



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 shaded areas.
Operator: Fill in other items.

OPERATOR INFORMATION

Operator Name: PERMIAN DELAWARE ENTERPRISES HOLDINGS

Operator P-5 No.: 646827

Cementer Name: HALLIBURTON ENERGY SERVICES

Cementer P-5 No.: 347151

WELL INFORMATION

District No.: 08

County: LOVING

Well No.: 553H

API No.: 42-301-36081

Drilling Permit No.: 883732

Lease Name: UL 20 PADDLE TAIL D

Lease No.:

Field Name: Two Georges (Bone Spring)

Field No.: 92100050

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☐ Liner ☐ 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? ☐ YES ☐ NO If no for surface casing, explain in Remarks.

Setting depth shoe (ft.):

Top of liner (ft.):

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	0			0	0

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☒ Multi-stage cement shoe ☐ Multiple parallel strings

Drilled hole size (in.): 9 7/8

Depth of drilled hole (ft.): 9191

Est. % wash-out or hole enlargement: 20

Size of casing in O.D. (in.): 7 5/8

Casing weight (lbs/ft) and grade: 29.7 L80 ICY

No. of centralizers used: 46

Tapered string drilled hole size (in.)

Tapered string depth of drilled hole (ft.)

Upper: 9 7/8

Lower: 8 3/4

Upper: 1289-8634

Lower: 8634-9791

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper: 7 5/8

Lower: 7 5/8

Upper: 29.7 L80 ICY Lower: 29.7 L80 ICY

Upper: 7

Lower: 39

Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☒ NO

Setting depth shoe (ft.): 9771

Hrs. waiting on cement before drill-out: 12+

Calculated top of cement (ft.): 0

Cementing date: 1/29/2023

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1205	NEOCM	BRIDGEMAKER II	3025	13838
2	175	HALCEM	HALAD(R)-344, HR-601	189	1403
3					
Total	1380			3214	15241

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☒ Multi-stage cement/DV tool ☐ Multiple parallel strings

Drilled hole size (in.): 8 3/4

Depth of drilled hole (ft.): 9771

Est. % wash-out or hole enlargement: 20

Size of casing in O.D. (in.): 7 5/8

Casing weight (lbs/ft) and grade: 29.7 L80 ICY

No. of centralizers used: 46

Tapered string drilled hole size (in.)

Tapered string depth of drilled hole (ft.)

Upper: 9 7/8

Lower: 8 3/4

Upper: 1289-8634

Lower: 8634-9791

Tapered string size of casing in O.D. (in.)

Tapered string casing weight (lbs/ft) and grade

Tapered string no. of centralizers used

Upper: 7 5/8

Lower: 7 5/8

Upper: 29.7 L80 ICY Lower: 29.7 L80 ICY

Upper: 7

Lower: 39

Was cement circulated to ground surface (or bottom of cellar) outside casing? ☒ YES ☐ NO

Setting depth tool (ft.): 9771

Hrs. waiting on cement before drill-out: 12+

Calculated top of cement (ft.): 0

Cementing date: 1/29/2023

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	820	ECONOCM	TM	1591	7244
2	145	HALCEM	TM	194	916
3					
Total	965			1785	8160

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

66 BBLS (191 SKS) OF CEMENT CIRCULATED TO SURFACE

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.

(FRANK LUEVANO)-SERVICE SUPERVISOR

Halliburton

Name and title of cementer's representative
6155 W. Murphy St.

Cementing Company
Odessa, TX, 79763

Signature
432-571-8600

1/29/2023

Address

City, State, Zip Code

Tel: Area Code Number

Date: mo. day yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Martha Finley

Sr Regulatory Coordinator

Martha Finley

Typed or printed name of operator's representative

Title

Signature

600 W Illinois

Midland TX 79701

432-688-6036

1/2/2024

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.

- 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=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- 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.