

NAD 27, Central Zone 4203
 Surface Hole Location (Sec. 33)
 Latitude: 31.215620° N
 Longitude: 101.502359° W
 X=1634571.51
 Y=565251.81
 Elev.=2666'
 549' FSL & 527' FEL
 Point of Penetration (Sec. 33)
 Latitude: 31.214146° N
 Longitude: 101.501748° W
 X=1634757.96
 Y=564713.67
 15' FSL & 330' FEL
 First Take Point (Sec. 4)
 Latitude: 31.213830° N
 Longitude: 101.501748° W
 X=1634755.82
 Y=564588.59
 100' FNL & 330' FEL
 Last Take Point (Sec. 9)
 Latitude: 31.182233° N
 Longitude: 101.502077° W
 X=1634543.75
 Y=554199.82
 100' FSL & 331' FEL
 Bottom Hole Location (Sec. 9)
 Latitude: 31.185000° N
 Longitude: 101.502079° W
 X=554114.84
 Y=554114.84
 15' FSL & 331' FEL

Unit Boundary Distance	
SHL Out Of Unit	
PP Out Of Unit	
FTP 100' FNL & 330' FEL	
LTP 100' FSL & 331' FEL	
BHL 15' FSL & 331' FEL	

NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Survey. Acreage shown herein were furnished by others. The information contained on this plat is intended for the sole use of PERMIAN RESOURCES, LLC.

NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

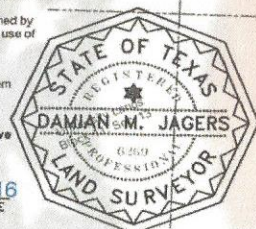
Damian M. Jagers 1/10/2016
 Damian M. Jagers
 REGISTERED PROFESSIONAL LAND SURVEYOR
 TEXAS REGISTRATION NO. 6269

PERMIAN RESOURCES
 Well Name
 UNIVERSITY 11 RE 936HS
 Drilling Field
 LIN (WOLFCAMP) FIELD
 Nearest Town
 2.97 MILES NORTHWEST OF BIG LAKE, TEXAS

824347

383-39385

VES Bottom Hole Location is 2.09' @ 31.97° of Surface Location



VES SURVEY

Tract	Lessor	Called Acreage	% of Total
1	University Lands	320.3750 Acres	9.9856
2	University Lands	641.5000 Acres	19.9544
3	University Lands	641.5000 Acres	19.9544
4	University Lands	641.5000 Acres	19.9544
5	University Lands	641.5000 Acres	19.9544
6	University Lands	328.4500 Acres	10.2166
Total		3214.8250 Acres	100.0000

VES LEGEND	
	Surface Location Highlight
	Bottom Hole Location
	° of SL Direction Line
	North Indicator
	VES Bottom Hole Text Box

VES Bottom Hole Location is 2.09' @ 31.97° of Surface Location

MD / FT	912.00		911.99	TVD / FT
North / FT	South / FT		East / FT	West / FT
1.77			1.10	

VES SURVEY INTERNATIONAL



Draft Date	12-13-16
Drawn By	D. Jagers
Revised By	
Reviewed By	B. Weisinger

Well Plat
 For
 Permian Resources, LLC

University 11 RE 936HS
 University Lands Block 11, Section 4
 University Lands Block 11, Section 9
 University Lands Block 11, Section 3
 University Lands Block 11, Section 15
 University Lands Block 11, Section 10
 University Lands Block 11, Section 11
 Reagan County, Texas



Company: PERMIAN RESOURCES
Lease/Well: UNIVERSITY 11 RE/936HS

Rig Name: INTEGRITY 3
State/County: TEXAS/REAGAN
VS-Azi: 0.00 Degrees
Latitude: 31.21562, Longitude: -101.50236
Grid North = True North +0.60 degs (NAD 27)
Grid Correction Applied = +0.60 degs



Depth Reference : GROUND LEVEL

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro-de_01.ut
Minimum Curvature Method
Report Date/Time: 4/6/2017 / 10:04

VES SURVEY INTERNATIONAL
MIDLAND, TEXAS
432-563-5444

Surveyor: JAMES NEIL BATES
University 11 RE 936HS / API 42-383-39385

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
50.00	0.65	38.44	50.00	0.22	0.18	0.22	0.28	38.44	1.30
100.00	0.43	18.30	100.00	0.62	0.41	0.62	0.75	33.49	0.58
150.00	0.33	8.81	150.00	0.94	0.49	0.94	1.06	27.60	0.23
200.00	0.40	5.91	199.99	1.26	0.53	1.26	1.37	22.94	0.15
250.00	0.27	317.33	249.99	1.52	0.47	1.52	1.59	17.28	0.60
300.00	0.25	297.13	299.99	1.65	0.30	1.65	1.68	10.23	0.18
350.00	0.23	238.70	349.99	1.65	0.12	1.65	1.65	4.02	0.47
400.00	0.24	220.57	399.99	1.52	-0.04	1.52	1.52	358.57	0.15
450.00	0.27	192.60	449.99	1.33	-0.13	1.33	1.33	354.40	0.25
500.00	0.30	120.76	499.99	1.14	-0.04	1.14	1.15	357.95	0.67
550.00	0.26	80.89	549.99	1.09	0.19	1.09	1.11	9.65	0.39
600.00	0.25	75.62	599.99	1.14	0.40	1.14	1.21	19.52	0.05
650.00	0.23	19.95	649.99	1.26	0.54	1.26	1.37	23.30	0.45
700.00	0.24	345.81	699.99	1.46	0.55	1.46	1.56	20.77	0.28
750.00	0.25	55.59	749.99	1.62	0.62	1.62	1.73	20.86	0.56
800.00	0.26	87.65	799.99	1.69	0.82	1.69	1.87	25.97	0.28

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
850.00	0.27	61.63	849.99	1.75	1.04	1.75	2.03	30.78	0.24
912.00	0.15	234.11	911.99	1.77	1.10	1.77	2.09	31.97	0.69



I James Neil Bates certify that I am employed by VES Survey International. That I did on the day(s) Rate Gyro survey from a
of 03/30/17 through 03/30/17 conduct or supervise the taking of a Rate Gyro survey from a
depth of 0.00 feet to a depth of 912.00 feet; that the data is true, correct, complete and
within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified
to make this report; that this survey was conducted at the request of Permian Resources, LLC for the
University 11 RE Well # #936HS API # 383-39835
in Reagan County / Parish Texas; and that I have reviewed this report and
find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in blue ink, appearing to read "James Neil Bates", is written over a horizontal line.

James Neil Bates
Service Technician
VES Survey International



Permian Resources

**Reagan County, Texas
University Lands, Block 10, Sec. 33
University 11 RE 936HS**

Wellbore #1

Survey: MWD Surveys

QES Survey Report

13 June, 2017



QES Directional Drilling, LLC

11390 FM 830
Willis, TX 77318
Phone: (936) 856-4332
Fax: (936) 856-8678



6/12/2017

Railroad Commission of Texas
Oil and Gas Division
1701 North Congress Avenue
Austin, Texas 78711

Attention: Pam Johns

Re: Permian Resources, LLC
University 11 RE 936 HS
RRC Lease/ID No.
University Lands
Abstract No. (No # Listed on Permit)
Reagan County, Texas
API No. 42-383-39835

Enclosed, please find the original and one (1) copy of the survey performed on the referenced well by QES Directional Drilling, LLC (P5#684437). Other information required by your office is as follows:

Name of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Jeff Leschuck	Original Hole	933' – 13592'	05/14/2017-05/30/2017	MWD
Jeff Leschuck	ST01	13068'–17613'	05/14/2017-05/30/2017	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Christopher Hughes
MWD Compliance Manager
QES Directional Drilling, LLC

Enclosures
Cc: Permian Resources, LLC

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Project	Reagan County, Texas		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	University Lands, Block 10, Sec. 33		
Site Position:		Northing:	565,251.81 usft
From:	Map	Easting:	1,634,571.51 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	31° 12' 56.232 N
		Longitude:	101° 30' 8.493 W
		Grid Convergence:	-0.60 °

Well	University 11 RE 936HS		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	31° 12' 56.232 N
		Longitude:	101° 30' 8.493 W
		Ground Level:	2,666.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	5/11/2017	5.91
			Dip Angle (°)
			59.45
			Field Strength (nT)
			47,553

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			180.15

Survey Program	Date	6/13/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
21.0	933.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
1,030.0	13,592.0	MWD Surveys (Wellbore #1)	MWD default	MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Gyro Tie-in @ 933.0' MD / TVD									
933.0	0.15	234.11	933.0	1.8	1.1	-1.8	0.00	0.00	0.00
1,030.0	0.50	343.70	1,030.0	2.1	0.9	-2.1	0.59	0.36	112.98
1,123.0	0.90	170.70	1,123.0	1.8	0.9	-1.8	1.50	0.43	-186.02
1,216.0	2.50	170.50	1,215.9	-1.0	1.3	0.9	1.72	1.72	-0.22
1,310.0	4.70	166.60	1,309.7	-6.7	2.6	6.7	2.35	2.34	-4.15
1,403.0	6.90	169.40	1,402.3	-15.9	4.5	15.9	2.38	2.37	3.01
1,497.0	9.10	169.10	1,495.3	-28.8	6.9	28.8	2.34	2.34	-0.32
1,591.0	10.20	170.30	1,588.0	-44.3	9.7	44.2	1.19	1.17	1.28
1,685.0	11.10	166.70	1,680.4	-61.3	13.2	61.2	1.19	0.96	-3.83

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,780.0	11.00	168.00	1,773.6	-79.0	17.2	79.0	0.28	-0.11	1.37
1,872.0	10.20	165.80	1,864.1	-95.5	21.0	95.5	0.97	-0.87	-2.39
1,968.0	9.30	158.70	1,958.7	-111.0	25.9	110.9	1.56	-0.94	-7.40
2,062.0	8.00	155.70	2,051.6	-124.0	31.4	124.0	1.46	-1.38	-3.19
2,157.0	8.10	155.80	2,145.7	-136.2	36.8	136.1	0.11	0.11	0.11
2,252.0	8.50	157.30	2,239.7	-148.7	42.3	148.6	0.48	0.42	1.58
2,346.0	8.70	160.90	2,332.6	-161.9	47.3	161.8	0.61	0.21	3.83
2,440.0	7.60	159.00	2,425.7	-174.4	51.8	174.3	1.20	-1.17	-2.02
2,536.0	7.90	161.40	2,520.8	-186.6	56.2	186.4	0.46	0.31	2.50
2,630.0	8.30	162.70	2,613.9	-199.2	60.3	199.0	0.47	0.43	1.38
2,724.0	8.70	163.70	2,706.8	-212.5	64.3	212.3	0.45	0.43	1.06
2,820.0	9.30	154.90	2,801.6	-226.5	69.6	226.3	1.56	0.63	-9.17
2,913.0	8.80	155.60	2,893.5	-239.8	75.8	239.6	0.55	-0.54	0.75
3,007.0	9.40	155.90	2,986.3	-253.3	81.9	253.1	0.64	0.64	0.32
3,100.0	8.40	155.90	3,078.2	-266.4	87.8	266.2	1.08	-1.08	0.00
3,195.0	8.60	157.10	3,172.1	-279.3	93.3	279.1	0.28	0.21	1.26
3,290.0	9.50	159.10	3,266.0	-293.2	98.9	292.9	1.00	0.95	2.11
3,385.0	8.30	158.70	3,359.8	-306.9	104.2	306.6	1.26	-1.26	-0.42
3,479.0	8.30	158.90	3,452.8	-319.6	109.1	319.3	0.03	0.00	0.21
3,573.0	8.90	160.60	3,545.8	-332.7	114.0	332.4	0.69	0.64	1.81
3,666.0	8.50	163.50	3,637.7	-346.1	118.3	345.8	0.64	-0.43	3.12
3,762.0	8.80	164.30	3,732.6	-360.0	122.3	359.7	0.34	0.31	0.83
3,856.0	7.90	164.50	3,825.6	-373.1	126.0	372.8	0.96	-0.96	0.21
3,949.0	7.90	162.40	3,917.7	-385.4	129.6	385.0	0.31	0.00	-2.26
4,043.0	7.60	164.00	4,010.9	-397.5	133.3	397.2	0.39	-0.32	1.70
4,137.0	7.70	164.10	4,104.0	-409.6	136.7	409.2	0.11	0.11	0.11
4,232.0	7.60	166.30	4,198.2	-421.8	140.0	421.4	0.33	-0.11	2.32
4,325.0	8.40	163.50	4,290.3	-434.3	143.3	433.9	0.96	0.86	-3.01
4,418.0	8.50	163.30	4,382.3	-447.4	147.2	447.0	0.11	0.11	-0.22
4,511.0	8.60	163.70	4,474.2	-460.6	151.2	460.2	0.13	0.11	0.43
4,606.0	8.60	165.30	4,568.2	-474.3	155.0	473.9	0.25	0.00	1.68
4,700.0	8.70	166.30	4,661.1	-488.0	158.4	487.6	0.19	0.11	1.06
4,793.0	8.20	166.20	4,753.1	-501.3	161.7	500.9	0.54	-0.54	-0.11
4,888.0	7.50	169.00	4,847.2	-514.0	164.5	513.5	0.84	-0.74	2.95
4,982.0	7.70	166.00	4,940.4	-526.1	167.2	525.6	0.47	0.21	-3.19
5,078.0	7.30	170.30	5,035.6	-538.3	169.8	537.9	0.72	-0.42	4.48
5,172.0	6.20	169.10	5,128.9	-549.2	171.7	548.8	1.18	-1.17	-1.28
5,267.0	5.10	170.30	5,223.4	-558.4	173.4	558.0	1.16	-1.16	1.26
5,361.0	4.70	168.10	5,317.1	-566.3	174.9	565.8	0.47	-0.43	-2.34
5,456.0	4.60	164.40	5,411.8	-573.8	176.7	573.3	0.33	-0.11	-3.89
5,552.0	5.40	160.20	5,507.4	-581.7	179.3	581.3	0.92	0.83	-4.38
5,646.0	5.60	160.70	5,601.0	-590.2	182.3	589.7	0.22	0.21	0.53
5,742.0	5.30	163.10	5,696.6	-598.9	185.1	598.4	0.39	-0.31	2.50

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Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,836.0	3.90	162.60	5,790.2	-606.1	187.4	605.6	1.49	-1.49	-0.53
5,931.0	2.50	170.00	5,885.1	-611.2	188.7	610.7	1.53	-1.47	7.79
6,075.0	1.90	173.90	6,029.0	-616.7	189.5	616.2	0.43	-0.42	2.71
6,171.0	0.50	28.30	6,125.0	-617.9	189.9	617.4	2.43	-1.46	-151.67
6,266.0	0.20	16.70	6,220.0	-617.4	190.1	616.9	0.32	-0.32	-12.21
6,361.0	0.20	274.90	6,315.0	-617.2	190.0	616.7	0.33	0.00	-107.16
6,455.0	0.40	245.60	6,409.0	-617.3	189.5	616.8	0.26	0.21	-31.17
6,550.0	0.80	222.90	6,504.0	-617.9	188.8	617.4	0.48	0.42	-23.89
6,644.0	0.90	216.10	6,598.0	-619.0	187.9	618.5	0.15	0.11	-7.23
6,737.0	1.00	211.30	6,690.9	-620.3	187.0	619.8	0.14	0.11	-5.16
6,769.0	2.50	191.80	6,722.9	-621.2	186.7	620.7	4.98	4.69	-60.94
6,801.0	5.90	193.20	6,754.8	-623.5	186.2	623.0	10.63	10.63	4.38
6,831.0	9.10	190.70	6,784.6	-627.3	185.4	626.9	10.72	10.67	-8.33
6,863.0	12.20	184.10	6,816.0	-633.2	184.7	632.7	10.40	9.69	-20.63
6,895.0	15.00	180.50	6,847.1	-640.7	184.4	640.2	9.14	8.75	-11.25
6,927.0	17.90	180.00	6,877.8	-649.8	184.4	649.3	9.07	9.06	-1.56
6,959.0	20.80	181.80	6,908.0	-660.4	184.2	659.9	9.25	9.06	5.63
6,990.0	23.50	184.60	6,936.7	-672.0	183.6	671.6	9.35	8.71	9.03
7,022.0	24.50	183.40	6,965.9	-685.0	182.7	684.5	3.48	3.13	-3.75
7,054.0	26.10	179.70	6,994.9	-698.7	182.3	698.2	7.03	5.00	-11.56
7,085.0	28.80	177.40	7,022.4	-713.0	182.7	712.5	9.36	8.71	-7.42
7,117.0	31.00	177.90	7,050.1	-728.9	183.3	728.4	6.92	6.88	1.56
7,148.0	33.80	179.70	7,076.3	-745.5	183.7	745.0	9.55	9.03	5.81
7,179.0	36.40	180.70	7,101.7	-763.3	183.6	762.9	8.59	8.39	3.23
7,211.0	39.10	181.60	7,127.0	-782.9	183.2	782.4	8.61	8.44	2.81
7,242.0	42.10	181.40	7,150.5	-803.1	182.7	802.6	9.69	9.68	-0.65
7,274.0	45.20	181.40	7,173.6	-825.2	182.1	824.7	9.69	9.69	0.00
7,305.0	48.10	181.10	7,194.9	-847.7	181.6	847.2	9.38	9.35	-0.97
7,336.0	51.90	181.10	7,214.8	-871.4	181.2	871.0	12.26	12.26	0.00
7,368.0	55.50	181.10	7,233.8	-897.2	180.7	896.7	11.25	11.25	0.00
7,400.0	58.60	180.90	7,251.2	-924.1	180.2	923.6	9.70	9.69	-0.63
7,431.0	62.30	180.90	7,266.5	-951.0	179.8	950.5	11.94	11.94	0.00
7,462.0	65.80	181.40	7,280.0	-978.9	179.2	978.4	11.38	11.29	1.61
7,493.0	68.00	181.60	7,292.2	-1,007.4	178.5	1,006.9	7.12	7.10	0.65
7,525.0	70.10	181.60	7,303.6	-1,037.3	177.7	1,036.8	6.56	6.56	0.00
7,556.0	72.20	183.00	7,313.7	-1,066.6	176.5	1,066.1	8.01	6.77	4.52
7,588.0	75.40	183.50	7,322.6	-1,097.2	174.7	1,096.8	10.11	10.00	1.56
7,620.0	78.00	184.40	7,329.9	-1,128.3	172.6	1,127.9	8.57	8.13	2.81
7,652.0	80.50	183.70	7,335.9	-1,159.7	170.4	1,159.2	8.10	7.81	-2.19
7,683.0	82.70	182.50	7,340.4	-1,190.3	168.7	1,189.8	8.06	7.10	-3.87
7,715.0	87.10	181.80	7,343.3	-1,222.1	167.5	1,221.7	13.92	13.75	-2.19
7,747.0	89.30	181.60	7,344.3	-1,254.1	166.6	1,253.7	6.90	6.88	-0.63
7,779.0	92.40	182.50	7,343.8	-1,286.1	165.4	1,285.6	10.09	9.69	2.81

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,874.0	94.00	182.10	7,338.5	-1,380.8	161.6	1,380.4	1.74	1.68	-0.42	
7,968.0	94.10	180.40	7,331.9	-1,474.6	159.6	1,474.2	1.81	0.11	-1.81	
8,062.0	94.30	179.00	7,325.0	-1,568.3	160.1	1,567.9	1.50	0.21	-1.49	
8,156.0	94.50	178.10	7,317.8	-1,662.0	162.4	1,661.6	0.98	0.21	-0.96	
8,249.0	94.80	179.50	7,310.2	-1,754.7	164.4	1,754.3	1.53	0.32	1.51	
8,343.0	94.30	181.10	7,302.8	-1,848.4	163.9	1,848.0	1.78	-0.53	1.70	
8,438.0	94.30	178.80	7,295.7	-1,943.1	164.0	1,942.7	2.41	0.00	-2.42	
8,532.0	94.50	181.40	7,288.4	-2,036.8	163.8	2,036.4	2.77	0.21	2.77	
8,628.0	94.40	182.60	7,281.0	-2,132.5	160.5	2,132.1	1.25	-0.10	1.25	
8,723.0	95.00	184.20	7,273.2	-2,227.0	154.9	2,226.6	1.79	0.63	1.68	
8,818.0	94.30	182.50	7,265.5	-2,321.5	149.3	2,321.1	1.93	-0.74	-1.79	
8,913.0	94.50	181.10	7,258.2	-2,416.2	146.3	2,415.8	1.48	0.21	-1.47	
9,008.0	94.50	183.50	7,250.8	-2,510.8	142.5	2,510.4	2.52	0.00	2.53	
9,103.0	94.60	181.90	7,243.2	-2,605.4	138.1	2,605.0	1.68	0.11	-1.68	
9,197.0	94.30	179.50	7,235.9	-2,699.1	136.9	2,698.7	2.57	-0.32	-2.55	
9,291.0	94.40	181.40	7,228.8	-2,792.8	136.2	2,792.5	2.02	0.11	2.02	
9,387.0	94.10	178.40	7,221.7	-2,888.5	136.4	2,888.2	3.13	-0.31	-3.13	
9,480.0	94.30	180.90	7,214.9	-2,981.3	136.9	2,980.9	2.69	0.22	2.69	
9,574.0	94.30	182.80	7,207.8	-3,075.0	133.9	3,074.6	2.02	0.00	2.02	
9,668.0	94.00	180.20	7,201.0	-3,168.7	131.5	3,168.3	2.78	-0.32	-2.77	
9,763.0	93.20	180.20	7,195.1	-3,263.5	131.1	3,263.1	0.84	-0.84	0.00	
9,858.0	93.60	181.40	7,189.4	-3,358.3	129.8	3,358.0	1.33	0.42	1.26	
9,954.0	93.60	181.80	7,183.4	-3,454.1	127.1	3,453.7	0.42	0.00	0.42	
10,049.0	93.40	180.90	7,177.6	-3,548.9	124.9	3,548.5	0.97	-0.21	-0.95	
10,144.0	93.30	181.30	7,172.0	-3,643.7	123.1	3,643.4	0.43	-0.11	0.42	
10,238.0	93.60	181.10	7,166.4	-3,737.5	121.1	3,737.2	0.38	0.32	-0.21	
10,331.0	93.70	179.00	7,160.5	-3,830.3	121.0	3,830.0	2.26	0.11	-2.26	
10,425.0	93.40	179.00	7,154.6	-3,924.1	122.7	3,923.8	0.32	-0.32	0.00	
10,519.0	93.80	183.70	7,148.7	-4,017.9	120.5	4,017.6	5.01	0.43	5.00	
10,614.0	93.00	180.50	7,143.1	-4,112.6	117.0	4,112.3	3.47	-0.84	-3.37	
10,706.0	93.00	183.20	7,138.3	-4,204.5	114.0	4,204.1	2.93	0.00	2.93	
10,801.0	93.80	182.50	7,132.6	-4,299.2	109.3	4,298.9	1.12	0.84	-0.74	
10,895.0	94.10	185.30	7,126.2	-4,392.7	102.9	4,392.4	2.99	0.32	2.98	
10,990.0	94.00	183.00	7,119.5	-4,487.2	96.1	4,487.0	2.42	-0.11	-2.42	
11,084.0	94.00	180.50	7,112.9	-4,581.0	93.2	4,580.7	2.65	0.00	-2.66	
11,179.0	94.00	180.20	7,106.3	-4,675.7	92.6	4,675.5	0.32	0.00	-0.32	
11,273.0	94.60	181.80	7,099.2	-4,769.4	91.0	4,769.2	1.81	0.64	1.70	
11,367.0	93.90	184.80	7,092.3	-4,863.0	85.6	4,862.8	3.27	-0.74	3.19	
11,461.0	93.80	180.20	7,085.9	-4,956.7	81.5	4,956.5	4.88	-0.11	-4.89	
11,556.0	93.80	178.40	7,079.6	-5,051.5	82.7	5,051.2	1.89	0.00	-1.89	
11,651.0	93.80	179.50	7,073.4	-5,146.2	84.4	5,146.0	1.16	0.00	1.16	
11,745.0	93.40	177.60	7,067.5	-5,240.0	86.8	5,239.8	2.06	-0.43	-2.02	
11,839.0	93.30	178.40	7,062.0	-5,333.8	90.0	5,333.5	0.86	-0.11	0.85	
11,931.0	93.60	180.00	7,056.4	-5,425.6	91.3	5,425.4	1.77	0.33	1.74	

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,027.0	94.30	181.40	7,049.8	-5,521.4	90.2	5,521.1	1.63	0.73	1.46	
12,121.0	93.90	182.60	7,043.1	-5,615.1	86.9	5,614.8	1.34	-0.43	1.28	
12,217.0	93.20	179.30	7,037.1	-5,710.9	85.3	5,710.6	3.51	-0.73	-3.44	
12,312.0	93.10	180.40	7,031.9	-5,805.7	85.5	5,805.5	1.16	-0.11	1.16	
12,407.0	93.20	181.10	7,026.7	-5,900.6	84.3	5,900.3	0.74	0.11	0.74	
12,501.0	92.20	180.90	7,022.3	-5,994.5	82.7	5,994.2	1.08	-1.06	-0.21	
12,595.0	92.50	182.50	7,018.4	-6,088.3	79.9	6,088.1	1.73	0.32	1.70	
12,689.0	92.20	181.80	7,014.6	-6,182.2	76.4	6,182.0	0.81	-0.32	-0.74	
12,784.0	91.50	181.10	7,011.5	-6,277.1	74.0	6,276.9	1.04	-0.74	-0.74	
12,879.0	91.80	181.90	7,008.8	-6,372.0	71.5	6,371.8	0.90	0.32	0.84	
12,973.0	92.00	180.00	7,005.6	-6,466.0	69.9	6,465.8	2.03	0.21	-2.02	
13,068.0	91.40	183.20	7,002.8	-6,560.9	67.3	6,560.7	3.43	-0.63	3.37	
13,163.0	91.40	180.50	7,000.5	-6,655.8	64.2	6,655.6	2.84	0.00	-2.84	
13,258.0	91.80	185.10	6,997.8	-6,750.6	59.6	6,750.4	4.86	0.42	4.84	
13,352.0	89.10	185.30	6,997.1	-6,844.2	51.0	6,844.1	2.88	-2.87	0.21	
13,447.0	88.50	181.90	6,999.1	-6,939.0	45.1	6,938.8	3.63	-0.63	-3.58	
13,542.0	85.80	180.50	7,003.8	-7,033.8	43.1	7,033.7	3.20	-2.84	-1.47	
OH TD @ 13592.0' MD / 7007.5' TVD										
13,592.0	85.80	180.50	7,007.5	-7,083.7	42.7	7,083.6	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Range Bearing 7083.8' 179.65°	
		+N/-S (usft)	+E/-W (usft)		
933.0	933.0	1.8	1.1	Gyro Tie-in @ 933.0' MD / TVD	
13,592.0	7,007.5	-7,083.7	42.7	OH TD @ 13592.0' MD / 7007.5' TVD	

Checked By: _____	Approved By: _____	Date: _____
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Permian Resources

**Reagan County, Texas
University Lands, Block 10, Sec. 33
University 11 RE 936HS**

ST01

Survey: ST01

QES Survey Report

13 June, 2017



Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	Database:	EDM5002

Project	Reagan County, Texas		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	University Lands, Block 10, Sec. 33		
Site Position:		Northing:	565,251.81 usft
From:	Map	Easting:	1,634,571.51 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	31° 12' 56.232 N
		Longitude:	101° 30' 8.493 W
		Grid Convergence:	-0.60 °

Well	University 11 RE 936HS		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	31° 12' 56.232 N
		Longitude:	101° 30' 8.493 W
		Ground Level:	2,666.0 usft

Wellbore	ST01		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	5/22/2017	5.90
			Dip Angle
			(°)
			59.45
			Field Strength
			(nT)
			47,550

Design	ST01		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	13,068.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			180.05

Survey Program	Date	6/5/2017		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
21.0	933.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
1,030.0	13,068.0	MWD Surveys (Wellbore #1)	MWD default	MWD - Standard
13,151.0	17,613.0	ST01 (ST01)	MWD default	MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
Tie-In OH @ 13068.0' MD / 7002.8' TVD									
13,068.0	91.40	183.20	7,002.8	-6,560.9	67.3	6,560.8	0.00	0.00	0.00
13,151.0	89.80	182.60	7,002.0	-6,643.8	63.1	6,643.7	2.06	-1.93	-0.72
13,183.0	88.60	184.40	7,002.4	-6,675.7	61.1	6,675.6	6.76	-3.75	5.63
13,214.0	87.90	185.80	7,003.3	-6,706.6	58.4	6,706.5	5.05	-2.26	4.52
13,245.0	87.90	185.80	7,004.5	-6,737.4	55.2	6,737.3	0.00	0.00	0.00
13,277.0	87.80	185.60	7,005.7	-6,769.2	52.0	6,769.2	0.70	-0.31	-0.63
13,309.0	88.30	185.80	7,006.8	-6,801.0	48.9	6,801.0	1.68	1.56	0.63
13,341.0	89.50	187.20	7,007.4	-6,832.8	45.3	6,832.8	5.76	3.75	4.38

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	Database:	EDM5002

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,372.0	90.00	187.40	7,007.5	-6,863.6	41.3	6,863.5	1.74	1.61	0.65	
13,404.0	90.10	186.70	7,007.5	-6,895.3	37.4	6,895.3	2.21	0.31	-2.19	
13,435.0	88.80	185.30	7,007.8	-6,926.1	34.1	6,926.1	6.16	-4.19	-4.52	
13,467.0	88.60	184.80	7,008.5	-6,958.0	31.3	6,958.0	1.68	-0.63	-1.56	
13,499.0	88.60	184.90	7,009.3	-6,989.9	28.6	6,989.9	0.31	0.00	0.31	
13,562.0	90.40	185.30	7,009.9	-7,052.6	23.0	7,052.6	2.93	2.86	0.63	
13,658.0	91.40	182.30	7,008.3	-7,148.4	16.7	7,148.4	3.29	1.04	-3.13	
13,752.0	92.00	180.70	7,005.6	-7,242.3	14.2	7,242.3	1.82	0.64	-1.70	
13,847.0	91.90	179.70	7,002.3	-7,337.3	13.9	7,337.2	1.06	-0.11	-1.05	
13,942.0	90.50	178.40	7,000.3	-7,432.2	15.4	7,432.2	2.01	-1.47	-1.37	
14,037.0	88.90	178.80	7,000.8	-7,527.2	17.8	7,527.2	1.74	-1.68	0.42	
14,132.0	90.00	178.60	7,001.7	-7,622.2	19.9	7,622.1	1.18	1.16	-0.21	
14,228.0	88.10	180.00	7,003.3	-7,718.1	21.1	7,718.1	2.46	-1.98	1.46	
14,321.0	87.30	180.00	7,007.1	-7,811.1	21.1	7,811.0	0.86	-0.86	0.00	
14,416.0	89.10	180.20	7,010.0	-7,906.0	20.9	7,906.0	1.91	1.89	0.21	
14,511.0	90.60	180.70	7,010.3	-8,001.0	20.2	8,001.0	1.66	1.58	0.53	
14,605.0	92.20	180.50	7,008.0	-8,095.0	19.2	8,094.9	1.72	1.70	-0.21	
14,700.0	91.00	179.70	7,005.3	-8,189.9	19.0	8,189.9	1.52	-1.26	-0.84	
14,795.0	90.80	178.80	7,003.9	-8,284.9	20.3	8,284.9	0.97	-0.21	-0.95	
14,889.0	89.60	180.50	7,003.5	-8,378.9	20.9	8,378.9	2.21	-1.28	1.81	
14,985.0	89.80	182.10	7,004.0	-8,474.9	18.7	8,474.8	1.68	0.21	1.67	
15,080.0	91.40	183.00	7,003.0	-8,569.8	14.4	8,569.7	1.93	1.68	0.95	
15,157.0	90.20	183.00	7,002.0	-8,646.6	10.4	8,646.6	1.56	-1.56	0.00	
15,252.0	87.80	181.90	7,003.6	-8,741.5	6.4	8,741.5	2.78	-2.53	-1.16	
15,347.0	87.90	181.60	7,007.2	-8,836.4	3.5	8,836.4	0.33	0.11	-0.32	
15,442.0	89.80	183.90	7,009.1	-8,931.3	-1.1	8,931.3	3.14	2.00	2.42	
15,536.0	90.60	183.00	7,008.8	-9,025.1	-6.8	9,025.1	1.28	0.85	-0.96	
15,629.0	89.60	179.80	7,008.6	-9,118.1	-9.0	9,118.1	3.60	-1.08	-3.44	
15,724.0	90.00	180.40	7,008.9	-9,213.1	-9.2	9,213.1	0.76	0.42	0.63	
15,819.0	89.20	178.80	7,009.6	-9,308.1	-8.5	9,308.1	1.88	-0.84	-1.68	
15,914.0	89.20	179.00	7,010.9	-9,403.0	-6.7	9,403.0	0.21	0.00	0.21	
16,009.0	87.90	179.10	7,013.3	-9,498.0	-5.1	9,498.0	1.37	-1.37	0.11	
16,105.0	87.20	178.60	7,017.4	-9,593.9	-3.2	9,593.9	0.90	-0.73	-0.52	
16,200.0	87.80	180.70	7,021.6	-9,688.8	-2.6	9,688.8	2.30	0.63	2.21	
16,295.0	89.00	181.80	7,024.2	-9,783.7	-4.7	9,783.7	1.71	1.26	1.16	
16,390.0	89.10	181.40	7,025.8	-9,878.7	-7.4	9,878.7	0.43	0.11	-0.42	
16,485.0	90.50	181.80	7,026.1	-9,973.6	-10.0	9,973.6	1.53	1.47	0.42	
16,579.0	90.90	180.90	7,025.0	-10,067.6	-12.2	10,067.6	1.05	0.43	-0.96	
16,674.0	90.30	179.00	7,024.0	-10,162.6	-12.1	10,162.6	2.10	-0.63	-2.00	
16,768.0	90.80	180.50	7,023.1	-10,256.6	-11.7	10,256.6	1.68	0.53	1.60	
16,863.0	91.70	180.90	7,021.0	-10,351.5	-12.9	10,351.6	1.04	0.95	0.42	
16,958.0	89.90	181.60	7,019.7	-10,446.5	-15.0	10,446.5	2.03	-1.89	0.74	
17,053.0	88.60	179.50	7,020.9	-10,541.5	-15.9	10,541.5	2.60	-1.37	-2.21	

Company:	Permian Resources	Local Co-ordinate Reference:	Well University 11 RE 936HS
Project:	Reagan County, Texas	TVD Reference:	Well @ 2687.0usft (Unit #407)
Site:	University Lands, Block 10, Sec. 33	MD Reference:	Well @ 2687.0usft (Unit #407)
Well:	University 11 RE 936HS	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01	Database:	EDM5002

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,148.0	89.30	177.70	7,022.7	-10,636.4	-13.5	10,636.4	2.03	0.74	-1.89	
17,242.0	88.00	178.30	7,024.9	-10,730.4	-10.3	10,730.4	1.52	-1.38	0.64	
17,337.0	87.70	179.30	7,028.5	-10,825.3	-8.3	10,825.3	1.10	-0.32	1.05	
17,432.0	87.60	180.20	7,032.3	-10,920.2	-7.9	10,920.2	0.95	-0.11	0.95	
17,527.0	87.80	180.40	7,036.2	-11,015.1	-8.4	11,015.1	0.30	0.21	0.21	
17,563.0	88.20	180.40	7,037.4	-11,051.1	-8.6	11,051.1	1.11	1.11	0.00	
TD ST01 @ 17613' MD / 7039' TVD										
17,613.0	88.20	180.40	7,039.0	-11,101.1	-9.0	11,101.1	0.00	0.00	0.00	

Survey Annotations						Range Bearing	
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment		11101.1'	180.05°
		+N/-S (usft)	+E/-W (usft)				
13,068.0	7,002.8	-6,560.9	67.3	Tie-In OH @ 13068.0' MD / 7002.8' TVD			
17,613.0	7,039.0	-11,101.1	-9.0	TD ST01 @ 17613' MD / 7039' TVD			

Checked By: _____ Approved By: _____ Date: _____

NAD 27, Central Zone 4203

Surface Hole Location (Sec. 33)
Latitude: 31.215620° N
Longitude: 101.502359° W
X=1634571.51
Y=565251.81
Elev.=2666'
549' FSL & 527' FEL

Point of Penetration (Sec. 33)
Latitude: 31.214146° N
Longitude: 101.501745° W
X=1634757.96
Y=564713.67
15' FSL & 330' FEL

First Take Point (Sec. 4)
Latitude: 31.213850° N
Longitude: 101.501748° W
X=1634755.62
Y=564598.69
100' FNL & 330' FEL

Last Take Point (Sec. 9)
Latitude: 31.185233° N
Longitude: 101.502077° W
X=1634543.75
Y=554199.82
100' FSL & 331' FEL

Bottom Hole Location (Sec. 9)
Latitude: 31.185000° N
Longitude: 101.502079° W
X=1634542.02
Y=554114.84
15' FSL & 331' FEL

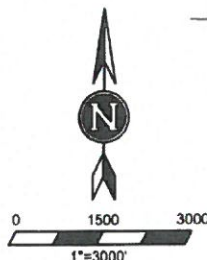


Well Name
UNIVERSITY 11 RE 936HS

Drilling Field
LIN (WOLFCAMP) FIELD

Nearest Town

2.97 MILES NORTHWEST OF BIG LAKE, TEXAS



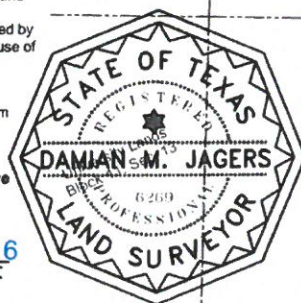
NOTE: This Plat does not, in anyway represent a "Boundary Survey", and does not comply with the current T.B.P.L.S. Minimum Standards of Procedures for Boundary Survey. Acreage shown herein were furnished by others. The information contained on this plat is intended for the sole use of PERMIAN RESOURCES, LLC.

NOTE: Bearings and coordinates refer to the Texas Coordinate System of 1927, Central Zone (4203), as observed by GPS observations

I, Damian M. Jagers do hereby certify that the above described well location was surveyed on the ground under my supervision, as shown.

Damian M. Jagers 1/10/2016
DATE

Damian M. Jagers
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6269



University Lands
Block 10, Sec. 35

University Lands
Block 10, Sec. 34

University Lands
Block 10, Sec. 33

University Lands
Block 10, Sec. 32

University Lands
Block 10, Sec. 31

University Lands
Block 11, Sec. 1

University Lands
Block 11, Sec. 2

UNIVERSITY 11 RE UNIT

University Lands
Block 11, Sec. 12

University Lands
Block 11, Sec. 1

University Lands
Block 11, Sec. 9

University Lands
Block 11, Sec. 8

University Lands
Block 11, Sec. 7

University Lands
Block 11, Sec. 14

University Lands
Block 11, Sec. 15

University Lands
Block 11, Sec. 16

University Lands
Block 11, Sec. 17

University Lands
Block 11, Sec. 18

Tract	Lessor	Called Acreage	% of Total
1	University Lands	320.3750 Acres	9.9656
2	University Lands	641.5000 Acres	19.9544
3	University Lands	641.5000 Acres	19.9544
4	University Lands	641.5000 Acres	19.9544
5	University Lands	641.5000 Acres	19.9544
6	University Lands	328.4500 Acres	10.2168
Total		3214.8250 Acres	100.0000

QES Bottom Hole Location OH
7083.8' @ 179.65° From SHL
MD: 13592' TVD: 7007.5'
South: 11101.1' West 9.0'

QES Bottom Hole Location ST01
11101.1' @ 180.05° From SHL
MD: 17613' TVD: 7039'
South: 11101.1' West 9.0'



1601 Derran Road, Suite 100, Longview, TX 75601
Phone: 254-965-9688
Email: cross@xtssurveying.com
Web: www.xtssurveying.net

Draft Date	12-13-16
Drawn By	D. Jagers
Revised By	
Reviewed By	B. Weisinger

Well Plat
For
Permian Resources, LLC

University 11 RE 936HS
University Lands Block 11, Section 4
University Lands Block 11, Section 9
University Lands Block 11, Section 3
University Lands Block 11, Section 15
University Lands Block 11, Section 10
University Lands Block 11, Section 11
University Lands Block 11, Section 7
Reagan County, Texas

QES Directional Drilling, LLC

11390 FM 830
Willis, TX 77318
Phone: (936) 856-4332
Fax: (936) 856-8678



June 12, 2017

Railroad Commission of Texas
Oil and Gas Division
1701 North Congress Avenue
Austin, Texas 78711

I Christopher Hughes, certify that I am employed by QES Directional Drilling, LLC. That I did on the day(s) of 5/14/2017 through 5/30/2017, conduct or supervise the taking of an MWD Survey from a depth of 933' to a depth of 13592' and 13068' to a depth of 17613'; that the data is true, correct, complete, and within the limitations of the tool as set forth by Quintana Energy Services (QES).

I certify that I am authorized and qualified to make this report; that this survey was conducted at the request of Permian Resources, LLC, for the University 11 RE 936 HS, API No. 42-383-39835 in Reagan County, Texas. I certify that I have reviewed this report and find that it conforms to the principles and procedures as set forth by QES Directional Drilling, LLC.

Sincerely,

Christopher Hughes
MWD Compliance Manager
QES Directional Drilling, LLC