

API No. <u>42-495-34181</u> Drilling Permit # <u>841761</u> SWR Exception Case/Docket No. _____		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <i>This facsimile W-1 was generated electronically from data submitted to the RRC.</i> <i>A certification of the automated data is available in the RRC's Austin office.</i>				FORM W-1 07/2004 Permit Status: Approved	
1. RRC Operator No. 774719		2. Operator's Name (as shown on form P-5, Organization Report) SHELL WESTERN E&P			3. Operator Address (include street, city, state, zip): PO BOX 576 HOUSTON, TX 77001-0000		
4. Lease Name UNIVERSITY 20 PW			5. Well No. 2501H				
GENERAL INFORMATION							
6. Purpose of filing (mark ALL appropriate boxes): <input checked="" type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-Enter <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D)							
7. Wellbore Profile (mark ALL appropriate boxes): <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal (Also File Form W-1H) <input type="checkbox"/> Directional (Also File Form W-1D) <input type="checkbox"/> Sidetrack							
8. Total Depth 11950		9. Do you have the right to develop the minerals under any right-of-way ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
SURFACE LOCATION AND ACREAGE INFORMATION							
11. RRC District No. 08		12. County WINKLER		13. Surface Location <input checked="" type="checkbox"/> Land <input type="checkbox"/> Bay/Estuary <input type="checkbox"/> Inland Waterway <input type="checkbox"/> Offshore			
14. This well is to be located <u>7.5</u> miles in a <u>SW</u> direction from <u>Wink</u> which is the nearest town in the county of the well site.							
15. Section 36	16. Block 20	17. Survey UL		18. Abstract No. A-U31	19. Distance to nearest lease line: 200 ft.	20. Number of contiguous acres in lease, pooled unit, or unitized tract: 640.46	
21. Lease Perpendiculars: <u>1318</u> ft from the <u>NE</u> line and <u>449</u> ft from the <u>NW</u> line. 22. Survey Perpendiculars: <u>1318</u> ft from the <u>NE</u> line and <u>449</u> ft from the <u>NW</u> line.							
23. Is this a pooled unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		24. Unitization Docket No:		25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes (attach Form W-1A) <input checked="" type="checkbox"/> No			
FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.							
26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)		29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	
08	71052900	PHANTOM (WOLFCAMP)		Oil Well	11750	0.00	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks [FILER Oct 17, 2018 3:04 PM]: Amended Permit needed to change Total Depth from 9500' to 11950'.				Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="text-align: center;"> George Mullen, Sr. Regulatory Specialist </div> <div style="display: flex; justify-content: space-between;"> <div> Name of filer <u>(832)337-0549</u> Phone </div> <div> Date submitted Oct 18, 2018 <u>george.mullen@shell.com</u> E-mail Address (OPTIONAL) </div> </div>			
RRC Use Only							
Data Validation Time Stamp: Oct 22, 2018 10:23 AM('As Approved' Version)							

Permit Status: Approved <i>The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.</i>

RAILROAD COMMISSION OF TEXAS
 OIL & GAS DIVISION

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

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Permit #	841761
Approved Date:	Oct 22, 2018

1. RRC Operator No. 774719	2. Operator's Name (exactly as shown on form P-5, Organization Report) SHELL WESTERN E&P	3. Lease Name UNIVERSITY 20 PW	4. Well No. 2501H
Lateral Drainhole Location Information			
5. Field as shown on Form W-1 PHANTOM (WOLFCAMP) (Field # 71052900, RRC District 08)			
6. Section 25	7. Block 20	8. Survey UL	9. Abstract
		10. County of BHL WINKLER	
11. Terminus Lease Line Perpendiculars 330 ft. from the NE line. and 200 ft. from the NW line			
12. Terminus Survey Line Perpendiculars 330 ft. from the NE line. and 200 ft. from the NW line			
13. Penetration Point Lease Line Perpendiculars 330 ft. from the NE line. and 200 ft. from the SE line			

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER 841761	DATE PERMIT ISSUED OR AMENDED (AMENDED) Oct 22, 2018	DISTRICT * 08			
API NUMBER 42-495-34181	FORM W-1 RECEIVED Oct 18, 2018	COUNTY WINKLER			
TYPE OF OPERATION NEW DRILL	WELLBORE PROFILE(S) Horizontal	ACRES 640.46			
OPERATOR SHELL WESTERN E&P PO BOX 576 HOUSTON, TX 77001-0000		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: (432) 684-5581			
LEASE NAME UNIVERSITY 20 PW		WELL NUMBER 2501H			
LOCATION 7.5 miles SW direction from WINK		TOTAL DEPTH 11950			
Section, Block and/or Survey SECTION ◀ 36 BLOCK ◀ 20 ABSTRACT ◀ U31 SURVEY ◀ UL					
DISTANCE TO SURVEY LINES 1318 ft. NE 449 ft. NW		DISTANCE TO NEAREST LEASE LINE 200 ft.			
DISTANCE TO LEASE LINES 1318 ft. NE 449 ft. NW		DISTANCE TO NEAREST WELL ON LEASE See FIELD(s) Below			
FIELD(s) and LIMITATIONS: <p align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</p>					
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST LEASE	WELL # NEAREST WE	DIST
----- PHANTOM (WOLFCAMP) UNIVERSITY 20 PW -----		640.46 200	11,750 0	2501H 0	08
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----					
RESTRICTIONS: Permitted for oil only. This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office. Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production. Lateral: TH1 Penetration Point Location Lease Lines: 330.0 F NE L 200.0 F SE L Terminus Location BH County: WINKLER Section: 25 Block: 20 Abstract: Survey: UL Lease Lines: 330.0 F NE L 200.0 F NW L Survey Lines: 330.0 F NE L 200.0 F NW L					
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS					

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OIL & GAS DIVISION

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**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
SWR #13 Formation Data**

WINKLER (495) County

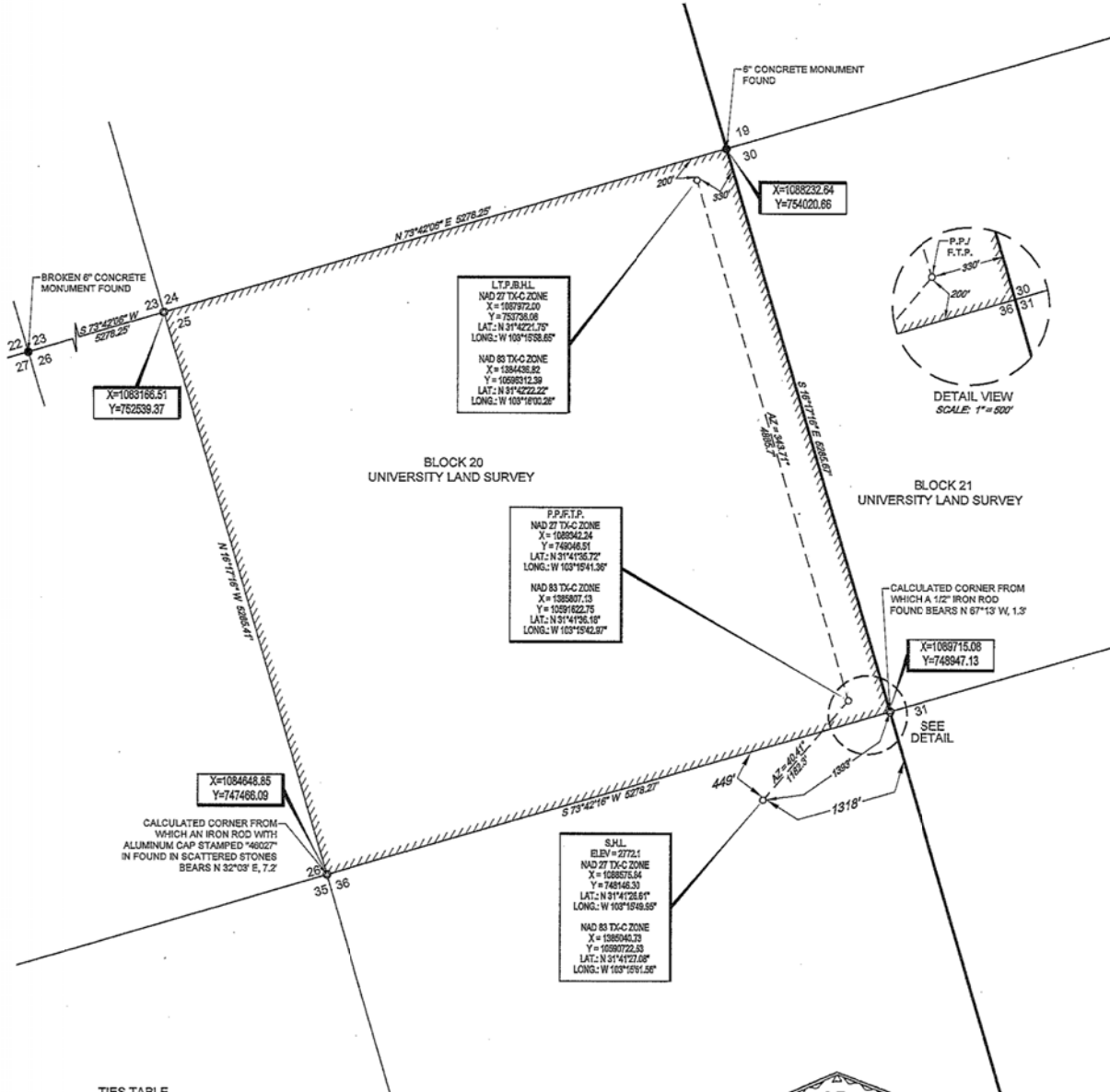
Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	725	725	possible flow; possible usable quality water	1	12/17/2013
COLBY-QUEEN	2,900	3,200		2	12/17/2013
YATES	2,280	3,200		3	12/17/2013
QUEEN-SEVEN RIVERS	2,700	3,400		4	12/17/2013
SAN ANDRES	3,600	4,400	high flows, H2S, corrosive	5	12/17/2013
HOLT	4,500	4,800		6	12/17/2013
DELAWARE	4,300	5,000		7	12/17/2013
GLORIETA	4,900	5,600		8	12/17/2013
CLEARFORK	4,750	6,200		9	12/17/2013
WICHITA ALBANY	6,600	6,850		10	12/17/2013
BRUSHY CANYON	7,300	7,300		11	12/17/2013
CHERRY CANYON	6,000	7,800		12	12/17/2013
CANYON	8,400	8,400		13	12/17/2013
BONE SPRINGS	9,000	9,800		14	12/17/2013
MONTOYA	10,300	10,300		15	12/17/2013
WADDELL	11,000	11,000		16	12/17/2013
WOLFCAMP	7,600	12,400		17	12/17/2013
ATOKA	12,900	12,900		18	12/17/2013
STRAWN	8,100	14,800		19	12/17/2013
PENNSYLVANIAN	8,000	15,500		20	12/17/2013
MISSISSIPPIAN	10,200	17,300		21	12/17/2013
DEVONIAN	7,900	17,800		22	12/17/2013
SILURIAN	8,500	18,000		23	12/17/2013
FUSSELMAN	9,700	18,800		24	12/17/2013
ELLENBURGER	9,500	21,400		25	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.
<http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>



SHELL WESTERN
E&P

WELL LOCATION
LEASE NAME & WELL NO.:
UNIVERSITY 20 PW 2501H
UNRELEASE ACREAGE:
640.46 ACRES (MEASURED)
NEAREST TOWN IN COUNTY:
±7.5 MILES SOUTHWEST OF WINK, TEXAS
DESCRIPTION:
SECTION 25, BLOCK 20, UNIVERSITY LAND SURVEY
WINKLER COUNTY, TEXAS



TIES TABLE		
POINT	UNIT	SURVEY/SECTION
S.H.L.	449' FSEL	1318' FNEL & 449' FNWL
P.P./	330' FNEL	330' FNEL & 200' FSEL
F.T.P./	200' FSEL	200' FSEL
L.T.P./	330' FNEL	330' FNEL & 200' FSEL
B.H.L.	200' FNWL	200' FNWL

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 148 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7554
TEXAS PROFESSIONAL REGISTRATION NO. 10342504
WWW.TOPOGRAPHIC.COM

LEGEND:
----- Unit Boundary
----- Block/Township Line
----- Section line
----- Proposed Well Path
● Monument Found
○ Calculated Corner
○ Well Point



John R. Anderson 5/4/10
John R. Anderson, R.P.L.S. No. 6442

UNIVERSITY 20 PW 2501H	REVISION:		NOTES:	NOTES CONT'D:
	INT	DATE		
DATE: 05/04/2018			1. ORIGINAL DOCUMENT SIZE: 11" X 17"	5. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF MARCH 7, 2018.
FILE: U:\L\20\20\UNIVERSITY_20_PW_2501H.DWG			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 1983, UNLESS OTHERWISE NOTED.	7. S.H.L. = SURFACE HOLE LOCATION
DRAWN BY: O.M./A.C.L.			3. THIS LOCATION AND/OR UNRELEASE 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 PLAN 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.S.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 PLAN IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.	8. P.P. = POINT OF PENETRATION
SHEET: 1 OF 1			4. ALL ELEVATION VALUES CONTAINED HEREON ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET.	9. F.T.P. = FIRST TAKE POINT
			5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY SHELL WESTERN E&P OR ITS SUBSIDIARIES & AFFILIATES.	10. L.T.P. = LAST TAKE POINT
				11. B.H.L. = BOTTOM HOLE LOCATION