

Form W-2

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

Tracking No.:

Approved 02/03/2017

164007

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

**OPERATOR INFORMATION** 

Operator Name: BAM PERMIAN OPERATING, LLC
Operator Address: SUITE 110 PMB #53 4416 BRIARWOOD AVE MIDLAND, TX 79707-0000

**WELL INFORMATION** 

**API No.**: 42-103-36547 **County**: CRANE

Well No.: 4 RRC District No.: 08

Lease Name: UNIVERSITY AMANDA Field Name: UNIVERSITY 31 WEST (U. DEVONIAN)

**RRC Lease No.:** 48191 **Field No.:** 92505500

Location: Section: 6, Block: 30, Survey: UL, Abstract: U6

**Latitude:** 31.52787 **Longitude:** -102.42262

This well is located 10.2 miles in a NW

direction from CRANE,

which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential

Type of completion: New Well

Well Type: Producing Completion or Recompletion Date: 10/16/2016

 Type of Permit
 Date
 Permit No.

 Permit to Drill, Plug Back, or Deepen
 10/10/2016
 815449

Rule 37 Exception
Fluid Injection Permit

**O&G Waste Disposal Permit** 

Other:

**COMPLETION INFORMATION** 

Spud date: 06/11/2016 Date of first production after rig released: 10/16/2016

this field (reservoir) including this well: 1 reservoir (ft.): 0.0

Total number of acres in lease: 320.50 Elevation (ft.): 2648 GL

Total depth TVD (ft.): 9445

Plug back depth TVD (ft.): 9180

Total depth MD (ft.): Plug back depth MD (ft.):

Was directional survey made other than
Rotation time within surface casing (hours): 58.0
Is Cementing Affidavit (Form W-15) attached?
Yes

Recompletion or reclass? No Multiple completion? No

Type(s) of electric or other log(s) run: Combo of Induction/Neutron/Density

**Electric Log Other Description:** 

Location of well, relative to nearest lease boundaries

Off Lease: No.

of lease on which this well is located: 2128.0 Feet from the West Line and 607.0 Feet from the South Line of the

7.0 Feet from the South Line of the

UNIVERSITY AMANDA **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.): 850.0 Date: 10/03/2014

SWR 13 Exception Depth (ft.):

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 10/24/2016 Production method: Pumping

Number of hours tested: 24 Choke size:

Was swab used during this test? No Oil produced prior to test: 695.00

**PRODUCTION DURING TEST PERIOD:** 

**Oil (BBLS):** 152.00 **Gas (MCF):** 183

Gas - Oil Ratio: 1203 Flowing Tubing Pressure:

Water (BBLS): 33

**CALCULATED 24-HOUR RATE** 

Oil (BBLS): 152.0 Gas (MCF): 183

**Oil Gravity - API - 60.:** 42.0 **Casing Pressure:** 60.00

Water (BBLS): 33

	CASING RECORD										
	Type of	Size	Size		Stage Tool				Volume		TOC Determined
Rov	V Casing Surface	(in.)	(in.)	(ft.)	Depth (ft.)	Depth (ft.)	Class	(sacks)	(cu. ft.)	(ft.)	<b>By</b> irculated to Surface
1	Surface	13 3/8	17 1/2	866			С	665	1059.0	0 C	irculated to Surface
2	Intermediate	8 5/8	11	3780			С	855	1873.0	0 C	rculated to Surface
3	Conventional Production	5 1/2	7 7/8	9445	7450		Н	510	1102.0	2550 Ce	ment Evaluation Log
4	Conventional Production	5 1/2	7 7/8	9445			Н	400	488.0	7450 Ce	ment Evaluation Log

LIN	ER	RE	CO	RD
-----	----	----	----	----

Liner Hole Liner Cement Cement Slurry Top of Amount Volume Cement Sacks)

Row Size (in.) Size (in.) Top (ft.) Bottom (ft.)

Cement Amount Volume Cement (sacks) (cu. ft.) (ft.) Determined By

N/A

		TUBING RECORD	
Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 3/8	8566	/

PRODUCING/INJECTION/DISPOSAL INTERVAL							
Row	Open hole?	From (ft.)	<u>To (ft.)</u>				
1	No	L 8414	8484.0				

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

Was hydraulic fracturing treatment performed?

Is well equipped with a downhole actuation

If yes, actuation pressure (PSIG): sleeve? No

Production casing test pressure (PSIG) prior to Actual maximum pressure (PSIG) during hydraulic

hydraulic fracturing treatment: fracturing: 5017

Has the hydraulic fracturing fluid disclosure been

reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Depth In	terval (ft.)	
1	Fracture	2625 BBL FLUID. SEE FRAC FOCUS FOR DETAILS.	8414	8484
2	Cast Iron Bridge Plug	CIBP W/ 20' CEMENT (W-15 ATTACHED)	9200	9200
3	Retainer	CICR-SQUEEZE W/ 50 SX CLASS H (W-15 ATTACHED)	9294	9294
4	Acid	4750 GAL 15% HCL	9258	9359

	FORMATION RECORD									
Formations	Encountered	Depth TVD (ft.)	Is formation Depth MD (ft.) isolated?	Remarks						
RUSTLER	Yes	1140.0	Yes							
YATES	Yes	2194.0	Yes							
GRAYBURG - ACTIVE CO2 FLOC	DD Yes	3218.0	Yes							
SAN ANDRES - USABLE QUALIT WATER/ACTIVE CO2 FLOOD	Y Yes	3456.0	Yes							
SAN ANGELO	No		No	DID NOT ENCOUNTER						
SEVEN RIVERS	No		No	DID NOT ENCOUNTER						
GLORIETA	Yes	4341.0	Yes							
PERMIAN GENERAL	No		No	DID NOT ENCOUNTER						
QUEEN	No		No	DID NOT ENCOUNTER						
CLEARFORK	No		No	DID NOT ENCOUNTER						
MONTOYA	No		No	NOT DEEP ENOUGH						
TUBB	No		No	DID NOT ENCOUNTER						
WICHITA ALBANY	Yes	5862.0	Yes							
FUSSELMAN	No		No	NOT DEEP ENOUGH						
WOLFCAMP	Yes	7076.0	Yes							
WADDELL	No		No	NOT DEEP ENOUGH						
BEND	Yes	8391.0	Yes							
PENNSYLVANIAN	No		No	DID NOT ENCOUNTER						
CISCO	No		No	DID NOT ENCOUNTER						
STRAWN	Yes	7936.0	Yes							
DEVONIAN - ACTIVE CO2 FLOO	D Yes	9225.0	Yes							
ELLENBURGER	No		No	NOT DEEP ENOUGH						

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

No

#### **REMARKS**

RRC REMARKS
PUBLIC COMMENTS:
CASING RECORD :
TUBING RECORD:
PRODUCING/INJECTION/DISPOSAL INTERVAL :
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :
POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION

Printed Name: Blake Morphew Title:



1701 N. Congress P.O. Box 12967 Austin, Texas 78701-2967 Form W-15

Rev. 08/2014

# **CEMENTING REPORT**

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

		OPERATOR I	NFORMATION		STATISTICS OF THE PROPERTY OF THE PARTY OF T
Operator Name:	BAM PERMIAN		Operator P-5 No.:	048351	
Cementer Name:	O - Tex Pumping, LL	C-1, 1 - 1, 2 - 1, 2 - 1, 2 - 1, 2 - 1, 2 - 1, 2	Cementer P-5 No.:	617021	
		WELLINF	ORMATION		
District No.:	08		County:	CRANE	
Well No.:	#4		The second secon	2-103-36547 Drilling Perm	the DIEILIA
Lease Name:	AMANDA		Lease No.:	2-103-30347 DIMINIS PERM	it No.: 815449
Field Name: uni	versity 31 i	west (u. Devonian)		05500	
Windstein State Committee		I. CASING CEN	Advancement	POT IN CONTRACTOR OF CONTRACTOR CONTRACTOR	
Type of Casing:	Conductor	✓ Surface	Intermediate		<b>-</b>
Drilled hole size (in.):	17 1/2	Depth of drilled hole (ft.):		Liner	Production
Size of casing in O.D. (in	): 13 3/8	Casing weight (lbs/ft) and gra		Est. % wash-out or hole enlarg	940110
Was cement circulated to gr casing? VYES NO	ound surface (or bottom of If no for surface casing, ex	cellar) outside	Setting depth shoe (ft.):	Top of liner (f	t.):
Hrs. waiting on cement befo	ore drill-out: 18	Calculated top of cement	(6.)		
	10	SLU		Cementing date:	6/12/2016
Slurry No.	No. of Sacks	Class			
1	350	CLASS C	Additives	Volume (cu. ft.)	Height (ft.)
2	315	CLASS C	SEE REMARKS	637	557
3	313	CLASS C	SEE REMARKS	422	913
Total	665				
				1059	1470
ype of casing:	Surface Interme	II. CASING CEM			
Orilled hole size (in.):	Surface Interme		Tapered production	Multi-stage cement sho	e Multiple parallel stri
ize of casing in O.D. (in.)		Depth of drilled hole (ft.):		Est. % wash-out or hole enlarge	ment:
apered string drilled hol		Casing weight (lbs/ft) and grad		No. of centralizers used	
Ipper:	Lower:		Tapered string depth of	drilled hole (ft.)	
apered string size of cas		Tonoredation	Upper:	Lower:	
pper:	Lower:	Tapered string casing weig Upper:		Tapered string no. of ce	ntralizers used
as cement circulated to gro	ound surface (or bottom of o	cellar) outside casing? YES	Lower:	Upper:	Lower:
rs. waiting on cement befor	e drill-out:	Calculated top of cement (1	NO NO	Setting depth shoe (ft.):	
		SLUR	Mileston and the second	Cementing date:	
Slurry No.	No. of Sacks	Class	TOTAL STATE OF THE	7	
1		Ciuss	Additives	Volume (cu. ft.)	Height (ft.)
2					
3					
Total			Tr. 8		
MANAGAN ALDES		III. CASING CEME	NTING DATA		
		III. CASING CEIVIE	NTING DATA		COLUMN DESCRIPTION OF THE PARTY
pe of casing:	Surface Intermed	iate Broduction II.	F 1		
pe of casing:	Surface Intermed		Tapered production	Multi-stage cement/DV tool	
illed hole size (in.):	Surface Intermed	Depth of drilled hole (ft.):		Est. % wash-out or hole enlargem	
illed hole size (in.): re of casing in O.D. (in.):		Depth of drilled hole (ft.): Casing weight (lbs/ft) and grade	:	Est. % wash-out or hole enlarger No. of centralizers used:	
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	CEMENTING TO S	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	מו מונות
Cementing Date		1	1	1 200 114	FL00#3	FLUG #0	PLUG #7
Size of hole or pipe (in.)		<u> </u>					
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				345			
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)	the grant and		E LOUIS E		M		
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)		To a se					-
Class/type of cement	2.4.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	444					
Perforate and squeeze (YES/NO)							
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certification, that the cementing of casing an supervision, and that the cementing data and certification covers cementing data only.	d/or the placing of o	ement plugs in	this well as sho his form are true	esources Code, wn in the repor e, correct, and c	that I am autho	orized to make t	er mv
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City, State, Zip Code (432) 413-9259
Tel: Area Code Number
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 787112967).

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?si=R&app=9&p\_dir=&p\_rloc=&p\_ploc=&pp=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-15 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.



Form W-15

Rev. 08/2014

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

### **CEMENTING REPORT**

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

		Caracia de	OPERATOR	INFORMATION	Charles and the same of the species of the same of	
Operator Name:	BAM PERMIAI	N ODERATING		Operator P-5 No.:	048351	
Cementer Name:	O - Tex Pumpi		Julie	Cementer P-5 No.:	617021	
Cementer Name.	o rextramp	IIB , LLC	14/5/14 281		01/021	
	- 66		WELLIN	FORMATION	CDANE	
District No.:	08			County:	CRANE	n. Dirilla
Well No.:	4	150000			-36547 Drilling Permit	No.: 013447
Lease Name:	AMANDA			Lease No.:	25522	
Field Name: Cuni	versity	31 00	st Cu. Devonia-		05500	
				MENTING DATA	<u> </u>	
Type of Casing:	Conductor			✓ Intermediate	Liner	Production
Drilled hole size (in.):	1111		epth of drilled hole (ft.		Est. % wash-out or hole enlarge	
Size of casing in O.D. (in.)	0 1		asing weight (lbs/ft) and g		55 No. of centralizers used	
Was cement circulated to gro				Setting depth shoe (fi		
	If no for surface c			3780'	Setting depth I	
Hrs. waiting on cement before	e drill-out: 16	1 10	alculated top of cemen		Cementing date:	6/17/2016
				URRY		
Slurry No.	No. of S		Class	Additives	Volume (cu. ft.)	Height (ft.)
1	655		50:50 CLASS C	REMARKS # 1	1605	6314
2	200		CLASS C	REMARKS # 2	268	1054
3	79					
Total	855				1873	7368
			II. CASING CE	MENTING DATA		
Type of casing:	Surface	Intermediate	Production	Tapered production	Multi-stage cement show	Multiple parallel strings
Drilled hole size (in.):		D	epth of drilled hole (ft.	):	Est. % wash-out or hole enlarge	ment:
Size of casing in O.D. (in.)		C	esing weight (lbs/ft) and gr	ade:	No. of centralizers used	
Tapered string drilled hole	e size (in.)			Tapered string depth	of drilled hole (ft.)	
Upper:		_ower:		Upper:	Lower:	
Tapered string size of casi	ing in O.D. (in.)	T	apered string casing we	eight(lbs/ft) and grade	Tapered string no. of ce	ntralizers used
Upper:	Lower:		pper:	Lower:	Upper:	Lower:
Was cement circulated to gro	und surface (or bo	ttom of cellar	outside casing? YES	NO	Setting depth shoe (ft.):	
Hrs. waiting on cement before	e drill-out:	c	alculated top of cemen	t (ft.):	Cementing date:	
			SLI	JRRY		
Slurry No.	No. of Sa	icks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1						
2						
3						
Total						
			HL CASING CE	MENTING DATA		
Type of casing:	Surface	ntermediate	Production	Tapered production	Multi-stage cement/DV tool	Multiple parallel strings
Drilled hole size (in.):		D	epth of drilled hole (ft.)		Est. % wash-out or hole enlargen	
Size of casing in O.D. (in.):		Ca	sing weight (lbs/ft) and gr	ade:	No. of centralizers used:	
Tapered string drilled hole	size (in.)			Tapered string depth of		
Upper:	L	ower:		Upper:	Lower:	
Tapered string size of casi			pered string casing we		Tapered string no. of cer	ntralizers used
Upper:	Lower:	1	pper:	Lower:	Upper:	Lower:
Was cement circulated to gro	und surface (or bo			I NO I	Setting depth shoe (ft.):	
Hrs. waiting on cement before			alculated top of cement		Cementing date:	
	and the stay as below to	14. 15.10. 1022.5		IRRY	Learning water	
Slurry No.	No. of Sa	cks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1						-0(//
2			And the second and district	party apreciation and a second		
3						
Total					100	

CB	MENTING TO 5	QUEEZE, PLUG I	SACK OR PLUG	AND ABANDON			
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date			2.3				27
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)			77				
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.)		12.2					
Slurry weight (lbs/gal)					DE SERVICE EST		aro Lati xius
Class/type of cement	grap de Vide		er of the second				
Perforate and squeeze (YES/NO)					*	- 13	2
		REMAI	RKS.				
REMARKS # 1 10% Gel + .25#/sk Cello Flake + 5% REMARKS # 2 2% CaCl2	6 Salt						
NEIVIANNS#2 Z/0 CaCIZ						<del></del>	
CEMENTER'S CERTIFICATE: I declare under penal	tios proscribod	in Sec 01 1/2	Toyac Natural D	Occurrent Code	that I am outh	rizad to make t	
certification, that the comenting of casing and/or	the placing of			will ill tile reput			el Hily
					complete to the	a hact of my kny	wolodgo Th
supervision, and that the cementing data and fac					complete, to the	e best of roy kno	owledge. Th
supervision, and that the cementing data and fac					complete, to the	e best of ray kno	owledge. Th
supervision, and that the cementing data and fac certification covers cementing data only.				e, correct, and	complete, to the	e best of my kno	owledge. The
supervision, and that the cementing data and factorification covers cementing data only.  CARLOS A FLORES SERVICE SUPERVISOR			his form are tru O-Tex P	e, correct, and	complete, to the	X	
supervision, and that the cementing data and factorification covers cementing data only.  CARLOS A FLORES SERVICE SUPERVISOR			his form are tru O-Tex P	e, correct, and o	complete, to the	e best of roy kno	
supervision, and that the cementing data and factorification covers cementing data only.  CARLOS A FLORES SERVICE SUPERVISOR			his form are tru O-Tex P	e, correct, and o	complete, to the	X	
certification, that the cementing of casing and/or supervision, and that the cementing data and fact certification covers cementing data only.  CARLOS A FLORES SERVICE SUPERVISOR Name and title of cementer's representative		n both sides of t	his form are tru O-Tex P	e, correct, and o		Signa	

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.

Blake Morphers

Typed or printed name of operator's representative

4416 Briconwood And

midland, TX 79707

Address

City, State, Zip Code

Maraging Member

Title

(432) 242-

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.

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 filled 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.

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 787112967).

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?si=R&app=9&p\_dir=&p\_rloc=&p\_ploc=&p\_ploc=&p\_te=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.

- 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.
- 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.
- 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.
- Slurry data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



Form W-15

Rev. 08/2014

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

### **CEMENTING REPORT**

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

		OPERATOR I	NFORMATION		
Operator Name:	Bam Permian Opera		Operator P-5 No.:	000251	
Cementer Name:	O - Tex Pumping , LI		Cementer P-5 No.:	048351 617021	
Cementer Warne.	O TEXT dillipling , El		ORMATION	01/021	
District N	- D	VVELL INF		Gram a	
District No.:	08		County:	Crane	0.6000
Well No.:	#4			36547 Drilling Perm	it No.: 815449
Lease Name:	Amanda Versity 31	tack (in Da)	Lease No.:		
Field Name: Unit	versity 31 i	west (u. Devonien)	CONTRACTOR OF THE PARTY OF THE	05500	
- 60			IENTING DATA		
Type of Casing:	Conductor	Surface	Intermediate		Production
Drilled hole size (in.):	Mario"	Depth of drilled hole (ft.):	and the same	Est. % wash-out or hole enlar	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and gra		No. of centralizers use	
Was cement circulated to gro casing? YES NO	ound surface (or bottom If no for surface casing		Setting depth shoe (ft.):		
				Setting depth	liner (ft.):
Hrs. waiting on cement befor	e ann-out:	Calculated top of cement	Andread and the second	Cementing date:	
Slurry No.	No. of Sacks	SLU Class	<del></del>	1 Volume ( - 6 )	(Late to 10)
Sidily No.	INO. DI SACKS	Uass	Additives	Volume (cu. ft.)	Height (ft.)
2	<del> </del>				
3					
Total					
Total					
T		II. CASING CEN			
Type of casing:			4	✓ Multi-stage cement she	Comment of the Commen
Drilled hole size (in.):	77/311	Depth of drilled hole (ft.):	9445	Est. % wash-out or hole enlarg	2010
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and gra		No. of centralizers used	i: 36
Tapered string drilled hole	50×20×100 100×200 •		Tapered string depth of	8 8	
Upper: Tapered string size of casi	Lower		Upper:	Lower:	
Upper:	Lower:	Tapered string casing weight		Tapered string no. of co	1000
Was cement circulated to gro		Upper: of cellar) outside casing? YES	Lower:	Upper:	Lower:
Hrs. waiting on cement before	-	Calculated top of cement (	termed the second		9445
This working on cement belon	c drin out.	SLU		Cementing date:	6/30/2016
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Unight (ft \
1	400	50:50 H	Remark 1	488	Height (ft.)
2		30.3011	Hemark T	400	2816
3					
Total	400			488	2816
		III. CASING CEN	IENTING DATA		
Type of casing:	Surface Intern			✓ Multi-stage cement/DV to	ol Multiple parallel strings
Drilled hole size (in.):	77/811	Depth of drilled hole (ft.):		Est. % wash-out or hole enlarg	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grad	te: 70# L-20	No. of centralizers used	
Tapered string drilled hole		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Tapered string depth of	The second secon	. 36
Upper:	Lower	:	Upper:	Lower:	
Tapered string size of casi		Tapered string casing weig	The state of the s	Tapered string no. of ce	entralizers used
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to gro			NO V	Setting depth shoe (ft.):	
Hrs. waiting on cement before	The same of the sa	Calculated top of cement (			6/30/2016
		SLUF	The state of the s		
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	400	50:50 H	Remark 2	992	5728
2	110	Class H	Remark 3	110	744
3				1	
Total	510			1102	6472

	CEMENTING TO S	QUEEZE, PLUG I	BACK OR PLUG	AND ABANDON			
and the same of th	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					W -		
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)				5			
Vleasured top of plug, if tagged (ft.)					-		***************************************
Slurry weight (lbs/gal)			-,				
Class/type of cement				100			
Perforate and squeeze (YES/NO)					THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O		
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per hat the cementing of casing and/or the placing	nalties prescribed in	n Sec. 91.143, To	own in the repo	rt was performe	d by me or und	er my sunervisio	n and that
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bot cementing data only.	nalties prescribed in	n Sec. 91.143, To	own in the repo	rt was performe e, to the best of	d by me or und	er my sunervisio	n and that
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bottlementing data only.  Lee Herrera/Service Supervisor	nalties prescribed in	n Sec. 91.143, To	own in the repo ct, and complete Otex Pum	rt was performe e, to the best of ping LLC	d by me or und	er my supervision This certification	on, and that on covers
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on both cementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative	nalties prescribed in	n Sec. 91.143, To	own in the repo	rt was performe e, to the best of ping LLC	d by me or und	er my sunervisio	on, and that on covers
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bottlementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative	nalties prescribed in g of cement plugs in th sides of this form	n Sec. 91.143, To n this well as sh a are true, corre	own in the repo ct, and complete Otex Pum	rt was performe e, to the best of ping LLC	d by me or und my knowledge. -	er my supervision. This certification. Signa	on, and that on covers
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bottementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative  1601 E-I20 Midland,Tx 79706  Juddress	nalties prescribed in g of cement plugs in th sides of this form City, State, Zip Co	n Sec. 91.143, To n this well as sh I are true, corre	Otex Pum Cementing	rt was performe e, to the best of sping LLC Company 432-686 Tel: Area Code	d by me or und my knowledge.	er my supervision. This certification. Signa Date:	on, and that on covers ture
3: Remark 3: 1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per hat the cementing of casing and/or the placing he cementing data and facts presented on bot tementing data only.  Lee Herrera/Service Supervisor lame and title of cementer's representative  601 E-I20 Midland,Tx 79706  ddress  DERATOR'S CERTIFICATE: I declare under pen	nalties prescribed in g of cement plugs in th sides of this form City, State, Zip Co alties prescribed in	n Sec. 91.143, To n this well as sh are true, corre	Otex Pum Cementing	rt was performe e, to the best of sping LLC Company  432-686 Tel: Area Code ources Code, the	d by me or und my knowledge.	er my supervision. This certification. Signa Date:	on, and that on covers ture
3: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bot tementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative  2601 E-I20 Midland,Tx 79706  Address  DERATOR'S CERTIFICATE: I declare under pen hat I have knowledge of the well data and info	nalties prescribed in g of cement plugs in th sides of this form City, State, Zip Co alties prescribed in rmation presented	n Sec. 91.143, To n this well as sh are true, corre de Sec. 91.143, Te in this report, a	Otex Pum Cementing  xas Natural Res	rt was performe e, to the best of sping LLC Company  432-686 Tel: Area Code ources Code, the	d by me or und my knowledge.	er my supervision. This certification. Signa Date:	on, and that on covers ture
25: Remark 3:1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bottementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative  1601 E-I20 Midland,Tx 79706  Indidenses  DERATOR'S CERTIFICATE: I declare under pen that I have knowledge of the well data and information of complete, to the best of my knowledge. The	nalties prescribed in g of cement plugs in th sides of this form City, State, Zip Co alties prescribed in rmation presented its certification cover	n Sec. 91.143, To n this well as sh are true, corre de Sec. 91.143, Te in this report, a	Otex Pum Cementing  xas Natural Res	rt was performe e, to the best of sping LLC Company  432-686 Tel: Area Code ources Code, the d facts presented	d by me or und my knowledge.  6-8563  Number at I am authoriz d on both sides	er my supervision. This certification. Signa Date:	on, and that on covers ture
2601 E-I20 Midland,Tx 79706 Address DPERATOR'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bot cementing data only.  Lee Herrera/Service Supervisor Name and title of cementer's representative  2601 E-I20 Midland,Tx 79706 Address DPERATOR'S CERTIFICATE: I declare under pen that I have knowledge of the well data and info and complete, to the best of my knowledge. The service of the complete of the place of the complete of the place	nalties prescribed in g of cement plugs in the sides of this form  City, State, Zip Co alties prescribed in rmation presented is certification coverative	n Sec. 91.143, To n this well as sh are true, corre de Sec. 91.143, Te in this report, a	Otex Pum Cementing  xas Natural Res	rt was performe e, to the best of sping LLC Company  432-686 Tel: Area Code ources Code, the	d by me or und my knowledge.  6-8563  Number at I am authoriz d on both sides	er my supervision. This certification. Signa Date:	ture  5/30/2016 mo. day y certification true, correct
2: Remark 2: 10% Gel + 1/10% O-TX20 + .25#/ 3: Remark 3: 1/10% O-TX20  CEMENTER'S CERTIFICATE: I declare under per that the cementing of casing and/or the placing the cementing data and facts presented on bot cementing data only.  Lee Herrera/Service Supervisor  Name and title of cementer's representative  2601 E-I20 Midland,Tx 79706  Address  OPERATOR'S CERTIFICATE: I declare under pen chat I have knowledge of the well data and information complete, to the best of my knowledge. The service of the complete of the complet	nalties prescribed in g of cement plugs in the sides of this form  City, State, Zip Co alties prescribed in rmation presented is certification coverative	n Sec. 91.143, To n this well as sh are true, corre de Sec. 91.143, Te in this report, a	Otex Pum Cementing  Exas Natural Research that data and that data and the complete of the comp	rt was performe e, to the best of sping LLC Company  432-686 Tel: Area Code ources Code, the d facts presented	id by me or und my knowledge.  i-8563  Number at I am authorized on both sides	er my supervision. This certification. Signal Date: ed to make this of this form are	on, and that on covers ture  5/30/2016  mo. day y certification true, correct

Tel: Area Code 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.

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.

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 787112967).

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\_ploc=&p\_ploc=&p\_ploc=&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.

- 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.
- 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.

#### Form W-15

Rev. 08/2014



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

**RAILROAD COMMISSION OF TEXAS** 

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

## **CEMENTING REPORT**

			NFORMATION		
Operator Name: 13 P	im Pormica opo,	rating LLC	Operator P-5 No.: C	48351	
Cementer Name: Capita	n Corp		Cementer P-5 No.: 1300	95	
		WELLINF	ORMATION		
District No.: 08			County: Crane		
Well No.: 4	<del></del>			36547 Drilling Perm	it No.: 815449
Lease Name: Uni	ver sity Amand	4	Lease No.:		
Field Name: Conic	versity Amend versity 31 we	st (u. Desonia)	Field No.: 9250	5500	
			MENTING DATA		
Type of casing:	Conductor Surface			roduction	
Drilled hole size (in.):		Depth of drilled hole (	ft.):	Est. % wash-out or hole	e enlargement:
Size of casing in O.D. (in	i.):	Casing weight (lbs/ft)	and grade:	No. of centralizers used	d:
Was cement circulated	to ground surface (or bott	om of cellar) outside	Setting depth shoe (ft.):	Top of liner (ft	:.):
casing? YES	NO If no for surface casi	ing, explain in Remarks.		Setting depth	liner (ft.):
Hrs. waiting on cement	before drill-out:	Calculated top of ceme	ent (ft.):	Cementing date:	
This waiting on cement	boloic aliii oati		JRRY		
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2		<del>*************************************</del>			
3					
Total			The second secon		
		II. CASING CE	VIENTING DATA		
Type of casing: Sur	face Intermediate			i-stage cement shoe	Multiple parallel strings
	raceintermediate _	<del>                                     </del>		r	
Drilled hole size (in.):		Depth of drilled hole (		Est. % wash-out or hole	
Size of casing in O.D. (in	and the second s	Casing weight (lbs/ft)		No. of centralizers used	1:
Tapered string drilled ho			Tapered string depth of	en anticona de la companya del companya de la companya del companya de la company	
Upper:	Lower:	T	Upper:	Lower:	
Tapered string size of ca Upper:	asing in O.D. (in.) Lower:	Tapered string casing w Upper:	veight(lbs/ft) and grade Tapered string no. of centralizers used Upper: Lower:		
Was cement circulated	to ground surface (or bott	om of cellar) outside casi	ng? YES NO	Setting depth shoe (ft.)	):
Hrs. waiting on cement	before drill-out:	Calculated top of ceme	ent (ft.):	Cementing date:	
		SLU	JRRY	Access to the second se	
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					
		III. CASING CE	MENTING DATA		
Type of casing: Sur	face Intermediate			tage cement/DV tool	Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (	ft.):	Est. % wash-out or hole	e enlargement:
Size of casing in O.D. (in	.):	Casing weight (lbs/ft) a	and grade:	No. of centralizers used	d:
Tapered string drilled ho	ole size (in.)		Tapered string depth of		0
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? YES NO Setting depth tool (ft.):					
Hrs. waiting on cement	before drill-out:	Calculated top of ceme		Cementing date:	
	SLURRY				
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total	1				

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	10-5-46						
Size of hole or pipe (in.)	5 /3						
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)	9200		process social control of the second section of the second				
Amount of cement on top of CIBP (ft.)	~~ ~~						
Sacks of cement used	2						
Slurry volume pumped (cu. ft.)	5.5						
Calculated top of plug (ft.)	9180						
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)	15.1						
Class/type of cement	H	·					
Perforate and squeeze (YES/NO)						<u> </u>	

Perforate and squeeze (YES/NO)		
	REMARKS	<b>有一个工作,我就是一个工作,不是一个工作。</b>

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.

Mike Devilor		Capitan Corp	-011	28	
Name and title of cementer's representative		Cementing Company	St	gnature	
PO Box 60018 Midland TX	79711		432-561-935	56	16.5-16
Address	City,	State, Zip Code	Tel: Area Code	Number	Date: mo. day yr.
OPERATOR'S CERTIFICATE: I declare under penalties	prescribed	l in Sec. 91.143, Texas	Natural Resources	Code, that I a and facts pres	m authorized to make this ented on both sides of this

Blake Morpher	Managing M		
Typed or printed name of operator's representative	Title	Signature	
suite 110 PMB #53	willand TX 79707	(432) 413-9289	10/25/16
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

Address

## 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.

- 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 A. 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.
- 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).
- 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\_ploc=&p\_ploc=&p\_tac=&ti=16&pt=1&ch=3&rl=14). \\ Cementing (http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\_dir=&p\_rloc=&p\_ploc=&p\_ploc=&p\_ploc=&p\_tac=&ti=16&pt=1&ch=3&rl=14). \\ Cementing (http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\_dir=&p\_rloc=&p\_ploc=&p\_ploc=&p\_ploc=&p\_ploc=&p\_tac=&ti=16&pt=1&ch=3&rl=14). \\ Cementing (http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p\_dir=&p\_rloc=&p\_p$ 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.
- 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.
- 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.
- 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.
- Slurry data: If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.

## Rev. 08/2014

Total

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

**RAILROAD COMMISSION OF TEXAS** 

## **CEMENTING REPORT**

Cementer:	Fil	lin	shad	ed	areas.
Operator:	Fill	in	other	ite	ems.

		The state of the s	NFORMATION	110351	
Operator Name:		Operating, LLC		48351	
Cementer Name: Allied O	FS, LLC		Cementer P-5 No.: 014	442	
		WELL INC	ODMATION		
		WELLINE	ORMATION	Cr	ane
District No.: 08			County:		
Well No.:		#4		36547Drilling Permit	110 013991
Lease Name:		ty Amanda	Lease No.:		
Field Name: كبدن مو	using 31 west	(UI Dewnie)	Field No.: 92505	5500	
		1. CASING CEI	MENTING DATA		
Type of casing:	Conductor	Surface	Intermediate	Est. % wash-out or hole	Production
Drilled hole size (in.):		Depth of drilled hole (ft.		No. of centralizers used:	margement
Size of casing in O.D. (in.)	:	Casing weight (lbs/ft) an		Top of liner (f	· )·
Was cement circulated to	ground surface (or botto	om of cellar) outside	Setting depth shoe (ft.):	Setting depth	
casing? If no for surface of		s. YES NO	<u></u>	Cementing date:	9/15/2016
Hrs. waiting on cement be	efore drill-out:	Calculated top of cement		Cementing date.	3/13/2010
			JRRY	Volume (cu.ft.)	Height (ft.)
Slurry No.	No. of Sacks	Class	Additives	voiume (cu.ic.)	neight (it.)
1					
2					
3		<u> </u>		<u> </u>	
Total			1		
			APPLICATE		
		II. CASING CE	MENTING DATA		
Type of casing:	Surface Interme		Tapered production	Multi-stage cement shoe	Multiple parallel strings
Drilled hole size (in.): Depth of drilled hole (ft.): Est. % wash-out or hole enlargement:					emargement.
Size of casing in O.D. (in.):  Casing weight (lbs/ft) and grade:  No. of centralizers used:					
Tapered string drilled hol			Tapered string drilled ho		4lineusd
Tapered string size of cas		Tapered string casing we		Tapered string no. of cen	tranzers used
		om of cellar) outside casing		Setting depth shoe (ft): Cementing date:	9/15/2016
Hrs. waiting on cement be	etore drill-out:	Calculated top of cemen		Cementing date.	3/13/2010
			URRY	Volume (cu.ft.)	Height (ft.)
Slurry No.	No. of Sacks	Class	Additives	volume (ca.ic.)	rieigiic (rc.)
1					
2					
3			<del> </del>		
Total		<u> </u>			
		III. CASING CE	MENTING DATA		
Type of casing:	Surface Intermed	diate Production	Tapered production	Multi-stage cement/DV tool	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) an		No. of centralizers used:	
Tapered string drilled hol	e size (in.)		Tapered string depth of	drilled hole (ft.)	
Upper:	Lower:		Upper:	Lower:	
Tapered string size of cas	ing in O.D. (in.)	Tapered string casing we	eight(lbs/ft) and grade	Tapered string no. of cen	
Upper:	Lower:		ower:		ower:
Was cement circulated to		om of cellar) outside casing	g? ☐YES ☐NO	Setting depth tool (ft):	o la piana
Hrs. waiting on cement b	efore drill-out:	Calculated top of cemen		Cementing date:	9/15/2016
			URRY	1 V.L. ( 6)	I I I I I I I I I I I I I I I I I I I
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
			1	· ·	

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date	9/15/2016	10072					
Size of hole or pipe (in.)	51/211						
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)	92941						
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used	50SKS	The Section					
Slurry volume pumped (cu. ft.)	59						
Calculated top of plug (ft.)	9310						
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)	15.6PPG						
Class/type of cement	SEE RMKS						
Perforate and squeeze (YES/NO)							

Terrorate and expense (122)		
	REMARKS	
	,	
CEMENT - 50SKS OF CLASS H NEAT AT 15.6PPG		

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.

Once Ramos	Allied OFS, LLC	17/	
Name and title of cementer's representative	Cementing Company	Signature	01-1.
8711 W. CR 127	Midland Texas 79706	(432) 563-4440	7/15/16
Addross	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.

Blake Morphon Managing Member

Typed or printed name of operator's representative

4411b Brit word Are 3 Midland, TX 79707

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 representatives. 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 Commisssioner'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 78711-2697).
- 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 fromt 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\_dire=&p\_rloc=&p\_tloc&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% (or30% 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 Cement 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 sumbit 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.

# RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

Form W-12 (1-1-71)

		- I	DIVISION		
			RIG #:	5	6. RRC District 8
		NATION F		The state of the s	7. RRC Lease Number (Oil completions only)
	(Oil completions only)				
	(One Copy Must	Be Filed With Each	SE NAME		8. Well Number
I. FIELD NAME (as I	4				
III E THE COMPANY OF THE PARTY OF	RRC Identification     Number				
3. OPERATOR	(Gas completions only)				
AM Permian Op	erating, LLC				
4. ADDRESS		rp #53 Midland, T	x 79707		10. County
416 Briarwood	Ave, Suite 110 FM	IB #53, Midland, T.			Crane
5. LOCATION (Section	on, Block and Survey)	30, UL Survey, A-U	5		
128' FWL & 60'	r SD, Sec O, Din o		T T C T T N A M T	O N	
	]	RECORD OF	INCLINATION	The second secon	16. Accumulative
11. Measured Depth	12. Course Length	*13. Angle of Inclination	14. Displacement per (Hundred Feet	15. Course Displacement (feet)	Displacement (feet)
(feet)	(Hundreds of feet)	(Degrees)	(Sine of Angle X 100)		2.82
231	2.31	0.70	1.22	2.82	10.28
706	4.75	0.90	1.57	7.46	12.04
832	1.26	0.80	1.40	3.91	15.95
1280	4.48	0.50	0.87	16.51	32.46
1753	4.73	2.00	3.49 .	3.81	36.27
1848	0.95	2.30	4.01	3.96	40.23
1974	1.26	1.80	2.44	3.08	43.31
2100	1.26	1.40	1.57	3.97	47.28
2353	2.53	0.90	2.27	6,44	53.73
2637	2.84	1.30	0.87	2.50	56.22
2923	2.86	0.50	0.70	2.49	58.71
3280	3.57	0.40	0.70	1.69	60.40
3522	2.42			2.30	62.70
	2.63	0.50	0.87		62.70 62.85
3522 3785 3828 4043	2.63 0.43 2.15	0.50 0.20 0.20	0.87 0.35 0.35	2.30 0.15 0.75	The second secon
3522 3785 3828 4043 If additional space 17. Is any information	2.63 0.43 2.15 is needed, use the reverse some shown on the reverse some displacement of well bore as	0.50 0.20 0.20 rse side of this form. ide of this form?	0.87 0.35 0.35 V Yes	2.30 0.15	62.85
3522 3785 3828 4043 If additional space 17. Is any information 18. Accumulative total of	2.63 0.43 2.15 is needed, use the reverse sidisplacement of well bore agreements were made in	0.50 0.20 0.20 crse side of this form. ide of this form? at total depth of Tubing	0.87 0.35 0.35 V Yes 9353 feet =	2.30 0.15 0.75  No 168.09  Open hole	62.85 63.60 feet.
3522 3785 3828 4043  If additional space 7. Is any information 8. Accumulative total 19.Inclination measu	2.63 0.43 2.15 is needed, use the reverse sometiments were made in the reverse sometiments were made in the reverse sometiments were made in the reverse sometiments.	0.50 0.20 0.20 rse side of this form. ide of this form? at total depth of Tubing	0.87 0.35 0.35  V Yes  Geet =	2.30 0.15 0.75  No 168.09 Open hole 607	62.85 63.60 feet.
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total of the second	2.63 0.43 2.15  is needed, use the reverse sometiments of well bore at the remember of well to the new to lease line as prescri	0.50 0.20 0.20  rse side of this form. ide of this form? at total depth of  Tubing rearest lease line bed by field rules	0.87 0.35 0.35 V Yes 9353 feet =	2.30 0.15 0.75  No 168.09 Open hole 607	feet.    Drill Pipe   feet.   feet.
3522 3785 3828 4043  If additional space 7. Is any information 8. Accumulative total of the second s	2.63 0.43 2.15  is needed, use the reverse significant of well bore agreements were made in the local	0.50 0.20 0.20  rse side of this form. ide of this form? at total depth of Tubing rearest lease line bed by field rules	0.87 0.35 0.35  V Yes  Great = Casing	2.30 0.15 0.75  No 168.09  Open hole 607 330	feet.    Drill Pipe   feet.   feet.
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total of 19. Inclination measus 20. Distance from surface 21. Minimum distance	2.63 0.43 2.15  is needed, use the reverse significant of well bore agreements were made in the local	0.50 0.20 0.20  rse side of this form. ide of this form? at total depth of  Tubing rearest lease line bed by field rules	0.87 0.35 0.35  V Yes  Great = Casing	2.30 0.15 0.75  No 168.09  Open hole 607 330	feet.    Drill Pipe   feet.   feet.
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to	2.63 0.43 2.15  is needed, use the reverse some shown on the reverse	0.50 0.20 0.20 0.20 rse side of this form. ide of this form? at total depth of Tubing hearest lease line bed by field rules deviated from the vertical is attach written explanation sec. 91.143, Texas Natural	O.87 O.35 O.35  V Yes  Great = Casing  In any manner whatsoever? In of the circumstances.)  OPERATOR CER	2.30 0.15 0.75  No 168.09  Open hole 607 330 no	feet.    Drill Pipe   Feet.
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to  INCLINATION DA I declare unde Resources Code, that have personal knowle	2.63 0.43 2.15  is needed, use the reverse set of the process of t	0.50 0.20 0.20 0.20  rse side of this form. ide of this form? at total depth of Tubing hearest lease line bed by field rules deviated from the vertical in attach written explanation isc. 91.143, Texas Natural his certification, that I and facts placed on both for true, correct, and com-	O.87 O.35 O.35  V Yes  9353 feet = Casing  Casing  OPERATOR CER I declare unde Resources Code, that have personal knowle that all data is presen	2.30 0.15 0.75  No 168.09  Open hole 607 33C no  TIFICATION or penalties prescribed in Stam authorized to make to dege of all information prescribed on both sides of this formation procedure. This certification is considered to make to detect the state of the state	feet.    Drill Pipe
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to  INCLINATION DA I declare unde Resources Code, that have personal knowle side of this form and	2.63 0.43 2.15  is needed, use the reverse significant of well bore at the rements were made in the location of well to the manager of the rements were made in the location of well to the manager of the rements were made in the location of well to the manager of the remember of the rem	0.50 0.20 0.20 0.20 0.20  rse side of this form. ide of this form? at total depth of Tubing hearest lease line bed by field rules deviated from the vertical is attach written explanation fiec. 91.143, Texas Natural his certification, that I and facts placed on both re true, correct, and com- tion covers all data as	O.87 O.35 O.35  V Yes  9353 feet = Casing  Casing  OPERATOR CER I declare unde Resources Code, that have personal knowle that all data is presen complete to the best of	2.30 0.15 0.75  No 168.09  Open hole 607 330 no  TIFICATION It penalties prescribed in State of all information prescribes of the state	feet.    Drill Pipe
3522 3785 3828 4043  If additional space 7. Is any information 8. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to  INCLINATION DA I declare unde Resources Code, that have personal knowle side of this form and plete to the best of my indicated by asterisks	2.63 0.43 2.15  is needed, use the reverse set in the second of well bore a second of well to the metallic location of well and the metallic location of well well location of well locatio	0.50 0.20 0.20 0.20 0.20  rse side of this form. ide of this form? at total depth of Tubing hearest lease line bed by field rules deviated from the vertical is attach written explanation fiec. 91.143, Texas Natural his certification, that I and facts placed on both re true, correct, and com- tion covers all data as	O.87 O.35 O.35  V Yes  9353 feet = Casing  Casing  OPERATOR CER I declare under Resources Code, that have personal knowle that all data is presen complete to the best of and information prese astericks by the see	2.30 0.15 0.75  No 168.09  Open hole 607 330  In or penalties prescribed in Stam authorized to make dege of all information presented on both sides of this form knowledge. This cerented herein except inclination numbers on this form.	feet.    Drill Pipe
3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to  INCLINATION DA  I declare unde Resources Code, that have personal knowle side of this form and in plete to the best of my indicated by asterisks  Signature of Authoriz  JEFF PHILLIPS, I	2.63 0.43 2.15  is needed, use the reverse some shown on the shown of	0.50 0.20 0.20 0.20 0.20 0.20 0.20  rse side of this form. dide of this form? at total depth of  Tubing hearest lease line bed by field rules attach written explanation field rules fi	O.87 O.35 O.35  V Yes  9353 feet = Casing  Casing  OPERATOR CER I declare under Resources Code, that have personal knowle that all data is present complete to the best of and information present astericks to by the ide Signature of Authoriz Signature of Person and	2.30 0.15 0.75  No 168.09  Open hole 607 33C no  TIFICATION or penalties prescribed in Start authorized to make a dige of all information presented on both sides of this form the form except inclination numbers on this form.  The contract of the form the form the form the form except inclination numbers on this form.  The contract of the form	feet.    Drill Pipe
3522 3785 3828 4043  If additional space 7. Is any information 8. Accumulative total 19. Inclination measu 10. Distance from surfa 11. Minimum distanc 12. Was the subject we (If the answer to  INCLINATION DA I declare unde Resources Code, that have personal knowle side of this form and plete to the best of my indicated by asterisks  Signature of Arthoriz JEFF PHILLIPS, I Name of Person and RYAN DRILLING, Name of Company Telephone: 432	2.63 0.43 2.15  is needed, use the reverse is shown on the reverse is displacement of well bore a greenents were made in lace location of well to the me to lease line as prescribled at any time intentionally above question is "yes,"  TA CERTIFICATION or penalties prescribed in Stam authroized to make the dege of the inclination data that such data and facts at a knowledge. This certification is certificated (*) by the item numbers of the degree of the inclination data that such data and facts at a knowledge. This certification is certificated Representative pressident.	0.50 0.20 0.20 0.20 0.20 0.20 0.20  rse side of this form. dide of this form? at total depth of  Tubing hearest lease line bed by field rules attach written explanation field rules fi	O.87 O.35 O.35  Yes  9353 feet = Casing  Casing  OPERATOR CER I declare under Resources Code, that have personal knowle that all data is present complete to the best of and information present astericks to by the ite Signature of Authoriz Signature of Person and	2.30 0.15 0.75  No 168.09  Open hole 607 33C no  TIFICATION or penalties prescribed in Stam authorized to make a dige of all information presented on both sides of this form when when the state of the	feet.  Drill Pipe feet.  Feet.
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3522 3785 3828 4043  If additional space 17. Is any information 18. Accumulative total 19. Inclination measu 20. Distance from surfa 21. Minimum distanc 22. Was the subject we (If the answer to  INCLINATION DA I declare unde Resources Code, that have personal knowle side of this form and plete to the best of my indicated by asterisks  Signature of Arthoriz JEFF PHILLIPS, I Name of Person and RYAN DRILLING, Name of Company Telephone: 432	2.63 0.43 2.15  is needed, use the reverse is shown on the reverse is displacement of well bore a green that the second of well to the metal to be a second of well to the metal to be a second of well to the metal to be a second of well to the metal to be a second of well to the metal to be a second of well to the metal to be a second of well to the metal to be a second of well to be a se	0.50 0.20 0.20 0.20 0.20 0.20  rse side of this form. dide of this form? at total depth of  Tubing hearest lease line bed by field rules deviated from the vertical attach written explanation field. 91.143, Texas Natural his certification, that I and facts placed on both re true, correct, and com- tion covers all data as on this form.  RILLING	O.87 O.35 O.35 O.35  Yes  Yes  Get = Casing  Casing  OPERATOR CER I declare under Resources Code, that have personal knowle that all data is present complete to the best of and information prese astericks by the see Signature of Authoriz Company Name of Person and Operator Telephone:  43	2.30 0.15 0.75  No 168.09  Open hole 607 33C no  TIFICATION or penalties prescribed in Stam authorized to make a dige of all information presented on both sides of this form when the control in the con	feet.    Drill Pipe

<sup>\*</sup> Designates items certified by company that conducted the inclination surveys.

# RECORD OF INCLINATION (Continued from reverse side)

<ol> <li>Measured Depth (feet)</li> </ol>	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per (Hundred Feet	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
4234	1.91	0.50	(Sine of Angle X 100)	<del>                                     </del>	
4582	3.48	0.60	0.87	1.67	65.27
4740	1.58	0.40	1.05	3.64	68.91
4898	1.58	0.40	0.70	1.10	70.01
5269	3.71	1.10	0.35	0.55	70.56
5519	2.50	1.30	1.92	7.12	77.69
5844	3.25	1.40	2.27	5.67	83.36
6314	4.70	0.80	2.44	7.94	91.30
6677	3.63	1.10	1.40	6.56	97.86
7076	3.99	1.10	1.92	6.97	104.83
7517	4.41	0.60	1.92	7.66	112.49
7774	2,57	3.50	1.05	4.62	117.11
8028	2.54	0.80	6.10	15.69	132.80
8406	3.78	0.80	1.40	3.55	136.34
8688	2.82	1.60	1.40	5.28	141.62
9006	3.18	2.10	2.79	7.87	149.49
9172	1.66	1.60	3.66	• 11.65	161.15
9300	1.28	0.70	2.79	4.63	165.78
9353	0.53	0.80	1.22	1.56	167.35
0	-93.53	0.00	1.40	0.74	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0,00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00		0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
0	0.00	0.00	0.00	0.00	168.09
TC - 1 1111 1	0.00	0.00	0.00	0.00	168.09

If additional space is needed, attach separate sheet and check here.	
REMARKS:	 19

#### - INSTRUCTIONS -

An inclination survey made by persons or concerns approved by the Commission shall be filed on a form prescribed by the Commission for each well drilled or deepened with rotary tools or when, as a result of any operation, the course of the well is changed. No inclination survey is required on wells that are drilled and completed as dry holes that are plugged and abandoned. (Inclination surveys are required on re - entry of abandoned wells.) Inclination surveys must be made in accordance with the provisions of Statewide Rule 11.

This report shall be filed in the District Office of the Commission for the district in which the well is drilled; by attaching one copy to each appropriate completion for the well. (except Plugging Report)

The Commission may require the submittal of the original charts, graphs, or discs, resulting from the surveys.

#### RAILROAD COMMISSION OF TEXAS Oil and Gas Division

#### **ELECTRIC LOG** STATUS REPORT

FORM L-1

Tracking No.: 164007 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, reclassifications, 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
- uch log is NOT run on the subject well do NOT substitute any

		ist select Section II, P	Part A below	
SECTION	NI. IDENTIFICATION			
Operator Name: BAM PERMIAN OPERATING, LLC	District No. 08	Completion Date: 10/	16/2016	
Field Name UNIVERSITY 31 WEST (U. DEVONIAN)	Drilling Permit No. 815449			
Lease Name UNIVERSITY AMANDA	Lease/ID No. 48191			
CRANE	API No. <b>42-</b> 103-36547			
SECTION II. LOG	STATUS (Complete either A	A or B)		
A. BASIC ELECTRIC LOG NOT RUN				
X B. BASIC ELECTRIC LOG RUN. (Select one)				
Confidentiality is requested and a copy of the	header for each log that has been	run on the well is atta	iched.	
2. Confidentiality already granted on basic electrons.	· ·			
		-	-	
3. Basic electric log covering this interval alread	ly on file with Commission (applic	able to deepened wel	ls only).	
X 4. Log attached to (select one):				
X (a) Form L-1 (this form). If the comparable please enter name on log here:	ny/lease name on log is different f	rom that shown in Sec	ction I,	
Check here if attached log is being s	submitted after being held confider	ntial.		
(b) Form P-7, Application for Discover	ry Allowable and New Field Desig	nation.		
(c) Form W-4, Application for Multiple	e Completion:			
Lease or ID No(s).				
Well No(s).				
Blake Morphew				
Signature	_	Title		
	(432) 413-9289	10/2	25/2016	
Name (print)	Phone		Date	
-FOR RAILRO	OAD COMMISSION USE ONLY-			

# Schlumberger

					ətillulli	ingi.Agi.	
Company:	BAM Perr	mian (	Operatir	ng, LLC			
Well:	University	ersity Amanda #4					
Field:	Waddell (	Devo					
County:	Crane		St	ate:	Texas		
	Platform Exp	ress					
1. 4 9, LLC	Compensate	d Neu	tron Log				
onian) 128' FW nanda #	Three Detect	tor Lith	no-Densi	ty	2	-X	
Compensate Maddell (Devonian)  Waddell (Devonian)  Compensate Three Detect  Compensate Three Detect  Go7, FSL x 2128, FML  Go7, FSL x 21  Sec. 6, Blk. 30  Survey: Unive Permanent Da  Permanent Da		Abs. U6 sity Lands		Elev.: K.B. G.L. D.F.	2664.00 ft 2648.00 ft 2663.00 ft		
	Log Measured From: Kelly Bushing			Elev.: 16.00 ft	2648.00 f above Perm.Datum		
County: Field: Location: Well: Company:	API Serial N 42-103-3654	0.	Sec	tion:	Block: 30	Abstract: U6	
Logging Date		29-Jun-	29-Jun-2016				
Run Number		1A					
Depth Driller			9445.00 ft 9444.00 ft				
Schlumberger Depth		9454.00 ft					
Bottom Log Interval Top Log Interval		7800.00 ft					
Casing Driller Size @	Denth	8.625 in @ 3780.00 ft					
Casing Schlumberger		3774 ft				, <sup>1</sup> / <sub>2</sub> , 1	
Bit Size		7.875 in					
Type Fluid In Hole		Salt Brin	ne				
Density	Viscosity	9.9 lbm/	gal	42 s			
드 Fluid Loss · .	PH .	3 cm3		9			
Source of Sample	9	Active T					
RM @ Meas Temp	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.06 oh		75 degF			
RMF @ Meas Temp		0.04 oh		75 degF			
RMC @ Meas Temp		0.07 oh		75 degF			
Source RMF	RMC	Calcula		Calculated	20		
RM @ BHT	RMF @ BHT		@ 126.69	0.02 @ 126.6	25	10.00	
Max Recorded Tempo		135.31 d		03:00:00			
Circulation Stopped Logger on Bottom	Time Time	29-Jun-		12:34:00			
Unit Number	Location:	2224	2010	Midland	<del></del>		
Recorded By	Location.	AJ Trub	lowski	diana			
Witnessed By			lorphew				
villiessed by		Diake IV	io priov				

Oil and Gas Division PO Box 12967 Austin TX 78711-2967 www.rrc.texas.gov

# CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

Tra	cking	g No.: 164007 A certification of the automated date	a is available in the RRC's	s Austin office.				
				nown on proration sched	ule			
UNIVERSITY 31 WEST (U. DEVONIAN)			UNIVERSITY AMANDA					
		nt operator name exactly as shown on P-5 Organization Report PERMIAN OPERATING, LLC	4. Operator P-5 no. 048351	5. Oil Lse/Gas ID no 48191	6. County CRANE		7. RRC district 08	
8.	Opera	tor address including city, state, and zip code	9. Well no(s) (see in	istruction E)				
	•	E 110 PMB #53	4					
4	416	BRIARWOOD AVE	10. Classification			11. E	Effective 1	Date
	ИIDL	AND, TX 79707	X Oil	Gas Other (see	instruction A)	10/	/16/201	6
12. Purpose of Filing. (Complete section a or b below.) (See instructions B and G) <b>a. Change of:</b>						code		
		field name from						
	- OR	lease name from						
b.	New	RRC Number for: $\square$ oil lease $\square$ gas well $\square$ Due to: $\square$	new completion or re	ecompletion	reclass oil to gas	☐ re	eclass gas	to oil
		other well (specify)	consolidation, unitiza	ation, or subdivision (	oil lease only)			
13.	_	rized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchase	r(s). (See instruction C	G).				
rer	Purchaser	Name of GAS WELL GAS or CA			Purchas RRC		Percent o	Full-well stream
Gatherer	urch	Gatherer(s) or Purchaser(s) As Indicate (Attach an additional sheet in same form			Assign		Take	
		•	an y more space is nee		System			T 28
Х	Х	TARGA MIDSTREAM SERVICES LLC(836037)			0007		100.0	
14.	Autho	prized OIL or CONDENSATE Gatherer(s). (See instruction G).						
		Name of OIL or CONDENSATE Gatherer	(s) - List Highest Vol	lume Gatherer First			Pe	ercent of
		(Attach an additional sheet in san						Take
LPO	CR	UDE OIL MARKETING LLC(480177)					100	0.0
RI	RC US	SE ONLY: Reviewer's initials: RRC Staff Approval	date: 02/03/201	17			I	
		VIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR			DATOD Loortifu	that an	orotina	
		pility for the well(s) designated in this filing, located on the subject lease has b						, as
Pre	vious	Operator, that designation of the above named operator as Current Operator is	not effective until this	s certificate is approved	by the Commissi	on.		
_								
N	me of	Previous Operator	Signature		_			
	ma (n	wint)	Authorized	1 0	Authoriz			
110	ıme (p	mint)	of previous	operator	operator	(see ins	aruction (	J)
Title Date Phone with area code								
16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I								
acl	nowle	edge responsibility for the regulatory compliance of the subject lease including	g plugging of well(s) po	ursuant to Rule 14. I fu	rther acknowledg	e that I	assume	
responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.								
	Special and a new continued designating a new current operator is approved by the Commission.							
_			Blake Morphe	W				
Name (print) Signature								
of current operator				_	<b>t of curre</b> truction C			
l	ile blake	e.morphew@gmail.com	10/25/2016	•	(432) 413-928		nenon C	,
		Address (optional)	Date		Phone with area code			
l								

### Form P-15

# STATEMENT OF PRODUCTIVITY OF ACREAGE ASSIGNED TO PRORATION UNITS

Tracking No.: 164007

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

The undersigned states that he is	authorized to make	e this si	tatement; that no	e has knowledge of the
facts concerning the BAM PERI	MIAN OPERATING, LL			. ,
UNIVERSITY AMANDA	· ,		RATOR  4  WELL	; that such well is
completed in the UNIVERSITY 31 V	VEST (U. DEVONIAN)	Field,	CRANE	County,
Texas and that the acreage claim authorized by special rule and as	•		-	
40.0 acres wh	ich can reasonably	be cor	nsidered to be pr	coductive of hydrocarbons
	- CERTIFICATI	E -		
I declare under penalties prescr rized to make this report, that th and that data and facts stated th	is report was prepared	d by me	or under my super	vision and direction,
Date02/02/2017	Signature	Blake	e Morphew	
Telephone (432) 413-9289			Γitle	

Groundwater	GROUNDWATER PROTECTION DETERMINATION				
Advisory Unit	Date	October	3, 2014	GAU File N	o.: 8189
				API Numbe	er 10300000
Attention: PAM MORPHEW				RRC Lease	No. 000000
·	SC_197416_1	0300000_0	000000_8189.pdf		
			Measured	Digital M	lap Location:
			467 ft FWL	X-coord/Long	102.42928
DAKOTA RESOURCES INC I 4914 N MIDKIFF	T.		1870 ft FSL	Y-coord/Lat	31.53013
MIDLAND TX 79705		:	MRL: SECTION	Datum 83	Zone
	P-5# 197	416			
County CRANE Lease &	Well No. UNIV	ERSITY A	MANDA #1		Purpose ND
ocation SIR-III. BLK-30 SEC-6	-~[TD=9500	1 IRRC 8			,

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 the base of the SANTA ROSA, which is estimated to occur at a depth of 850 feet, must be protected.

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.cs, or by mail.

Sincerely,

Digitally signed by Jack Cewell
DN: crt/S, st=TEXAS (=Austrs, c=)
Commission of Texas, cn=Jack Os
email/pack/dewelt@m.state/brus
Dete: 2014.10/03 15/45/15 +0/500\*

GEOLOGIST SEAL



Jack M. Oswalt, P.G.

Geologist, Groundwater Advisory Unit Oil & Gas Division

The seal appearing on this document was authorized by Jack M. Gewell on 10/3/2014. Note: Alteration of this electionic document will invalidate the digital signature.

Form GW-2 Rev 02/2014

P.O. Box 12967 Austin, Texas 78711-2967 512-483-2741 Internet address: www.mc.state.tx.us

