



RAILROAD COMMISSION OF TEXAS

Form W-2

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

Status: Approved
Date: 12/13/2021
Tracking No.: 257853

OIL WELL POTENTIAL TEST, COMPLETION OR RECOMPLETION REPORT,

OPERATOR INFORMATION			
Operator	SHELL WESTERN E&P	Operator	774719
Operator	PO BOX 576 HOUSTON, TX 77001-0000		

WELL INFORMATION			
API	42-301-35216	County:	LOVING
Well No.:	1008H	RRC District	08
Lease	UNIVERSITY 19 TG UNIT	Field	TWO GEORGES (BONE SPRING)
RRC Lease	38570	Field No.:	92100050
Location	Section: 13, Block: 19, Survey: UL, Abstract: U13		
Latitude	31	Longitud	-103
This well is 12.1 miles in a SE direction from MENTONE, which is the nearest town in the			

FILING INFORMATION			
Purpose of	Initial Potential		
Type of	New Well		
Well Type:	Producing	Completion or Recompletion	08/26/2021
Type of Permit	Date	Permit No.	
Permit to Drill, Plug Back, or Rule 37 Exception	01/25/2021	865686	
Fluid Injection			
O&G Waste Disposal			
Other:			

COMPLETION INFORMATION			
Spud	04/15/2021	Date of first production after rig	08/26/2021
Date plug back, deepening, drilling operation	04/15/2021	Date plug back, deepening, recompletion, drilling operation	07/06/2021
Number of producing wells on this lease this field (reservoir) including this	18	Distance to nearest well in lease & reservoir	114.0
Total number of acres in	12830.08	Elevation	2807 GL
Total depth TVD	11646	Total depth MD	22904
Plug back depth TVD		Plug back depth MD	
Was directional survey made other inclination (Form W-	Yes	Rotation time within surface casing Is Cementing Affidavit (Form W-15)	47.0 Yes
Recompletion or	No	Multiple	No
Type(s) of electric or other log(s)	Gamma Ray (MWD)		
Electric Log Other Description:			
Location of well, relative to nearest lease of lease on which this well is	6467.0 Feet from the 10932.0 Feet from the	Off Lease :	No
		NE Line and NW Line of the	UNIVERSITY 19 TG UNIT Lease.

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.			
Field & Reservoir	Gas ID or Oil Lease	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	1000.0	Date 11/04/2020
SWR 13 Exception	Depth	5000.0	

INITIAL POTENTIAL TEST DATA FOR NEW COMPLETION OR RECOMPLETION			
Date of	09/08/2021	Production	Flowing
Number of hours	24	Choke	36/64
Was swab used during this	No	Oil produced prior to	1302.00
PRODUCTION DURING TEST PERIOD:			
Oil	1369.00	Gas	1884
Gas - Oil	1376	Flowing Tubing	1999.00
Water	4558		
CALCULATED 24-HOUR RATE			
Oil	1369.0	Gas	1884
Oil Gravity - API - 60.:	56.0	Casing	1921.00
Water	4558		

CASING RECORD												
Ro	Type of Casing	Casing	Hole	Setting	Multi -	Multi -	Cement	Cement	Slurry	Top of	TOC	
		Size (in.)	Size	Depth	Stage	Tool Stage	Shoe	Class	Amoun	Volume (cu.	Cement (ft.)	Determined By
1	Surface	9 5/8	12 1/4	5039	1187			C	1547	2831.0	0	Circulated to Surface
2	Surface	9 5/8	12 1/4	5039				C	4568	7129.0	1187	Calculation
3	Intermediate	7 5/8	8 3/4	11146				C & H	394	990.0	4039	Calculation
4	Tapered Production	5 1/2	6 3/4	11197				H	1696	2238.0	8149	Calculation
5	Tapered Production	4 1/2	6 3/4	22867				H	1696	2238.0	8149	Calculation

LINER RECORD									
Ro	Liner Size	Hole Size	Liner Top	Liner Bottom	Cement Class	Cement Amoun	Slurry Volume (cu.	Top of Cement (ft.)	TOC Determined
N/A									

TUBING RECORD			
Ro	Size (in.)	Depth	Size (ft.)
1	2 7/8	11388	
			Packer Depth (ft.)/Type
			11359 / L80 6.5PPF EUE

PRODUCING/INJECTION/DISPOSAL INTERVAL			
Ro	Open hole?	From (ft.)	To (ft.)
1	No	L1 11899	22738.0

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.			
Was hydraulic fracturing treatment		Yes	
Is well equipped with a downhole sleeve? Yes		If yes, actuation pressure	9159.0
Production casing test pressure (PSIG) hydraulic fracturing 9900		Actual maximum pressure (PSIG) during fracturin 10981	
Has the hydraulic fracturing fluid disclosure been		Yes	
<u>Ro</u>	<u>Type of Operation</u>	<u>Amount and Kind of Material Used</u>	<u>Depth Interval (ft.)</u>
1	Fracture	WELL DATA SUBMITTED TO FRACFOCUS	11899 22738

FORMATION RECORD					
<u>Formations</u>	<u>Encountere</u>	<u>Depth TVD</u>	<u>Depth MD</u>	<u>Is formation</u>	<u>Remarks</u>
RED BLUFF	No			No	FORMATION IS NOT GEOLOGICALLY PRESENT
DELAWARE	Yes	5085.0	5153.0	Yes	
BELL CANYON	Yes	5110.0	5178.0	Yes	
CHERRY CANYON	Yes	6056.0	6125.0	Yes	
BRUSHY CANYON	Yes	7275.0	7344.0	Yes	
BONE SPRING	Yes	8719.0	8788.0	Yes	
WOLFCAMP	Yes	11534.0	11651.0	Yes	
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
PRECAMBRIAN (UNDIFFERENTIATED)	No			No	BELOW WELLBORE DEPTH
Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm					No
Is the completion being downhole commingled					No

REMARKS
KOP @ 11,229'. DEPTHS PROVIDED ARE REFERENCED AT KB @ 32'. WELLBORE DOES NOT CROSS BELOW BASE OF TWO GEORGES (BONE SPRING) CORRELATIVE INTERVAL. AS PREVIOUSLY AGREED WITH THE RRC (EMAIL ATTACHED), THIS WELL IS REPORTED TO THE TWO GEORGES (BONE SPRING) REGULATORY FIELD.

RRC REMARKS	
PUBLIC COMMENTS: [RRC Staff 2021-12-08 14:55:46.613] EDL=10800 feet, max acres=704, TWO GEORGES (BONE SPRING) oil well; take points: 11899-22738 feet	
CASING RECORD : DV TOOL SET AND OPENED FOR MULTI-STAGE SURFACE CEMENT JOB. TWO SEPARATE CEMENTING COMPANIES WERE USED FOR THE MULTI-STAGE JOB, SO TWO SURFACE W-15S ARE INCLUDED INSTEAD OF A SINGLE MULTI-STAGE CEMENT W-15.	
TUBING RECORD:	
PRODUCING/INJECTION/DISPOSAL INTERVAL : WELLBORE IS COMPLETED IN THE OVERLAP BETWEEN THE TWO GEORGES (BONE SPRING) AND PHANTOM (WOLFCAMP) FIELDS, BUT DOES NOT CROSS THE BASE OF THE TWO GEORGES. AS PREVIOUSLY AGREED WITH THE RRC, THIS WELL IS REPORTED TO THE TWO GEORGES (BONE SPRING) REGULATORY FIELD.	
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :	
POTENTIAL TEST DATA:	

OPERATOR'S CERTIFICATION			
Printed	Michael Boutwell	Title:	Regulatory Specialist
Telephone	(832) 337-0258	Date	12/09/2021



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 Western E&P			Operator P-5 No.: 774719		
Cementer Name: AMERICAN CEMENTING, LLC			Cementer P-5 No.: 017955		
WELL INFORMATION					
District No.: 08		County: LOVING			
Well No.: 1008H		API No.: 42-301-35216		Drilling Permit No.: 865686	
Lease Name: UNIVERSITY 19 TG UNIT		Lease No.:			
Field Name: Two Georges (Bone Spring)		Field No.: 92100050			
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.): 12 1/4		Depth of drilled hole (ft.): 5039		Est. % wash-out or hole enlargement: 20%	
Size of casing in O.D. (in.): 9 5/8		Casing weight (lbs/ft) and grade: 36#, J-55		No. of centralizers used: 29	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.			Setting depth shoe (ft.): 5039		Top of liner (ft.):
					Setting depth liner (ft.):
Hrs. waiting on cement before drill-out: 12+		Calculated top of cement (ft.): 1187		Cementing date: 4/17/21	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	4052	C	SEE REMARKS	6443	15806
2	516	C	SEE REMARKS	686	2186
3					
Total	4568			7129	
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.) 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? <input type="checkbox"/> YES <input type="checkbox"/> NO				Setting depth shoe (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					
III. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.) 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? <input type="checkbox"/> YES <input type="checkbox"/> NO				Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

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

REMARKS
LEAD: CLASS C HSR Cement 55.00 % POZ+ Extender 45.00 % A-2 Accelerator 0.75 %BWOB A-5 Accelerator 5.00 %BWOW BENTONITE Viscosifier 2.00 %BWOB FP-28L Defoamer 0.01 gal/sk R-3 Retarder 0.80 %BWOBSTATIC FREE Other 0.01 lb/sk TAIL:CLASS C HSR Cement 100.00 %A-2 Accelerator0.15 %BWOB FP-28L Defoamer 0.01 gal/skR-21 Retarder 0.35 %BWOB STATIC FREE Other 0.01 lb /sk

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 Leader- JAMES KENT

American Cementing, LLC

Name and title of cementer's representative	Cementing Company	Signature
7030 S. YALE AVE, Suite 810	TULSA, OK 74136 (432) 248-3200	4/17/21
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.

? [UZW4agfi W	DWg'Sack BWS1e	Michael Boutwell
Typed or printed name of operator's representative	Title	Signature
# " @Z6S[k3eZAdV	: agefa`1FJ))")+	*%\$Z%Z'S *
Address	City, State, Zip Code	Tel: Area Code Number Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



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:	SHELL Western E&P	Operator P-5 No.:	774719
Cementer Name:	Schlumberger	Cementer P-5 No.:	754900

WELL INFORMATION

District No.:	08	County:	Loving
Well No.:	1008H	API No.:	42-301-35216
Lease Name:	UNIVERSITY 19 TG Unit	Drilling Permit No.:	865686
Field Name:	Two Georges (Bone Spring)	Lease No.:	
		Field No.:	92100050

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.):	12 1/4	Depth of drilled hole (ft.):	5039	Est. % wash-out or hole enlargement:	20%
Size of casing in O.D. (in.):	9 5/8	Casing weight (lbs/ft) and grade:	36#, J-55	No. of centralizers used:	29
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	If no for surface casing, explain in Remarks.	Setting depth shoe (ft.):	5039
				Top of liner (ft.):	
				Setting depth tool:	1187
Hrs. waiting on cement before drill-out:	12+	Calculated top of cement (ft.):	0	Cementing date:	18-Apr-21

SLURRY

Slurry No.	No. of Sacks	Class	Additives	Volume (cu.ft.)	Height (ft.)
1	1547	POZ C	Remarks	2831.0	1187
2					
3					
Total	1547			2831.0	1187

II. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement shoe	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		Setting depth shoe (ft.):		
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		

SLURRY

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

III. CASING CEMENTING DATA

Type of casing:	<input type="checkbox"/> Surface	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Production	<input type="checkbox"/> Tapered production	<input type="checkbox"/> Multi-stage cement/DV tool	<input type="checkbox"/> Multiple parallel strings
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:		
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:		
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)				
Upper:	Lower:	Upper:	Lower:			
Tapered string size of casing in O.D. (in.)		Tapered string casing weight(lbs/ft) and grade		Tapered string no. of centralizers used		
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:	
Was cement circulated to ground surface (or bottom of cellar) outside casing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		Setting depth tool (ft.):		
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:		

SLURRY

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

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

REMARKS

#1: 61lb/skD903+28lb/skD132+0.4%D013+1%D079+0.01%D800

#2:

#3:

#4: 160bbl cement 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.

TIM HAMMER, FS

Name and title of cementer's representative

Schlumberger

Cementing Company



Signature

7104 W County Rd 116

Address

Midland

City,

TX

State,

79706

Zip Code

(432) 681-1100

Tel: Area Code Number

April 18, 2021

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.

? [UZW4agfi W

Typed or printed name of operator's representative

DWg'Slack EbWS1ef

Title



Signature

" @Z6Sjck 3eZ&idV

Address

City,

State,

Zip Code

832-337-0258

Tel: Area Code Number

##" S'S' S#

Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711- 2967).
- Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission. To plug and abandon a well, operators must use only cementers approved by the Commission's Director of Field Operations in accordance with SWR 14 ([http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



RAILROAD COMMISSION OF TEXAS

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

Form W-15

Rev. 08/2014

CEMENTING REPORT

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

OPERATOR INFORMATION	
Operator Name: SHELL Western E&P	Operator P-5 No.: 774719
Cementor Name: AMERICAN CEMENTING, LLC	Cementor P-5 No.: 017955

WELL INFORMATION		
District No.: 08	County: LOVING	
Well No.: 1008H	API No.: 42-301-35216	Drilling Permit No.: 865686
Lease Name: UNIVERSITY 19 TG UNIT	Lease No.:	
Field Name: Two Georges (Bone Spring)	Field No.: 92100050	

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.): 11164	Est. % wash-out or hole enlargement: 10%			
Size of casing in O.D. (in.): 7 5/8	Casing weight (lbs/ft) and grade: 26.4#, P-110	No. of centralizers used: 0			
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no for surface casing, explain in Remarks.		Setting depth shoe (ft.): 11146	Top of liner (ft.):		
		Setting depth liner (ft.):			
Hrs. waiting on cement before drill-out: 12+	Calculated top of cement (ft.): 4039	Cementing date: 05/21/2021			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	202	C	SEE REMARK #1	777	7219
2	192	H	SEE REMARK #2	213	1982
3					
Total	394			990	9201

II. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:			
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:			
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO		Setting depth shoe (ft.):			
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

III. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement/DV tool <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.):	Depth of drilled hole (ft.):	Est. % wash-out or hole enlargement:			
Size of casing in O.D. (in.):	Casing weight (lbs/ft) and grade:	No. of centralizers used:			
Tapered string drilled hole size (in.)		Tapered string depth of drilled hole (ft.)			
Upper:	Lower:	Upper:	Lower:		
Tapered string size of casing in O.D. (in.)		Tapered string casing weight (lbs/ft) and grade		Tapered string no. of centralizers used	
Upper:	Lower:	Upper:	Lower:	Upper:	Lower:
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO		Setting depth tool (ft.):			
Hrs. waiting on cement before drill-out:	Calculated top of cement (ft.):	Cementing date:			
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

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

REMARK #1: C55/45POZ+ 10 LB/SK BA-90+ 5 LB/SK BA-95+ 0.8% FL-52+ 5% A-10+ 0.35% ASA-301+ 0.5% CD-32A+ 3% A-2+ 1.05% R-3+ 0.25 LB/SK INTEGRASEAL CELLO+ 0.01 LB/SK STATIC FREE+ 0.01 GAL/SK FP-28L. REMARK #2: H55/45POZ+ 2% BENTONITE+ 0.5% FL-66+ 0.4% CD-32A+ 0.3% A-2+ 0.35% R-21+ 0.01 LB/SK STATIC FREE+ 0.01 GAL/SK FP-28L.

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.

JESUS ALFREDO ESPARZA

AMERICAN CEMENTING, LLC

[Signature]

Name and title of cementer's representative

Cementing Company

Signature

7030 S. YALE AVE. SUITE 810

TULSA, OK 74136

(432) 248-3200

05/21/2021

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.

? [UZSW4agfi W

DWgSfackEbWStef

Michael Boutwell

Typed or printed name of operator's representative

Title

Signature

" @z6Sldk3eZxdV

: agefa`1FJ))')+`

%SZ04ZS

###"S'S'S#

Address

City, State, Zip Code

Tel: Area Code

Number

Date: mo. day yr.

Instructions for Form W-15, Cementing Report

NOTICE: The Form W-15 must be submitted as an attachment to a Form G-1 (Gas Well Back Pressure Test, Completion or Recompletion Report, and Log), Form W-2 (Oil Well Potential Test, Completion or Recompletion Report, and Log), Form W-3 (Plugging Record), or Form W-4 (Application for Multiple Completion), any time cement is pumped in a wellbore.

- What to file:** An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form.
The Form W-15 should be filed with the Form W-3, Plugging Record, unless the Form W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.
- How to file:** An oil and gas completion report and Form W-15 may be filed online using the Commission's Online System (<https://webapps.rrc.state.tx.us/security/login.do>) or a paper copy of the form may be mailed to the Commission in Austin (P.O. Box 12967, Austin, Texas 78711-2967).
- Surface casing:** An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Groundwater Advisory Unit in Austin. Sufficient cement shall be used to fill the annular space outside the casing from the shoe to the ground surface or to the bottom of the cellar. Before drilling a well, an operator must obtain a letter from the Groundwater Advisory Unit stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.
To plug and abandon a well, operators must use only 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=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=14)). Cementing companies, service companies, or operators can qualify as approved cements by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.
- Estimated % wash-out:** If the estimated % wash-out is less than 20% (or 30% along the Gulf Coast), provide supporting documentation such as a caliper log to show how the estimated % wash-out was obtained.
- Multi-stage cement:** An operator must report the multi-stage cement shoe in II. Casing Cementing Data section by selecting the type of casing and Multi-stage cement shoe. The operator must report the multi-stage cement tool in III. Casing Cementing Data section by selecting the type of casing and Multi-stage cement/DV tool.
- Multiple parallel strings:** An operator should file the Form W-15 as an attachment to the Form W-4, Application for Multiple Completion. An operator may be required to submit multiple Form W-15s to show all data for multiple parallel strings.
- Slurry data:** If cement job exceeds three slurries, continue the list of slurries in the Slurry table in the subsequent Casing Cementing Data box.



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 Western E&P			Operator P-5 No.: 774719		
Cementer Name: AMERICAN CEMENTING, LLC			Cementer P-5 No.: 017955		
WELL INFORMATION					
District No.: 08		County: Loving			
Well No.: 1008H		API No.: 42-301-35216		Drilling Permit No.: 865686	
Lease Name: University 19 TG Unit		Lease No.:			
Field Name: Two Georges (Bone Spring)		Field No.: 92100050			
I. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Conductor <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Liner <input type="checkbox"/> Production					
Drilled hole size (in.):		Depth of drilled hole (ft.):		Est. % wash-out or hole enlargement:	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input type="checkbox"/> NO If no for surface casing, explain in Remarks.		Setting depth shoe (ft.):		Top of liner (ft.):	
				Setting depth liner (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					
II. CASING CEMENTING DATA					
Type of casing: <input type="checkbox"/> Surface <input type="checkbox"/> Intermediate <input type="checkbox"/> Production <input checked="" type="checkbox"/> Tapered production <input type="checkbox"/> Multi-stage cement shoe <input type="checkbox"/> Multiple parallel strings					
Drilled hole size (in.): 6 3/4		Depth of drilled hole (ft.): 22904		Est. % wash-out or hole enlargement: 15%	
Size of casing in O.D. (in.):		Casing weight (lbs/ft) and grade:		No. of centralizers used:	
Tapered string drilled hole size (in.) Upper: 6 3/4 Lower: 6 3/4		Tapered string depth of drilled hole (ft.) Upper: 22904 Lower: 22904			
Tapered string size of casing in O.D. (in.) Upper: 5 1/2 Lower: 4 1/2		Tapered string casing weight (lbs/ft) and grade Upper: 17#, P-110 Lower: 13.5#, P-110		Tapered string no. of centralizers used Upper: 67 Lower: 248	
Was cement circulated to ground surface (or bottom of cellar) outside casing? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Setting depth shoe (ft.): Upper: 11,197 Lower: 22,867	
Hrs. waiting on cement before drill-out: N/A		Calculated top of cement (ft.): 8149		Cementing date: 5/31/21	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1	1696	H	See Remarks	2238.72	16219.51
2					
3					
Total	1696				16219.51
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.) 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? <input type="checkbox"/> YES <input type="checkbox"/> NO				Setting depth tool (ft.):	
Hrs. waiting on cement before drill-out:		Calculated top of cement (ft.):		Cementing date:	
SLURRY					
Slurry No.	No. of Sacks	Class	Additives	Volume (cu. ft.)	Height (ft.)
1					
2					
3					
Total					

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

REMARKS
Slurry: Class H 55%, POZ 45%, A-2 .400%, ASA-301 .150%, Bentonite 2%, FL-66 .500%, FP-28L .010 gal/sk, R-21 .600%, Static Free .005 lb/sk

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 Leader- JAMES SHEETS

American Cementing, LLC

Name and title of cementer's representative

Cementing Company

Signature

7030 S. YALE AVE, Suite 810

TULSA, OK 74136

(432) 248-3200

5/31/21

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.

Michael Boutwell

Regulatory Specialist

Michael Boutwell

Typed or printed name of operator's representative

Title

Signature

150 N. Dairy Ashford

Houston, TX 77079

832-337-0258

11/02/2021

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](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.



APPLICATION FOR APPROVAL OF SURFACE CASING > 3500 FEET
Statewide Rule 13(b)(1)(A)
RAILROAD COMMISSION OF TEXAS

Operator's Name and Address: Shell Western E&P
150 N. Dairy Ashford
Houston, Texas 77079

P5 Number: 774719

Area for review: District 08
Lease Name: University 19 TG Unit 1008H
Field Name: Two Georges (Bone Spring) County: Loving
Survey: University Lands Abstract: _____
Drilling Permits: 865686

Note: Attach a map if the request is for more than one pad.

How will the operator maintain well control during drilling operations:

While drilling the surface hole Shell utilizes drilling fluid of sufficient weight to overbalance the formations being penetrated.
In the event that flow is encountered a low-pressure rotating head is rigged-up under the rig floor to divert flow to the reserve pit.

How will the operator ensure cement is circulated to surface and that there is adequate bonding of cement:

If Operator determines that a DV tool is needed based on well bore conditions, a DV tool will be run to ensure adequate bonding of cement is achieved. Any changes to the as-drilled well will be submitted in the completion paperwork. Shell pumps a minimum of 100% excess cement for the first stage of the surface cement job. Adequate bonding of cement is achieved by utilizing the centralizer program as outlined in RRC Rule 3.13 (b) (1) (G).

How will the operator prevent the migration of formation fluids thru the annular space:

All cement slurries pumped by Shell comply with RRC Rule 3.13 (b) (1) (D) and Rule 3.13 (b) (1) (E). These slurries have been effective in preventing migration of formation fluids after the cement has been placed in the 100+ wells Shell has drilled in the Permian.

Signature: Michael Boutwell Name: Michael Boutwell Date: 02/09/2021 Phone: 832-337-0258

RRC Use Only ►

RRC District Office Action:			
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Approved as Modified	<input type="checkbox"/> Denied	By: <u>/s/ Erik Hanson</u> Date: <u>2/10/2021</u>
Remarks/Modifications:			

CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER



DANNY SORRELLS
DIRECTOR, OIL AND GAS DIVISION
JEFFERY MORGAN
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

OPERATOR Name: SHELL WESTERN E&P

RE: Lease: UNIVERSITY 19 TG UNIT

Address1: PO BOX 576

Address2:

Well No: 1008H

City: HOUSTON

Sec: 13 **Block:** 19

State: TX

County: LOVING

Survey Name: UL

SWR13EX Application Number: 93086

Drilling Permit No: 865686

SWR 13 CASING EXCEPTION APPLICATION/ALTERNATIVE REQUEST APPROVED

The Proposed Casing and Cementing Program submitted for **LEASE** UNIVERSITY 19 TG UNIT ;
WELL 1008H 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 5000 feet of surface casing and circulate cement from the shoe to the ground surface.

An extension to omit the installation of tubing in the above-referenced well is approved for a period of up to 180 days from the date the application was received or the date the well began producing, whichever occurred last.

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

Notify the Midland District Office immediately if any flow(s), H2S or otherwise, is/are encountered before surface and/or intermediate casing(s) is/are 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 02/09/2021 .
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: 02/10/2021

JEFFERY MORGAN

DISTRICT DIRECTOR

Tracking No.: 257853

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: SHELL WESTERN E&P	District No. 08	Completion Date: 08/26/2021
Field Name TWO GEORGES (BONE SPRING)	Drilling Permit No. 865686	
Lease Name UNIVERSITY 19 TG UNIT	Lease/ID No. 38570	Well No. 1008H
County LOVING	API No. 42- 301-35216	

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

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

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

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

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

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

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

Lease or ID No(s). _____

Well No(s). _____

Michael Boutwell

Signature

SHELL WESTERN E&P

Name (print)

Regulatory Specialist

Title

(832) 337-0258

Phone

11/02/2021

Date

-FOR RAILROAD COMMISSION USE ONLY-

Boutwell, Michael SEPCO-UPU/S/R

From: Boutwell, Michael SEPCO-UPU/S/R
Sent: Wednesday, August 12, 2020 2:07 PM
To: Boutwell, Michael SEPCO-UPU/S/R
Subject: FW: Shell Wetern E&P University 19 Unit P-6

From: Sandy Buch <sbuch@msmtx.com>
Sent: Wednesday, August 12, 2020 12:25 PM
To: Mullen, George S SEPCO-UPU/S/R <George.Mullen@shell.com>
Cc: Krystal Schmidt <KSchmidt@msmtx.com>
Subject: FW: Shell Wetern E&P University 19 Unit P-6

Think Secure. This email is from an external source.

George,
I found this email relating to our work with the RRC and wanted you to have it for our call.
Sandy

From: Colin Lineberry <Colin.Lineberry@rrc.texas.gov>
Sent: Tuesday, November 1, 2016 10:11 AM
To: Sandy Buch <sbuch@msmtx.com>; Joe Stasulli <Joe.Stasulli@rrc.texas.gov>
Cc: Brian Sullivan <bsullivan@msmtx.com>; Lois White <lwhite@msmtx.com>; Lisa Eddins <Lisa.Eddins@rrc.texas.gov>
Subject: RE: Shell Wetern E&P University 19 Unit P-6

Hi Sandy,

Joe and I have discussed this two or three times and we agree that, based on the facts shown on the draft P-6 you have provided and the facts stated in your proposal, that your proposed procedure addresses regulatory concerns and we do not see any reason the transfers and future completions you have outlined could not be processed and approved. Of particular significance to that conclusion is the fact that you propose to place all existing and future Shell wells, completed above the base of the designated interval for the Two Georges (Bone Spring) Field in that field and all existing and future wells completed below the base of the designated interval for the Two Georges (Bone Spring) Field in the Phantom (Wolfcamp) Field. Also of prime importance is the designation of the pooled units by P-6 to exclude tracts 6 and 12 from the shallower designated unit and only include acreage that Shell has the right to develop and in which all interests are identical.

I hope this is helpful and gives Shell the assurance it seeks.

Colin

From: Sandy Buch [<mailto:sbuch@msmtx.com>]
Sent: Monday, October 31, 2016 2:15 PM
To: Colin Lineberry; Joe Stasulli
Cc: Brian Sullivan; Lois White
Subject: Shell Wetern E&P University 19 Unit P-6

Hi Colin and Joe,

I am checking to see if you have any comments on the proposal I sent you to combine RRC leases and assign completions for a University Lands pooled unit in Loving and Ward Counties. As you may recall, Shell is anxious to begin permitting wells so we would like to get the procedure OK'd so we can file the P-6 and begin permitting.

Sandy

Sandra Bolz Buch

sbuch@msmtx.com

McElroy, Sullivan Miller, Weber & Olmstead, L.L.P.

1201 Spyglass Drive, Suite 200

Austin, Texas 78746

512/327-8111 phone

512/327-6566 fax

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 1008H
7. Pooled Unit Name University 19 TG Unit	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Loving & Ward	11. Total acres in pooled unit 12830.08	

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	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 2	University Lands	480.71	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 3	University Lands	520.93	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 4	University Lands	641.05	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 5	University Lands	280.46	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 7	University Lands	320.54	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 8	University Lands	641.06	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 9	University Lands	566.27	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 10	University Lands	641.31	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 11	University Lands	641.23	<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.

<u>Michael Boutwell</u>	Michael Boutwell
Signature	Print Name
Regulatory Specialist	10/21/2020
m.boutwell@shell.com	(832) 337-0258
Title	Date
E-mail (if available)	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

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

Clear Form

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 1008H
7. Pooled Unit Name University 19 TG Unit	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Loving & Ward	11. Total acres in pooled unit 12830.08	

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. 13	University Lands	320.61	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 14	University Lands	640.92	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 15	University Lands	640.99	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 16	University Lands	465.34	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 17	University Lands	640.96	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 18	University Lands	624.55	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 20	University Lands	120.21	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 23	University Lands	640.99	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 24	University Lands	640.90	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 25	University Lands	640.86	<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.

<u>Michael Boutwell</u>	Michael Boutwell
Signature	Print Name
Regulatory Specialist	m.boutwell@shell.com
	10/21/2020
Title	Date
	(832) 337-0258
	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

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

Clear Form

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s) Two Georges (Bone Spring)	2. Lease/ID Number (if assigned)	3. RRC District Number 08
4. Operator Name Shell Western E&P	5. Operator P-5 Number 774719	6. Well Number 1008H
7. Pooled Unit Name University 19 TG Unit	8. API Number	9. Purpose of Filing <input checked="" type="checkbox"/> Drilling Permit (W-1) <input type="checkbox"/> Completion Report
10. County Loving & Ward	11. Total acres in pooled unit 12830.08	

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. 26	University Lands	639.62	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 27	University Lands	638.33	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 28	University Lands	200.31	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 29	University Lands	120.19	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 30	University Lands	320.50	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 32	University Lands	320.48	<input type="checkbox"/>	<input type="checkbox"/>
Tr. 34	University Lands	320.52	<input type="checkbox"/>	<input type="checkbox"/>
TOTAL		12830.08	<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.

<u>Michael Boutwell</u>	Michael Boutwell
Signature	Print Name
Regulatory Specialist	10/21/2020
m.boutwell@shell.com	(832) 337-0258
Title	Date
E-mail (if available)	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

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

Clear Form



RAILROAD COMMISSION OF TEXAS

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

Form P-16

Page 1

Rev. 09/2019

Acreage Designation

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 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	API No.:	42-301-35216
Well No.:	1008H	Drilling Permit No.:	865686
Lease Name:	University 19 TG Unit	RRC ID or Lease No.:	38570
Total Lease Acres:	12830.08	Field Name:	Two Georges (Bone Spring)
Proration Acres:	704.00	Field No.:	92100050
Wellbore Profile	Horizontal Well	Is this a UFT field?	No
SL Record (Parent) Well Drilling Permit No.:		County:	Loving

Purpose of Filing:
☐ Drilling Permit Application (Form W-1)
☒ Completion Report (Form G-1/W-2)

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.	Profile	Lease Name	API No.	Acres Assigned	SWR 38 Except. (Y/N)	Operator Name and Operator No. (if different from filing operator)
51148	1H	Horiz.	Blacktip University 19-26	475-35864	641.08	N	Anadarko E&P Onshore, LLC
51147	2H	Horiz.	University 19-29	475-35504	641.00	N	Anadarko E&P Onshore, LLC
38570	0903H	Horiz.	University 19 TG Unit	301-33222	704.00	N	
38570	1002H	Horiz.	University 19 TG Unit	301-34495	0.00	N	
38570	1004H	Horiz.	University 19 TG Unit	301-34496	704.00	N	
38570	1006H	Horiz.	University 19 TG Unit	301-34517	704.00	N	
DP# 865686	1008H	Horiz.	University 19 TG Unit	301-35216	704.00	N	
38570	1201H	Horiz.	University 19 TG Unit	301-31255	704.00	N	
DP# 867199	1202H	Horiz.	University 19 TG Unit	301-35313	704.00	N	
DP# 867200	1204H	Horiz.	University 19 TG Unit	301-35314	704.00	N	
38570	1305H	Horiz.	University 19 TG Unit	301-34519	704.00	N	
38570	1307H	Horiz.	University 19 TG Unit	301-34522	704.00	N	
DP# 865689	1308H	Horiz.	University 19 TG Unit	301-35218	704.00	N	
38570	1401E	Horiz.	University 19 TG Unit	301-31458	704.00	N	
38570	1401W	Horiz.	University 19 TG Unit	301-31345	704.00	N	

A. Total Assigned Horiz. Acreage =
 Total Remaining Horiz. Acreage =
 B. Total Assigned Vert./Dir. Acreage =
 Total Remaining Vert./Dir. Acreage =

C. Total Assigned Acreage = **9730.080**
 Total Remaining Acreage = **3100.000**

SECTION IV. REMARKS - REQUIRED FOR PSA AND CO-DEVELOPMENT (refer to 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.

Michael Boutwell
Signature

Michael Boutwell, Regulatory Specialist
Name and title (type or print)

m.boutwell@shell.com

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

150 N. Dairy Ashford Houston Texas 77079
Address City, State, Zip Code

832-337-0258
Tel: Area Code Number

11/02/21
Date: mo. day yr.



RAILROAD COMMISSION OF TEXAS

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

Form P-16

Attachment

Page 1A

Rev. 09/2019

Acreage Designation

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.

[illegible]

UNIVERSITY 19 TG UNIT

12830.08 ACRES (MEASURED)

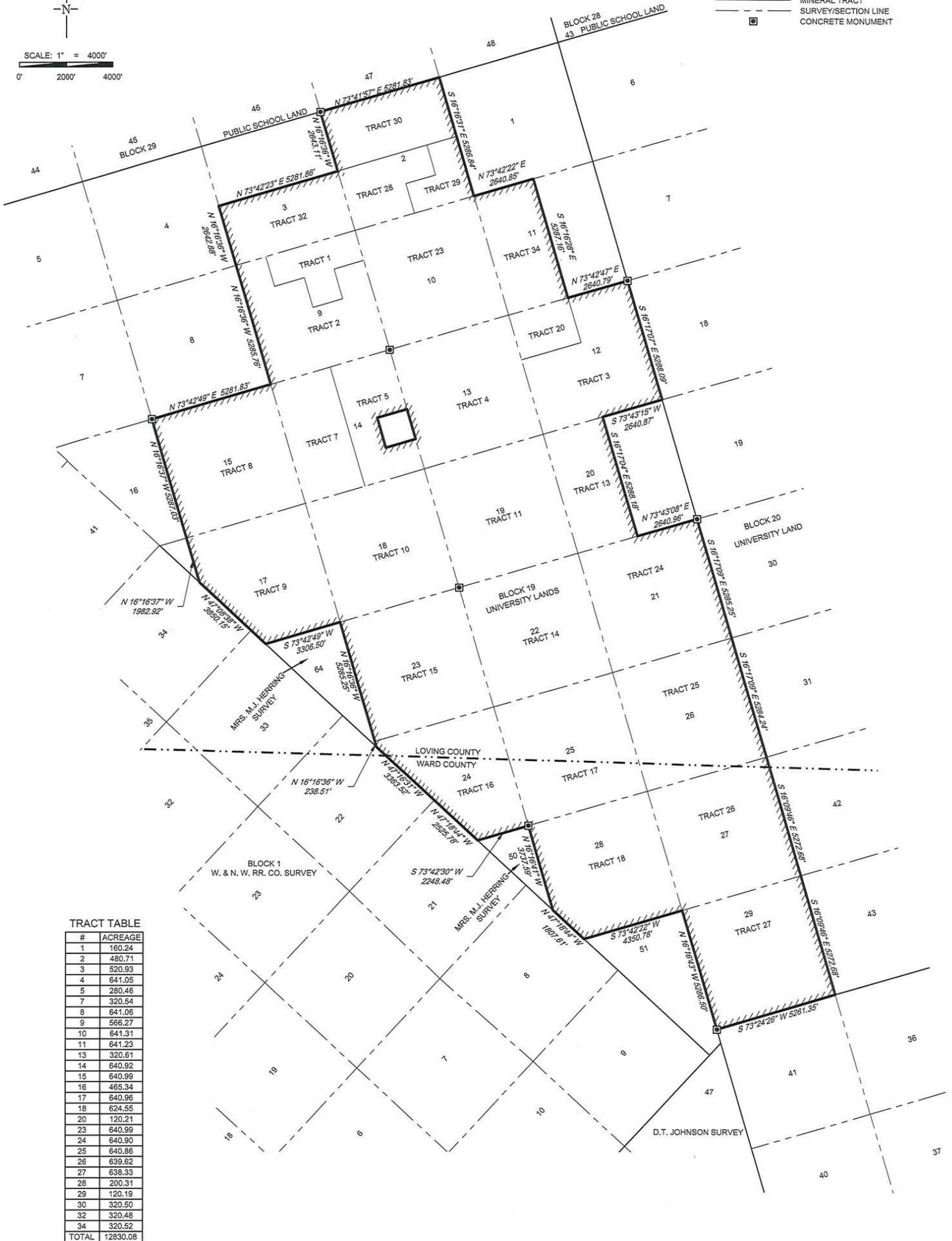
SECTIONS 2, 9, 10, 12, 13, 14, 15, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28 & 29,
S/2 OF SECTION 3, E/2 OF SECTION 11, W/2 OF SECTION 20
SAVE & EXCEPT NE/4 SE/4 OF SECTION 14
BLOCK 19, UNIVERSITY LAND
LOVING & WARD COUNTIES, TEXAS

SHELL WESTERN
E&P

LEGEND

	UNIT BOUNDARY
	APPROXIMATE LOCATION COUNTY LINE
	BLOCK/TOWNSHIP LINE
	MINERAL TRACT
	SURVEY/SECTION LINE
	CONCRETE MONUMENT

SCALE: 1" = 4000'
0' 2000' 4000'



TRACT TABLE

#	ACREAGE
1	160.24
2	480.71
3	520.93
4	641.05
5	280.46
7	320.54
8	641.06
9	566.27
10	641.31
11	641.23
13	320.61
14	640.92
15	640.99
16	465.34
17	640.96
18	624.55
20	120.21
23	640.99
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	12830.08

This Plat is true and correct to the
best of my belief and knowledge.

George Mullen

George Mullen
Senior Regulatory Specialist

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 04 November 2020**GAU Number:** 289601**Attention:** SHELL WESTERN E&P
PO BOX 576
HOUSTON, TX 77001**Operator No.:** 774719**API Number:** 30135217**County:** LOVING**Lease Name:** UNIVERSITY 19 TG UNIT**Lease Number:****Well Number:** 1309H**Total Vertical** 11900**Latitude:** 31.701531**Longitude:** -103.392353**Datum:** NAD27**Purpose:** New Production Well**Location:** Survey-UL; Abstract-U13; Block-19; Section-13

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

Water-bearing strata from the land surface to a depth of 225 feet and the Rustler, which is estimated to occur from 600 to 1000 feet must be protected.

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

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 11/03/2020. 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.

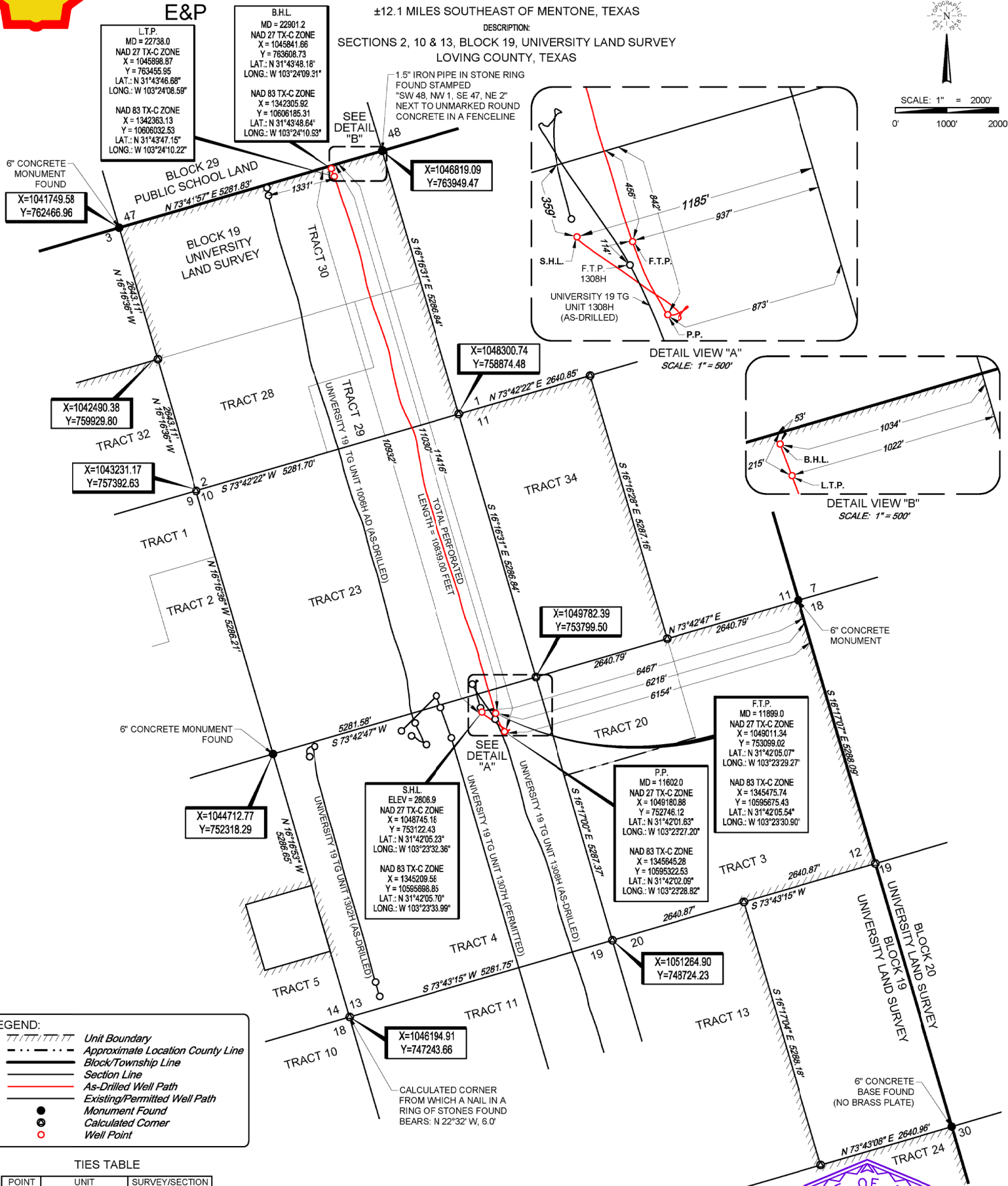
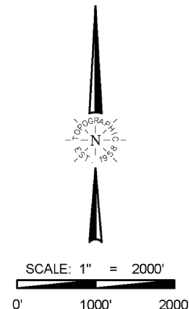
Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.
Rev. 02/2014



±12.1 MILES SOUTHEAST OF MENTONE, TEXAS

SECTIONS 2, 10 & 13, BLOCK 19, UNIVERSITY LAND SURVEY
LOVING COUNTY, TEXAS



POINT	UNIT	SURVEY/SECTION
S.H.L.	6457' FNEL	1185' FNEL & 359' FNNWL
	10932' FNNWL	
P.P.	6154' FNEL	873' FNEL & 842' FNNWL
	11416' FNNWL	
F.T.P.	6218' FNEL	937' FNEL & 456' FNNWL
	11030' FNNWL	
L.T.P.	1022' FNEL	1022' FNEL & 215' FNNWL
	215' FNNWL	
B.H.L.	1034' FNEL	1034' FNEL & 53' FNNWL
	53' FNNWL	



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

John R. Anderson 11/17/2021
John R. Anderson, R.P.L.S. No. 6442

UL-19-13-P1 UNIVERSITY 19 TG UNIT 1008H	REVISION:		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 UNILITAELEASE 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 IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. 4. ALL ELEVATION VALUES CONTAINED HEREIN ARE AN ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83), 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.
	INT	DATE	
	O.M.	11/17/2021	
DATE: 11/03/2021			
FILE: AD-UNIVERSITY-19-13-UL-19-13-P1 TG UNIT 1008H REV1			
DRAWN BY: A.C.L.			
SHEET : 1 OF 1			

NOTES CONT'D:

6 THE AS-DRILLED SURFACE LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JUNE 29, 2021.

7 THE SUBSURFACE WELL PATH DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.

8 S.H.L. = SURFACE HOLE LOCATION

9 P.P. = POINT OF PENETRATION

10 F.T.P. = FIRST TAKE POINT

11 L.T.P. = LAST TAKE POINT

12 B.H.L. = BOTTOM HOLE LOCATION