RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 09/25/2018
Tracking No.: 195438

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

OPERATOR INFORMATION

Operator Name: SHELL WESTERN E&P **Operator No.:** 774719
Operator Address: PO BOX 576 HOUSTON, TX 77001-0000

WELL INFORMATION

API No.: 42-301-33264 **County:** LOVING
Well No.: 1804H **RRC District No.:** 08
Lease Name: UNIVERSITY 19 PW UNIT **Field Name:** PHANTOM (WOLFCAMP)
RRC Lease No.: 42401 **Field No.:** 71052900
Location: Section: 18, Block: 19, Survey: UL, Abstract: U18

Latitude: 31 **Longitude:** -103
This well is located 11.5 **miles in a** SE **direction from** MENTONE, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: Other/Recompletion
Well Type: Producing **Completion or Recompletion Date:** 05/25/2018

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	03/23/2018	824167
Rule 37 Exception		
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 08/05/2017 **Date of first production after rig released:** 05/25/2018
Date plug back, deepening, recompletion, or drilling operation commenced: 08/05/2017 **Date plug back, deepening, recompletion, or drilling operation ended:** 10/25/2017
Number of producing wells on this lease in this field (reservoir) including this well: 37 **Distance to nearest well in lease & reservoir (ft.):** 1506.0
Total number of acres in lease: 13511.20 **Elevation (ft.):** 2761 GL
Total depth TVD (ft.): 11612 **Total depth MD (ft.):** 22500
Plug back depth TVD (ft.): **Plug back depth MD (ft.):**
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 68.5
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? Yes **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 14061.0 **Feet from the** NE **Line and** 14224.0 **Feet from the** NW **Line of the** UNIVERSITY 19 PW UNIT **Lease.** **Off Lease :** No

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

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

PACKET: N/A

W2: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination **Depth (ft.):** 1050.0 **Date:** 03/07/2017

SWR 13 Exception **Depth (ft.):** 4924.0

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION

Date of test: 06/09/2018 **Production method:** Flowing

Number of hours tested: 24 **Choke size:** 32/64

Was swab used during this test? No **Oil produced prior to test:** 4824.00

PRODUCTION DURING TEST PERIOD:

Oil (BBLS): 1080.00 **Gas (MCF):** 1584

Gas - Oil Ratio: 1466 **Flowing Tubing Pressure:** 2265.00

Water (BBLS): 5280

CALCULATED 24-HOUR RATE

Oil (BBLS): 1080.0 **Gas (MCF):** 1584

Oil Gravity - API - 60.: 43.5 **Casing Pressure:** 3120.00

Water (BBLS): 5280

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool 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	9 5/8	12 1/4	4938	1195		CLASS C	3134	6505.0	0	Circulated to Surface
2	Intermediate	7	8 3/4	11261			CLASS C AND CLASS H	603	1621.0	3952	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	11007	22462	CLASS H	1115	1343.0	11007	Calculation

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2 7/8	10967	10949 / VERSASET PACKER

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L1 13070	22025.0

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

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes **If yes, actuation pressure (PSIG):** 7942.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 9500 **Actual maximum pressure (PSIG) during hydraulic fracturing:** 8973

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	WELL DATA HAS BEEN UPLOADED TO FRAC FOCUS	13070	22025

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RED BLUFF	No			No	FORMATION NOT GEOLOGICALLY PRESENT
BELL CANYON	Yes	5048.0	5116.0	Yes	
BRUSHY CANYON	Yes	7188.0	7258.0	Yes	
DELAWARE	Yes	5019.0	5087.0	Yes	
CHERRY CANYON	Yes	6005.0	6077.0	Yes	
BONE SPRINGS	Yes	8595.0	8668.0	Yes	PRODUCTIVE
WOLFCAMP	Yes	11376.0	11480.0	Yes	PRODUCTIVE
PENNSYLVANIAN	No			No	BELOW WELLBORE DEPTH
STRAWN	No			No	BELOW WELLBORE DEPTH
ATOKA - HIGH PRESSURE	No			No	BELOW WELLBORE DEPTH
MORROW	No			No	BELOW WELLBORE DEPTH
DEVONIAN	No			No	BELOW WELLBORE DEPTH
FUSSELMAN	No			No	BELOW WELLBORE DEPTH
ELLENBURGER	No			No	BELOW WELLBORE DEPTH

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 AT 11092

RRC REMARKS

PUBLIC COMMENTS:

[RRC Staff 2018-09-21 16:32:53.243] EDL=8950 feet, max acres=704, PHANTOM (WOLFCAMP) oil or gas well;

take points: 13070-22025 feet

CASING RECORD :

DV TOOL SET AT 1195, BUT NOT OPENED AS APPROVED IN SWR 13.

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

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

POTENTIAL TEST DATA:

OPERATOR'S CERTIFICATION	
Printed Name: Maureen Kovacic	**Title:** Regulatory Specialist
Telephone No.: (832) 337-0953	**Date Certified:** 07/16/2018

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: SHELL EXPLORATION & PRODUCTION	**Operator P-5 No.:** 774719
Cementer Name: BJ SERVICES,LLC	**Cementer P-5 No.:** 403101

WELL INFORMATION

District No.: 08	**County:** LOVING	
Well No.: UNIT 1804	**API No.:** 42-301-33264	**Drilling Permit No.:** 824167
Lease Name: UNIVERSITY 19 PW	**Lease No.:** 42401	
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.):** 4974	**Est. % wash-out or hole enlargement:** 9%	
Size of casing in O.D. (in.): 9 5/8	**Casing weight (lbs/ft) and grade:** 40# / J-55	**No. of centralizers used:** 29	
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☑ YES ☐ NO If no for surface casing, explain in Remarks.	**Setting depth shoe (ft.):** 4938	**Top of liner (ft.):**	
		Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out: +12	**Calculated top of cement (ft.):** 0	**Cementing date:** 08/13/2017	

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	2637	C	REMARKS 1	4944	15785
2	497	C	REMARKS 2	661	2110
3					
Total	3134			5605	17895

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.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:
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.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** 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

REMARKS 1 35:65:4 CLASS C + 0.65% SMS + 5.00% SALT (4.169 LB/SK) + 1.00% R-3 + 0.005 LB/SK STATIC FREE + 0.01 GPS FP-6L
REMARKS 2 CLASS C + 0.15% SMS + 0.35% R-3 + 0.005 LB/SK STATIC FREE + 0.01 GPS FP-6L
CIRCULATED CEMENT 597 BBLS = 1788 SACKS

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.

Field Specialist-MARIO G OLIVARES	BJ SERVICES, LLC	Mario G Olivares	
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM 2920 RD.	TOMBALL,TEXAS 77375	(281) 408-2361	08/13/2017
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.

Maureen Kovacic	Regulatory Specialist		
Typed or printed name of operator's representative	Title	Signature	
150 N. Dairy Ashford	Houston TX 77079	832-337-0953	01/04/2018
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 representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

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

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

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-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
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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: SHELL EXPLORATION & PRODUCTION	Operator P-5 No.: 774719
Cementer Name: BJ SERVICES,LLC	Cementer P-5 No.: 403101

WELL INFORMATION

District No.: 08	County: LOVING	
Well No.: 1804	API No.: 42301332640000	Drilling Permit No.: 824167
Lease Name: UNIVERSITY 19 PW UNIT	Lease No.: 42401	
Field Name: Phantom (Wolcamp)	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.): 12,010	Est. % wash-out or hole enlargement: 10%
Size of casing in O.D. (in.): 7	Casing weight (lbs/ft) and grade: 29#/P110	No. of centralizers used: 64
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☑ NO If no for surface casing, explain in Remarks.	Setting depth shoe (ft.): 11261	Top of liner (ft.):
		Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: +12	Calculated top of cement (ft.): 3952	Cementing date: 09/23/2017

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	302	C	REMARKS 1	1312	8862
2	241	H	REMARKS 2	269	1922
3					
Total	603			1581	10784

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.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used Upper: Lower:
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.) Upper: Lower:	Tapered string depth of drilled hole (ft.) Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	Tapered string casing weight(lbs/ft) and grade Upper: Lower:	Tapered string no. of centralizers used 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

REMARKS 1 35:65:6 CLASS C + 10.00% BA-90 + 5.00% A-10 + 1.50% FL-62 + 1.00% CD-32 + 2.25% SMS + 3.00% KCL (5.592 LB/SK) + 1.05% R-3 + 0.005 LB/SK STATIC FREE + 0.005 GPS FP-6L
REMARKS 2 50:50:2 CLASS H + 0.60% FL-66 + 0.35% CD-32 + 0.35% SMS + 0.30% R-3 + 0.005 LB/SK STATIC FREE + 0.005 GPS FP-6L

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Field Specialist-MARIO G OLIVARES	BJ SERVICES, LLC	Mario G Olivares	
Name and title of cementer's representative	Cementing Company	Signature	
11211 FM 2920 RD.	TOMBALL,TEXAS 77375	(281) 408-2361	09/23/2017
Address	City, State, Zip Code	Tel: Area Code Number	Date: mo. day yr.

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Maureen Kovacic	Regulatory Specialist		
Typed or printed name of operator's representative	Title	Signature	
150 N. Dairy Ashford	Houston TX 77079	832-337-0953	01/04/2018
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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 Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

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

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

OPERATOR INFORMATION

Operator Name: Shell Exploration & Production Co	**Operator P-5 No.:** 774719
Cementer Name: BJ Services, LLC	**Cementer P-5 No.:** 403101

WELL INFORMATION

District No.: 08	**County:** LOVING	
Well No.: UNIT #1804	**API No.:** 42-301-33264	**Drilling Permit No.:** 824167
Lease Name: UNIVERSITY 19 PW	**Lease No.:** 42401	
Field Name: Phantom (Wolfcamp)	**Field No.:** 71052900	

I. CASING CEMENTING DATA

Type of casing: ☐ Conductor ☐ Surface ☐ Intermediate ☑ Liner ☐ Production

Drilled hole size (in.): 6.125	**Depth of drilled hole (ft.):** 22500	**Est. % wash-out or hole enlargement:** 15%
Size of casing in O.D. (in.): 4.5	**Casing weight (lbs/ft) and grade:** (#11.6) P110	**No. of centralizers used:**
Was cement circulated to ground surface (or bottom of cellar) outside casing? ☐ YES ☑ NO If no for surface casing, explain in Remarks.	**Setting depth shoe (ft.):** 22462	**Top of liner (ft.):** 11007 **Setting depth liner (ft.):** 22462
Hrs. waiting on cement before drill-out:	**Calculated top of cement (ft.):** 11007	**Cementing date:** 10/13/2017

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1115	H	SEE REMARKS	1343	14261
2					
3					
Total	1115			1343	14261

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.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** Upper: Lower:
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.) Upper: Lower:	**Tapered string depth of drilled hole (ft.)** Upper: Lower:	
Tapered string size of casing in O.D. (in.) Upper: Lower:	**Tapered string casing weight(lbs/ft) and grade** Upper: Lower:	**Tapered string no. of centralizers used** 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

SLURRY: 50% FLY ASH + 50% CLASS 'H' + 2% BENTONITE + .65% FL-66 + .3% CD-32 + 0.35% SMS + 0.5% R-3 + .01 gps FP-6L + .005 lb/sk STATIC FREE

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.

Field Specialist-GUADALUPE E GARCIA	BJ SERVICES, LLC		
Name and title of cementer's representative	Cementing Company		Signature

11211 FM 2920 RD	TOMBALL, TEXAS	77375	(218) 408-2361		10/13/2017
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.

Maureen Kovacic	Regulatory Specialist	
Typed or printed name of operator's representative	Title	Signature

150 N. Dairy Ashford	Houston TX 77079		832-337-0953		01/04/2018
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 representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. **How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (https://webapps.rrc.state.tx.us/security/login.do) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).

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

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

E. **Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.

F. **Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.

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

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin, Texas 78711-2967
www.rrc.texas.gov

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s)	2. Lease/ID Number *(if assigned)*	3. RRC District Number
Phantom (Wolfcamp)	42401	08
4. Operator Name	**5. Operator P-5 Number**	**6. Well Number**
Shell Western E&P	774719	1804H
7. Pooled Unit Name	**8. API Number**	**9. Purpose of Filing**
University 19 PW Unit	301-33264	☐ Drilling Permit (W-1)
10. County	**11.Total acres in pooled unit**	☑ Completion Report
Loving & Ward	13511.20	

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
Tr. 1	University Lands	160.24	☐	☐
Tr. 2	University Lands	480.71	☐	☐
Tr. 3	University Lands	520.93	☐	☐
Tr. 4	University Lands	641.05	☐	☐
Tr. 5	University Lands	280.46	☐	☐
Tr. 6	University Lands (below 11710')	40.07	☑	☐
Tr. 7	University Lands	320.54	☐	☐
Tr. 8	University Lands	641.06	☐	☐
Tr. 9	University Lands	566.27	☐	☐
Tr. 10	University Lands	641.31	☐	☐

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	Print Name		
	Maureen Kovacic		
Title	E-mail *(if available)*	Date	Phone
Reg. Specialist	maureen.kovacic@shell.com	07/05/2018	(832) 337-0549

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. 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.
2. 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.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. 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.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. 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
Oil and Gas Division
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CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

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7. Pooled Unit Name	**8. API Number**	**9. Purpose of Filing**
University 19 PW Unit	301-33264	☐ Drilling Permit (W-1)
10. County	**11.Total acres in pooled unit**	☑ Completion Report
Loving & Ward	13511.20	

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
Tr. 11	University Lands	641.23	☐	☐
Tr. 12	University Lands	320.60	☐	☐
Tr. 13	University Lands	320.61	☐	☐
Tr. 14	University Lands	640.92	☐	☐
Tr. 15	University Lands	640.99	☐	☐
Tr. 16	University Lands	465.34	☐	☐
Tr. 17	University Lands	640.96	☐	☐
Tr. 18	University Lands	624.55	☐	☐
Tr. 20	University Lands	120.21	☐	☐
Tr. 22	University Lands	320.45	☐	☐

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	Print Name		
	Maureen Kovacic		
Title	**E-mail *(if available)***	**Date**	**Phone**
Reg. Specialist	maureen.kovacic@shell.com	09/26/2017	(832) 337-0953

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. 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.
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5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
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Oil and Gas Division
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CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

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University 19 PW Unit	301-33264	☐ Drilling Permit (W-1)
10. County	**11.Total acres in pooled unit**	☑ Completion Report
Loving & Ward	13511.20	

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
Tr. 23	University Lands	640.99	☐	☐
Tr. 24	University Lands	640.90	☐	☐
Tr. 25	University Lands	640.86	☐	☐
Tr. 26	University Lands	639.62	☐	☐
Tr. 27	University Lands	638.33	☐	☐
Tr. 28	University Lands	200.31	☐	☐
Tr. 29	University Lands	120.19	☐	☐
Tr. 30	University Lands	320.50	☐	☐
Tr. 32	University Lands	320.48	☐	☐
Tr. 34	University Lands	320.52	☐	☐

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	Print Name		
	Maureen Kovacic		
Title	**E-mail** *(if available)*	**Date**	**Phone**
Reg. Specialist	maureen.kovacic@shell.com	09/26/2017	(832) 337-0549

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. 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.
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5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
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7. 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
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Acreage Designation

SECTION I. OPERATOR INFORMATION	
Operator Name: Shell Western E&P	**Operator P-5 No.:** 774719
Operator Address: P.O. Box 576, Houston, Texas 77001	

SECTION II. WELL INFORMATION		
District No.: 08	**County:** Loving and Ward	**Purpose of Filing:**
Well No.: 1804H	**API No.:** 301-31705	☐ Drilling Permit Application (Form W-1)
Total Lease Acres: 13511.2	**Drilling Permit No.:** 732832	■ Completion Report (Form G-1/W-2)
Lease Name: University 19 PW Unit	**Lease No.:** 42401	
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

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
42108	2H	H	Blacktip University 19-26	301-31983	640	N	Anadarko E&P Onshore LLC, 020528
46773	2H	H	University 19-27	301-32307	641	N	Anadarko E&P Onshore LLC, 020528
42401	1302H	H	University 19 PW Unit	301-31705	160	N	
42401	2202H	H	University 19 PW Unit	301-31708	160	N	
42401	1902H	H	University 19 PW Unit	301-31709	160	N	
42401	1502H	H	University 19 PW Unit	301-32460	160	N	
42401	1802H	H	University 19 PW Unit	301-32460	160	N	
42401	2302H	H	University 19 PW Unit	301-32597	160	N	
42401	2303H	H	University 19 PW Unit	301-32848	160	N	
42401	2304H	H	University 19 PW Unit	301-32849	160	N	
42401	2503H	H	University 19 PW Unit	301-33047	160	N	
42401	2504H	H	University 19 PW Unit	301-33048	160	N	
42401	2505H	H	University 19 PW Unit	301-33049	160	N	
42401	2506H	H	University 19 PW Unit	301-33054	160	N	
42401	1508H	H	University 19 PW Unit	301-33124	160	N	
42401	1506H	H	University 19 PW Unit	301-33126	160	N	

Total Well Count >	37	6881	< A. Total Assigned Horiz. Acreage	6881	< C. Total Assigned Acreage
		6630.2	< Total Remaining Horiz. Acreage	6630.2	< Total Remaining Acreage
			< B. Total Assigned Vert./Dir. Acreage		
			< Total Remaining Vert./Dir. Acreage		

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

Attach Additional Pages As Needed. ☐ No additional pages ■ Additional Pages: 1 (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	Maureen Kovacic Name and title (type or print)	maureen.kovacic@shell.com Email (include email address *only* if you affirmatively consent to its public release)

150 N. Dairy Ashford	Houston	TX	77079	832-337-0953	07/06/2018
Address	City,	State,	Zip Code	Tel: Area Code Number	Date: mo. day yr.

RAILROAD COMMISSION OF TEXAS

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

Acreage Designation Attachment

Form P-16
Attachment
Page 1A
Rev. 01/2016

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 (CONTINUED). 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

RRC ID No. or Lease No.	Well No.	H-Horizontal D-Directional V-Vertical	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
42401	1507H	H	University 19 PW Unit	301-33144	160	N	
42401	1503H	H	University 19 PW Unit	301-33170	160	N	
42401	1504H	H	University 19 PW Unit	301-33171	160	N	
42401	1505H	H	University 19 PW Unit	301-33172	160	N	
42401	1407H	H	University 19 PW Unit	301-33203	160	N	
42401	1406H	H	University 19 PW Unit	301-33213	160	N	
42401	1404H	H	University 19 PW Unit	301-33215	160	N	
42401	1803H	H	University 19 PW Unit	301-33263	160	N	
42401	1804H	H	University 19 PW Unit	301-33264	160	N	
42401	2502H	H	University 19 PW Unit	475-35995	160	N	
42401	2802H	H	University 19 PW Unit	475-35996	160	N	
42401	1403H	H	University 19 PW Unit	301-33214	160	N	
42401	1408H	H	University 19 PW Unit	301-33216	160	N	
42401	1405H	H	University 19 PW Unit	301-33218	160	N	
DP # 823279	0907H	H	University 19 PW Unit	301-33235	160	N	
DP # 823271	0908H	H	University 19 PW Unit	301-33234	160	N	
DP # 823307	0909H	H	University 19 PW Unit	301-33227	160	N	
DP # 823201	0903H	H	University 19 PW Unit	301-33222	160	N	
DP # 823212	0904H	H	University 19 PW Unit	301-33226	160	N	
DP # 823264	0910H	H	University 19 PW Unit	301-33232	160	N	
~~DP # 823316~~	~~0905H~~	~~H~~	~~University 19 PW Unit~~	~~301-33228~~	~~160~~	~~N~~	
DP # 823322	0906H	H	University 19 PW Unit	301-33229	160	N	

Total Well Count >	37	6881	< A. Total Assigned Horiz. Acreage	6881	< C. Total Assigned Acreage	
		6630.2	< Total Remaining Horiz. Acreage	6630.2	< Total Remaining Acreage	
			< B. Total Assigned Vert./Dir. Acreage			
			< Total Remaining Vert./Dir. Acreage			

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

April 10, 2018

SHELL WESTERN E&P
ATTN: REGULATORY DEPARTMENT
PO BOX 576
HOUSTON TX 77001

RE: **APPLICATION FOR EXCEPTION TO SWR 10**
LEASE: UNIVERSITY 19 PW UNIT
WELL NO. 1804H
LOVING COUNTY, DISTRICT 08, TEXAS
API NO. 301-33264

FIELD NAME	FIELD NO.
PHANTOM (WOLFCAMP)	71052900
TWO GEORGES (BONE SPRING)	92100050

HYDROGEN SULFIDE RESTRICTION: YES

The Commission has approved your application to down-hole commingle production within the above-referenced wellbore from the PHANTOM (WOLFCAMP); and TWO GEORGES (BONE SPRING) fields in LOVING County, Texas. For allowable and reporting purposes, the well will be assigned to the **PHANTOM (WOLFCAMP)** field. It will be necessary to have or obtain Commission authority to complete this well in each of the subject zones (Form W-1 approval). The effective date of this SWR 10 Exception is March 27, 2018. This exception to SWR 10 will expire if not used within two (2) years from the date of this permit. This expiration date is April 10, 2020.

If the commingled well tests as a gas well and the well is not currently on schedule as a multi-completed well or never has been on schedule as a single completion in any of the non-reporting fields listed above, you must file a well-record-only G-1 for the field(s). This completion must be treated as a separate completion. It will not be eligible for allowable status, and will be carried on the proration schedule as a SWR 10 well. The only instances in which the production will be assigned to a field in which the allocation formula has been suspended are when: (1) The allocation formula has been suspended in all of the fields cited in the Rule 10 Exception application, or (2) If the production is less than 200 MCFPD. If the status for any of the fields changes it may be necessary to reassign the production to the prorated field. Contact your proration analyst to inquire as to which forms are necessary to change the reporting field.

Acreage assigned to the referenced well for allocation of allowable shall not be assigned to any other well or wells projected to or completed in the above-referenced fields; such duplicate assignment of acreage is not acceptable, provided, however, that this limitation shall not prevent the reformation of development or proration units so long as no duplicate assignment of acreage occurs, and further, that such reformation does not violate other conservation regulations.

The maximum daily allowable for the combined production will be limited to the top allowable for the reporting field and will become effective upon receipt of Form G-1 or W-2 showing combined completion data and results of a potential test performed after the physical work of down hole commingling has been completed and run in accordance with Statewide Rule 28. Please indicate in "remarks" the reason for filing this report, giving date of Commission approval of this Rule 10 Exception.

Should secondary recovery operations be initiated in either of these reservoirs, it may be necessary to segregate these zones. If surface-commingling authority has been granted, it may be necessary to amend or cancel this authority.

Permit conditions:

The commingled well will be subject to Statewide Rule 36 (operation in hydrogen sulfide areas) because at least one of the commingled fields requires a Certificate of Compliance for Statewide Rule 36. The well must be operated in accordance with Statewide Rule 36.

The completion report for the commingled well must indicate which perforations belong to which field. The Commission may also require a wellbore diagram to be filed with the completion report for the commingled well. If filed, the wellbore diagram must indicate which perforations belong to which field.

Note: The distribution of this document will be by E-MAIL ONLY. E-mail sent to george.mullen@shell.com.

If you have any questions, you may contact the engineering unit in the Austin office at 512-463-1126.

UNIVERSITY 19 PW UNIT

13511.20 ACRES (MEASURED)

SECTIONS 2, 9, 10, 12, 13, 14,15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 & 29,
S/2 OF SECTION 3, E/2 OF SECTION 8, W/2 OF SECTION 11
BLOCK 19, UNIVERSITY LAND
LOVING & WARD COUNTIES, TEXAS

SHELL WESTERN E&P

TRACT TABLE

#	ACREAGE
1	160.24
2	480.71
3	520.93
4	641.05
5	280.46
6	40.07
7	320.54
8	641.06
9	566.27
10	641.31
11	641.23
12	320.60
13	320.61
14	640.92
15	640.99
16	465.34
17	640.96
18	624.55
20	120.21
22	320.45
23	640.89
24	640.90
25	640.86
26	639.62
27	638.33
28	200.31
29	120.19
30	320.50
32	320.48
34	320.52
TOTAL	13511.20

SHELL WESTERN E&P

AS-DRILLED LOCATION

LEASE NAME & WELL NO.:

UNIVERSITY 19 PW UNIT 1804H

UNIT/LEASE ACREAGE:

8588.11 ACRES (MEASURED)

NEAREST TOWN IN COUNTY:

±11.5 MILES SOUTHEAST OF MENTONE, TEXAS

DESCRIPTION:

SECTIONS 18, 23 & 24, BLOCK 19, UNIVERSITY LAND SURVEY
LOVING AND WARD COUNTIES, TEXAS

TIES TABLE

POINT	UNIT	SURVEY/SECTION
S.H.L.	14061' FNEL	1785' FSWL &
	14224' FNWL	1637' FSEL
P.P.	13666' FNEL	2180' FSWL &
	13461' FNWL	2400' FSEL
F.T.P.	13676' FNEL	2170' FSWL &
	15070' FNWL	791' FSEL
L.T.P.	8352' FNEL	2852' FNWL &
	23999' FNWL	551' FSWL
B.H.L.	8308' FNEL	3323' FNWL &
	24489' FNWL	345' FSWL

TOPOGRAPHIC
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TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JOHN R. ANDERSON
6442
PROFESSIONAL
LAND SURVEYOR

John R. Anderson 6/28/18

John R. Anderson, R.P.L.S. No. 6442

	REVISION:	
UNIVERSITY 19 PW UNIT 1804H	INT	DATE
DATE: 06/28/2018		
FILE: AD_UNIVERSITY_19_PW_UNIT_1804H		
DRAWN BY: S.R.J.		
SHEET: 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 17"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927, UNLESS OTHERWISE NOTED.
3. THIS LOCATION AND/OR UNIT/LEASE BOUNDARY HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED BY SHELL WESTERN E&P. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE RAILROAD COMMISSION OF TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IF MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT IS NON-TRANSFERRABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.
4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET.
5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.

NOTES CONT'D:
6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JUNE 24, 2017. AT A GROUND LEVEL ELEVATION OF 2761.9 SURVEY FEET.
7. S.H.L. = SURFACE HOLE LOCATION
8. P.P. = POINT OF PENETRATION
9. F.T.P. = FIRST TAKE POINT
10. L.T.P. = LAST TAKE POINT
11. B.H.L. = BOTTOM HOLE LOCATION

S:\SURVEY\SHELL\PERMIAN_BASIN\UNIVERSITY_19_18_LOV\UL-19-18\FINAL_PRODUCTS\AD_UNIVERSITY_19_PW_UNIT_1804H.DWG 6/28/2018 7:23:49 AM janderson2