show any casing cemented in the hole.
- B. **Where to file.** The appropriate Commission District Office for the county in which the well is located.
- C. **Surface casing.** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
- D. **Centralizers.** Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.
- E. **Exceptions and alternative casing programs.** The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. **An operator must obtain approval of any exception before beginning casing and cementing operations.**
- F. **Intermediate and production casing.** For specific technical requirements, operators should consult Statewide Rule 12 (b) (3) and (4).
- G. **Plugging and abandoning.** Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. 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.



# RAILROAD COMMISSION OF TEXAS

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

## Form W-15

Rev. 08/2014

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

### CEMENTING REPORT

OPERATOR INFORMATION	
Operator Name: American Energy - Perm Basin, LLC	Operator P-5 No.: 017996
Cementer Name: Universal Pressure Pumping, INC	Cementer P-5 No.: 878392

WELL INFORMATION		
District No.: 7C	County: Reagan	
Well No.: 1828H	API No.: 4238339288	Drilling Permit No.: 800869
Lease Name: University 09	Lease No.:	
Field Name: Lin (Wolfcamp)	Field No.:	

I. CASING CEMENTING DATA		
Type of casing:	<input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Production	
Drilled hole size (in.): 8 3/4"	Depth of drilled hole (ft.): 14894'	Est. % wash-out or hole enlargement: 10%
Size of casing in O.D. (in.): 5 1/2"	Casing weight (lbs/ft) and grade: 17#P-110	No. of centralizers used: 142
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 50	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 02-09-2015

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	735	see remarks	see remarks	1862	7332
2	1805	see remarks	see remarks	2202	8717
3					
<b>Total</b>	2540			4064	16049

II. CASING CEMENTING DATA		
Type of casing:	<input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> 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.)	Tapered string depth of drilled hole (ft.)	
Upper: Lower:	Upper: Lower:	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:	Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (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					
<b>Total</b>					

III. CASING CEMENTING DATA		
Type of casing:	<input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> 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.)	Tapered string depth of drilled hole (ft.)	
Upper: Lower:	Upper: Lower:	
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string no. of centralizers used
Upper: Lower:	Upper: Lower:	Upper: Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> 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					
<b>Total</b>					

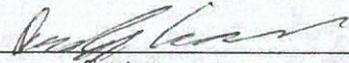
**CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON**

	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**

Lead Slurry: Universal Mix Ultra 5# Glsconite, 1/4# Super Sweep, 1/4# Calclite, 2.5% CAS-1, 0.4% CFL-8, Tail Slurry: Premium 50/50 Poz 2% Gd, 3% Salt, 0.4% CFL-2, 0.3% CR-1, 0.1% CAS-1, 0.2% CFL-19

**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.

**Eduardo Garcia** Universal Pressure Pumping, Inc.   
 Name and title of cementer's representative Cementing Company Signature  
P.O. Box 60268 San Angelo, TX, 76906 325-651-5700 2-9-15  
 Address 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.

**Rian Hinds** regulatory technician   
 Typed or printed name of operator's representative Title Signature  
301 NW 43rd St. OKC OK 73110 405 208 5477 3/9/15  
 Address City, State, Zip Code Tel: Area Code Number Date: mo. day yr.

**Instructions for Form W-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](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.

Tracking No.: 130108

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

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: AMERICAN ENERGY-PERM BASIN, LLC	District No. 7C	Completion Date: 02/10/2015
Field Name LIN (WOLFCAMP)	Drilling Permit No. 800869	
Lease Name UNIVERSITY 09	Lease/ID No.	Well No. 1828H
County REAGAN	API No. 42- 383-39288	

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). \_\_\_\_\_

Laura Winkler

Signature

Name (print)

Sr. Regulatory Analyst

Title

(405) 608-5608

Phone

03/11/2015

Date

-FOR RAILROAD COMMISSION USE ONLY-

Groundwater  
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Date

GAU File No.: SC-

\*\*\*\*\* EXPEDITED APPLICATION \*\*\*\*\*

API Number

Attention:

RRC Lease No.

ENDURING RESOURCES LLC  
511 16TH ST  
STE 700  
DENVER CO 80202

--Measured--

Digital Map Location:

2234 ft FEL X-coord/Long

1728 ft FNL Y-coord/Lat

MRL:SECTION Datum  Zone

P-5# 252014

County

Lease & Well No.

Purpose

Location

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

The interval from the land surface to a depth of 625 feet must be protected.

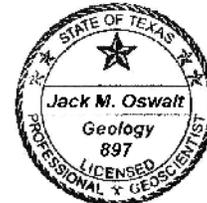
This recommendation is applicable to all wells drilled on this pad.

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](mailto:gau@rrc.state.tx.us), or by mail.

Sincerely,

GEOLOGIST SEAL



Geologist, Groundwater Advisory Unit  
Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Oswalt on 10/31/2013  
Note: Alteration of this electronic document will invalidate the digital signature.

STATEMENT OF PRODUCTIVITY OF ACREAGE  
ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 130108

This facsimile P-15 was generated electronically  
from data submitted to the RRC.

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the AMERICAN ENERGY-PERM BASIN, LLC ,  
OPERATOR  
UNIVERSITY 09 , No. 1828H ; that such well is  
LEASE WELL  
completed in the LIN (WOLFCAMP) Field, REAGAN County,  
Texas and that the acreage claimed, and assigned to such well for proration purposes as authorized by special rule and as shown on the attached certified plat embraces \_\_\_\_\_  
133.0 \_\_\_\_\_ acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE

*I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction,*

Date 03/11/2015 Signature Laura Winkler

Telephone (405) 608-5608 Title Sr. Regulatory Analyst  
AREA CODE

**CERTIFICATE OF POOLING AUTHORITY**

**P-12**

Revised 05/2001

1. Field Name(s) Lin (Wolfcamp)	2. Lease/ID Number (if assigned) 17946	3. RRC District Number 7C
4. Operator Name <del>Enduring Resources, LLC</del> American Energy Perm-Basin LLC	5. Operator P-5 Number <del>252014</del> 017996	6. Well Number 1828H
7. Pooled Unit Name University 09	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Reagan	11. Total acres in pooled unit 4522.2	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	University Lands - Lease #113331	322.994	<input type="checkbox"/>	<input type="checkbox"/>
2	University Lands - Lease #113333	645.988	<input type="checkbox"/>	<input type="checkbox"/>
3	University Lands - Lease #113334	484.491	<input type="checkbox"/>	<input type="checkbox"/>
4	University Lands - Lease #113335	565.399	<input type="checkbox"/>	<input type="checkbox"/>
5	University Lands - Lease #113337	323.079	<input type="checkbox"/>	<input type="checkbox"/>
6	University Lands - Lease #113338	322.985	<input type="checkbox"/>	<input type="checkbox"/>
7	University Lands - Lease #113339	565.270	<input type="checkbox"/>	<input type="checkbox"/>
8	University Lands - Lease #113340	323.031	<input type="checkbox"/>	<input type="checkbox"/>
9	University Lands - Lease #78414	161.497	<input type="checkbox"/>	<input type="checkbox"/>
10	University Lands - Lease #111020	323.071	<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature: *Alvin R. Arlian* Print Name: Alvin R. (Al) Arlian  
 Signature: *Cameron Hughes* Print Name: Cameron Hughes  
 Regulatory Specialist: aarlian@enduringresources.com Date: 12/09/2013 11/25/2014  
 Title: \_\_\_\_\_ E-mail (if available): \_\_\_\_\_ Date: \_\_\_\_\_ Phone: (303) 350-5114

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
- The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an \* to the left of the tract identifier.
- The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

**CERTIFICATE OF  
 POOLING AUTHORITY**

**P-12**

Revised 05/2001

1. Field Name(s) Lin (Wolfcamp)	2. Lease/ID Number (if assigned) 17946	3. RRC District Number 7C
4. Operator Name Enduring Resources, LLC <i>American Energy Perm. Basin, LLC</i>	5. Operator P-5 Number 252014-017996	6. Well Number 1828H
7. Pooled Unit Name University 09	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Reagan	11. Total acres in pooled unit 4522.2	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See Inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
11	University Lands - Lease #111021	322.998	<input type="checkbox"/>	<input type="checkbox"/>
12	University Lands - Lease #107981	80.774	<input type="checkbox"/>	<input type="checkbox"/>
13	University Lands - Lease #108484	80.708	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature: *Cameron Hughes* Print Name: Alvin R. (AI) Artian  
 Title: Regulatory Specialist E-mail (if available): aarljan@enduringresources.com Date: 12/09/2013 11/25/2014 Phone: (303) 350-6114

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

- When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
- The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
- If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
- If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
- If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
- Identify the drill site tract with an \* to the left of the tract identifier.
- The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.



American Energy-Perm Basin, LLC							
University Block 09 - RRC Lease No. 17946							
Pooled Unit Area 4522.285 Acres							
Cnt	Comment	Lateral Type	RRC #	WELL NAME	WELL NUMBER	ASSIGNED ACRES	
1	Stacked	Parent	17946	University 09	1801H	32.2850	ACRES
2	Laterals	Stacked	17946	University 09	1822H	0.0000	ACRES
3			17946	University 09	0901H	50.0000	ACRES
4			17946	University 09	1804H	50.0000	ACRES
5			17946	University 09	0906H	50.0000	ACRES
6			17946	University 09	0905H	50.0000	ACRES
7			17946	University 09	0809H	50.0000	ACRES
8			17946	University 09	0808H	50.0000	ACRES
9			17946	University 09	0801H	50.0000	ACRES
			17946	University 09	0810H	50.0000	ACRES
10			17946	University 09	1813H	50.0000	ACRES
11			17946	University 09	1808H	50.0000	ACRES
12	Stacked	Parent	17946	University 09	1810H	50.0000	ACRES
13	Laterals	Stacked	17946	University 09	1818H	0.0000	ACRES
14	Stacked	Parent	17946	University 09	1812H	50.0000	ACRES
15	Laterals	Stacked	17946	University 09	1820H	0.0000	ACRES
16	Stacked	Parent	17946	University 09	1807H	50.0000	ACRES
17	Laterals	Stacked	17946	University 09	1819H	0.0000	ACRES
18	Stacked	Parent	17946	University 09	1806H	50.0000	ACRES
19	Laterals	Stacked	17946	University 09	1821H	0.0000	ACRES
20	Stacked	Parent	17946	University 09	1803H	50.0000	ACRES
21	Laterals	Stacked	17946	University 09	1824H	0.0000	ACRES
22			17946	University 09	1811H	50.0000	ACRES
23			17946	University 09	1809H	50.0000	ACRES
24			17946	University 09	1825H	50.0000	ACRES
25	Stacked	Parent	17946	University 09	1805H	50.0000	ACRES
26	Laterals	Stacked	17946	University 09	1823H	0.0000	ACRES
27			17946	University 09	1814H	50.0000	ACRES
28			17946	University 09	1815H	50.0000	ACRES
29			17946	University 09	0819H	50.0000	ACRES
30			17946	University 09	0820H	50.0000	ACRES
31			17946	University 09	0903H	50.0000	ACRES
32			17946	University 09	0918H	50.0000	ACRES
33			17946	University 09	0907H	50.0000	ACRES
34			17946	University 09	0913H	50.0000	ACRES
35			17946	University 09	0818H	130.0000	ACRES
36			17946	University 09	0817H	360.0000	ACRES
37	Stacked	Parent	17946	University 09	0806H	360.0000	ACRES
38	Laterals	Stacked	17946	University 09	0802H	0.0000	ACRES
39	Stacked	Parent	17946	University 09	0811H	360.0000	ACRES
40	Laterals	Stacked	17946	University 09	0812H	0.0000	ACRES
41	Stacked	Parent	17946	University 09	0804H	360.0000	ACRES
42	Laterals	Stacked	17946	University 09	0813H	0.0000	ACRES
43	Stacked	Parent	17946	University 09	1802H	360.0000	ACRES
44	Laterals	Stacked	17946	University 09	1816H	0.0000	ACRES
45			17946	University 09	1827H	360.0000	ACRES
46			17946	University 09	1826H	360.0000	ACRES
47			17946	University 09	1817H	360.0000	ACRES
			17946	University 09	1828H	130.0000	ACRES
<b>TOTAL ASSIGNED ACRES:</b>						<b>4522.285</b>	<b>ACRES</b>

Amended to add 1828H

Added

Updated: 3/11/2015