

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. <u>774719</u>	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. <u>2712H</u>				
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 <u>11900</u>	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. <u>08</u>	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 <u>27</u>	16. Block <u>19</u>	17. Survey UL				
18. Abstract No. <u>A-U126</u>		19. Distance to nearest lease line: _____ ft.				
20. Number of contiguous acres in lease, pooled unit, or unitized tract: <u>12830.08</u>						
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	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
<u>08</u>	<u>92100050</u>	<u>TWO GEORGES (BONE SPRING)</u>	<u>Oil Well</u>	<u>11690</u>	<u>808.00</u>	<u>21</u>
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. <u>Michael Boutwell, Regulatory Specialist</u> <u>Jan 13, 2021</u> Name of filer Date submitted <u>(832)3370258</u> <u>M.boutwell@shell.com</u> Phone E-mail Address (OPTIONAL)		
RRC Use Only Data Validation Time Stamp: <u>Jan 15, 2021 4:53 PM('As Approved' Version)</u>						

**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION**

Form W-1H 07/2004
Supplemental Horizontal Well Information

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

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)**

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
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	API Number:	
Operator No.:	774719	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

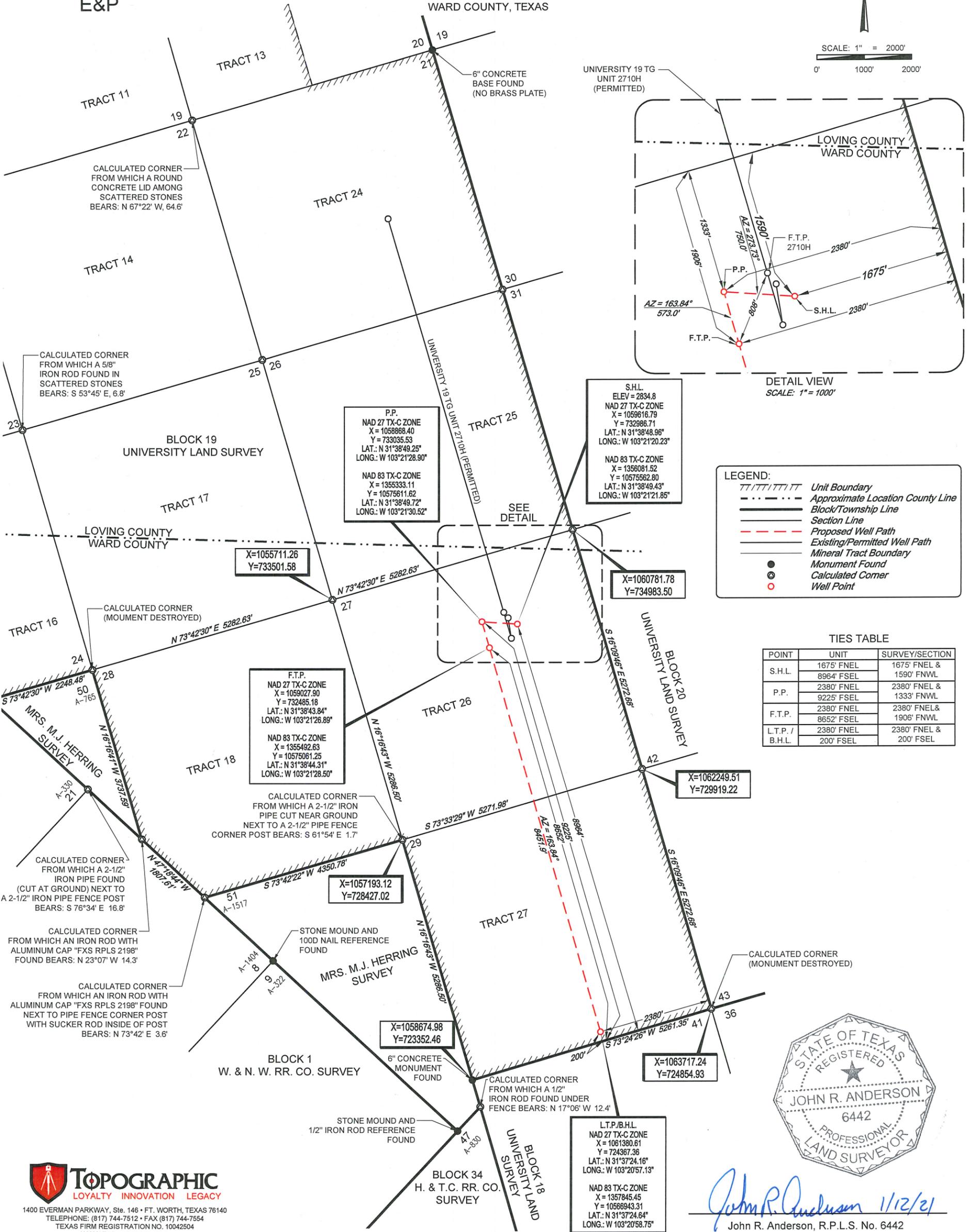
Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov
Rev. 02/2014



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



SCALE: 1" = 2000'
 0' 1000' 2000'



LEGEND:

- Unit Boundary
- - - - - Approximate Location County Line
- ==== Block/Township Line
- ==== Section Line
- - - - - Proposed Well Path
- Existing/Permitted Well Path
- Mineral Tract Boundary
- Monument Found
- Calculated Corner
- Well Point

TIES TABLE

POINT	UNIT	SURVEY/SECTION
S.H.L.	1675' FNEL	1675' FNEL & 1590' FNWL
	8964' FSEL	1590' FNWL
P.P.	2380' FNEL	2380' FNEL & 1333' FNWL
	9225' FSEL	1333' FNWL
F.T.P.	2380' FNEL	2380' FNEL & 1906' FNWL
	8652' FSEL	1906' FNWL
L.T.P. / B.H.L.	2380' FNEL	2380' FNEL & 200' FSEL
	200' FSEL	200' FSEL



John R. Anderson 1/12/21
 John R. Anderson, R.P.L.S. No. 6442

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:
DATE: 05/31/2019	INT DATE
FILE: LO_UL_19_27_P1_UNIVERSITY_19_27_TG_2712H_REV1	O.M. 01/12/2021
DRAWN BY: A.C.L.	
SHEET: 1 OF 1	

NOTES:

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

NOTES CONT'D:

6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF 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