



Job Number: SVMO-150139
 Company: Mewbourne Oil & Gas
 Lease/Well: University B21-7 B301CN
 Location: Winkler County, TX
 Rig Name: Patterson #187
 RKB: 27'
 G.L. or M.S.L.: GL

State/Country: Texas/USA
 Declination: 8.49°
 Grid: East To Grid North
 File name: Y:\WINSER-1\2015SU-1\MEWBOU-1\MO\UNIVER-1\B217\B301CN.SVY
 Date/Time: 13-Feb-15 / 12:22
 Curve Name: Surface - 10258' M.D. (SRG)

MS Survey

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 163.72
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S		E-W		CLOSURE		Dogleg Severity Deg/100
				FT	FT	FT	FT	Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.02	167.07	100.00	-.02	.00	.02	.02	.02	167.03	.02
200.00	.15	135.80	200.00	-.13	.10	.15	.16	.16	142.23	.13
300.00	.19	168.88	300.00	-.38	.22	.43	.44	.44	149.96	.10
400.00	.20	156.39	400.00	-.71	.32	.77	.78	.78	155.37	.04
500.00	.18	145.52	500.00	-1.00	.48	1.09	1.11	1.11	154.14	.04
600.00	.17	186.32	600.00	-1.27	.56	1.38	1.39	1.39	156.43	.12
700.00	.23	191.44	700.00	-1.62	.50	1.69	1.69	1.69	162.84	.06
800.00	.30	195.10	800.00	-2.07	.39	2.09	2.10	2.10	169.28	.07
900.00	.29	180.63	899.99	-2.57	.32	2.56	2.59	2.59	172.90	.07

- Obtained from REC website -

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1000.00	.31	191.60	999.99	-3.09	.26	3.04	3.10	175.13	.06
1100.00	.37	196.86	1099.99	-3.66	.12	3.55	3.67	178.20	.07
1200.00	.51	165.80	1199.99	-4.41	.13	4.27	4.41	178.30	.27
1300.00	.47	142.17	1299.99	-5.16	.49	5.09	5.18	174.56	.20
1400.00	.66	145.96	1399.98	-5.96	1.07	6.02	6.06	169.87	.19
1500.00	.69	135.36	1499.97	-6.87	1.81	7.10	7.10	165.23	.13
1600.00	.64	121.04	1599.97	-7.58	2.71	8.04	8.05	160.32	.17
1700.00	.76	106.90	1699.96	-8.06	3.83	8.81	8.93	154.62	.21
1800.00	.76	78.49	1799.95	-8.13	5.11	9.23	9.60	147.83	.37
1900.00	.80	82.14	1899.94	-7.90	6.45	9.39	10.20	140.75	.06
2000.00	.75	67.45	1999.93	-7.55	7.75	9.42	10.82	134.26	.20
2100.00	.80	64.59	2099.92	-7.00	8.98	9.24	11.39	127.93	.06
2200.00	1.21	49.31	2199.91	-6.01	10.41	8.69	12.02	120.00	.49
2300.00	1.72	41.12	2299.88	-4.19	12.20	7.45	12.90	108.97	.55
2400.00	1.57	38.44	2399.83	-1.99	14.04	5.85	14.18	98.07	.17
2500.00	2.05	43.41	2499.78	.38	16.12	4.15	16.13	88.64	.50
2600.00	2.17	41.84	2599.72	3.09	18.61	2.25	18.87	80.57	.13
2700.00	1.98	36.54	2699.65	5.89	20.90	.21	21.72	74.26	.27
2800.00	1.00	349.60	2799.62	8.14	21.78	-1.71	23.25	69.51	1.49
2900.00	.49	297.75	2899.61	9.19	21.24	-2.87	23.14	66.59	.80
3000.00	.34	87.53	2999.61	9.41	21.16	-3.10	23.15	66.03	.80
3100.00	.89	45.08	3099.60	9.97	22.00	-3.40	24.16	65.63	.68
3200.00	.85	8.05	3199.59	11.25	22.66	-4.45	25.30	63.59	.55
3300.00	.65	351.39	3299.58	12.55	22.68	-5.69	25.92	61.05	.29
3400.00	.57	259.49	3399.58	13.02	22.10	-6.30	25.65	59.51	.88
3500.00	.56	207.54	3499.58	12.49	21.39	-6.00	24.77	59.71	.49
3600.00	.41	105.62	3599.57	11.96	21.51	-5.45	24.61	60.92	.76
3700.00	.58	25.31	3699.57	12.32	22.07	-5.64	25.27	60.82	.65
3800.00	.38	287.50	3799.57	12.88	21.97	-6.21	25.46	59.61	.74

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3900.00	.44	185.92	3899.57	12.60	21.61	-6.03	25.02	59.76	.64
4000.00	.31	117.56	3999.57	12.09	21.81	-5.49	24.94	61.00	.43
4100.00	.25	25.37	4099.57	12.16	22.14	-5.47	25.27	61.22	.41
4200.00	.31	274.33	4199.56	12.38	21.97	-5.73	25.22	60.60	.46
4300.00	.42	231.39	4299.56	12.17	21.41	-5.68	24.63	60.38	.29
4400.00	.41	101.32	4399.56	11.87	21.48	-5.38	24.54	61.06	.75
4500.00	.34	78.56	4499.56	11.86	22.12	-5.19	25.10	61.80	.16
4600.00	.07	293.24	4599.56	11.94	22.35	-5.20	25.34	61.88	.40
4700.00	.15	126.54	4699.56	11.89	22.40	-5.13	25.36	62.04	.22
4800.00	.21	75.05	4799.56	11.86	22.68	-5.03	25.60	62.40	.17
4900.00	.16	.47	4899.56	12.05	22.86	-5.16	25.84	62.21	.23
5000.00	.11	299.44	4999.56	12.23	22.78	-5.36	25.86	61.76	.14
5100.00	.20	204.60	5099.56	12.12	22.62	-5.29	25.67	61.82	.24
5200.00	.14	116.55	5199.56	11.91	22.66	-5.08	25.60	62.28	.24
5300.00	.12	352.93	5299.56	11.96	22.76	-5.10	25.71	62.28	.23
5400.00	.12	255.26	5399.56	12.04	22.64	-5.21	25.64	62.01	.18
5500.00	.16	169.19	5499.56	11.87	22.57	-5.07	25.50	62.25	.19
5600.00	.14	70.95	5599.56	11.77	22.71	-4.94	25.58	62.59	.23
5700.00	.17	36.26	5699.56	11.93	22.91	-5.03	25.83	62.49	.10
5800.00	.12	325.21	5799.56	12.14	22.94	-5.22	25.95	62.11	.17
5900.00	.11	251.22	5899.56	12.20	22.79	-5.32	25.85	61.85	.14
6000.00	.13	163.24	5999.56	12.06	22.73	-5.20	25.73	62.06	.17
6100.00	.10	79.26	6099.56	11.96	22.85	-5.08	25.79	62.37	.16
6200.00	.15	24.22	6199.56	12.10	22.99	-5.17	25.98	62.24	.12
6300.00	.21	328.49	6299.56	12.37	22.95	-5.45	26.07	61.66	.18
6400.00	.16	283.45	6399.55	12.56	22.72	-5.69	25.96	61.05	.15
6500.00	.16	204.02	6499.55	12.47	22.52	-5.65	25.74	61.03	.20
6600.00	.11	112.23	6599.55	12.30	22.56	-5.49	25.69	61.39	.20
6700.00	.21	18.47	6699.55	12.44	22.70	-5.58	25.89	61.28	.24

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical			C L O S U R E		Dogleg Severity Deg/100
				N-S FT	E-W FT	Section FT	Distance FT	Direction Deg	
6800.00	.22	317.96	6799.55	12.76	22.63	-5.90	25.98	60.59	.22
6900.00	.31	260.48	6899.55	12.86	22.24	-6.11	25.69	59.97	.27
7000.00	.27	228.49	6999.55	12.66	21.79	-6.04	25.20	59.86	.16
7100.00	.27	239.35	7099.55	12.38	21.41	-5.88	24.73	59.97	.05
7200.00	.28	260.27	7199.55	12.22	20.97	-5.85	24.27	59.77	.10
7300.00	.41	277.51	7299.55	12.22	20.37	-6.02	23.76	59.04	.16
7400.00	.71	267.69	7399.54	12.24	19.40	-6.31	22.94	57.74	.31
7500.00	.76	262.17	7499.53	12.13	18.13	-6.56	21.81	56.21	.09
7600.00	.57	243.45	7599.53	11.82	17.02	-6.57	20.72	55.23	.29
7700.00	.38	242.24	7699.52	11.44	16.28	-6.42	19.90	54.91	.19
7800.00	.48	233.48	7799.52	11.04	15.65	-6.21	19.15	54.82	.12
7900.00	.67	238.25	7899.52	10.48	14.82	-5.90	18.15	54.74	.20
8000.00	.78	222.97	7999.51	9.67	13.86	-5.40	16.90	55.09	.22
8100.00	.61	216.10	8099.50	8.75	13.08	-4.73	15.74	56.24	.19
8200.00	.15	160.67	8199.50	8.19	12.81	-4.27	15.21	57.41	.54
8300.00	.26	298.64	8299.50	8.18	12.66	-4.30	15.07	57.13	.38
8400.00	.29	205.69	8399.50	8.06	12.35	-4.27	14.74	56.87	.40
8500.00	.06	351.80	8499.50	7.88	12.23	-4.14	14.55	57.20	.34
8600.00	.45	274.45	8599.50	7.96	11.83	-4.33	14.26	56.05	.44
8700.00	.22	328.99	8699.49	8.16	11.34	-4.65	13.97	54.27	.37
8800.00	.94	321.07	8799.49	8.96	10.73	-5.60	13.98	50.12	.72
8900.00	1.69	292.64	8899.46	10.17	8.85	-7.28	13.48	41.04	.97
9000.00	2.02	269.28	8999.41	10.71	5.73	-8.68	12.15	28.13	.82
9100.00	2.37	259.67	9099.34	10.32	1.93	-9.36	10.50	10.59	.51
9200.00	2.78	252.01	9199.24	9.20	-2.41	-9.51	9.51	345.32	.53
9300.00	2.74	252.96	9299.12	7.75	-7.00	-9.40	10.45	317.90	.06
9400.00	2.94	257.10	9399.00	6.48	-11.79	-9.52	13.45	298.79	.29
9500.00	2.88	256.49	9498.87	5.32	-16.73	-9.79	17.55	287.63	.07
9600.00	2.84	285.00	9598.75	5.37	-21.57	-11.20	22.22	283.99	1.41

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
9700.00	3.40	289.13	9698.60	6.99	-26.76	-14.21	27.66	284.63	.60
9800.00	2.87	289.05	9798.45	8.77	-31.93	-17.37	33.11	285.37	.53
9900.00	2.60	260.15	9898.34	9.20	-36.53	-19.07	37.67	284.14	1.39
10000.00	2.25	237.41	9998.25	7.76	-40.42	-18.78	41.16	280.87	1.02
10100.00	3.56	255.18	10098.13	5.91	-45.07	-18.31	45.46	277.47	1.57
10200.00	4.24	263.96	10197.89	4.72	-51.75	-19.04	51.97	275.22	.90
Last Survey Depth Recorded									
10258.00	4.02	276.24	10255.75	4.72	-55.91	-20.20	56.10	274.82	1.57

Block 21, University Lands Survey Winkle

**Multi-Shot Bottom Hole Loc. 56.10' @ 274.82° Azm
of Surface Location.**
 MD 10258.00'
 TVD 10255.75'
 North 4.72'
 West 55.91'

1
 GRID N: 769246.639
 GRID E: 1083786.874

MEWBOURNE
 UNIVERSITY
 B21 7

5
 GRID N: 770728.342
 GRID E: 1088856.473

12 7#B301DM 1980' #B301CN
 DE#790803 EL. 2832

MEWBOURNE
 OIL COMPANY
 UNIVERSITY B21 7 #B301CN
 Surface Hole Location (SHL)

GRID N: 769624.518
 GRID E: 1085739.227
 NAD'83 Lat/Long
 Lat: +31.749673°
 Long: -103.275267°

641.4 ACRE LEASE

S 16°16'49" E 4902.72'

S 16°16'49" E 5287.77'

N 16°17'10" W 5287.63'

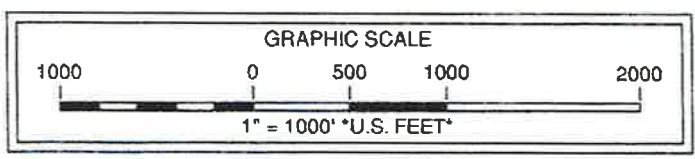
Bottom Hole Location (BHL)
 GRID N: 764918.393
 GRID E: 1087113.645
 NAD'83 Lat/Long
 Lat: +31.736840°
 Long: -103.270447°

University B21 7
 N 73°42'23" E 5282.23'

GRID N: 765652.891
 GRID E: 1090339.309

Penetration
 Point
 FTP

LTP
 Terminus



Driving Directions to Location:
 From the intersection of Hwy 115 & Hwy 1232 in Wink, Texas;
 Drive Northwest on Hwy 1232, 1.5 miles to CR 201;
 Turn left (West) on to CR 201, drive 5.2 miles to a lease road at Lat: 31°44'13.23", Long: 103°16'02.54";
 Turn right (North) on to lease road, drive 0.9 miles to Lat: 31°44'58.63", Long: 103°16'19.48";
 Location is left (West) 1000 feet.

Note: Well is located 7.0 miles West of Wink, Texas.
 Note: Survey Reconstruction filed in the Office of Pennell & Marlowe Land Surveyors, Inc.
 Note: Bearings and distances are based on The Texas Coordinate System of 1927, Central Zone.
 Note: Coordinates shown herein are on The Texas Coordinate System of 1927, Central Zone.

Stryker Directional
University B21 7 B301CN

Company: Mewbourne Oil Company .
Project: Winkler County, TX
Site: Section 7 Blk 21 University B21 7 #B301CN
Well: University B21 7 B301CN
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well University B21 7 B301CN
TVD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
MD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Winkler County, TX		
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	Section 7 Blk 21 University B21 7 #B301CN		
Site Position:		Northing:	769,624.52 usft
From:	Map	Easting:	1,085,739.23 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	31° 44' 58.359 N
		Longitude:	103° 16' 29.347 W
		Grid Convergence:	-1.52 °

Well	University B21 7 B301CN			
Well Position	+N/-S	0.0 usft	Northing:	769,624.52 usft
	+E/-W	0.0 usft	Easting:	1,085,739.23 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft
			Latitude:	31° 44' 58.359 N
			Longitude:	103° 16' 29.347 W
			Ground Level:	2,829.0usft

Wellbore	Original Hole					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	IGRF2015	1/14/2015	7.05	59.70	47,939	

Design	Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	163.72	

- Obtained from REC website -

Stryker Directional

University B21 7 B301CN

Company: Mewbourne Oil Company .
Project: Winkler County, TX
Site: Section 7 Blk 21 University B21 7 #B301CN
Well: University B21 7 B301CN
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well University B21 7 B301CN
TVD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
MD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey Program		Date 3/6/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	10,258.0	MS Gyro Survey #1 (Original Hole)	GyroFlex		
10,291.0	16,445.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination	

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
10,258.0	4.02	276.24	10,255.7	4.7	-55.9	-20.2	56.1	274.82	0.00
10,291.0	3.80	280.00	10,288.7	5.0	-58.1	-21.1	58.3	274.95	1.02
10,387.0	3.50	285.10	10,384.5	6.4	-64.1	-24.1	64.4	275.66	0.46
10,482.0	3.30	289.20	10,479.3	8.0	-69.5	-27.2	69.9	276.57	0.33
10,577.0	3.10	293.10	10,574.2	9.9	-74.4	-30.4	75.1	277.59	0.31
10,672.0	3.40	294.50	10,669.0	12.1	-79.3	-33.8	80.3	278.66	0.33
10,767.0	3.40	302.00	10,763.8	14.7	-84.3	-37.8	85.6	279.92	0.47
10,862.0	2.50	304.80	10,858.7	17.4	-88.4	-41.5	90.1	281.15	0.96
10,957.0	1.90	323.40	10,953.6	19.9	-91.0	-44.6	93.2	282.31	0.97
11,052.0	1.40	333.20	11,048.6	22.2	-92.5	-47.2	95.1	283.48	0.60
11,147.0	1.70	144.90	11,143.6	22.1	-92.2	-47.0	94.8	283.45	3.25
11,178.0	5.60	151.70	11,174.5	20.3	-91.2	-45.1	93.5	282.57	12.64
11,208.0	8.70	153.60	11,204.3	17.0	-89.5	-41.4	91.1	280.77	10.36
11,239.0	11.30	155.80	11,234.8	12.2	-87.2	-36.1	88.1	277.93	8.48
11,271.0	14.40	161.40	11,266.0	5.5	-84.7	-29.0	84.9	273.73	10.43
11,302.0	17.30	163.90	11,295.8	-2.6	-82.2	-20.6	82.2	268.21	9.61
11,334.0	20.20	163.70	11,326.1	-12.4	-79.3	-10.3	80.3	261.08	9.06
11,366.0	23.60	163.20	11,355.8	-23.9	-75.9	1.6	79.6	252.54	10.64
11,397.0	26.80	164.00	11,383.9	-36.5	-72.2	14.8	80.9	243.15	10.38
11,429.0	29.80	165.30	11,412.0	-51.2	-68.2	30.0	85.2	233.11	9.57
11,460.0	32.40	164.50	11,438.6	-66.6	-64.0	46.0	92.4	223.84	8.49

Stryker Directional

University B21 7 B301CN

Company: Mewbourne Oil Company .
Project: Winkler County, TX
Site: Section 7 Blk 21 University B21 7 #B301CN
Well: University B21 7 B301CN
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well University B21 7 B301CN
TVD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
MD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
11,492.0	34.70	162.80	11,465.2	-83.6	-59.0	63.7	102.3	215.22	7.76
11,523.0	36.70	161.50	11,490.4	-100.8	-53.5	81.8	114.1	207.94	6.90
11,555.0	39.80	160.90	11,515.5	-119.6	-47.1	101.6	128.5	201.49	9.76
11,586.0	42.50	160.50	11,538.9	-138.8	-40.3	121.9	144.5	196.20	8.75
11,618.0	44.60	160.10	11,562.1	-159.6	-32.9	143.9	162.9	191.65	6.62
11,649.0	47.50	160.20	11,583.6	-180.6	-25.3	166.2	182.3	187.98	9.36
11,681.0	49.90	160.40	11,604.7	-203.2	-17.2	190.2	203.9	184.84	7.51
11,713.0	51.80	160.50	11,624.9	-226.6	-8.9	215.0	226.7	182.25	5.94
11,744.0	54.20	160.10	11,643.6	-249.9	-0.6	239.7	249.9	180.13	7.81
11,776.0	56.60	159.90	11,661.7	-274.6	8.4	266.0	274.8	178.24	7.52
11,807.0	58.20	160.00	11,678.4	-299.2	17.4	292.0	299.7	176.67	5.17
11,839.0	59.50	160.20	11,695.0	-324.9	26.7	319.4	326.0	175.30	4.10
11,871.0	62.00	159.30	11,710.6	-351.1	36.4	347.2	353.0	174.08	8.19
11,902.0	64.00	159.20	11,724.7	-376.9	46.2	374.8	379.7	173.02	6.46
11,934.0	65.10	159.70	11,738.4	-404.0	56.3	403.6	407.9	172.06	3.72
11,965.0	67.30	159.60	11,751.0	-430.6	66.2	431.9	435.6	171.26	7.10
11,997.0	70.40	159.40	11,762.5	-458.5	76.6	461.6	464.9	170.51	9.71
12,029.0	72.40	158.80	11,772.7	-486.9	87.4	491.8	494.6	169.82	6.50
12,060.0	75.10	158.30	11,781.4	-514.6	98.3	521.5	523.9	169.18	8.85
12,092.0	75.30	157.90	11,789.6	-543.3	109.9	552.3	554.3	168.57	1.36
12,125.0	74.10	157.90	11,798.3	-572.8	121.8	583.9	585.6	167.99	3.64
12,156.0	75.60	165.00	11,806.4	-601.1	131.3	613.8	615.3	167.67	22.63
12,188.0	78.80	165.00	11,813.5	-631.2	139.4	645.0	646.5	167.54	10.00
12,219.0	83.50	164.30	11,818.2	-660.8	147.5	675.6	677.0	167.41	15.32
12,251.0	87.30	164.80	11,820.8	-691.5	156.0	707.5	708.9	167.29	11.98
12,282.0	90.40	165.00	11,821.4	-721.4	164.1	738.5	739.9	167.19	10.02
12,314.0	90.40	164.30	11,821.2	-752.3	172.6	770.5	771.8	167.08	2.19

Stryker Directional

University B21 7 B301CN

Company: Mewbourne Oil Company .
Project: Winkler County, TX
Site: Section 7 Blk 21 University B21 7 #B301CN
Well: University B21 7 B301CN
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well University B21 7 B301CN
TVD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
MD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
12,377.0	92.80	163.90	11,819.4	-812.8	189.8	833.5	834.7	166.86	3.86
12,472.0	93.30	164.10	11,814.4	-904.0	216.0	928.3	929.5	166.56	0.57
12,567.0	91.80	164.30	11,810.2	-995.4	241.8	1,023.2	1,024.3	166.35	1.59
12,661.0	90.80	164.10	11,808.0	-1,085.8	267.4	1,117.2	1,118.2	166.16	1.08
12,756.0	90.00	162.70	11,807.4	-1,176.8	294.5	1,212.2	1,213.1	165.95	1.70
12,851.0	91.10	161.20	11,806.4	-1,267.1	324.0	1,307.1	1,307.9	165.66	1.96
12,946.0	91.40	161.20	11,804.4	-1,357.0	354.6	1,402.0	1,402.6	165.36	0.32
13,041.0	90.90	159.60	11,802.5	-1,446.5	386.4	1,496.8	1,497.2	165.04	1.76
13,136.0	92.00	160.60	11,800.1	-1,535.8	418.8	1,591.6	1,591.9	164.75	1.56
13,230.0	91.20	160.00	11,797.4	-1,624.3	450.4	1,685.4	1,685.6	164.50	1.06
13,325.0	92.40	163.60	11,794.5	-1,714.5	480.1	1,780.3	1,780.4	164.36	3.99
13,419.0	92.80	163.50	11,790.2	-1,804.5	506.7	1,874.2	1,874.3	164.32	0.44
13,514.0	91.50	164.10	11,786.6	-1,895.7	533.2	1,969.1	1,969.2	164.29	1.51
13,609.0	90.80	164.50	11,784.7	-1,987.1	558.9	2,064.1	2,064.2	164.29	0.85
13,703.0	89.40	165.30	11,784.6	-2,077.9	583.4	2,158.1	2,158.2	164.32	1.72
13,798.0	90.00	165.40	11,785.1	-2,169.8	607.4	2,253.0	2,253.2	164.36	0.64
13,893.0	87.80	165.10	11,786.9	-2,261.6	631.6	2,348.0	2,348.1	164.40	2.34
13,987.0	91.00	164.00	11,787.9	-2,352.2	656.6	2,442.0	2,442.1	164.40	3.60
14,082.0	90.50	163.80	11,786.6	-2,443.5	682.9	2,536.9	2,537.1	164.38	0.57
14,177.0	90.70	163.80	11,785.6	-2,534.7	709.4	2,631.9	2,632.1	164.36	0.21
14,272.0	87.60	162.50	11,787.0	-2,625.6	737.0	2,726.9	2,727.1	164.32	3.54
14,367.0	89.60	162.80	11,789.4	-2,716.2	765.3	2,821.9	2,822.0	164.26	2.13
14,462.0	88.80	163.60	11,790.7	-2,807.2	792.7	2,916.8	2,917.0	164.23	1.19
14,557.0	89.50	164.10	11,792.1	-2,898.4	819.2	3,011.8	3,012.0	164.22	0.91
14,652.0	89.10	164.70	11,793.2	-2,989.9	844.7	3,106.8	3,106.9	164.22	0.76
14,747.0	90.40	166.00	11,793.7	-3,081.8	868.7	3,201.8	3,201.9	164.26	1.94
14,842.0	89.20	167.70	11,794.0	-3,174.3	890.4	3,296.6	3,296.8	164.33	2.19

Stryker Directional
University B21 7 B301CN

Company: Mewbourne Oil Company .
Project: Winkler County, TX
Site: Section 7 Blk 21 University B21 7 #B301CN
Well: University B21 7 B301CN
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well University B21 7 B301CN
TVD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
MD Reference: 2829 + 30 @ 2859.0usft (Patterson 187)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
14,937.0	89.50	168.10	11,795.1	-3,267.2	910.3	3,391.4	3,391.6	164.43	0.53
15,032.0	87.80	167.50	11,797.3	-3,360.0	930.3	3,486.1	3,486.4	164.52	1.90
15,127.0	88.20	167.00	11,800.6	-3,452.6	951.3	3,580.9	3,581.3	164.60	0.67
15,222.0	88.70	165.00	11,803.2	-3,544.8	974.3	3,675.7	3,676.2	164.63	2.17
15,317.0	90.20	163.60	11,804.1	-3,636.2	1,000.0	3,770.7	3,771.2	164.62	2.16
15,412.0	89.90	164.20	11,804.0	-3,727.5	1,026.3	3,865.7	3,866.2	164.61	0.71
15,508.0	87.70	164.10	11,806.0	-3,819.8	1,052.5	3,961.7	3,962.2	164.59	2.29
15,602.0	87.90	163.30	11,809.6	-3,910.0	1,078.9	4,055.6	4,056.1	164.57	0.88
15,697.0	89.80	162.70	11,811.5	-4,000.8	1,106.7	4,150.6	4,151.0	164.54	2.10
15,792.0	89.80	162.40	11,811.9	-4,091.4	1,135.1	4,245.6	4,246.0	164.49	0.32
15,886.0	90.30	163.80	11,811.8	-4,181.4	1,162.5	4,339.6	4,339.9	164.46	1.58
15,981.0	90.20	164.30	11,811.4	-4,272.7	1,188.6	4,434.6	4,434.9	164.45	0.54
16,076.0	91.10	163.70	11,810.3	-4,364.0	1,214.8	4,529.6	4,529.9	164.45	1.14
16,171.0	90.70	163.90	11,808.8	-4,455.2	1,241.3	4,624.5	4,624.9	164.43	0.47
16,266.0	91.50	164.70	11,807.0	-4,546.7	1,267.0	4,719.5	4,719.9	164.43	1.19
16,361.0	91.70	164.50	11,804.3	-4,638.2	1,292.2	4,814.5	4,814.8	164.43	0.30
16,396.0	91.90	164.50	11,803.2	-4,671.9	1,301.5	4,849.5	4,849.8	164.43	0.57
16,445.0	91.90	164.50	11,801.6	-4,719.1	1,314.6	4,898.4	4,898.8	164.43	0.00

16445' MD Projected to Bit

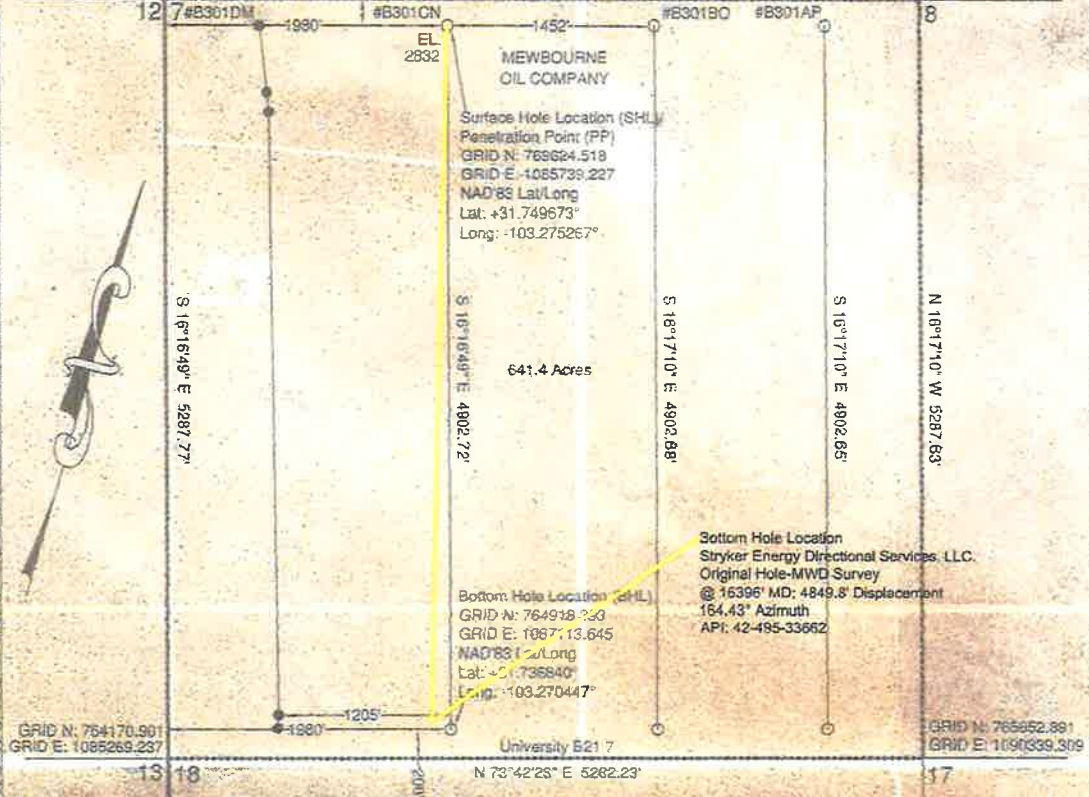
Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,445.0	11,801.6	-4,719.1	1,314.6	16445' MD Projected to Bit

Block 21, University Lands Survey Winkler County, Texas

GRID N: 769245.699
GRID E: 1083786.874

GRID N: 770728.342
GRID E: 1088856.478



Driving Directions to Location:
 From the intersection of Hwy 115 & Hwy 1232 in Wink, Texas,
 Drive Northbound on Hwy 1232, 1.5 miles to CR 201.
 Turn left (West) on to CR 201, drive 5.2 miles to a lease road at Lat: 31°44'10.23", Long: 103°16'02.59"
 Turn right (North) on to lease road, drive 0.9 miles to Lat: 31°44'58.63", Long: 103°16'19.48"
 Location is left (West) 1000 feet.

Note: Well location #31856 West of Wink, Texas.
 Note: Survey reconstruction used in the title by Pennell & Marlowe Land Surveyors, Inc.
 Note: Bearings and distances are based on The Texas Coordinate System of 1927, Central Zone.
 Note: Coordinates shown herein are on The Texas Coordinate System of 1927, Central Zone.
 Note: Well bore #B301DM was abandoned per written report provided by client. SHL was not re-surveyed and is shown as shown.



USGS Quadrangle Sheet: Soda Lake NE, Tex.
 Railroad Commission Permit Plat

MEWBOURNE OIL COMPANY
 University B21 7 #B301CN
 185' FROM NORTH LINE
 1940' FROM WEST LINE
 University B21 7 Lease
 641.4 Acres being all of
 Section 7, Block 21
 University Lands Survey
 Winkler County, Texas

December 18, 2014
 JAT/MB/KLB

REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5715
 P.O. Box 51047, Winkler, Texas 75790 (432) 282-0311 Fax: (432) 282-0278

Scale: 1" = 1000'