



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 08/09/2017
Tracking No.: 174839

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

OPERATOR INFORMATION

Operator Name: ANADARKO E&P ONSHORE LLC Operator No.: 020528
Operator Address: ATTN FRANK A. DAVIS PO BOX 1330 HOUSTON, TX 77251-1330

WELL INFORMATION

API No.: 42-301-33030 County: LOVING
Well No.: 3H RRC District No.: 08
Lease Name: YOKUM UL UNIT 19-4 Field Name: PHANTOM (WOLFCAMP)
RRC Lease No.: 47233 Field No.: 71052900
Location: Section: 45, Block: 29, Survey: PSL/FERGUSON, J L, Abstract: 1046

Latitude: Longitude:
This well is located 9.1 miles in a E direction from MENTONE, 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: 03/10/2017

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	10/12/2016	818863
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 12/15/2016	Date of first production after rig released: 03/10/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 12/15/2016	Date plug back, deepening, recompletion, or drilling operation ended: 03/10/2017
Number of producing wells on this lease in this field (reservoir) including this well: 3	Distance to nearest well in lease & reservoir (ft.): 145.0
Total number of acres in lease: 640.70	Elevation (ft.): 2771 GL
Total depth TVD (ft.): 11686	Total depth MD (ft.): 17005
Plug back depth TVD (ft.):	Plug back depth MD (ft.): 16863
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 29.0
Recompletion or reclass? No	Is Cementing Affidavit (Form W-15) attached? Yes
Type(s) of electric or other log(s) run: Gamma Ray (MWD)	Multiple completion? No
Electric Log Other Description:	
Location of well, relative to nearest lease boundaries	Off Lease : No
of lease on which this well is located: 2360.0 Feet from the West Line and 774.0 Feet from the South Line of the YOKUM UL UNIT 19-4 Lease.	

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

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type
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PACKET: N/A

W2:	N/A
FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:	
GAU Groundwater Protection Determination	Depth (ft.): 1000.0 Date: 07/02/2015
SWR 13 Exception	Depth (ft.): 1150.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION	
Date of test: 03/18/2017	Production method: Flowing
Number of hours tested: 24	Choke size: 30/64
Was swab used during this test? No	Oil produced prior to test: 2838.00
PRODUCTION DURING TEST PERIOD:	
Oil (BBLs): 495.00	Gas (MCF): 899
Gas - Oil Ratio: 1816	Flowing Tubing Pressure: 2107.00
Water (BBLs): 5328	
CALCULATED 24-HOUR RATE	
Oil (BBLs): 495.0	Gas (MCF): 899
Oil Gravity - API - 60.: 42.9	Casing Pressure: 1993.00
Water (BBLs): 5328	

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	13 3/8	17 1/2	1177			C	903	2025.0	0	Circulated to Surface
2	Intermediate	9 5/8	12 1/4	4975			C	1368	3160.0	1343	Calculation
3	Intermediate	7	8 3/4	11624			H	810	1548.0	3011	Calculation

LINER RECORD										
Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By	
1	4 1/2	6 1/8	11048	17005	H	494	573.0	11048	Calculation	
								8		

TUBING RECORD			
Row	Size (in.)	Depth	Size (ft.)
1	2 7/8	10958	
			10958 / SUPERIOR RETRIEVABLE

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 12069	16830.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment performed?	Yes		
Is well equipped with a downhole actuation sleeve?	No	If yes, actuation pressure (PSIG):	
Production casing test pressure (PSIG) prior to hydraulic fracturing treatment:	8900	Actual maximum pressure (PSIG) during hydraulic fracturing:	8780
Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)?	Yes		
Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RED BLUFF	No			No	NOT PRESENT
BELL CANYON	Yes	4896.0	4896.0	Yes	
BRUSHY CANYON	Yes	7220.0	7220.0	Yes	
DELAWARE	Yes	4871.0	4871.0	Yes	
CHERRY CANYON	Yes	5872.0	5872.0	Yes	
BONE SPRINGS	Yes	8469.0	8469.0	Yes	
WOLFCAMP	Yes	11347.0	11425.0	Yes	
PENNSYLVANIAN	No			No	BELOW TD
STRAWN	No			No	BELOW TD
ATOKA - HIGH PRESSURE	No			No	BELOW TD
MORROW	No			No	BELOW TD
DEVONIAN	No			No	BELOW TD
FUSSELMAN	No			No	BELOW TD
ELLENBURGER	No			No	BELOW TD
Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?					No
Is the completion being downhole commingled (SWR 10)?					No

REMARKS

KOP @ 11037

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2017-06-21 14:02:01.833] EDL=4761 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well

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: Christine Smith	Title: Regulatory Analyst II
Telephone No.: (432) 247-3549	Date Certified: 06/09/2017



RAILROAD COMMISSION OF TEXAS

1701 N. Congress

P.O. Box 12967

Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15

Rev. 08/2014

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

OPERATOR INFORMATION	
Operator Name: Anadarko E&P Onshore LLC	Operator P-5 No.: 020528
Cementer Name: Allied OFS, LLC	Cementer P-5 No.: 014442

WELL INFORMATION	
District No.: 08	County: LOVING Loving
Well No.: #3H	API No.: 42-301-33030 Drilling Permit No.: 818843
Lease Name: Yokum UL Unit 19-4	Lease No.: 47233
Field Name: Phantom (Wolfcamp)	Field No.: 71052900

I. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Conductor <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production					
Drilled hole size (in.): 17 1/2	Depth of drilled hole (ft.): 1,177	Est. % wash-out or hole enlargement:			
Size of casing in O.D. (in.): 13 3/8	Casing weight (lbs/ft) and grade: 54.5#/J-55	No. of centralizers used: 10			
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Setting depth shoe (ft.): 1,177	Top of liner (ft.):		
Hrs. waiting on cement before drill-out: 24	Calculated top of cement (ft.): 0	Cementing date: 12/16/2016			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	715	C	Remarks	1773	2552
2	188	C	Remarks	252	362
3					
Total	903			2025	2914

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 drilled hole size (in.)				
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string 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.):			
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:		
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					

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: CLASS C + 2.82% CA-400 + 3.64% CA-100 + .19% CDF-100P CIRCULATED 165 BBLs = 373 SACKS OF CEMENT TO SURFACE PIT	2: CLASS C + .94% CA-100

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.

COREY BEGAY - SERVICE SUPERVISOR	Allied OFS, LLC		
Name and title of cementer's representative	Cementing Company	Signature	
8711 W. CR 127	Midland Texas 79706	(432) 563-4440	12/16/2016
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.

Fatma Abdallah	SR. Reg. Analyst	Fatma Abdallah	
Typed or printed name of operator's representative	Title	Signature	
P.O. BOX 1330	Houston, TX 77251	(432) 247-3475	6/7/17
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 Commissioner'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 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/readtacSext.TacPage?sl=R&app=9&p_dir=&p_loc=&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% (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 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 submit multiple form W-15s to show all data for multiple parallel strings.

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



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Form W-15

Rev. 08/2014

CEMENTING REPORT

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

OPERATOR INFORMATION

Operator Name: Anadarko E&P Onshore LLC Operator P-5 No.: 020528
Cementor Name: Allied OFS, LLC Cementor P-5 No.: 014442

WELL INFORMATION

District No.: 08 County: Loving
Well No.: #3H API No.: 42-301-33030 Drilling Permit No.: 818863
Lease Name: Yokum UL Unit 19-4 Lease No.: 47233
Field Name: Phantom (Wolfcamp) Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☒ Intermediate ☐ Liner ☐ Production
Drilled hole size (in.): 12 1/4 Depth of drilled hole (ft.): 4975' Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 9 5/8 Casing weight (lbs/ft) and grade: 40 # J-55 610 No. of centralizers used: 23
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☒ NO Setting depth shoe (ft.): 4,975'
Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 24 Calculated top of cement (ft.): 1343' Cementing date: 12/18/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	1220	C	Remarks	2964	9464
2	148	C	Remarks	196	625
3					
Total	1368			3160	10089

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ 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 drilled hole size (in.)
Tapered string size of casing in O.D. (in.) Tapered string casing weight (lbs/ft) and grade Tapered string no. of centralizers used
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ 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: ☐ Surface ☐ Intermediate ☐ 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) 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:
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 cement (ft.): Cementing date:

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

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: CLASS C + .66% CA-400 + 3.58% CA-200 + .19% CDF-100P + .43% CR-100	2: CLASS C + .19% CDF-100P + .19% CR-100

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COREY BEGAY - SERVICE SUPERVISOR	Allied OFS, LLC		
Name and title of cementer's representative	Cementing Company	Signature	
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Fatma Abdallah	SR. Reg. Analyst	Fatma Abdallah	
Typed or printed name of operator's representative	Title	Signature	
P O Box 1330	Houston, TX 77251	(432) 247-3475	6/7/17
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. Day yr.

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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&r=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&r=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 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 submit multiple form W-15s to show all data for multiple parallel strings.

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



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CEMENTING REPORT

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

OPERATOR INFORMATION

Operator Name: Anadarko E+P Onshore LLC Operator P-5 No.: 020528
Cementer Name: Allied OFS, LLC Cementer P-5 No.: 014442

WELL INFORMATION

District No.: 08 County: Loving
Well No.: #3H API No.: 42-301-33030 Drilling Permit No.: 818863
Lease Name: Yokum UL Unit 19-4 Lease No.: 47233
Field Name: Phantom (Wolfcamp) Field No.: 71052900

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☒ Intermediate ☐ Liner ☐ Production
Drilled hole size (in.): 8 3/4" Depth of drilled hole (ft.): 11,624' Est. % wash-out or hole enlargement:
Size of casing in O.D. (in.): 7" Casing weight (lbs/ft) and grade: 29# HEP110 No. of centralizers used: 40
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. ☐ YES ☒ NO Setting depth shoe (ft.): 11,624' Top of liner (ft.):
Hrs. waiting on cement before drill-out: 24 Calculated top of cement (ft.): 3,011' Cementing date: 12/27/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	384	H	See Remarks	1029.12	6658.27
2	426	H	See Remarks	519.72	3453.73
3					
Total	810	810		1548.84	10112

II. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ Production ☐ Tapered production ☐ Multi-stage cement shoe ☐ 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 drilled hole size (in.)
Tapered string size of casing in O.D. (in.) Tapered string casing weight (lbs/ft) and grade Tapered string no. of centralizers used
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☐ NO Setting depth shoe (ft.):
Hrs. waiting on cement before drill-out: Calculated top of cement (ft.): Cementing date: 12/27/2016

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA

Type of casing: ☐ Surface ☐ Intermediate ☐ 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) 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:
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 cement (ft.): Cementing date: 12/27/2016


SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					


CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Cementing Date							
Size of hole or pipe (in.)							
Depth to bottom of tubing or drill pipe (ft.)							
Cement retainer setting depth (ft.)							
CIBP setting depth (ft.)							
Amount of cement on top of CIBP (ft.)							
Sacks of cement used							
Slurry volume pumped (cu. ft.)							
Calculated top of plug (ft.)							
Measured top of plug, if tagged (ft.)							
Slurry weight (lbs/gal)							
Class/type of cement							
Perforate and squeeze (YES/NO)							

REMARKS
Lead Cement - Premium Gel 8.4 % BWOC, Sodium Chloride 5 lb/Sk, Sodium Metasilicate, .09% BWOC, Powdered Defoamer .17% BWOC, Kol-Seal 5 lb/sk, Flo-Seal .25 lb/sk Tail Cement - Premium Gel 1.68 % BWOC, Fluid Loss .3% BWOC, Low Temp Retarder .09% BWOC

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.

Michael Thornton - Supervisor	Allied OFS, LLC	
Name and title of cementer's representative	Cementing Company	Signature
8711 W. CR 127	Midland Texas 79706	(432) 563-4440
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 12/27/2016

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.

Fatma Abdallah	SR. Regulatory Analyst	
Typed or printed name of operator's representative	Title	Signature
PO BOX 1330	Houston, TX 77251	(432) 947-3475
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 6/7/17

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 Commissioner'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 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=&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=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

D. Estimated % wash-out: If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.

E. Multi-stage cement: An operator must report the multi-stage cement shoe in II. Casing 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 submit multiple form W-15s to show all data for multiple parallel strings.

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



RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967

Austin, Texas 78701-2967

CEMENTING REPORT

Form W-15

Rev. 08/2014

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

OPERATOR INFORMATION	
Operator Name: Anadarko E+P Onshore LLC	Operator P-5 No.: 020528
Cementer Name: Allied OFS, LLC	Cementer P-5 No.: 014442

WELL INFORMATION	
District No.: 08	County: Loving
Well No.: #3H	API No.: 42-301-33030 Drilling Permit No.: 818863
Lease Name: Yokum UL Unit 19-4	Lease No.: 47233
Field Name: Phantom (Wolfcamp)	Field No.: 71052900

I. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input checked="" type="checkbox"/> Liner <input type="checkbox"/> Production					
Drilled hole size (in.): 6 1/8	Depth of drilled hole (ft.): 17,005'	Est. % wash-out or hole enlargement:			
Size of casing in O.D. (in.): 4 1/2	Casing weight (lbs/ft) and grade: 15.1 P110	No. of centralizers used: 13			
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth shoe (ft.): 17,005'	Top of liner (ft.): 11,048'			
Hrs. waiting on cement before drill-out: 24	Calculated top of cement (ft.): 11,048'	Cementing date: 1/23/2017			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	494	H	see remarks	573.04	6081.5
2					
3					
Total	494	H	see remarks	573.04	6081.5

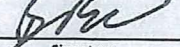
II. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
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 drilled hole size (in.)				
Tapered string size of casing in O.D. (in.)	Tapered string casing weight (lbs/ft) and grade	Tapered string 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.):				
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date: 1/23/2017			
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:				
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: 1/23/2017			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1					
2					
3					
Total					


CEMENTING TO SQUEEZE, PLUG BACK OR PLUG AND ABANDON							
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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
0.38% fluid loss, 0.10% suspension agent, 0.43% retarder, 0.19% defoamer, 0.10% dispersant Class H Premium

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.

Blake C Brock	Allied OFS, LLC	
Name and title of cementer's representative	Cementing Company	Signature
8711 W. CR 127	Midland Texas 79706	(432) 563-4440
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 1/23/2017

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.

Fatma Abdallah	SR. Reg. Analyst	
Typed or printed name of operator's representative	Title	Signature
P.O. Box 1330	Houston, TX 77251	(432) 247-3475
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 6/7/17

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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 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 submit multiple form W-15s to show all data for multiple parallel strings.

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

DAVID PORTER, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER



LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

OPERATOR Name: ANADARKO E&P ONSHORE LLC

RE: Lease: YOKUM UL UNIT 19-4

Address1: ATTN FRANK A. DAVIS

Address2: PO BOX 1330

City: HOUSTON

State: TX

Well No: 3H

Sec: 45 **Block:** 29

County: LOVING

Survey Name: PSL/FERGUSON, J L

SWR13EX Application Number: 10945

Drilling Permit No: 818863

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** YOKUM UL UNIT 19-4 ;
WELL NUMBER: 3H has been approved by the Railroad Commission of Texas District Office.

- a. A copy of this approved letter must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing Program on the original application without additional approval from the Railroad Commission of Texas District Office.
- b. Any substantive modifications to the cement program require prior approval from the Railroad Commission of Texas District Office, and may require re-submission of the SWR 13 (Statewide Rule 13) Alternate Surface Casing Application. Contact the Railroad Commission of Texas District Office for more information.
- c. The tail slurry must be sufficient to fill the Zone of Critical Cement as described in Statewide Rule 13(b)(1)(H)(i). In addition, all cement slurries must be mixed on location as described in Application for Alternate Surface Casing Program.
- d. The casing and cement program shall adhere to the following specifications:

Set 4887 feet of surface casing with a multistage tool set at a depth of not less than 1150 feet. Circulate cement from the multistage tool to the ground surface. If cement does not circulate to surface during the first stage, the multistage tool MUST be opened and neat cement be circulated from the tool to the surface.

The proposed alternative drilling fluid program for the fresh water protected interval is hereby approved.

Please notify the Midland District Office immediately if any gas, H₂S or otherwise, is encountered before surface casing is set.

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(b)(1)(H)(iii) OR AS REQUIRED BY THE RAILROAD COMMISSION OF TEXAS DISTRICT OFFICE.

You must comply with all other provisions of SWR 13 (Statewide Rule 13) and a representative of the cementing company who performs the cementing job for the protection of usable quality water strata must sign the Form W-15 attesting to the information regarding cementing operations performed; including circulation of cement. (Note: If surface casing is set below the approved depth, this can result in denial of future Statewide Rule 13(b)(1)(H)(i) requests.) A condition of the approved drilling permit requires notification to the Railroad Commission of Texas District Office eight (8) hours prior to the time casing is to be set/cemented in the well. If your exception request was submitted after the subject well has been drilled and completed, the operator may be referred for enforcement action.

This authorization shall expire within five (5) years from the date the Groundwater Protection Determination was issued, or at the expiration of the drilling permit (if the well is not spudded prior to expiration) for the referenced well, whichever occurs first. Furthermore, this authorization supersedes any prior authorizations issued for the referenced well.

This exception is based on information provided when the application was submitted on 10/25/2016 .
If any information has changed, you must contact the appropriate Railroad Commission of Texas District Office, and submit a new application if applicable. If you have questions, please contact the appropriate Oil and Gas District office.

RRC APPROVAL BY: Erik Hanson

DATE: 10/31/2016

D. CRAIG PEARSON

DISTRICT DIRECTOR

Tracking No.: 174839

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

Instructions

When to File Form L-1:

- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:

- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:

- with the appropriate Commission district office

Filling out Form L-1:

- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:

- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: ANADARKO E&P ONSHORE LLC	District No. 08	Completion Date: 03/10/2017
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 818863	
Lease Name YOKUM UL UNIT 19-4	Lease/ID No. 47233	Well No. 3H
County LOVING	API No. 42- 301-33030	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN☒ B. BASIC ELECTRIC LOG RUN. (Select one)

- ☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
- ☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
- ☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
- ☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Christine Smith

Signature

Name (print)

Regulatory Analyst II

Title

(432) 247-3549

Phone

06/08/2017

Date

-FOR RAILROAD COMMISSION USE ONLY-

**Premier Directional Drilling**

12941 North Freeway Suite 400
Houston, Texas 77060
281-673-4000

YOKUM UL UNIT 19-4 3H**Scale 5":100' - MD****1/23/2017 10:46 AM****Oper. Company:** Anadarko Petroleum Corporation**State:** Texas**Well:** YOKUM UL UNIT 19-4 3H**County:** Loving**Field:** Wolfcamp**Country:** USA**Rig:** Precision 566**Location:** Mentone GL: 2771 KB: 2796**Well ID:** 42301330300000**Start Date:** 12/24/2020 06:50:00**Job Number:** M16151**End Date:** 01/02/2017 23:20:00

LWD Recored Mode Log

Notes: Gamma Correction Determined by Pipe ID, OD, Mud Weight & Bit Size

Ground Elevation: 2771'+25'@2796' usft

Latitude: 31.72169550**Elev GL:** 2771.00'**Longitude:** -103.44152360**Elev DF:** 25.00'**Elev KB:** 2796.00'**Notes:** Datum: NAD 1927 Map Zone: Texas Central 4203 Total Correction: 8.69° Grid Convergence: -1.60°**Operator 1:** John Kent**Operator 2:** John Gutentag**Notes:** Smoothing: 7 Gap Fill: 10 Survey Tool Type: EVO Unified Mud Pulse/ EM Calculation Method: Minimum Curvature

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	EDO202HN	EDO206HN	EDO265HN	EDO202HN	EDO26HN
Bit Size	8 3/4	8 3/4	6 1/8	6 1/8	6 1/8
Cal Factor	2.86	2.86	1.97	1.97	1.97
Survey Offset	61.00	51.00	60.00	59.00	59.00
Gamma Offset	59.00	50.00	59.00	58.00	58.00
Resisitivity Offset	0.00	0.00	0.00	0.00	0.00
Start Depth	10510.00	11100.00	11563.00	11841.00	14936.00
StartDate	12/24/2016	12/25/2016	1/16/2017	1/21/2017	1/20/2017
StartTime	06:50	02:26	12:00	06:04	23:40
EndDepth	11100.00	11562.00	11841.00	14936.00	17005.00
EndDate	12/24/2016	12/26/2016	1/17/2017	1/20/2017	1/21/2017
EndTime	13:30	08:00	03:30	09:00	23:20
Mud Type	WBM	WBM	OBM	OBM	OBM
Mud Weight	9.25	9.3	12.45	12.85	12.9
Funnel Viscosity	28	29	68	68	66
Plastic Viscosity	2	2	21	18	18
Yield Point	1	1	12	12	12
Gel Strength	1	1	10	12	12
Solids Content	0.9	0.5	22.1	24.3	24.4
Sand Content	N/A	N/A	N/A	N/A	N/A
Mud Alkalinity	0.25	0.22	N/A	N/A	N/A
Filtrate Alkalinity	0.10	0.10	N/A	N/A	N/A
Chlorides	88,000	84,000	38,000	35,000	34,000
Mud RM	N/A	N/A	N/A	N/A	N/A
Mud RMF	N/A	N/A	N/A	N/A	N/A
Mud RMC	N/A	N/A	N/A	N/A	N/A
Mud RM at BHT	N/A	N/A	N/A	N/A	N/A
Temperature	80	85	84	86	74

Hole Data			Casing Data		
Size	From	To	Size	From	To
17 1/2	0.00	1177.00	13.375	0.00	1177.00
9 5/8	0.00	4970.00	9.625	0.00	4970.00
8 3/4	4970.00	11624.00	7	0.00	11624.00
6 1/8	11624.00	17005.00	4.5	11624.00	17005.00

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

RECEIVED
RRC OF TEXAS
OCT 17 2016
O&G
MAILING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
CERTIFICATE OF COMPLIANCE STATEWIDE RULE 36

FORM H-9
12/12/77

FILE WITH
DISTRICT OFFICE
IN TRIPLICATE

1. Operator Anadarko E&P Onshore LLC		2. Operator Number (See Instruction 13) 20528		3. RRC Dist. 08	
4. Street or P. O. Box No. 1201 Lake Robinson Drive		5. City The Woodlands		6. State TX	
7. Zip Code 77380		8. Name of Lease, Facility or Operation YOKUM UL UNIT 19-4 #2H & #3H		9. Field or Area Name (Phantom) Wolfcamp Shale	
10. County Loving		11. General Operation Type - Circle One: A - Oil Field Production B - Gas Field Production C - Pipeline or Gathering Sys. D - Gasoline Plant E - Drilling or Workover F - Sweetening Unit G - Combination (explain) H - Other (explain)		Other Explanation	
12. RRC ID# of Operation(s) to be Covered by This Certificate		Type ID Code (See Instruction 12)		Indicate if Filing for Storage Facility Only YES NO	
13. Hydrogen Sulfide Concentration 25,000 PPM		14. Maximum Escape Volume 20 MCF/Day		15. 100 PPM Radius of Exposure (ROE) 65 Ft.	
16. 500 PPM Radius of Exposure (ROE) 30 Ft.		17. Operation is Existing New		18. Modification Resulting in Certificate Change	
19. Workover or Drilling Well with 100 PPM ROE Greater than 3000' feet on Rule 36 Certified Well/Lease		20. Previous Certificate Number if Available (For Amended Certificates)		21. The 100 PPM ROE includes any part of a public area except a public road	
22. The 500 PPM ROE includes any part of a public road		23. Injection of fluid containing Hydrogen Sulfide (See Instruction 14)		24. Date (or Depth) of Compliance with all applicable provisions of Rule 36	
25. Contingency Plan Location of Plan (See Instruction 15)		Has been prepared		Yes No	
Anadarko E&P Onshore, LLC-1201 Lake Robinson Drive, The Woodlands, TX 77380 and Rig Location		26. Location of data used to prepare this certificate (See Instruction 15)		Anadarko E&P Onshore, LLC-1201 Lake Robinson Drive, The Woodlands, TX 77380	
CERTIFICATE					
I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision, and that I am qualified to make this certification by virtue of my training and experience, and by my analysis of the operation being certified, or by the analysis of qualified person working under my supervision, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge.					
Re representative of Company		Title		Phone No.	
Rickey W. Harris		APC CONTRACT SAFETY ADVISOR		601-410-1946	
				Date	
				10/14/16	

RAILROAD COMMISSION USE ONLY

This operation and the equipment used therein is approved on the basis of the above certification and is subject to further Commission audit for compliance with the required provisions of Statewide Rule 36. This approval may be cancelled if investigation determines that the operation does not comply with the provisions of Statewide Rule 36.

APPROVED BY: Tom Fort

DATE: 10-19-16

REMARKS:

CERTIFICATION NUMBER: 093085

COPY

Clear Form

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.

Tracking No.: 174839

1. Field name exactly as shown on proration schedule PHANTOM (WOLFCAMP)		2. Lease name as shown on proration schedule YOKUM UL UNIT 19-4																																													
3. Current operator name exactly as shown on P-5 Organization Report ANADARKO E&P ONSHORE LLC		4. Operator P-5 no. 020528	5. Oil Lse/Gas ID no 47233	6. County LOVING	7. RRC district 08																																										
8. Operator address including city, state, and zip code ATTN FRANK A. DAVIS PO BOX 1330 HOUSTON, TX 77251-1330		9. Well no(s) <i>(see instruction E)</i> 3H			11. Effective Date 03/10/2017																																										
10. Classification <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Other <i>(see instruction A)</i>																																															
12. Purpose of Filing. (Complete section a or b below.) <i>(See instructions B and G)</i> a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____ --- OR --- b. New RRC Number for: <input checked="" type="checkbox"/> oil lease <input type="checkbox"/> gas well Due to: <input checked="" type="checkbox"/> new completion or recompletion <input type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)																																															
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). <i>(See instruction G).</i> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Gatherer</th> <th style="width: 5%;">Purchaser</th> <th style="width: 65%;">Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left <i>(Attach an additional sheet in same format if more space is needed)</i></th> <th style="width: 10%;">Purchaser's RRC Assigned System Code</th> <th style="width: 10%;">Percent of Take</th> <th style="width: 5%;">Full-well stream</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X</td> <td></td> <td>DELAWARE BASIN JV GATHERING LLC(211490)</td> <td></td> <td style="text-align: center;">100.0</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> <td>ANADARKO ENERGY SERVICES COMPANY(020548)</td> <td style="text-align: center;">0001</td> <td style="text-align: center;">100.0</td> <td></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>						Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left <i>(Attach an additional sheet in same format if more space is needed)</i>	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream	X		DELAWARE BASIN JV GATHERING LLC(211490)		100.0			X	ANADARKO ENERGY SERVICES COMPANY(020548)	0001	100.0																									
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14. Authorized OIL or CONDENSATE Gatherer(s). <i>(See instruction G).</i> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 85%;">Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First <i>(Attach an additional sheet in same format if more space is needed)</i></th> <th style="width: 15%;">Percent of Take</th> </tr> </thead> <tbody> <tr> <td>LPC CRUDE OIL MARKETING LLC(480177)</td> <td style="text-align: center;">50.0</td> </tr> <tr> <td>ANADARKO LONE CREEK GATH LLC(020526)</td> <td style="text-align: center;">50.0</td> </tr> <tr><td></td><td></td></tr> </tbody> </table>						Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First <i>(Attach an additional sheet in same format if more space is needed)</i>	Percent of Take	LPC CRUDE OIL MARKETING LLC(480177)	50.0	ANADARKO LONE CREEK GATH LLC(020526)	50.0																																				
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RRC USE ONLY: Reviewer's initials: <u>RRC Staff</u> Approval date: <u>08/09/2017</u>																																															
15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.																																															
Name of Previous Operator _____ Name (print) _____ Title _____		Signature <input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator <i>(see instruction G)</i> _____ 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 acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge 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.																																															
Name (print) <u>Regulatory Analyst II</u> Title <u>Christine.smith@anadarko.com</u> E-mail Address (optional)		Christine Smith Signature <input checked="" type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator <i>(see instruction G)</i> _____ Date <u>06/08/2017</u> Phone with area code <u>(432) 247-3549</u>																																													

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) PHANTOM (WOLFCAMP)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name ANADARKO E & P ONSHORE LLC	5. Operator P-5 Number 020528	6. Well Number 3H
7. Pooled Unit Name YOKUM UL UNIT 19-4	8. API Number	9. Purpose of Filing <input type="checkbox"/> Drilling Permit (W-1) <input checked="" type="checkbox"/> Completion Report
10. County LOVING	11. Total acres in pooled unit 640.7	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT (See inst. #7 below)	INDICATE UNDIVIDED INTERESTS	
			UNLEASED	NON-POOLED
1	UNIVERSITY LANDS	320.35	<input type="checkbox"/>	<input type="checkbox"/>
2	UNIVERSITY LANDS	320.35	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

CERTIFICATION:

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



Christine Smith

Signature

Print Name

Regulatory Analyst

christine.smith@anadarko.com

06/09/2017

432-247-3549

Title

E-mail (if available)

Date

Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

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

Clear Form

RAILROAD COMMISSION OF TEXAS

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

Form P-16

Page 1

Rev. 01/2016

Acreage Designation

SECTION I. OPERATOR INFORMATION

Operator Name: Anadarko E&P Onshore LLC	Operator P-5 No.: 020528
Operator Address: Po Box 1330 Houston, TX 77251-1330	

SECTION II. WELL INFORMATION

District No.: 08	County: LOVING	Purpose of Filing: <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.: 3H	API No.: 42-301-33030	
Total Lease Acres: 640.7	Drilling Permit No.: 818863	
Lease Name: YOKUM UL UNIT 19-4	Lease No.: 47233	
Field Name: PHANTOM (WOLFCAMP)	Field No.: 71052900	

Filer is the owner or lessee, or has been authorized by the owner or lessee, of all or an undivided portion of the mineral estate under each tract for which filer is listed as operator below. For all leases operated by other entities, the number of assigned acres shown are reflected on current Commission records or the filer has been authorized by the current operator to change the assigned acreage of that operator as shown below.

SECTION III. LISTING OF ALL WELLS IN THE APPLIED-FOR FIELD ON THE SAME ACREAGE AS THE LEASE, POOLED UNIT, OR UNITIZED TRACT DESIGNATED IN SECTION II ABOVE BY FILER

[illegible]

Total Well Count >	3	640.7	< A. Total Assigned Horiz. Acreage	640.7	< C. Total Assigned Acreage
			< Total Remaining Horiz. Acreage		< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

SECTION IV. REMARKS / PURPOSE OF FILING (see instructions)

Completion Report

Attach Additional Pages As Needed.

☐ No additional pages

☐ Additional Pages: _____ (No. of additional pages)

CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that this report was prepared by me or under my supervision or direction, that I am authorized to make this report, and that the information contained in this report is true, correct, and complete to the best of my knowledge.

Signature Chancel Smith

Christine Smith Regulatory Analyst II
Name and title (type or print)

Email (include email address *only* if you affirmatively consent to its public release)

Po Box 1330
Address

Houston	TX	77251-1330
City,	State,	Zip Code

432	247-3549	06/08/17
Tel: Area Code	Number	Date: mo. day yr.

SECTION VII. REMARKS



GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date: 02 July 2015

GAU Number:

10751

Attention: ANADARKO E&P ONSHORE LLC

ATTN FRANK A. DAVIS

HOUSTON, TX 77251

P-5#: 020528

API Number:

County:

LOVING

Lease Name:

YOKUM UL UNIT 19-4

RRC Lease Number:

Well Number:

1H

Total Vertical Depth:

13000

Latitude:

31.721660

Longitude:

-103.441610

Datum:

NAD27

Purpose: New Drill

Location: Survey-PSL; Block-29; Section-45

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

Water-bearing strata from the land surface to a depth of 300 feet and the Rustler, which is estimated to occur from 550 to 1000 feet must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

This determination is based on information provided when the application was submitted on 06/30/2015. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2

P.O. Box 12967 Austin, Texas 78771-2967

512-463- 2741

Rev. 02/2014

Internet address: www.rrc.texas.gov

BLOCK 29
A-1045
(FILE: 135705)

BLOCK 29, SECTION 45
PUBLIC SCHOOL LAND SURVEY
A-1046
(FILE: 135706)

BLOCK 29
A-1047
(FILE: 135707)

UNIVERSITY LAND
SURVEY
BLOCK 19, SECTION 5

UNIVERSITY LAND SURVEY
BLOCK 19, SECTION 4
BOOK "U T", VOL. 2, PAGE 131

"YOKUM UL UNIT 19-4"
640.7 ACRES *

UNIVERSITY LAND
SURVEY
BLOCK 19, SECTION 3

UNIVERSITY LAND
SURVEY
BLOCK 19, SECTION 7

UNIVERSITY LAND
SURVEY
BLOCK 19, SECTION 8

UNIVERSITY LAND
SURVEY
BLOCK 19, SECTION 9



FOR THE EXCLUSIVE USE OF
ANADARKO E&P ONSHORE LLC

STATE OF TEXAS - - - COUNTY OF SMITH
I, Connor G. Brown, Registered Professional Land
Surveyor, do hereby certify the above plat to be
true and correct to the best of my knowledge.
Date: June 6, 2017 Tyler, Texas
E.L.S. SURVEYING & MAPPING, INC.
HARRY L. JOHNSON & ASSOCIATES

Registered Professional Land Surveyor No. 6366
Location is staked from tract lines as evidenced by occupation,
information obtained from the General Land Office and provided
deed records. Distances shown are not intended to be definitive
in establishing actual title boundaries. The deed data, tract acreages
and unit data shown hereon was furnished by others. This is not
a title survey. Vesting documents may not have been provided.
Bearings are based on the Texas State Plane Coordinate
System, N.A.D. 83 (2011) (Central Zone) Derived from GPS Observations.

Firm No. 100327-00

"YOKUM UL UNIT 19-4" 3H
SURFACE LOCATION (WELLHEAD)
TX-CENTRAL ZONE 4203
NAD 27 X=1,033,654.65'
NAD 27 Y=760,907.02'
NAD 27 LAT.=31°43'18.103"
NAD 27 LONG.=103°26'29.486"
NAD 27 LAT.=31.7216952°
NAD 27 LONG.=103.4415238°
NAD 83(2011) X=1,330,118.79'
NAD 83(2011) Y=10,603,483.61'
NAD 83 LAT.=31°43'18.567"
NAD 83 LONG.=103°26'31.118"
NAD 83 LAT.=31.7218242°
NAD 83 LONG.=103.4419773°
SL-2360' FSWL, 774' FSEL-SECTION 45
ELEV.=2771.04'

"YOKUM UL UNIT 19-4" 3H
TOP TAKE POINT**
TX-CENTRAL ZONE 4203
NAD 27 X=1,033,260.20'
NAD 27 Y=759,698.55'
NAD 27 LAT.=31°43'06.038"
NAD 27 LONG.=103°26'33.660"
NAD 27 LAT.=31.7183440°
NAD 27 LONG.=103.4426833°
NAD 83(2011) X=1,329,724.35'
NAD 83(2011) Y=10,602,275.12'
NAD 83 LAT.=31°43'06.503"
NAD 83 LONG.=103°26'35.292"
NAD 83 LAT.=31.7184730°
NAD 83 LONG.=103.4431367°
TTP-275' FSWL, 1639' FSWL-YOKUM UL UNIT 19-4

"YOKUM UL UNIT 19-4" 3H
BOTTOM HOLE LOCATION**
TX-CENTRAL ZONE 4203
NAD 27 X=1,034,602.29'
NAD 27 Y=754,957.87'
NAD 27 LAT.=31°42'19.510"
NAD 27 LONG.=103°26'16.597"
NAD 27 LAT.=31.7054196°
NAD 27 LONG.=103.4379435°
NAD 83(2011) X=1,331,066.50'
NAD 83(2011) Y=10,597,534.37'
NAD 83 LAT.=31°42'19.976"
NAD 83 LONG.=103°26'18.228"
NAD 83 LAT.=31.7055489°
NAD 83 LONG.=103.4383966°
BHL-83' FSEL, 1599' FSWL-SECTION 4

"YOKUM UL UNIT 19-4" 3H
POINT OF PENETRATION**
TX-CENTRAL ZONE 4203
NAD 27 X=1,033,097.22'
NAD 27 Y=760,315.88'
NAD 27 LAT.=31°43'12.100"
NAD 27 LONG.=103°26'35.746"
NAD 27 LAT.=31.7200279°
NAD 27 LONG.=103.4432627°
NAD 83(2011) X=1,329,561.36'
NAD 83(2011) Y=10,602,892.47'
NAD 83 LAT.=31°43'12.565"
NAD 83 LONG.=103°26'37.378"
NAD 83 LAT.=31.7201569°
NAD 83 LONG.=103.4437162°
PP-1657' FSWL, 363' FSEL-SECTION 45

"YOKUM UL UNIT 19-4" 3H
BOTTOM TAKE POINT**
TX-CENTRAL ZONE 4203
NAD 27 X=1,034,571.64'
NAD 27 Y=755,130.14'
NAD 27 LAT.=31°42'21.206"
NAD 27 LONG.=103°26'17.007"
NAD 27 LAT.=31.7058906°
NAD 27 LONG.=103.4380575°
NAD 83(2011) X=1,331,035.85'
NAD 83(2011) Y=10,597,706.64'
NAD 83 LAT.=31°42'21.672"
NAD 83 LONG.=103°26'18.638"
NAD 83 LAT.=31.7060199°
NAD 83 LONG.=103.4385106°
BTP-257' FSEL, 1618' FSWL-YOKUM UL UNIT 19-4

☐ PROPOSED STAKING ☒ AS-DRILLED

AFE#2124239.CMP, ID 9140 Surface location is
approximately 9.1 miles E of Mentone, Tx.
"SODA LAKE NW" Quadrangle

* Called Acreage

** As-Drilled information shown hereon
provided by Anadarko Petroleum Corp.

*** Section Lines per 2005-2006 PSL Survey
by Michel J. Newton. Rolled Sketch 13. Texas
GLO Map No. 83650.

AS-DRILLED WELL LOCATION
ANADARKO E&P ONSHORE LLC
YOKUM UL UNIT 19-4 3H WELL
PUBLIC SCHOOL LAND, A-1046
UNIVERSITY OF TEXAS LANDS
LOVING COUNTY, TEXAS

1000' 500' 0 1000'

1" = 1000'

From the Office of E.L.S. Surveying & Mapping, Inc.
Harry L. Johnson & Associates - Tyler, Texas
2004 W. Grande Blvd. / 903-581-7759

Job No. 374210

Map No. L-4210 ASDRILLED

Drafter: HH