



## RAILROAD COMMISSION OF TEXAS

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

Form W-15

Rev. 08/2014

## CEMENTING REPORT

Cementer: Fill in shade areas.

Operator: Fill in other items.

## OPERATOR INFORMATION

Operator Name:	Oxy Usa Inc	Operator P-5 No.:	630591
Cementer Name:	Crest Pumping Technologies	Cementer P-5 No.:	189898

## WELL INFORMATION

District No.:	08	County:	Midland ANDREWS		
Well No.:	4404	API No.:	42-003-46118	Drilling Permit No.:	
Lease Name:	Mabee MABEE 100A	Lease No.:	40718	Field No.:	85280300
Field Name:	SPRABERRY (TREND AREA)				

## I. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production
Drilled hole size (in.):		Depth of drilled hole (ft.):	0	Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):		Top of liner (ft.):	
	If no for surface casing, explain in Remarks.			Setting depth liner (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			Remarks 1		
2			Remarks 2		
3					
Total					

## 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					
Total					

## 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					
Total					

STAGE 1 STAGE 2  
SLURRY SLURRY  
SQUEEZE SQUEEZE

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	5/18/2017	5/18/2017					
Size of hole of pipe (in.)	8 5/8	8 5/8					
Depth to bottom of tubing or drill pipe (ft.)	2450	2450					
Cement retainer setting depth (ft.)	2450	2450					
CIBP setting depth (ft.)	3630	3630					
Amount of cement on top of CIBP (ft.)	DRILLED OUT						
Sacks of cement used	550	280					
Slurry volume pumped (cu. ft.)	1045	314					
Calculated top of plug (ft.)	0	1695					
Measured top of plug, if tagged (ft.)	DRILLED OUT						
Slurry weight (lbs/gal)	12.6	16.2					
Class/type of cement	Class C	Class H					
Perforate and squeeze (YES/NO)	YES	YES					

#### REMARKS

- 5 % Salt / 65 Gel
  - 1lb/sk Salt / 2lb/sk Gypsum
  -
- SHOT SQUEEZE HOLES IN 8 5/8" CASING AT 2750'. SET BP @ 3630' AND SQ-PACKER AT 2450' AND SQUEEZED 830 SXS CEMENT INTO ANNULUS. DRILLED OUT, PRESSURE TESTED, DRILLED OUT BP THEN RE-INSTALLED 5 1/2".

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.

Roberto Garcia / Cementer  
Name and title of cementer's representative

Crest Pumping Technologies  
Cementing Company

940-567-3392  
Tel: Area Code Number

5/18/17  
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 the 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.

Robert K. Wilson  
Typed or printed name of operator's representative

Regulatory Lead  
Title

P.O. Box 4294, HOUSTON, TX 77210  
Address City, State, Zip Code

713-985-6991  
Tel: Area Code Number

JUNE 13, 2017  
Date

#### 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 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=&poloc=&p\\_ploc=&pg=1&ptac=&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=&poloc=&p_ploc=&pg=1&ptac=&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-outs less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as 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-15's 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.





## RAILROAD COMMISSION OF TEXAS

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

Form W-15

Rev 08/2014

## CEMENTING REPORT

Cementer: Fill in shade areas.

Operator: Fill in other items.

## OPERATOR INFORMATION

Operator Name:	<del>Occidental Permian LLC</del> OXY USA INC	Operator P-5 No.:	630591
Cementer Name:	Crest Pumping Technologies	Cementer P-5 No.:	189898

## WELL INFORMATION

District No.:	08	County:	<del>Midland</del> ANDREWS		
Well No.:	4404	API No.:	42-003-46118	Drilling Permit No.:	
Lease Name:	<del>Mabee</del> MABEE 14DA	Lease No.:	40718	Field No.:	85280300
Field Name:	SPRABERRY (TREND AREA)				

## I. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production
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:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth shoe (ft.):		Top of liner (ft.):	
	If no for surface casing, explain in Remarks.			Setting depth liner (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					
Total					

## 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					
Total					

## 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 checked="" type="checkbox"/> Multi-stage cement/DV tool	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):	7 7/8	Depth of drilled hole (ft.):	11200	Est. % wash-out or hole enlargement:	2%	
Size of casing in O.D. (in.):	5 1/2	Casing weight (lbs/ft) and grade:	17.0 L-80	No. of centralizers used:	3	
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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth tool (ft.):	3588			
Hrs. waiting on cement before drill-out:	24	Calculated top of cement (ft.):	SURFACE	Cementing date:	5/26/2017	

## SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	470	35/65 Poz Class C	See Remarks	893	5,033
2	50	Class C	Neat	67	375
3					
Total	520			960	5,408



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

1 3% Sodium Chloride 6% Bentonite Gel 4% CPT-503P  
 2 CEMENTING OF 5 1/2" PRODUCTION WITH DV-TOOL AT  
 3 3588' AFTER CONDUCTING SQUEEZE ON 9 5/8" INTERMEDIATE.  
 4 5 1/2" CASING WAS REMOVED AT 3634' THEN REPLACED AND CEMENTED  
 WITH STAGE TOOL AT 3588'.

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.

Kamrin Almond / Cementer

Crest Pumping Technologies  
Cementing Company

*Kamrin Almond*  
Signature

P.O. Box 117 Jacksboro, TX 76458  
Address City, State, Zip Code

940-567-3392  
Tel: Area Code Number

Date: mo. day yr

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ROBERT K. WILSON

REGULATORY LEAD

*Robert K. Wilson*  
Signature

Typed or printed name of operator's representative

Title

Signature

P.O. Box 4294, HOUSTON, TEXAS 77210

713-985-6991

JUNE 13, 2017

Address City, State, Zip Code

Tel: Area Code Number

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- D. **Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as 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's 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.