Gyrodata Incorporated
10504 WCR 72
Midland, TX 79707

Main: 432-561-8458
Fax: 432-563-7982

May 16, 2017

Railroad Commission of Texas
Oil & Gas Division
P.O. Box 12967
Capitol Station
Austin, Texas 78711

Attn: Ms. Pamela Johns

RE:
CHEVRON
NOA TXL FEE #4714M
Permit No. 721093
T&P RR CO / Abstract/A-345
Spraberry (Trend Area), HALLANAN (STRAWN)
MIDLAND County, Texas
API No. 42-329-37486

Ms. Johns:

Enclosed, please find the original and one copy of the survey performed on the referenced well by Gyrodata, Inc (P-5 No. 339711). Other information required by your office is as follows:

Name & Title Of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Cody Flaming Surveyor	Original Hole	100' –10917'	03/31/17-03/31/17	Gyroscopic Multishot

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 the 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.

Sincerely,

Heather Weidemann
Operations Assistant

Enclosure

Micro-Guide Log

FINAL DEFINITIVE COPY

for

CHEVRON

Lease: NOA TXL FEE Well: 4714M, 5 1/2 INCH 17# CASING
Location: C&J PULLING UNIT #436, MIDLAND COUNTY, TEXAS

Job Number: MD0317GCLW279

Run Date: 31 Mar 2017
Report Generated: 15 May 2017 02:13

Surveyor: Cody Flaming

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot
Survey Latitude: 31.947460 deg. N
Longitude: 102.277380 deg. W

Azimuth Correction:
Gyro: 1.00000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground / RKB to MSL): 19.00

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

Micro-Guide Log

CHEVRON
Lease: NOA TXL FEE Well: 4714M, 5 1/2 INCH 17# CASING
Location: C&J PULLING UNIT #436, MIDLAND COUNTY, TEXAS
Job Number: MD0317GCLW279

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00 N	0.00 E

100 TO 10917 FT. RATE GYROSCOPIC MICRO-GUIDE LOG RUN INSIDE 5 1/2 INCH 17# CASING
ALL MEASURED DEPTHS AND COORDINATES ARE REFERENCED TO GROUND LEVEL AND ORIGINAL R.K.B. HEIGHT OF 19 FT.

100.00	0.39	119.43	0.39	100.00	0.3	119.4	0.17 S	0.30 E
200.00	0.36	128.95	0.07	200.00	1.0	122.5	0.53 S	0.84 E
300.00	0.41	138.47	0.08	299.99	1.7	127.1	1.00 S	1.32 E
400.00	0.64	116.72	0.30	399.99	2.6	126.5	1.52 S	2.06 E
500.00	0.61	116.24	0.03	499.98	3.6	123.5	2.00 S	3.03 E
600.00	0.55	106.84	0.11	599.98	4.6	121.0	2.38 S	3.96 E
700.00	0.44	108.01	0.11	699.98	5.5	118.8	2.63 S	4.78 E
800.00	0.32	122.16	0.15	799.97	6.1	118.3	2.90 S	5.38 E
900.00	0.25	63.40	0.29	899.97	6.5	117.0	2.96 S	5.81 E
1000.00	0.18	59.27	0.07	999.97	6.7	114.4	2.78 S	6.14 E
1100.00	0.14	145.50	0.22	1099.97	6.9	113.9	2.81 S	6.34 E
1200.00	0.56	169.02	0.43	1199.97	7.3	117.5	3.39 S	6.50 E
1300.00	0.66	170.29	0.10	1299.96	8.0	123.5	4.44 S	6.69 E
1400.00	0.57	167.00	0.10	1399.96	8.8	128.5	5.49 S	6.90 E
1500.00	0.53	155.65	0.12	1499.95	9.6	131.6	6.40 S	7.21 E
1600.00	0.57	132.51	0.22	1599.95	10.6	132.7	7.15 S	7.76 E
1700.00	0.53	130.70	0.04	1699.94	11.5	132.6	7.79 S	8.48 E

Micro-Guide Log

CHEVRON
Lease: NOA TXL FEE Well: 4714M, 5 1/2 INCH 17# CASING
Location: C&J PULLING UNIT #436, MIDLAND COUNTY, TEXAS
Job Number: MD0317GCLW279

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
1800.00	0.53	133.29	0.02	1799.94	12.4	132.5	8.41 S	9.17 E
1900.00	0.29	119.68	0.26	1899.94	13.2	132.3	8.86 S	9.73 E
2000.00	0.15	108.78	0.15	1999.94	13.5	131.9	9.02 S	10.07 E
2100.00	0.08	165.83	0.12	2099.94	13.7	131.8	9.13 S	10.21 E
2200.00	0.13	280.83	0.18	2199.94	13.7	132.2	9.18 S	10.11 E
2300.00	0.17	291.20	0.05	2299.94	13.4	132.7	9.10 S	9.86 E
2400.00	0.20	301.41	0.04	2399.94	13.1	133.1	8.96 S	9.58 E
2500.00	0.33	290.57	0.14	2499.93	12.7	133.7	8.77 S	9.17 E
2600.00	0.35	295.30	0.04	2599.93	12.1	134.7	8.54 S	8.63 E
2700.00	0.56	296.14	0.21	2699.93	11.4	136.0	8.20 S	7.91 E
2800.00	0.60	291.44	0.06	2799.92	10.5	138.1	7.79 S	6.98 E
2900.00	0.63	309.62	0.20	2899.92	9.4	140.1	7.24 S	6.06 E
3000.00	0.65	313.99	0.05	2999.91	8.3	141.2	6.50 S	5.23 E
3100.00	0.80	321.63	0.18	3099.90	7.1	141.7	5.56 S	4.39 E
3200.00	0.97	312.87	0.22	3199.89	5.6	143.0	4.44 S	3.34 E
3300.00	0.84	310.24	0.13	3299.88	4.0	147.5	3.39 S	2.16 E
3400.00	0.81	312.68	0.05	3399.87	2.7	156.1	2.43 S	1.08 E
3500.00	0.89	342.49	0.44	3499.86	1.3	165.0	1.22 S	0.33 E
3600.00	0.93	348.54	0.10	3599.85	0.3	347.9	0.31 N	0.07W
3700.00	0.91	343.83	0.08	3699.83	1.9	346.5	1.87 N	0.45W
3800.00	0.86	350.76	0.12	3799.82	3.5	346.8	3.37 N	0.79W
3900.00	0.91	353.21	0.07	3899.81	5.0	348.4	4.90 N	1.01W

Micro-Guide Log

CHEVRON
Lease: NOA TXL FEE Well: 4714M, 5 1/2 INCH 17# CASING
Location: C&J PULLING UNIT #436, MIDLAND COUNTY, TEXAS
Job Number: MD0317GCLW279

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
4000.00	1.00	354.05	0.09	3999.80	6.7	349.7	6.56 N	1.19 W
4100.00	0.94	353.56	0.06	4099.78	8.4	350.5	8.24 N	1.37 W
4200.00	0.93	358.24	0.08	4199.77	10.0	351.4	9.86 N	1.49 W
4300.00	0.76	8.89	0.23	4299.76	11.4	352.9	11.33 N	1.41 W
4400.00	0.75	14.60	0.08	4399.75	12.7	354.8	12.62 N	1.14 W
4500.00	0.71	23.21	0.12	4499.74	13.8	357.0	13.82 N	0.74 W
4600.00	0.89	38.12	0.27	4599.73	15.0	359.9	14.99 N	0.02 W
4700.00	0.97	38.30	0.08	4699.72	16.3	3.5	16.26 N	0.98 E
4800.00	0.76	44.67	0.23	4799.71	17.5	6.5	17.39 N	1.97 E
4900.00	0.62	40.42	0.15	4899.70	18.5	8.7	18.27 N	2.78 E
5000.00	0.58	39.35	0.03	4999.69	19.4	10.3	19.07 N	3.45 E
5100.00	0.42	68.36	0.30	5099.69	20.0	11.9	19.60 N	4.12 E
5200.00	0.29	17.45	0.33	5199.69	20.5	12.8	19.98 N	4.53 E
5300.00	0.25	347.65	0.15	5299.69	20.9	12.6	20.44 N	4.56 E
5400.00	0.49	306.16	0.34	5399.69	21.3	11.3	20.91 N	4.17 E
5500.00	0.59	309.76	0.10	5499.68	21.8	9.1	21.49 N	3.43 E
5600.00	0.63	304.33	0.07	5599.68	22.3	6.7	22.13 N	2.58 E
5700.00	0.61	311.17	0.08	5699.67	22.9	4.3	22.79 N	1.72 E
5800.00	0.60	317.76	0.07	5799.66	23.6	2.4	23.54 N	0.97 E
5900.00	0.52	311.72	0.10	5899.66	24.2	0.6	24.23 N	0.27 E
6000.00	0.25	309.68	0.27	5999.66	24.7	359.5	24.67 N	0.23 W

Micro-Guide Log

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Job Number: MD0317GCLW279

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
6100.00	0.19	333.70	0.11	6099.66	25.0	358.9	24.96 N	0.48 W
6200.00	0.56	329.85	0.37	6199.65	25.5	358.2	25.53 N	0.80 W
6300.00	0.78	310.10	0.31	6299.65	26.4	356.6	26.39 N	1.56 W
6400.00	1.99	274.28	1.43	6399.62	27.2	352.0	26.95 N	3.80 W
6500.00	1.57	275.37	0.41	6499.57	28.1	345.8	27.21 N	6.90 W
6600.00	1.29	290.12	0.46	6599.54	29.3	341.4	27.73 N	9.33 W
6700.00	1.40	353.83	1.42	6699.52	31.2	340.3	29.33 N	10.52 W
6800.00	1.26	359.30	0.19	6799.49	33.4	341.4	31.63 N	10.66 W
6900.00	1.12	358.80	0.14	6899.47	35.4	342.4	33.71 N	10.70 W
7000.00	0.52	332.43	0.69	6999.46	36.8	342.7	35.09 N	10.93 W
7100.00	1.54	57.99	1.58	7099.44	37.6	344.6	36.20 N	10.00 W
7200.00	3.01	81.60	1.71	7199.36	37.8	350.5	37.30 N	6.27 W
7300.00	1.37	114.88	2.01	7299.29	37.3	356.0	37.18 N	2.59 W
7400.00	0.76	100.40	0.66	7399.27	36.6	358.7	36.56 N	0.86 W
7500.00	0.80	91.80	0.12	7499.26	36.4	0.8	36.42 N	0.49 E
7600.00	1.01	76.09	0.33	7599.25	36.7	3.2	36.61 N	2.05 E
7700.00	1.13	79.89	0.14	7699.23	37.2	6.0	36.99 N	3.88 E
7800.00	1.52	79.74	0.39	7799.21	37.9	9.3	37.40 N	6.15 E
7900.00	1.60	78.29	0.08	7899.17	38.9	13.1	37.92 N	8.83 E
8000.00	1.71	82.60	0.17	7999.13	40.1	16.9	38.40 N	11.67 E
8100.00	1.22	84.50	0.49	8099.10	41.2	20.2	38.69 N	14.21 E
8200.00	0.46	77.82	0.77	8199.08	41.9	21.9	38.88 N	15.66 E

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Job Number: MD0317GCLW279

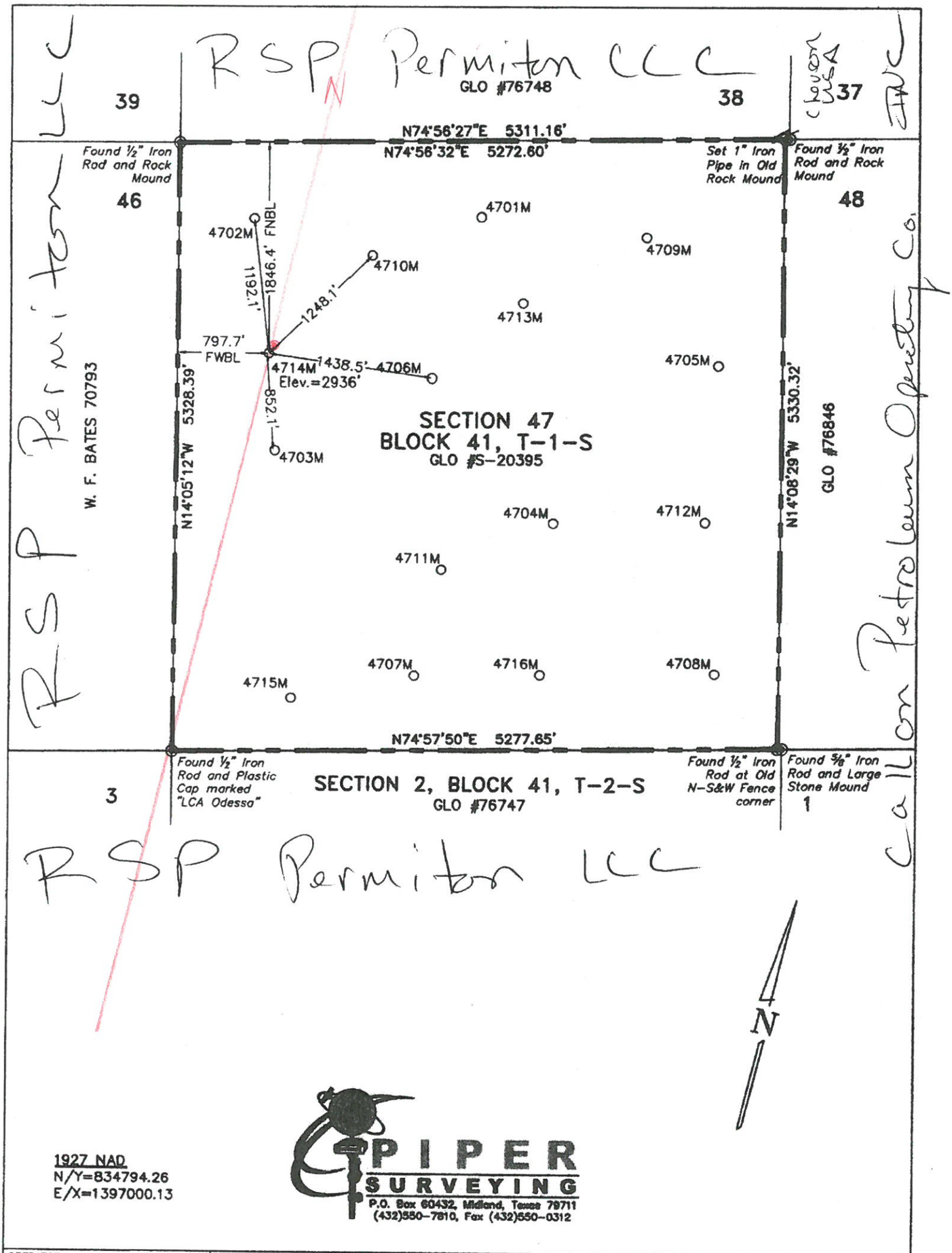
MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
8300.00	0.19	58.17	0.29	8299.08	42.3	22.5	39.05 N	16.19 E
8400.00	0.64	326.14	0.67	8399.08	42.7	22.0	39.59 N	16.02 E
8500.00	0.62	351.69	0.28	8499.07	43.5	21.1	40.59 N	15.63 E
8600.00	0.80	322.80	0.40	8599.07	44.3	19.9	41.68 N	15.13 E
8700.00	0.66	320.57	0.14	8699.06	45.0	18.6	42.69 N	14.34 E
8800.00	0.83	293.68	0.38	8799.05	45.4	17.0	43.42 N	13.31 E
8900.00	1.22	295.82	0.40	8899.03	45.7	14.8	44.18 N	11.69 E
9000.00	1.17	306.62	0.23	8999.01	46.3	12.4	45.25 N	9.92 E
9100.00	0.88	305.40	0.29	9099.00	47.1	10.4	46.30 N	8.48 E
9200.00	1.09	314.24	0.26	9198.98	47.9	8.6	47.40 N	7.18 E
9300.00	1.37	333.92	0.50	9298.96	49.5	6.9	49.14 N	5.97 E
9400.00	1.37	351.43	0.42	9398.93	51.7	5.9	51.39 N	5.27 E
9500.00	1.31	18.47	0.63	9498.91	53.9	5.8	53.65 N	5.45 E
9600.00	1.61	52.83	0.91	9598.88	56.0	7.1	55.59 N	6.93 E
9700.00	2.39	64.59	0.88	9698.81	58.2	9.8	57.33 N	9.93 E
9800.00	3.07	61.18	0.70	9798.70	61.2	13.4	59.51 N	14.16 E
9900.00	2.18	76.00	1.11	9898.60	63.9	16.7	61.26 N	18.35 E
10000.00	1.14	96.33	1.18	9998.55	65.1	19.0	61.61 N	21.18 E
10100.00	1.29	156.26	1.22	10098.53	64.6	20.5	60.47 N	22.62 E
10200.00	1.37	159.91	0.11	10198.51	62.9	21.9	58.32 N	23.49 E
10300.00	1.45	165.91	0.17	10298.48	61.0	23.4	55.97 N	24.21 E
10400.00	0.92	181.74	0.62	10398.46	59.2	24.4	53.93 N	24.49 E

Micro-Guide Log

CHEVRON
Lease: NOA TXL FEE Well: 4714M, 5 1/2 INCH 17# CASING
Location: C&J PULLING UNIT #436, MIDLAND COUNTY, TEXAS
Job Number: MD0317GCLW279

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
10500.00	0.76	212.53	0.47	10498.44	57.8	24.6	52.56 N	24.11 E
10600.00	0.62	232.18	0.28	10598.44	56.7	24.3	51.67 N	23.32 E
10700.00	0.76	251.73	0.27	10698.43	55.8	23.5	51.13 N	22.26 E
10800.00	0.80	255.29	0.07	10798.42	54.9	22.4	50.74 N	20.96 E
10900.00	0.51	281.25	0.41	10898.41	54.4	21.4	50.65 N	19.84 E
10917.00	0.56	291.04	0.61	10915.41	54.4	21.2	50.70 N	19.69 E

Final Station Closure: Distance: 54.39 ft Az: 21.23 deg.



1927 NAD
N/Y=834794.26
E/X=1397000.13

PIPER SURVEYING
P.O. Box 60432, Midland, Texas 79711
(432)550-7810, Fax (432)550-0312

OPERATOR: CHEVRON USA, INC. 15 SMITH ROAD MIDLAND, TEXAS 79705	NOA TXL FEE #4714M	FIELD:
	DESCRIPTION: All of Section 47, Block 41, T-1-S, T.&P. RR. Co. Survey, Midland County, Texas	ACREAGE: 645.30 Acres
		ELEVATION: 2936'
		DATE: 6/15/11
		SCALE: 1"=1000'
	LOCATION IN SURVEY: 1846.4' FNL & 797.7' FWL	DRAWN BY: Tina Chalambaga
	LOCATION IN LEASE: 1846.4' FNBL & 797.7' FWBL	DWG FILE: NOA_TXL_FEE83C.Dwg
	NEAREST POST OFFICE: 12.23 Miles Southwest from Midland, Texas	FIELD BOOK: N/A
	GEODETIC POSITION: LATITUDE: 31°56'51.219" LONGITUDE: 102°16'39.816"	NORTH AMERICA DATUM OF: 1983
	STATE PLANE COORDINATES: NORTH (Y) 10677369.95 EAST (X) 1693466.87	ZONE: Central STATE: TX

The well location shown on this plat represents an actual survey made by me or under my supervision to the best of my knowledge and belief as surveyed on the ground.
6/2/11

J. STAN PIPER
PROFESSIONAL LAND SURVEYOR
REGISTERED SEAL NO. 1974

Gyrodata Incorporated
10504 WCR 72
Midland, TX 79707

Main: 432-561-8458
Fax: 432-563-7982

State of Texas
County of Harris

I, Kevin Willard, certify that; I am employed by Gyrodata Inc.; that I am authorized and qualified to review the Gyroscopic Multishot survey from a depth of 90 feet to a depth of 8971 feet conducted on the day(s) of 03/24/17 through 03/24/17; that this survey was conducted at the request QEP Energy Company for the University 7-2730 S #08SC Well API No. 42-317-40597 in Martin County, Texas; that the data is true, correct, complete, and within the limitations of the tool as set forth by Gyrodata Inc.; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Gyrodata Inc.

Kevin Willard
Operations Coordinator

DIRECTIONAL SERVICES, LLC.

12074 FM 3083 Rd., Conroe, TX 77304 | P: 936-756-2400 | F: 936-756-2401

April 4, 2017

The Railroad Commission of Texas
Oil & Gas Division
P.O. Drawer 12967
Capital Station
Austin, TX 78711-2967

Attention: Pam Johns

RE: QEP Resources
Well: University 7-2730S 08SC
Field: Spraberry (Trend Area)
Martin County, TX
API Number: 42-317-40597

Dear Ms. Johns,

Please find the attached surveys performed on the above referenced well by VON Directional Services, LLC. Other information required by your office is as follows:

Name of surveyor: Chuck Ortego

Original Hole:

Surveyed depths: 9028'–17,196'MD
Job #170009 - Date performed: 2/4/17–2/11/17

Job #170033 - Date performed: 3/23/17-4/1/17
Type of Survey: Directional Survey – EVO

A certified plat on which the bottom hole location is oriented both to the surface location and 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.

Sincerely,

C Ortego

Chuck Ortego
MWD Manager

SURVEY DATA CERTIFICATION

DIRECTIONAL SERVICES, LLC.

Job #:	170009 & 170033
Client:	QEP Resources
County & State:	Martin County, TX.
Well:	University 7-2730S 08SC
API No:	42-317-40597
Proposed Direction:	172.53°

TIE-IN DATA

MD	TVD	INC	AZM	N/-S	E/-W	DATA SOURCE
8,971.10'	8,929.79'	.68°	193.26°	-258.'	-665.90	Gyro
				Data Source Company:		GyroData

SURVEY DATA

First Survey Date	First Survey Depth	INC	AZM
4-Feb-17	9,028 ft	.74°	210.44°

Last Survey Date	Last Survey Depth	INC	AZM
1-Apr-17	17,133 ft	89.66°	167.17°

Survey Instrument Type
EVO-TOOL

Projected TD Survey Date	Projected TD Survey Depth	INC	AZM
1-Apr-17	17,196 ft	89.66°	167.17°

CORRECTION INFORMATION

Magnetic Declination Used	6.33	degrees
Grid Convergence Used	2.55	degrees
Total Correction	8.89	degrees

Corrected to True/Grid North
Grid North

TO THE BEST OF MY KNOWLEDGE, I CERTIFY THIS SURVEY DATA TO BE TRUE AND CORRECT.

C Ortego

Signature

Chuck Ortego

Printed Name

April 4, 2017

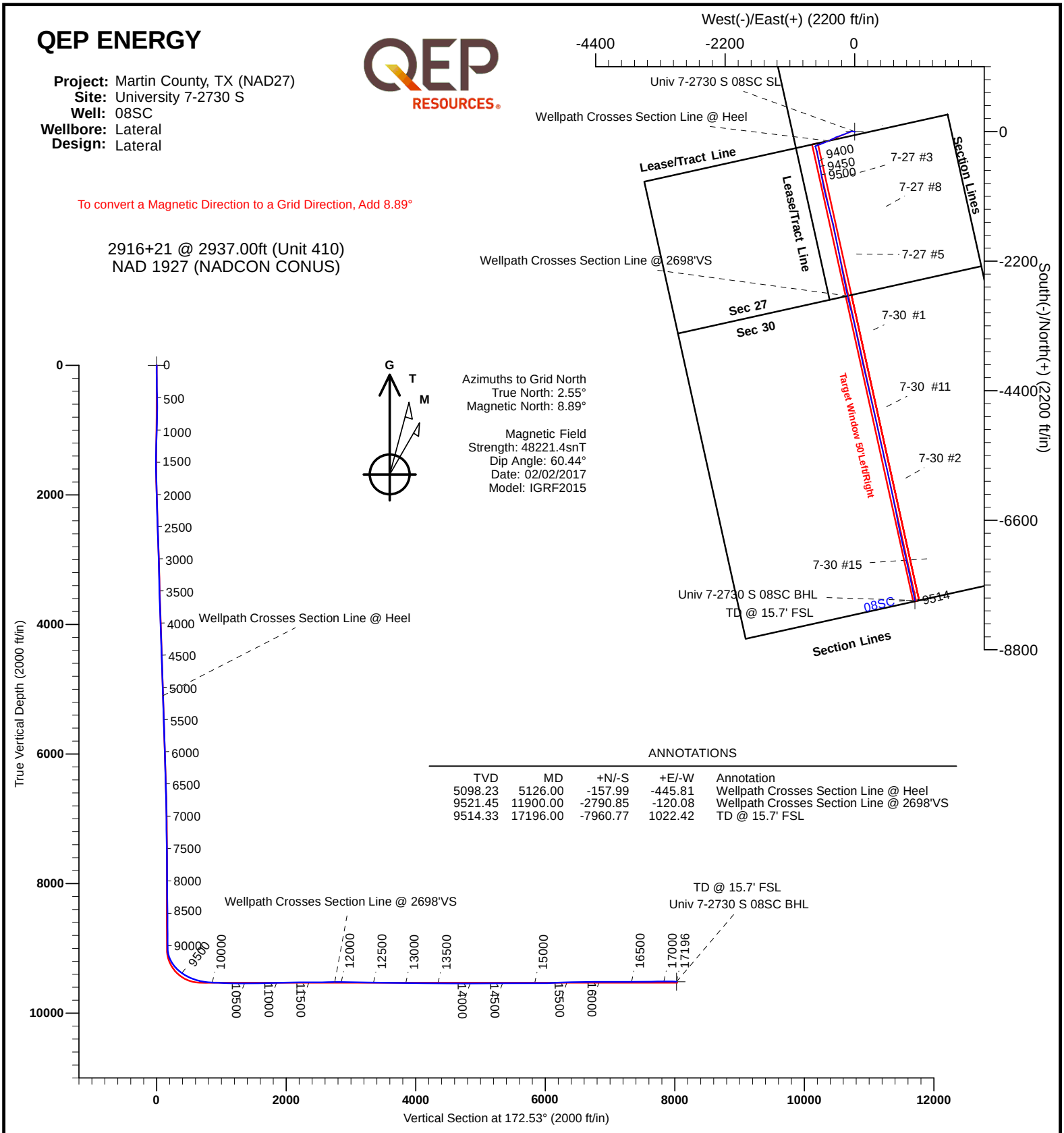
Date

QEP ENERGY

Project: Martin County, TX (NAD27)
Site: University 7-2730 S
Well: 08SC
Wellbore: Lateral
Design: Lateral

To convert a Magnetic Direction to a Grid Direction, Add 8.89°

2916+21 @ 2937.00ft (Unit 410)
NAD 1927 (NADCON CONUS)



ANNOTATIONS

TVD	MD	+N/-S	+E/-W	Annotation
5098.23	5126.00	-157.99	-445.81	Wellpath Crosses Section Line @ Heel
9521.45	11900.00	-2790.85	-120.08	Wellpath Crosses Section Line @ 2698'VS
9514.33	17196.00	-7960.77	1022.42	TD @ 15.7' FSL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Univ 7-2730 S 08SC SL	0.00	0.00	0.00	296503.39	556594.03	Point
Univ 7-2730 S 08SC BHL	9514.33	-7960.77	1022.42	288542.62	557616.45	Point

Design: Lateral (08SC/Lateral)
Created By: Mekka Williams
eSomina Well Design
mekka@esominawelldesign.com
9:32, April 02 2017

VON DIRECTIONAL
12074 FM 3083 Conroe, Texas 77301
936-756-2400

Job Number: 170009	**State/Country: TX/ USA**
Company: QEP	**Declination:**
Lease/Well: University 7-2730 S 08SC	**Grid: 8.89**
Location: Martin Co.	**File name: C:\USERS\VON\DESKTOP\UNIVER~4\SVY&MDB\17000**
Rig Name: Unit 410	**Date/Time: 01-Apr-17 / 11:14**
RKB: 2937'	**Curve Name: University 7-2730 S 08SC**
G.L. or M.S.L.: 2916'	

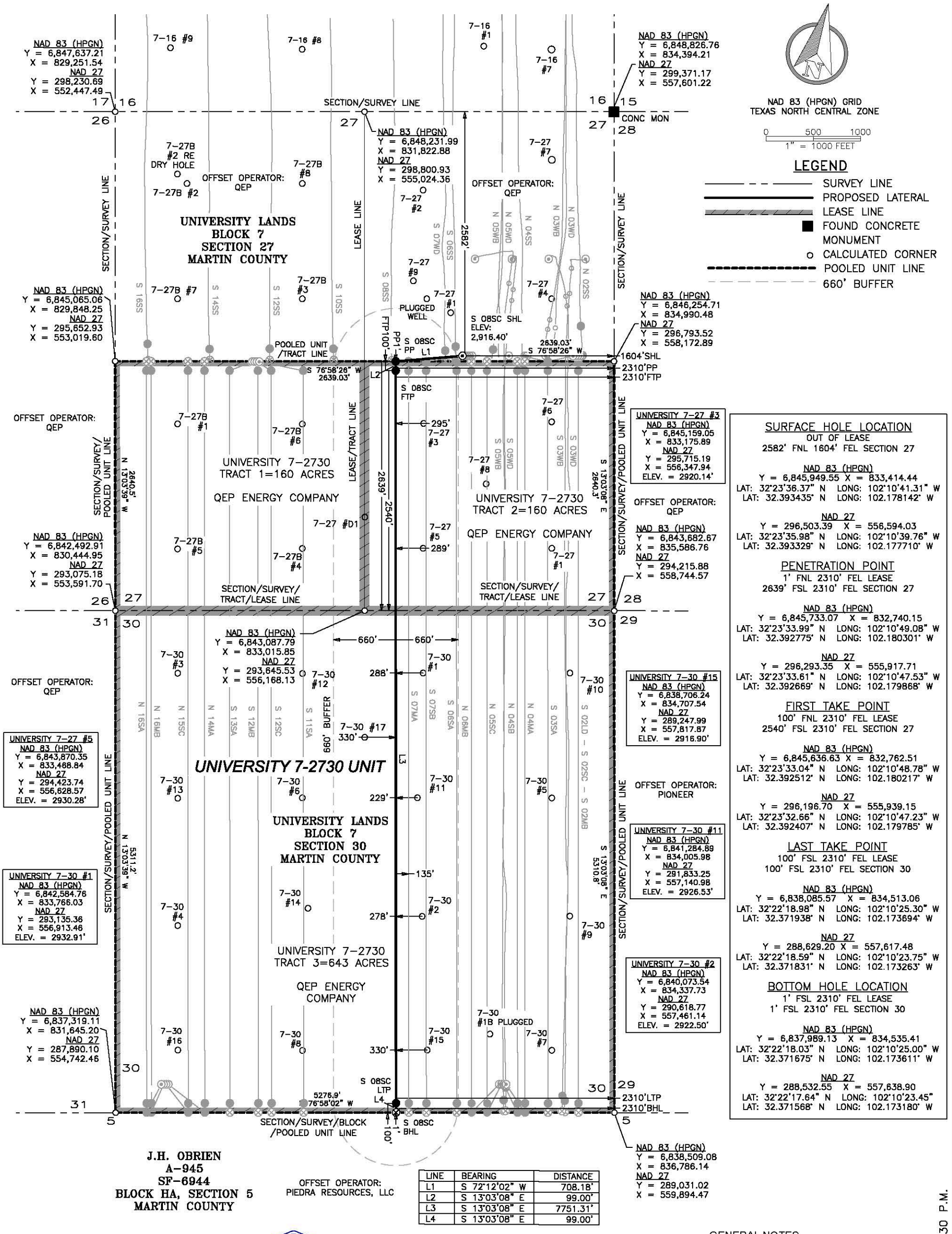
VON Directional

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 172.53
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	*Incl Angle Deg*	*Drift Direction Deg*	*True Vertical Depth*	*Subsea TVD FT*	*N-S FT*	*E-W FT*	*Vertical Section FT*	*C L O S U R E Distance FT*	*Direction Deg*	*Dogleg Severity Deg/100*
Gyro Tie In										
8971.10	.68	193.26	8929.79	-8929.79	-258.00	-665.90	169.24	714.13	248.82	.00
9028.00	.74	210.44	8986.69	-8986.69	-258.65	-666.16	169.84	714.61	248.78	.39
9059.00	3.01	172.71	9017.67	-9017.67	-259.63	-666.16	170.82	714.97	248.71	7.96
9091.00	7.28	158.56	9049.53	-9049.53	-262.35	-665.31	173.63	715.17	248.48	13.82
9122.00	11.59	160.34	9080.11	-9080.11	-267.11	-663.55	178.58	715.29	248.07	13.93
9154.00	16.47	159.97	9111.14	-9111.14	-274.40	-660.91	186.15	715.61	247.45	15.25
9185.00	21.34	161.14	9140.46	-9140.46	-283.88	-657.58	195.98	716.24	246.65	15.76
9217.00	25.06	162.33	9169.87	-9169.87	-295.85	-653.64	208.36	717.47	245.65	11.72
9248.00	28.85	162.54	9197.50	-9197.50	-309.24	-649.40	222.19	719.27	244.54	12.23
9280.00	32.59	163.71	9225.00	-9225.00	-324.88	-644.67	238.32	721.90	243.25	11.84
9312.00	36.12	165.63	9251.42	-9251.42	-342.30	-639.91	256.20	725.71	241.86	11.54
9343.00	39.39	167.53	9275.92	-9275.92	-360.76	-635.51	275.08	730.77	240.42	11.19
9375.00	43.12	169.20	9299.98	-9299.98	-381.42	-631.27	296.12	737.55	238.86	12.15
9406.00	45.90	169.60	9322.08	-9322.08	-402.78	-627.27	317.82	745.46	237.29	9.01
9438.00	49.18	169.56	9343.68	-9343.68	-426.00	-623.00	341.39	754.73	235.64	10.25
9469.00	52.16	169.25	9363.33	-9363.33	-449.57	-618.59	365.33	764.70	233.99	9.64
9501.00	54.57	168.83	9382.42	-9382.42	-474.77	-613.71	390.96	775.92	232.27	7.60
9532.00	57.12	167.86	9399.82	-9399.82	-499.90	-608.53	416.54	787.53	230.60	8.62
9564.00	59.78	168.41	9416.56	-9416.56	-526.58	-602.92	443.73	800.50	228.87	8.44
9595.00	62.13	169.06	9431.61	-9431.61	-553.16	-597.63	470.77	814.34	227.21	7.80
9627.00	64.51	169.07	9445.98	-9445.98	-581.23	-592.21	499.31	829.78	225.54	7.44
9658.00	66.77	168.97	9458.77	-9458.77	-608.95	-586.83	527.49	845.69	223.94	7.30
9690.00	69.23	170.02	9470.75	-9470.75	-638.12	-581.42	557.12	863.28	222.34	8.27
9721.00	71.69	171.03	9481.12	-9481.12	-666.93	-576.61	586.31	881.64	220.85	8.51

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	C L O S U R E Direction Deg	Dogleg Severity Deg/100
9753.00	73.49	171.67	9490.70	-9490.70	-697.12	-572.02	616.84	901.77	219.37	5.94
9784.00	75.32	171.57	9499.03	-9499.03	-726.66	-567.67	646.69	922.11	218.00	5.91
9816.00	77.83	171.11	9506.46	-9506.46	-757.43	-562.98	677.81	943.74	216.62	7.97
9847.00	79.88	170.75	9512.45	-9512.45	-787.46	-558.19	708.21	965.23	215.33	6.71
9879.00	81.16	170.26	9517.72	-9517.72	-818.59	-552.98	739.75	987.87	214.04	4.28
9910.00	83.28	169.40	9521.92	-9521.92	-848.82	-547.56	770.43	1010.11	212.83	7.37
9942.00	85.52	168.85	9525.04	-9525.04	-880.09	-541.55	802.22	1033.36	211.61	7.21
10000.00	88.15	166.97	9528.24	-9528.24	-936.71	-529.42	859.93	1075.97	209.47	5.57
10095.00	87.67	166.16	9531.71	-9531.71	-1029.05	-507.36	954.36	1147.33	206.25	.99
10190.00	87.53	165.76	9535.68	-9535.68	-1121.13	-484.34	1048.65	1221.28	203.36	.45
10284.00	88.64	166.03	9538.83	-9538.83	-1212.24	-461.44	1141.97	1297.10	200.84	1.22
10378.00	89.01	164.92	9540.75	-9540.75	-1303.22	-437.87	1235.23	1374.81	198.57	1.24
10473.00	90.07	164.57	9541.52	-9541.52	-1394.87	-412.88	1329.35	1454.69	196.49	1.18
10567.00	90.56	165.27	9541.00	-9541.00	-1485.63	-388.42	1422.52	1535.57	194.65	.91
10662.00	90.81	166.17	9539.86	-9539.86	-1577.69	-364.99	1516.84	1619.36	193.03	.98
10756.00	91.37	168.53	9538.07	-9538.07	-1669.38	-344.41	1610.44	1704.54	191.66	2.58
10851.00	92.14	169.84	9535.17	-9535.17	-1762.65	-326.60	1705.23	1792.65	190.50	1.60
10945.00	91.71	169.31	9532.01	-9532.01	-1855.04	-309.60	1799.05	1880.70	189.48	.73
11040.00	90.67	167.85	9530.03	-9530.03	-1948.14	-290.79	1893.80	1969.72	188.49	1.89
11135.00	90.71	168.96	9528.89	-9528.89	-2041.19	-271.70	1988.54	2059.19	187.58	1.17
11229.00	90.33	167.44	9528.04	-9528.04	-2133.20	-252.48	2082.27	2148.09	186.75	1.67
11324.00	90.99	169.93	9526.94	-9526.94	-2226.34	-233.84	2177.04	2238.58	186.00	2.71
11418.00	90.94	170.67	9525.36	-9525.36	-2318.98	-218.00	2270.96	2329.20	185.37	.79
11513.00	90.18	169.04	9524.43	-9524.43	-2412.49	-201.27	2365.84	2420.87	184.77	1.89
11607.00	89.97	168.00	9524.31	-9524.31	-2504.60	-182.56	2459.61	2511.25	184.17	1.13
11702.00	90.16	167.15	9524.20	-9524.20	-2597.38	-162.12	2554.26	2602.43	183.57	.92
11796.00	90.56	167.42	9523.61	-9523.61	-2689.07	-141.44	2647.86	2692.79	183.01	.51
11891.00	91.73	168.71	9521.71	-9521.71	-2781.99	-121.79	2742.55	2784.66	182.51	1.83
11986.00	89.76	167.50	9520.48	-9520.48	-2874.94	-102.22	2837.25	2876.76	182.04	2.43
12080.00	87.91	165.97	9522.39	-9522.39	-2966.41	-80.65	2930.75	2967.50	181.56	2.55
12175.00	88.12	165.18	9525.68	-9525.68	-3058.36	-57.00	3024.99	3058.89	181.07	.86
12269.00	89.10	165.23	9527.96	-9527.96	-3149.21	-33.00	3118.19	3149.38	180.60	1.04
12364.00	89.92	167.93	9528.77	-9528.77	-3241.61	-10.96	3212.67	3241.62	180.19	2.97
12459.00	89.55	167.48	9529.21	-9529.21	-3334.42	9.27	3307.33	3334.44	179.84	.61
12553.00	90.08	168.43	9529.51	-9529.51	-3426.35	28.89	3401.03	3426.48	179.52	1.16
12648.00	88.92	167.00	9530.34	-9530.34	-3519.17	49.10	3495.69	3519.51	179.20	1.94
12742.00	89.52	167.60	9531.62	-9531.62	-3610.86	69.76	3589.29	3611.54	178.89	.90
12837.00	89.42	168.52	9532.50	-9532.50	-3703.80	89.41	3683.99	3704.88	178.62	.97
12931.00	88.02	167.07	9534.60	-9534.60	-3795.65	109.28	3777.64	3797.22	178.35	2.14
13026.00	90.42	169.59	9535.89	-9535.89	-3888.66	128.49	3872.36	3890.78	178.11	3.66
13120.00	88.62	166.19	9536.68	-9536.68	-3980.55	148.21	3966.04	3983.31	177.87	4.09
13215.00	90.42	168.26	9537.48	-9537.48	-4073.19	169.21	4060.62	4076.70	177.62	2.89
13309.00	88.93	165.42	9538.01	-9538.01	-4164.70	190.61	4154.14	4169.06	177.38	3.41
13404.00	90.48	168.29	9538.50	-9538.50	-4257.20	212.21	4248.66	4262.49	177.15	3.43
13498.00	89.39	166.12	9538.61	-9538.61	-4348.86	233.02	4342.25	4355.10	176.93	2.58

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Subsea TVD FT	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	C L O S U R E Direction Deg	Dogleg Severity Deg/100
13593.00	89.83	167.74	9539.25	-9539.25	-4441.39	254.51	4436.79	4448.68	176.72	1.77
13688.00	88.88	166.69	9540.32	-9540.32	-4534.03	275.53	4531.37	4542.39	176.52	1.49
13782.00	89.90	167.36	9541.32	-9541.32	-4625.62	296.63	4624.93	4635.13	176.33	1.30
13877.00	89.03	166.60	9542.21	-9542.21	-4718.18	318.03	4719.48	4728.88	176.14	1.22
13971.00	91.47	168.15	9541.80	-9541.80	-4809.89	338.58	4813.09	4821.79	175.97	3.08
14066.00	89.66	166.33	9540.86	-9540.86	-4902.53	359.56	4907.67	4915.70	175.81	2.70
14160.00	91.06	167.81	9540.27	-9540.27	-4994.14	380.59	5001.24	5008.62	175.64	2.17
14255.00	88.67	166.98	9540.50	-9540.50	-5086.85	401.32	5095.85	5102.65	175.49	2.66
14349.00	89.94	167.90	9541.64	-9541.64	-5178.59	421.76	5189.47	5195.73	175.34	1.67
14444.00	92.04	168.69	9540.00	-9540.00	-5271.59	441.03	5284.19	5290.01	175.22	2.36
14538.00	90.92	167.28	9537.57	-9537.57	-5363.50	460.59	5377.86	5383.24	175.09	1.92
14633.00	89.70	166.70	9537.05	-9537.05	-5456.06	481.97	5472.41	5477.30	174.95	1.42
14728.00	91.04	167.83	9536.44	-9536.44	-5548.71	502.91	5567.00	5571.46	174.82	1.85
14822.00	89.18	165.75	9536.26	-9536.26	-5640.22	524.39	5660.52	5664.54	174.69	2.97
14917.00	89.79	167.19	9537.11	-9537.11	-5732.57	546.62	5754.99	5758.58	174.55	1.65
15011.00	89.07	166.77	9538.05	-9538.05	-5824.15	567.79	5848.54	5851.76	174.43	.89
15106.00	90.05	168.22	9538.78	-9538.78	-5916.89	588.36	5943.17	5946.07	174.32	1.84
15200.00	92.48	168.60	9536.70	-9536.70	-6008.95	607.24	6036.89	6039.55	174.23	2.62
15295.00	92.27	168.52	9532.77	-9532.77	-6101.98	626.07	6131.58	6134.01	174.14	.24
15389.00	92.20	168.63	9529.10	-9529.10	-6194.05	644.67	6225.29	6227.50	174.06	.14
15484.00	92.30	168.19	9525.37	-9525.37	-6287.04	663.74	6319.97	6321.98	173.97	.47
15579.00	90.08	168.23	9523.40	-9523.40	-6380.01	683.15	6414.67	6416.48	173.89	2.34
15673.00	90.70	168.77	9522.76	-9522.76	-6472.12	701.89	6508.44	6510.06	173.81	.87
15768.00	92.01	168.19	9520.51	-9520.51	-6565.17	720.86	6603.17	6604.63	173.73	1.51
15862.00	90.97	168.51	9518.07	-9518.07	-6657.21	739.83	6696.89	6698.19	173.66	1.16
15957.00	89.76	168.10	9517.46	-9517.46	-6750.23	759.09	6791.63	6792.78	173.58	1.34
16052.00	90.42	167.94	9517.31	-9517.31	-6843.16	778.81	6886.33	6887.33	173.51	.71
16146.00	90.71	168.00	9516.39	-9516.39	-6935.09	798.40	6980.03	6980.90	173.43	.32
16241.00	89.37	167.50	9516.32	-9516.32	-7027.93	818.55	7074.70	7075.43	173.36	1.51
16335.00	90.56	168.43	9516.38	-9516.38	-7119.86	838.15	7168.40	7169.02	173.29	1.61
16430.00	89.27	166.93	9516.52	-9516.52	-7212.66	858.42	7263.05	7263.57	173.21	2.08
16524.00	89.25	166.36	9517.73	-9517.73	-7304.11	880.13	7356.55	7356.95	173.13	.61
16619.00	90.21	166.86	9518.18	-9518.18	-7396.53	902.13	7451.04	7451.34	173.05	1.14
16713.00	91.46	167.39	9516.81	-9516.81	-7488.15	923.07	7544.61	7544.83	172.97	1.44
16808.00	90.60	167.77	9515.10	-9515.10	-7580.91	943.50	7639.24	7639.40	172.91	.99
16903.00	91.26	169.18	9513.56	-9513.56	-7673.98	962.48	7733.98	7734.11	172.85	1.64
16997.00	89.58	168.99	9512.87	-9512.87	-7766.28	980.28	7827.81	7827.90	172.81	1.80
17092.00	89.48	167.62	9513.65	-9513.65	-7859.30	999.53	7922.55	7922.60	172.75	1.45
17133.00	89.66	167.17	9513.96	-9513.96	-7899.31	1008.48	7963.38	7963.43	172.72	1.18
Proj. TD										
17196.00	89.66	167.17	9514.33	-9514.33	-7960.74	1022.47	8026.10	8026.13	172.68	.00



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT SURFACE LOCATION AS STAKED ON THE GROUND.

JOHN E. KOWALIK
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF TEXAS NO. 6408

STATE OF TEXAS · REGISTERED · JOHN E. KOWALIK · 6408 · PROFESSIONAL LAND SURVEYOR

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 83 (HPGN) "TEXAS NORTH CENTRAL ZONE", AND BASED ON "GLASS" NGS MONUMENT (Y = 6,817,164.36, X = 834,131.39)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 (HPGN) AS SHOWN
4. AREA, DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

PLOT DATE: 11/07/16 2:30 P.M.

PLAT OF:

A PROPOSED WELL LOCATION FOR:

QEP ENERGY COMPANY

UNIVERSITY 7-2730 UNIT

UNIVERSITY 7-2730 S 08SC

SITUATED IN THE UNIVERSITY LANDS, BLOCK 7, SECTIONS 27 AND 30, AND BEING APPROXIMATELY 21.6 MILES NORTHEAST OF ANDREWS IN MARTIN COUNTY, TEXAS.

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

QEP ENERGY™

DATE:	10-26-2016
DRAWN BY:	GG
CHECKED BY:	JK
FIELD CREW:	RE
PROJECT NO:	2016090810
SCALE:	1" = 1000'
SHEET:	1 OF 1
REVISION:	2