



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved  
Date: 03/22/2018  
Tracking No.: 187287

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.: 42-301-33110 County: LOVING  
Well No.: 14H RRC District No.: 08  
Lease Name: YELLOWJACKET UL UNIT 19-3 Field Name: PHANTOM (WOLFCAMP)  
RRC Lease No.: 47109 Field No.: 71052900  
Location: Section: 3, Block: 19, Survey: UL, Abstract: U3  
  
Latitude: Longitude:  
This well is located 10.8 miles in a NE direction from MENTONE, which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Well Record Only  
Type of completion: Other/Recompletion  
Well Type: Producing Completion or Recompletion Date: 05/23/2017  

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	11/29/2016	820301
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 03/02/2017	Date of first production after rig released: 05/23/2017
Date plug back, deepening, recompletion, or drilling operation commenced: 03/02/2017	Date plug back, deepening, recompletion, or drilling operation ended: 05/23/2017
Number of producing wells on this lease in this field (reservoir) including this well: 2	Distance to nearest well in lease & reservoir (ft.): 330.0
Total number of acres in lease: 967.62	Elevation (ft.): 2770 GL
Total depth TVD (ft.): 11525	Total depth MD (ft.): 18879
Plug back depth TVD (ft.):	Plug back depth MD (ft.): 17492
Was directional survey made other than inclination (Form W-12)? Yes	Rotation time within surface casing (hours): 98.5
Recompletion or reclass? Yes	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: GAMMA	
Location of well, relative to nearest lease boundaries	Off Lease : No
of lease on which this well is located: 330.0 Feet from the South Line and 670.0 Feet from the East Line of the YELLOWJACKET UL UNIT 19-3 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: 11/15/2016
SWR 13 Exception	Depth (ft.): 5151.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION	
Date of test: 05/28/2017	Production method: Flowing
Number of hours tested: 24	Choke size: 44/64
Was swab used during this test? No	Oil produced prior to test: 896.00
PRODUCTION DURING TEST PERIOD:	
Oil (BBLs): 376.00	Gas (MCF): 692
Gas - Oil Ratio: 1840	Flowing Tubing Pressure: 1128.00
Water (BBLs): 7780	
CALCULATED 24-HOUR RATE	
Oil (BBLs): 376.0	Gas (MCF): 692
Oil Gravity - API - 60.: 42.4	Casing Pressure: 1300.00
Water (BBLs): 7780	

CASING RECORD											
Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Depth (ft.)	Multi - Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	9 5/8	12 1/4	5073			C	1312	2870.0	1211	Calculation
2	Surface	9 5/8	12 1/4	5073		1211	C	598	1507.0	0	Circulated to Surface
3	Intermediate	7	8 3/4	11650			H	766	1502.0	3144	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	10723	17492	H	560	650.0	10723	Calculation

TUBING RECORD			
Row	Size (in.)	Depth (ft.)	Packer Depth (ft.)/Type
1	2 7/8	10812	10789 / SUPERIOR RETRIEVABLE

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 11861	17322.0

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:	8700
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.)

1	Fracture	314031.14 BBLS FLUID AND 13980560 LBS PROPPANT	11861	17322
2	Other	LINER STUCK @ 17492. UNABLE TO FISH OUT. TOP OF FISH 17492	17492	18879

FORMATION RECORD					
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RED BLUFF	No			No	NOT PRESENT
BELL CANYON	Yes	4986.0	4986.0	Yes	
BRUSHY CANYON	Yes	7328.0	7328.0	Yes	
DELAWARE	Yes	4961.0	4961.0	Yes	
CHERRY CANYON	Yes	5931.0	5931.0	Yes	
BONE SPRINGS	Yes	8591.0	8591.0	Yes	
WOLFCAMP	Yes	11413.0	11694.0	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 @ 10835. PREVIOUS IP (TRACKING 176006)FILED WITH MISTAKEN BOTTOM PERF. FILING THIS WRO TO CORRECT THE PRODUCING PERFS FROM 11861-17372 AND CHANGING TO 11861-17322.

RRC REMARKS	
<b>PUBLIC COMMENTS:</b> [RRC Staff 2018-02-12 10:49:23.586] EDL=5461 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well	
<b>CASING RECORD :</b>	
<b>TUBING RECORD:</b>	
<b>PRODUCING/INJECTION/DISPOSAL INTERVAL :</b>	
<b>ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :</b>	
<b>POTENTIAL TEST DATA:</b>	

OPERATOR'S CERTIFICATION	
<b>Printed Name:</b> Christine Smith	<b>Title:</b> Regulatory Analyst II
<b>Telephone No.:</b> (432) 247-3549	<b>Date Certified:</b> 02/12/2018





## 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:	BJ Services, LLC	Cementer P-5 No.:	403101

## WELL INFORMATION

District No.:	08	County:	Loving
Well No.:	#14H	API No.:	42-301-33110
Lease Name:	Yellowjacket UL Unit 19-3	Drilling Permit No.:	820301
Field Name:	Phantom (Wolfcamp)	Lease No.:	
		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.):		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? If no for surface casing, explain in Remarks.	<input type="checkbox"/> YES <input type="checkbox"/> NO	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:	3/4/2017

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:	<input checked="" 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.):	12 1/4	Depth of drilled hole (ft.):	5073	Est. % wash-out or hole enlargement:	45%	
Size of casing in O.D. (in.):	9 5/8	Casing weight (lbs/ft) and grade:	40# J-55	No. of centralizers used:	33	
Tapered string drilled hole size (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used		
Tapered string size of casing in O.D. (in.)		Setting depth shoe (ft.):	5073			
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Setting depth liner (ft.):				
Hrs. waiting on cement before drill-out:	24+	Calculated top of cement (ft.):	1211	Cementing date:	3/4/2017	

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	1014	C	REMARKS	2474	7900
2	298	C	REMARKS	396	1264
3					
Total	1312			2870	9164

## 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.):	12 1/4	Depth of drilled hole (ft.):	5073	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	No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string depth of drilled hole (ft.)		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Tapered string size of casing in O.D. (in.)		Setting depth shoe (ft.):	1211			
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Setting depth liner (ft.):				
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):	surface	Cementing date:	3/4/2017	

SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	598	C	REMARKS	1507	4811
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**

1ST STAGE LEAD 1014 SKS CLASS C, CA-400 .66%, CA-200 3.58%, CDF-100 .19%, CR-100 .76% 1ST STAGE TAIL 298 SKS CLASS C CDF-100 .19%, CR-100 .24%. 2ND STAGE LEAD 598 SKS CLASS C CA-400 2.82%, CA-200 6.16%, CDF-100 .19%.—DID NOT CIRCULATE CMT ON 1ST STAGE—CIRCULATED CMT ON 2ND STAGE 165 BBL 368 SKS CMT 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.

<u>JEREMY DICKMAN</u> Name and title of cementer's representative	<u>BJ Services, LLC</u> Cementing Company	 Signature
<u>8711 W. CR 127</u> Address	<u>Midland Texas 79706</u> City, State, Zip Code	<u>(432) 563-4440</u> Tel: Area Code Number
		<u>3/4/2017</u> 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.

<u>Christine Smith</u> Typed or printed name of operator's representative	<u>Regulatory Analyst</u> Title	 Signature
<u>P.O. Box 1330</u> Address	<u>Houston, Tx 77251</u> City, State, Zip Code	<u>432-247-3549</u> Tel: Area Code Number
		<u>6.12.17</u> 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 cements 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 cements 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

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## 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: BJ Services, LLC Cementer P-5 No.: 403101

### WELL INFORMATION

District No.: 08 County: Loving  
Well No.: #14H API No.: 42-301-33110 Drilling Permit No.: 820301  
Lease Name: Yellowjacket UL Unit 19-3 Lease No.:  
Field Name: Phantom (Wolfcamp) Field No.: 71052900

### I. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Conductor	<input type="checkbox"/> Surface	<input checked="" type="checkbox"/> Intermediate	<input type="checkbox"/> Liner	<input type="checkbox"/> Production
Drilled hole size (in.):	8 3/4	Depth of drilled hole (ft.):	11650	Est. % wash-out or hole enlargement:	4.1
Size of casing in O.D. (in.):	7	Casing weight (lbs/ft) and grade:	29/HCP-110	No. of centralizers used:	46
Was cement circulated to ground surface (or bottom of cellar) outside casing? If no for surface casing, explain in Remarks.			Setting depth shoe (ft.):	Top of liner (ft.):	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			11650	Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out:	24	Calculated top of cement (ft.):	3144	Cementing date:	3/11/2017
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	386	H	see remarks	1038.34	6732.22
2	380	H	see remarks	463.6	3073.8
3					
Total	766	H	see remarks	1501.94	9806.02

### 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:	3/11/2017	
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:	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:	3/11/2017	
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							
	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 CLASS H 47/37 POZMIX. 8.40% GEL, 5.0LB/SK SODIUM CHLORIDE, 0.42% SODIUM METASILICATE, 0.17% DEFOAMER, 5.0LB/SK KOL-SEAL, 0.25LB/SK FLO-SEAL, 0.25LB/SK COPOLYMER FIBER, 0.55% LTR. TAIL 47/37 POZMIX 1.68% GEL, 0.30% FLUID LOSS, 0.26% RETARDER.

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.

Chris Caylor	BJ Services, LLC	<i>Chris Caylor</i>
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. 3/11/2017

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.

Christine Smith	Regulatory Analyst	<i>Christine Smith</i>
Typed or printed name of operator's representative	Title	Signature
PO Box 1330	Houston, Tx 77251	432-247-3549
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 6-12-17

### 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.

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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

Form W-15

Rev. 08/2014

## 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.:	#14H	API No.:	42-301-33110
Lease Name:	Yellowjacket UL Unit 19-3	Drilling Permit No.:	020301
Field Name:	Phanton (Wolfcamp)	Lease No.:	
		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.):	19879	Est. % wash-out or hole enlargement:	20%
Size of casing in O.D. (in.):	4.5	Casing weight (lbs/ft) and grade:	13.5/HCP110	No. of centralizers used:	15
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.):	17492	Top of liner (ft.):	10723
Hrs. waiting on cement before drill-out:	~	Calculated top of cement (ft.):	10723	Setting depth liner (ft.):	17492
		Cementing date:	3/24/2017		
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	560	CLASS H	REMARKS	650	6776
2					
3					
Total	560			650	6776

## 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:	3/24/2017	
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:	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:	3/24/2017	
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							
	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

CEMENT WAS 560 SKS OF CLASS H WITH .38% FLUID LOSS,.10% SUSPENSION AGENT,.43% RETARDER,.19%DEFOAMER,.19% DISPERSANT

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.

ALBERT SNYDER SS2	Allied OFS, LLC	<i>Albert Snyder</i>
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. 3/24/2017

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.

<i>Christine Smith</i>	<i>Regulatory Analyst</i>	<i>Christine Smith</i>
Typed or printed name of operator's representative	Title	Signature
PO Box 1330	Houston, Tx 77251	432-247-3549
Address	City, State, Zip Code	Tel: Area Code Number
		Date: mo. Day yr. 6-12-17

### 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 78711-2597).

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.



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:** YELLOWJACKET UL UNIT 19-3

**Address1:** ATTN FRANK A. DAVIS

**Address2:** PO BOX 1330

**City:** HOUSTON

**State:** TX

**Well No:** 14H

**Sec:** 3 **Block:** 19

**County:** LOVING

**Survey Name:** UL

**SWR13EX Application Number:** 11550

**Drilling Permit No:** 820301

### SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for the **LEASE NAME:** YELLOWJACKET UL UNIT 19-3 ;  
**WELL NUMBER:** 14H 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 5161 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, H<sub>2</sub>S 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 12/01/2016 .  
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: 12/02/2016

D. CRAIG PEARSON

DISTRICT DIRECTOR



Tracking No.: 176006

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: 05/23/2017
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 820301	
Lease Name YELLOWJACKET UL UNIT 19-3	Lease/ID No. 47109	Well No. 14H
County LOVING	API No. 42- 301-33110	

## 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: ANADARKO PETROLEUM

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

07/06/2017

Date

-FOR RAILROAD COMMISSION USE ONLY-



# Premier Directional Drilling

363 N Sam Houston Pkwy E Ste. 300  
Houston, TX 77060  
281-673-4000

## Yellowjacket UL Unit 19-3 14H

Scale 5":100' - MD

3/29/2017 8:19 PM

Oper. Company: Anadarko Petroleum

Well: Yellowjacket UL Unit 19-3 14H

Field: Wolfcamp

Rig: PD 576

Well ID: 42301331100000

Job Number: M17068

State: TX

County: Loving Co.

Country: USA

Location: Lat:31° 43' 11.941N Long: 103° 24' 55.475W

Start Date: 03/08/2017 05:17:00

End Date: 03/19/2017 22:14:00

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

Latitude: 31° 43' 11.941 N

Longitude: 103° 24' 55.475 W

Elev GL: 2769'

Elev DF: 27'

Elev KB: 2796'

Notes: Datum: NAD 1927 Projection: Texas Central 4203 Total Correction: 8.70° Grid Convergence: -1.59°

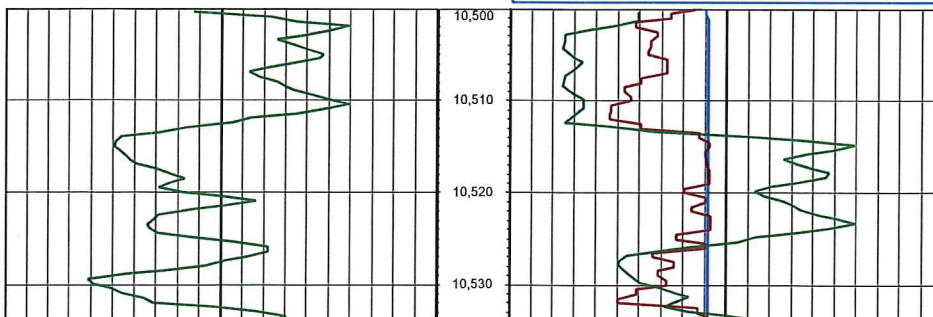
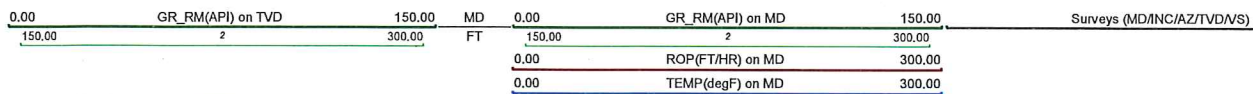
Operator 1: Jesse Montes

Operator 2: Jim Thammavong

Notes: Smoothing: 7 Gap Fill: 10 Survey Tool Type: EVO Calculation Method: Minimum Curvature

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	ELP-0127	ELP-0134	ELP-0179		
Bit Size	8.75	8.75	6.125		
Cal Factor	2.84	2.84	1.94		
Survey Offset	77.37	57.21	62.26		
Gamma Offset	76.18	56.02	61.10		
Resistivity Offset	0.00	0.00	0.00		
Start Depth	10500.00	10738.00	11594.00		
StartDate	3/8/2017	3/9/2017	3/13/2017		
StartTime	05:15	07:55	21:25		
EndDepth	10737.00	11593.00	18878.00		
EndDate	3/8/2017	3/9/2017	3/19/2017		
EndTime	08:00	23:55	22:14		
Mud Type	Brine	Brine	OBM		
Mud Weight	9.5	9.5	12.5		
Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4"	120.00	5073.00	9 5/8"	0.00	5073.00
8 3/4"	5073.00	11650.00	7"	0.00	11650.00
6 1/8"	11650.00	18879.00	4 1/2"	11650.00	18879.00

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.





# CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

# P-12

1. Field Name(s) PHANTOM (WOLFCAMP)	2. Lease/ID Number (if assigned) 47109	3. RRC District Number 08
4. Operator Name ANADARKO E&P ONSHORE LLC	5. Operator P-5 Number 020528	6. Well Number 14H
7. Pooled Unit Name YELLOWJACKET UL UNIT 19-3	8. API Number 42-301-33110	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 967.62	

## 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	HARRISON, ET AL	647.27	<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"/>

### CERTIFICATION:

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

  
Signature

CHRISTINE SMITH

Print Name

REGULATORY ANALYST

07/06/2017

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.

## 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:	ATTN: Frank A. Davis, P.O. Box 1330, Houston, TX 77251-1330		

## SECTION II. WELL INFORMATION

District No.: 08	County: LOVING	<b>Purpose of Filing:</b> <input type="checkbox"/> Drilling Permit Application (Form W-1) <input checked="" type="checkbox"/> Completion Report (Form G-1/W-2)
Well No.: 14H	API No.: 42-301-33110	
Total Lease Acres: 967.62	Drilling Permit No.: 820301	
Lease Name: YELLOWJACKET UL UNIT 19-3	Lease No.: 47109	
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 >	2	< A. Total Assigned Horiz. Acreage	967.62	< C. Total Assigned Acreage
		< Total Remaining Horiz. Acreage	0	< Total Remaining Acreage
		< B. Total Assigned Vert./Dir. Acreage		
		< Total Remaining Vert./Dir. Acreage		

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

Initial potential completion report for 14H.

**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.

Christa Smith  
Signature

Christine Smith, Reg Analyst II

Name and title (type or print)

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

P.O. Box 1330

Houston

TX

77251-1330

432-247-3549

07/06/2017

Address

City,

**State,**

Zip Code

Tel: Area Code

Number

Date: mo. day yr.



**GROUNDWATER PROTECTION DETERMINATION****Form GW-2****Groundwater Advisory Unit****Date Issued:** 15 November 2016**GAU Number:** 163186**Attention:** ANADARKO E&P ONSHORE  
ATTN FRANK A. DAVIS  
HOUSTON, TX 77251**Operator No.:** 020528**API Number:**  
**County:** LOVING  
**Lease Name:** YELLOWJACKET UL UNIT 19-3  
**Lease Number:**  
**Well Number:** 14H  
**Total Vertical Depth:** 13000  
**Latitude:** 31.719983  
**Longitude:** -103.415409  
**Datum:** NAD27**Purpose:** New Drill**Location:** Survey-UNIVERSITY LAND; Abstract-NONE; Block-19; Section-3

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 Rustler, which is estimated to occur at a depth of 1000 feet, must be protected.

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

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 11/11/2016. 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    Internet address: [www.rrc.texas.gov](http://www.rrc.texas.gov)  
Rev. 02/2014

BLOCK 29  
A-963  
(FILE: 134521)

BLOCK 29  
A-962  
(FILE: 134520)

BLOCK 29  
A-1058  
(FILE: 134688)

BLOCK 29  
A-1046  
(FILE: 135706)

BLOCK 29  
A-1387  
(FILE: 152687)

"YELLOWJACKET UL UNIT 19-3"

TRACT	ACREAGE	MINERAL OWNERSHIP
1	647.27	Harrison, et al
2	320.35	University Lands
TOTAL	967.62	

BLOCK 29  
SECTION 46  
PUBLIC SCHOOL LAND  
A-1047  
(FILE: 135707)

AS-DRILLED BORE SUMMARY\*\*  
"YELLOWJACKET UL UNIT 19-3" 14H  
SL TO PP\*\*=S53°33'50"W-377.27'  
SL TO TTP\*\*=N39°04'48"W-602.41'  
SL TO BTP\*\*=N18°09'33"W-6015.21'  
SL TO BHL\*\*=N17°53'37"W-7570.76'  
PP\*\* TO TTP\*\*=N06°17'24"W-695.89'  
PP\*\* TO BTP\*\*=N14°48'59"W-6143.98'  
PP\*\* TO BHL\*\*=N15°13'51"W-7699.05'  
TTP\*\* TO BTP\*\*=N15°53'59"W-5456.75'  
TTP\*\* TO BHL\*\*=N16°06'52"W-7012.45'  
BTP\*\* TO BHL\*\*=N16°52'02"W-1555.87'

"YELLOWJACKET UL UNIT 19-3"  
967.62 ACRES

"YELLOWJACKET UL UNIT 19-3" 14H  
SURFACE LOCATION (WELLHEAD)  
TX-CENTRAL ZONE 4203  
NAD 27 X=1,041,754.60'  
NAD 27 Y=760,058.76'  
NAD 27 LAT.=31°43'11.941"  
NAD 27 LONG.=103°24'55.471"  
NAD 27 LAT.=31.7199836°  
NAD 27 LONG.=103.4154087°  
NAD 83(2011) X=1,338,218.83'  
NAD 83(2011) Y=10,602,635.32'  
NAD 83 LAT.=31°43'12.406"  
NAD 83 LONG.=103°24'57.100"  
NAD 83 LAT.=31.7201127°  
NAD 83 LONG.=103.4158612°  
SL-2313' FNL, 670' FEL-SECTION 3  
ELEV.=2770.37'

"YELLOWJACKET UL UNIT 19-3" 14H  
POINT OF PENETRATION\*\*  
TX-CENTRAL ZONE 4203  
NAD 27 X=1,041,451.07'  
NAD 27 Y=759,834.70'  
NAD 27 LAT.=31°43'09.641"  
NAD 27 LONG.=103°24'58.912"  
NAD 27 LAT.=31.7193448°  
NAD 27 LONG.=103.4163645°  
NAD 83(2011) X=1,337,915.31'  
NAD 83(2011) Y=10,602,411.25'  
NAD 83 LAT.=31°43'10.106"  
NAD 83 LONG.=103°25'00.541"  
NAD 83 LAT.=31.7194738°  
NAD 83 LONG.=103.4168170°  
PP-200' FSL, 1024' FEL-YELLOWJACKET UL UNIT 19-3

UNIVERSITY LAND SURVEY  
BLOCK 19, SECTION 3  
BOOK "U T", VOL. 2, PAGE 130

"YELLOWJACKET UL UNIT 19-3" 14H  
TOP TAKE POINT\*\*  
TX-CENTRAL ZONE 4203  
NAD 27 X=1,041,374.84'  
NAD 27 Y=760,526.39'  
NAD 27 LAT.=31°43'16.463"  
NAD 27 LONG.=103°25'00.016"  
NAD 27 LAT.=31.7212397°  
NAD 27 LONG.=103.4166712°  
NAD 83(2011) X=1,337,839.07'  
NAD 83(2011) Y=10,603,102.95'  
NAD 83 LAT.=31°43'16.928"  
NAD 83 LONG.=103°25'01.646"  
NAD 83 LAT.=31.7213688°  
NAD 83 LONG.=103.4171238°  
TTP-885' FSL, 903' FEL-YELLOWJACKET UL UNIT 19-3

"YELLOWJACKET UL UNIT 19-3" 14H  
BOTTOM TAKE POINT\*\*  
TX-CENTRAL ZONE 4203  
NAD 27 X=1,039,880.00'  
NAD 27 Y=765,774.29'  
NAD 27 LAT.=31°44'07.969"  
NAD 27 LONG.=103°25'19.003"  
NAD 27 LAT.=31.7355470°  
NAD 27 LONG.=103.4219453°  
NAD 83(2011) X=1,336,344.16'  
NAD 83(2011) Y=10,608,350.94'  
NAD 83 LAT.=31°44'08.433"  
NAD 83 LONG.=103°25'20.634"  
NAD 83 LAT.=31.7356758°  
NAD 83 LONG.=103.4223983°  
BTP-1634' FNL, 860' FEL-YELLOWJACKET UL UNIT 19-3

"YELLOWJACKET UL UNIT 19-3" 14H  
BOTTOM HOLE LOCATION\*\*  
TX-CENTRAL ZONE 4203  
NAD 27 X=1,039,428.58'  
NAD 27 Y=767,263.20'  
NAD 27 LAT.=31°44'22.575"  
NAD 27 LONG.=103°25'24.707"  
NAD 27 LAT.=31.7396041°  
NAD 27 LONG.=103.4235297°  
NAD 83(2011) X=1,335,892.72'  
NAD 83(2011) Y=10,609,839.88'  
NAD 83 LAT.=31°44'23.038"  
NAD 83 LONG.=103°25'26.338"  
NAD 83 LAT.=31.7397328°  
NAD 83 LONG.=103.4239829°  
BHL-78' FNL, 873' FEL-SECTION 6

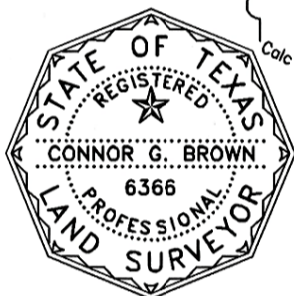
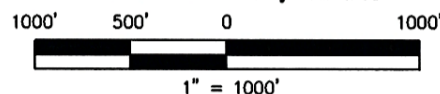
☐ PROPOSED STAKING ☒ AS-DRILLED  
AFE#2104225.CMP, ID 9228

Surface location is approximately  
10.8 miles ENE of Mentone, Tx.  
"SODA LAKE NW" Quadrangle

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

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

AS-DRILLED WELL LOCATION  
ANADARKO E&P ONSHORE LLC  
YELLOWJACKET UL UNIT 19-3 14H WELL  
PUBLIC SCHOOL LAND, A-1047  
UNIVERSITY LAND SURVEY  
LOVING COUNTY, TEXAS



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 27, 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  
dead 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 and distances are based on the Texas State Plane Coordinate  
System, N.A.D. 83 (2011) (Central Zone) derived from GPS Observations.

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