

API No. <u>42-475-37931</u> Drilling Permit # <u>854143</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 19 TG UNIT		5. Well No. 2712H					
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 11900		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 WARD		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>14.9</u> miles in a <u>SE</u> direction from <u>Mentone</u> which is the nearest town in the county of the well site.							
15. Section 27		16. Block 19		17. Survey UL		18. Abstract No. A-U126	
				19. Distance to nearest lease line: _____ ft.		20. Number of contiguous acres in lease, pooled unit, or unitized tract: 12830.08	
21. Lease Perpendiculars: <u>8964</u> ft from the <u>SE</u> line and <u>1675</u> ft from the <u>NE</u> line.							
22. Survey Perpendiculars: <u>1590</u> ft from the <u>NW</u> line and <u>1675</u> ft from the <u>NE</u> line.							
23. Is this a pooled unit? <input checked="" type="checkbox"/> Yes <input 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	
08	92100050	TWO GEORGES (BONE SPRING)			Oil Well	11690	
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)							
Remarks [FILER Jan 13, 2021 9:21 AM]: Amending permit to update well location and trajectory. The SHL, PP & FTP are located in Sec. 27, Block 19, UL Survey. The BHL & LTP are located in Sec. 29, Block 19, UL Survey.; [RRC STAFF Jan 15, 2021 1:51 PM]: RRC GIS updated well locations per plat coordinates and well count to match the original permit.					Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="display: flex; justify-content: space-between;"> <div> <u>Michael Boutwell, Regulatory Specialist</u> Name of filer </div> <div> <u>Jan 13, 2021</u> Date submitted </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(832)3370258</u> Phone </div> <div> <u>M.boutwell@shell.com</u> E-mail Address (OPTIONAL) </div> </div>		
RRC Use Only Data Validation Time Stamp: Jan 15, 2021 4:53 PM('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

Form W-1H
Supplemental Horizontal Well Information

07/2004

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

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A certification of the automated data is available in the RRC's Austin office.*

Permit #	854143
Approved Date:	Jan 15, 2021

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 19 TG UNIT	4. Well No. 2712H
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Lateral Drainhole Location Information

5. Field as shown on Form W-1	TWO GEORGES (BONE SPRING) (Field # 92100050, RRC District 08)
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6. Section 29	7. Block 19	8. Survey UL / A-U128	9. Abstract	10. County of BHL WARD
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11. Terminus Lease Line Perpendiculars				
200 ft. from the	SE	line. and	2380 ft. from the	NE line
12. Terminus Survey Line Perpendiculars				
200 ft. from the	SE	line. and	2380 ft. from the	NE line
13. Penetration Point Lease Line Perpendiculars				
9225 ft. from the	SE	line. and	2380 ft. from the	NE 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 <div align="center">854143</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED) Jan 15, 2021	DISTRICT <div align="center">* 08</div>			
API NUMBER <div align="center">42-475-37931</div>	FORM W-1 RECEIVED <div align="center">Jan 13, 2021</div>	COUNTY <div align="center">WARD</div>			
TYPE OF OPERATION <div align="center">NEW DRILL</div>	WELLBORE PROFILE(S) <div align="center">Horizontal</div>	ACRES <div align="center">12830.08</div>			
OPERATOR <div align="center"> SHELL WESTERN E&P PO BOX 576 HOUSTON, TX 77001-0000 </div>		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: <div align="center">(432) 684-5581</div>			
LEASE NAME <div align="center">UNIVERSITY 19 TG UNIT</div>		WELL NUMBER <div align="center">2712H</div>			
LOCATION <div align="center">14.9 miles SE direction from MENTONE</div>		TOTAL DEPTH <div align="center">11900</div>			
Section, Block and/or Survey <div> SECTION 27 BLOCK 19 ABSTRACT U126 SURVEY UL </div>					
DISTANCE TO SURVEY LINES <div align="center">1590 ft. NW 1675 ft. NE</div>		DISTANCE TO NEAREST LEASE LINE <div align="center">ft.</div>			
DISTANCE TO LEASE LINES <div align="center">8964 ft. SE 1675 ft. NE</div>		DISTANCE TO NEAREST WELL ON LEASE <div align="center">See FIELD(s) Below</div>			
FIELD(s) and LIMITATIONS: <div align="center">* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</div>					
FIELD NAME LEASE NAME		ACRES NEAREST LEASE	DEPTH NEAREST LEASE	WELL # NEAREST WE	DIST
----- TWO GEORGES (BONE SPRING) UNIVERSITY 19 TG UNIT -----		12830.08	11,690	2712H 808	08
----- WELLBORE PROFILE(s) FOR FIELD: Horizontal -----					
RESTRICTIONS: 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: 9225.0 F SE L 2380.0 F NE L Terminus Location BH County: WARD Section: 29 Block: 19 Abstract: Survey: UL / A-U128 Lease Lines: 200.0 F SE L 2380.0 F NE L Survey Lines: 200.0 F SE L 2380.0 F NE L					
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS					

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

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

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OPERATOR <div style="text-align: right;">774719</div> <div style="text-align: right;">SHELL WESTERN E&P</div> <div style="text-align: right;">PO BOX 576</div> <div style="text-align: right;">HOUSTON, TX 77001-0000</div>		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: <div style="text-align: right;">(432) 684-5581</div>															
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<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">FIELD NAME</th> <th style="width: 10%;">ACRES</th> <th style="width: 10%;">DEPTH</th> <th style="width: 10%;">WELL #</th> <th style="width: 10%;">DIST</th> </tr> <tr> <th>LEASE NAME</th> <th>NEAREST LEASE</th> <th></th> <th>NEAREST WE</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="5"> <p>This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.</p> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p> </td> </tr> </tbody> </table>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE		<p>This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.</p> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p>				
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**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
SWR #13 Formation Data**

WARD (475) County

Formation	Remarks	Geological Order	Effective Date
RUSTLER		1	02/09/2020
YATES		2	02/09/2020
SEVEN RIVERS		3	02/09/2020
QUEEN		4	02/09/2020
CAPITAN REEF	high flows	5	02/09/2020
SAN ANDRES	high flows, H2S, corrosive	6	02/09/2020
DELAWARE		7	02/09/2020
GLORIETA		8	02/09/2020
HOLT		9	02/09/2020
CLEARFORK		10	02/09/2020
TUBB		11	02/09/2020
CHERRY CANYON		12	02/09/2020
BONE SPRING		13	02/09/2020
WICHITA ALBANY		14	02/09/2020
WOLFCAMP		15	02/09/2020
PENNSYLVANIAN		16	02/09/2020
ATOKA		17	02/09/2020
DEVONIAN		18	02/09/2020
FUSSELMAN		19	02/09/2020
MONTOYA		20	02/09/2020
WADDELL		21	02/09/2020
ELLENBURGER		22	02/09/2020
PRECAMBRIAN (UNDIFFERENTIATED)		23	02/09/2020

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. The listing order of the Formation information reflects the general stratigraphic order and relative geologic age. 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>

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 17 June 2019**GAU Number:** 243891**Attention:** SHELL WESTERN E&P
PO BOX 576
HOUSTON, TX 77001**Operator No.:** 774719**API Number:**
County: WARD
Lease Name: University 19 TG Unit
Lease Number:
Well Number: 2714H
Total Vertical Depth: 11900
Latitude: 31.647014
Longitude: -103.355650
Datum: NAD27**Purpose:** New Production Well**Location:** Survey-UL; Block-19; Section-27

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 400 feet and the Rustler, which is estimated to occur from 775 to 1200 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 06/13/2019. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

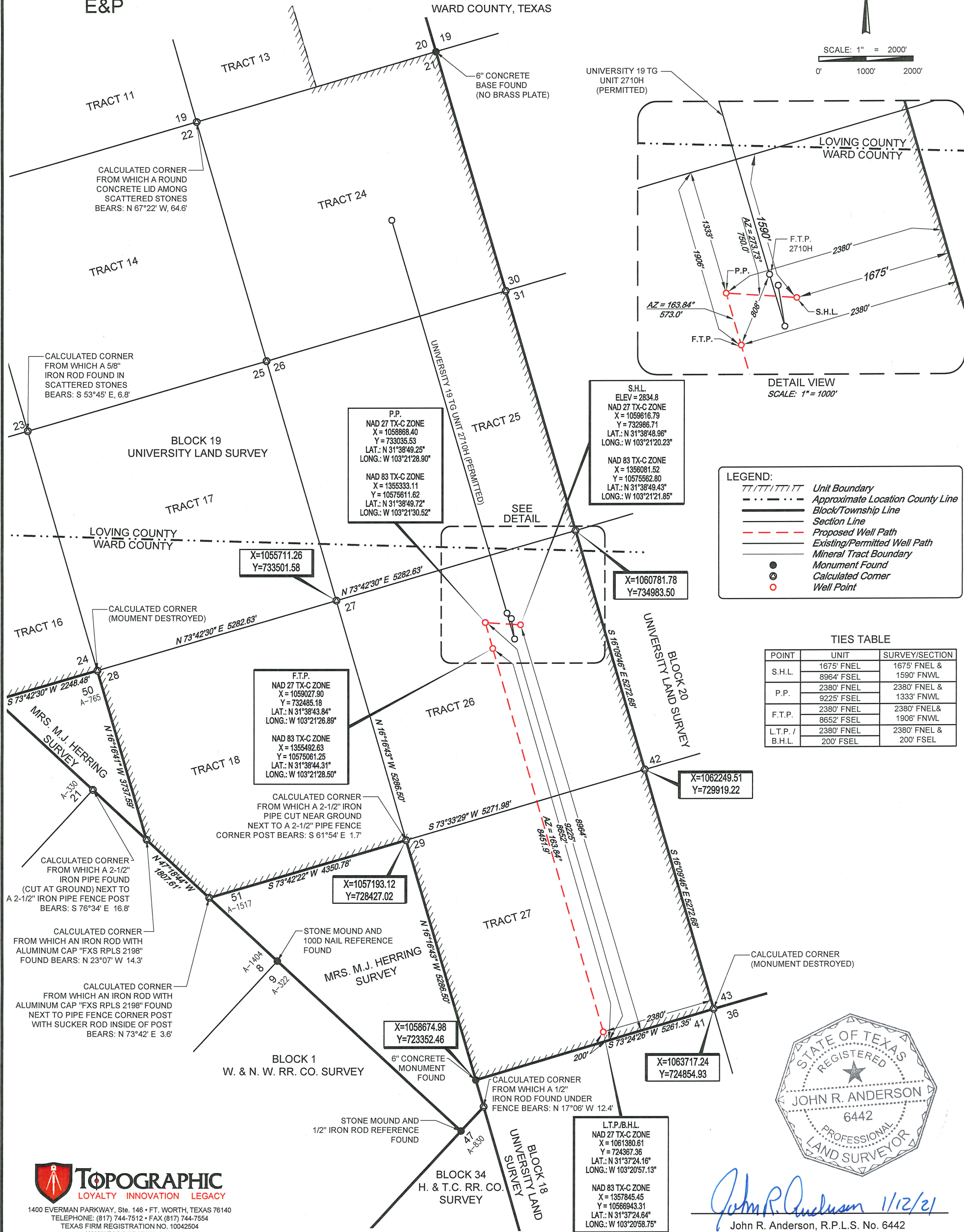
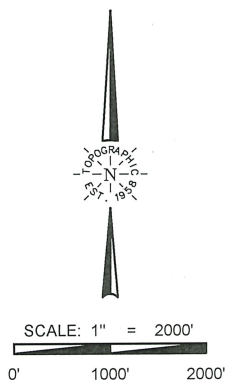
Groundwater Advisory Unit, Oil and Gas Division

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



WELL LOCATION
LEASE NAME & WELL NO.:
UNIVERSITY 19 TG UNIT 2712H

UNIT/LEASE ACREAGE:
12830.08 ACRES (MEASURED)
NEAREST TOWN IN COUNTY:
±14.9 MILES SOUTHEAST OF MENTONE, TEXAS
DESCRIPTION:
SECTIONS 27 & 29, BLOCK 19, UNIVERSITY LAND SURVEY
WARD COUNTY, TEXAS



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX: (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

UL-19-27-P1 UNIVERSITY 19 TG UNIT 2712H	REVISION:		NOTES:
	INT	DATE	
	O.M.	01/12/2021	
DATE: 05/31/2019			NOTES CONT'D: 6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF MAY 25, 2019. 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
FILE: LO_UL_19_27_P1_UNIVERSITY_19_27_TG_2712H_REV1			
DRAWN BY: A.C.L.			
SHEET: 1 OF 1			