

OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE ARIES 20 MP FED COM 1H
COUNTY EDDY, NM

045-0099

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-41695

245	1.00
372	0.60
551	0.59
1,010	0.80
1,295	1.67
1,613	2.29
1,847	1.61
2,089	2.86
2,204	3.03
2,371	3.34
2,501	2.91
2,625	3.23
2,753	2.80
2,947	3.42
3,265	2.57
3,547	2.39
4,281	1.53
4,695	0.60
4,912	2.05
5,298	2.91
5,389	2.93
5,554	3.68
5,649	3.08
5,741	1.28
5,841	1.72
6,063	0.90

BY: Steve Moore

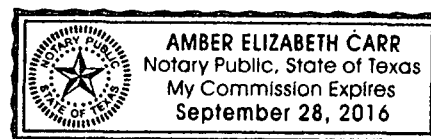
STATE OF TEXAS

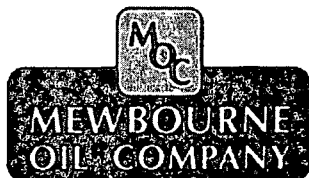
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Steve Moore on behalf of Patterson-UTi Drilling Company LLC.

12/18/13, by

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:





Mewbourne Oil Company .

Eddy County, New Mexico

Section 20-18S-30E Aries 20 MP Federal Com

Aries 20 MP Federal Com #1H

Original Hole

Design: Original Hole

Standard Survey Report

25 November, 2013





Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Aries 20 MP Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3485 + 20' @ 3505.0usft (Patterson #45)
Site:	Section 20-18S-30E Aries 20 MP Federal Com	MD Reference:	GL 3485 + 20' @ 3505.0usft (Patterson #45)
Well:	Aries 20 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User.Db

Project:	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Section 20-18S-30E Aries 20 MP Federal Com
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Site Position:	Map	Northing:	628,434.00 usft	Latitude:	32° 43' 37.995 N
From:	Map	Easting:	602,159.70 usft	Longitude:	104° 0' 4.077 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well	Aries 20 MP Federal Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	628,434.00 usft	Latitude:	32° 43' 37.995 N
	+E/-W	0.0 usft	Easting:	602,159.70 usft	Longitude:	104° 0' 4.077 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,485.0 usft	

Wellbore:	Original Hole
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/29/2013	7.53	60.52	48,634

Survey Program		Date	11/25/2013	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	6,760.0	MS Gyro Survey #1 (Original Hole)	GyroFlex	
6,770.0	11,720.0	Survey #2 (Original Hole)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.08	113.85	100.0	0.0	0.1	0.1	0.08	0.08	0.00
200.0	0.07	229.62	200.0	-0.1	0.1	0.1	0.13	-0.01	115.77
300.0	0.13	218.34	300.0	-0.2	0.0	0.0	0.06	0.06	-11.28
400.0	0.13	212.90	400.0	-0.4	-0.2	-0.2	0.01	0.00	-5.44
500.0	0.23	221.20	500.0	-0.7	-0.4	-0.4	0.10	0.10	8.30
600.0	0.14	221.35	600.0	-0.9	-0.6	-0.6	0.09	-0.09	0.15
700.0	0.10	281.45	700.0	-1.0	-0.7	-0.7	0.13	-0.04	60.10
800.0	0.04	167.60	800.0	-1.0	-0.8	-0.8	0.12	-0.06	-113.85
900.0	0.24	43.24	900.0	-0.9	-0.7	-0.7	0.26	0.20	-124.36
1,000.0	0.46	45.77	1,000.0	-0.4	-0.2	-0.2	0.22	0.22	2.53
1,100.0	1.03	70.17	1,100.0	0.1	0.9	0.9	0.64	0.57	24.40
1,200.0	1.41	70.68	1,200.0	0.9	2.9	2.9	0.38	0.38	0.51
1,300.0	1.42	70.68	1,299.9	1.7	5.2	5.2	0.01	0.01	0.00
1,400.0	1.47	68.80	1,399.9	2.5	7.6	7.6	0.07	0.05	-1.88
1,500.0	1.68	62.77	1,499.9	3.7	10.1	10.0	0.27	0.21	-6.03



Stryker Directional Survey Report



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Site:	Section 20-18S-30E Aries 20 MP Federal Com	MD Reference:	GL 3485 + 20 @ 3505.0usft (Patterson #45)
Well:	Aries 20 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User.Db

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)
1,600.0	1.99	55.52	1,599.8	5.3	12.8	12.7	0.39	0.31	-7.25
1,700.0	2.17	49.21	1,699.7	7.6	15.7	15.6	0.29	0.18	-6.31
1,800.0	2.32	40.94	1,799.7	10.3	18.5	18.3	0.36	0.15	-8.27
1,900.0	2.28	37.33	1,899.6	13.4	21.0	20.8	0.15	-0.04	-3.61
2,000.0	2.43	42.09	1,999.5	16.6	23.6	23.3	0.25	0.15	4.76
2,100.0	2.59	40.26	2,099.4	19.9	26.5	26.2	0.18	0.16	-1.83
2,200.0	2.72	39.10	2,199.3	23.5	29.5	29.1	0.14	0.13	-1.16
2,300.0	2.88	33.61	2,299.2	27.4	32.3	31.9	0.31	0.16	-5.49
2,400.0	2.99	30.58	2,399.1	31.7	35.1	34.5	0.19	0.11	-3.03
2,500.0	3.06	33.24	2,498.9	36.2	37.8	37.3	0.16	0.07	2.66
2,600.0	2.97	33.30	2,598.8	40.6	40.7	40.1	0.09	-0.09	0.06
2,700.0	3.07	32.94	2,698.6	45.0	43.6	42.9	0.10	0.10	-0.36
2,800.0	3.03	33.13	2,798.5	49.5	46.5	45.7	0.04	-0.04	0.19
2,900.0	3.14	34.07	2,898.3	54.0	49.5	48.6	0.12	0.11	0.94
3,000.0	3.12	34.24	2,998.2	58.5	52.6	51.6	0.02	-0.02	0.17
3,100.0	3.24	30.74	3,098.0	63.2	55.5	54.5	0.23	0.12	-3.50
3,200.0	2.81	29.49	3,197.9	67.7	58.2	57.1	0.44	-0.43	-1.25
3,300.0	2.48	36.21	3,297.8	71.6	60.7	59.5	0.45	-0.33	6.72
3,400.0	2.30	36.66	3,397.7	74.9	63.1	61.9	0.18	-0.18	0.45
3,500.0	1.90	36.19	3,497.6	77.9	65.3	64.0	0.40	-0.40	-0.47
3,600.0	1.85	40.52	3,597.6	80.5	67.3	66.0	0.15	-0.05	4.33
3,700.0	1.35	40.52	3,697.6	82.6	69.2	67.8	0.50	-0.50	0.00
3,800.0	1.27	40.88	3,797.5	84.3	70.7	69.3	0.08	-0.08	0.36
3,900.0	1.32	39.27	3,897.5	86.0	72.1	70.7	0.06	0.05	-1.61
4,000.0	1.23	31.94	3,997.5	87.8	73.4	72.0	0.19	-0.09	-7.33
4,100.0	1.40	24.71	4,097.5	89.9	74.5	73.0	0.24	0.17	-7.23
4,200.0	0.82	48.29	4,197.4	91.5	75.5	74.0	0.73	-0.58	23.58
4,300.0	0.58	75.07	4,297.4	92.1	76.6	75.0	0.40	-0.24	26.78
4,400.0	0.42	157.87	4,397.4	91.9	77.2	75.7	0.67	-0.16	82.80
4,500.0	0.56	196.29	4,497.4	91.0	77.2	75.7	0.35	0.14	38.42
4,600.0	0.84	218.29	4,597.4	90.0	76.6	75.1	0.38	0.28	22.00
4,700.0	1.36	230.47	4,697.4	88.7	75.2	73.8	0.57	0.52	12.18
4,800.0	1.97	227.74	4,797.3	86.8	73.0	71.6	0.61	0.61	-2.73
4,900.0	2.07	226.78	4,897.3	84.4	70.4	69.1	0.11	0.10	-0.96
5,000.0	2.21	234.14	4,997.2	82.0	67.6	66.2	0.31	0.14	7.36
5,100.0	2.37	239.31	5,097.1	79.8	64.2	62.9	0.26	0.16	5.17
5,200.0	2.55	239.63	5,197.0	77.6	60.5	59.3	0.18	0.18	0.32
5,300.0	2.75	238.59	5,296.9	75.3	56.6	55.3	0.21	0.20	-1.04
5,400.0	2.94	241.30	5,396.8	72.8	52.3	51.1	0.23	0.19	2.71
5,500.0	2.85	241.47	5,496.7	70.4	47.8	46.7	0.09	-0.09	0.17
5,600.0	2.31	242.34	5,596.6	68.2	43.9	42.7	0.54	-0.54	0.87
5,700.0	1.81	240.35	5,696.5	66.5	40.7	39.6	0.51	-0.50	-1.99
5,800.0	1.90	244.91	5,796.5	65.0	37.8	36.8	0.17	0.09	4.56
5,900.0	2.23	258.81	5,896.4	64.0	34.4	33.4	0.60	0.33	13.90



Stryker Directional Survey Report



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
6,000.0	1.40	241.44	5,996.4	63.0	31.4	30.4	0.99	-0.83	-17.37
6,100.0	0.75	199.80	6,096.3	61.8	30.1	29.1	0.98	-0.65	-41.64
6,200.0	0.93	152.00	6,196.3	60.5	30.3	29.3	0.70	0.18	-47.80
6,300.0	1.05	148.98	6,296.3	59.0	31.2	30.2	0.13	0.12	-3.02
6,400.0	0.38	339.73	6,396.3	58.5	31.5	30.6	1.43	-0.67	-169.25
6,500.0	0.95	316.52	6,496.3	59.4	30.8	29.9	0.62	0.57	-23.21
6,600.0	1.21	298.28	6,596.3	60.5	29.3	28.3	0.43	0.26	-18.24
6,700.0	1.50	286.62	6,696.3	61.4	27.1	26.1	0.40	0.29	-11.66
6,760.0	1.47	285.25	6,756.2	61.8	25.6	24.6	0.08	-0.05	-2.28
6760' MD MS Gyro Survey									
6,796.0	0.40	42.40	6,792.2	62.0	25.3	24.3	4.70	-2.97	325.42
6,828.0	3.30	97.90	6,824.2	62.0	26.3	25.3	9.66	9.06	173.44
6,860.0	6.30	99.20	6,856.1	61.6	28.9	27.9	9.38	9.38	4.06
6,891.0	9.50	97.60	6,886.8	61.0	33.1	32.1	10.35	10.32	-5.16
6,923.0	12.40	95.80	6,918.2	60.3	39.2	38.2	9.12	9.06	-5.63
6,955.0	15.90	94.90	6,949.2	59.5	47.0	46.0	10.96	10.94	-2.81
6,987.0	19.00	97.20	6,979.8	58.5	56.5	55.5	9.92	9.69	7.19
7,018.0	21.40	99.20	7,008.9	57.0	67.1	66.2	8.06	7.74	6.45
7,050.0	23.70	100.60	7,038.4	54.9	79.2	78.3	7.38	7.19	4.38
7,082.0	26.50	101.50	7,067.4	52.2	92.5	91.6	8.83	8.75	2.81
7,113.0	30.00	101.50	7,094.7	49.3	106.9	106.1	11.29	11.29	0.00
7,145.0	33.50	101.40	7,121.9	46.0	123.4	122.6	10.94	10.94	-0.31
7,177.0	36.70	100.80	7,148.1	42.4	141.4	140.7	10.06	10.00	-1.88
7,209.0	40.40	99.80	7,173.1	38.9	161.0	160.4	11.73	11.56	-3.13
7,240.0	44.40	98.10	7,196.0	35.6	181.7	181.1	13.42	12.90	-5.48
7,272.0	49.80	97.10	7,217.8	32.6	204.9	204.4	17.03	16.88	-3.13
7,304.0	53.60	97.10	7,237.6	29.5	229.8	229.3	11.88	11.88	0.00
7,336.0	56.00	97.80	7,256.0	26.1	255.8	255.3	7.71	7.50	2.19
7,367.0	58.60	98.10	7,272.8	22.4	281.6	281.2	8.43	8.39	0.97
7,399.0	60.90	98.10	7,288.9	18.6	309.0	308.6	7.19	7.19	0.00
7,431.0	63.50	97.60	7,303.8	14.7	337.0	336.7	8.24	8.13	-1.56
7,463.0	67.00	97.00	7,317.2	11.0	365.8	365.6	11.07	10.94	-1.88
7,494.0	71.70	96.20	7,328.1	7.7	394.6	394.5	15.35	15.16	-2.58
7,526.0	76.40	95.40	7,336.9	4.6	425.2	425.1	14.88	14.69	-2.50
7,558.0	80.40	94.50	7,343.4	1.9	456.5	456.4	12.80	12.50	-2.81
7,653.0	86.40	93.20	7,354.3	-4.5	550.6	550.6	6.46	6.32	-1.37
7,685.0	86.40	92.70	7,356.3	-6.1	582.5	582.5	1.56	0.00	-1.56
7,717.0	88.80	91.60	7,357.6	-7.3	614.4	614.4	8.25	7.50	-3.44
7,748.0	90.50	89.80	7,357.8	-7.7	645.4	645.4	7.99	5.48	-5.81
7,812.0	90.20	89.50	7,357.4	-7.3	709.4	709.4	0.66	-0.47	-0.47
7,875.0	88.80	91.60	7,358.0	-7.9	772.4	772.4	4.01	-2.22	3.33
7,937.0	88.30	91.10	7,359.5	-9.4	834.4	834.4	1.14	-0.81	-0.81
8,001.0	88.00	90.90	7,361.6	-10.5	898.3	898.4	0.56	-0.47	-0.31



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8,064.0	88.70	90.90	7,363.4	-11.5	961.3	961.3	1.11	1.11	0.00
8,127.0	88.00	90.40	7,365.2	-12.2	1,024.2	1,024.3	1.37	-1.11	-0.79
8,190.0	91.30	90.40	7,365.6	-12.6	1,087.2	1,087.3	5.24	5.24	0.00
8,253.0	92.10	89.80	7,363.8	-12.7	1,150.2	1,150.3	1.59	1.27	-0.95
8,316.0	91.80	91.40	7,361.6	-13.4	1,213.2	1,213.2	2.58	-0.48	2.54
8,379.0	89.90	91.60	7,360.7	-15.0	1,276.1	1,276.2	3.03	-3.02	0.32
8,443.0	88.20	91.20	7,361.7	-16.6	1,340.1	1,340.2	2.73	-2.66	-0.63
8,506.0	88.20	92.00	7,363.7	-18.4	1,403.0	1,403.2	1.27	0.00	1.27
8,569.0	88.00	92.10	7,365.8	-20.6	1,466.0	1,466.1	0.35	-0.32	0.16
8,632.0	89.30	91.80	7,367.3	-22.8	1,528.9	1,529.1	2.12	2.06	-0.48
8,695.0	88.80	91.40	7,368.3	-24.5	1,591.9	1,592.1	1.02	-0.79	-0.63
8,759.0	89.20	91.20	7,369.5	-26.0	1,655.9	1,656.1	0.70	0.63	-0.31
8,822.0	89.70	90.90	7,370.1	-27.1	1,718.8	1,719.1	0.93	0.79	-0.48
8,885.0	88.50	91.10	7,371.0	-28.2	1,781.8	1,782.0	1.93	-1.90	0.32
8,948.0	88.50	91.40	7,372.7	-29.6	1,844.8	1,845.0	0.48	0.00	0.48
9,012.0	87.90	91.60	7,374.7	-31.3	1,908.7	1,909.0	0.99	-0.94	0.31
9,074.0	89.20	90.40	7,376.3	-32.3	1,970.7	1,971.0	2.85	2.10	-1.94
9,138.0	90.00	91.10	7,376.7	-33.2	2,034.7	2,035.0	1.66	1.25	1.09
9,201.0	89.90	90.90	7,376.8	-34.3	2,097.7	2,098.0	0.35	-0.16	-0.32
9,264.0	88.60	88.40	7,377.6	-33.9	2,160.7	2,160.9	4.47	-2.06	-3.97
9,328.0	87.40	87.00	7,379.8	-31.3	2,224.6	2,224.8	2.88	-1.88	-2.19
9,359.0	88.50	86.70	7,380.9	-29.6	2,255.5	2,255.7	3.68	3.55	-0.97
9,390.0	90.10	86.70	7,381.3	-27.8	2,286.5	2,286.6	5.16	5.16	0.00
9,422.0	91.00	87.60	7,381.0	-26.3	2,318.4	2,318.5	3.98	2.81	2.81
9,453.0	91.80	88.80	7,380.3	-25.3	2,349.4	2,349.5	4.65	2.58	3.87
9,485.0	92.60	89.70	7,379.0	-24.9	2,381.4	2,381.4	3.76	2.50	2.81
9,517.0	92.40	89.70	7,377.6	-24.7	2,413.3	2,413.4	0.63	-0.63	0.00
9,549.0	91.60	90.90	7,376.5	-24.9	2,445.3	2,445.4	4.51	-2.50	3.75
9,580.0	91.20	90.70	7,375.8	-25.3	2,476.3	2,476.4	1.44	-1.29	-0.65
9,612.0	89.70	92.80	7,375.5	-26.3	2,508.3	2,508.4	8.06	-4.69	6.56
9,643.0	88.00	91.60	7,376.1	-27.5	2,539.2	2,539.4	6.71	-5.48	-3.87
9,675.0	87.10	90.70	7,377.5	-28.1	2,571.2	2,571.3	3.98	-2.81	-2.81
9,707.0	86.90	91.10	7,379.2	-28.6	2,603.2	2,603.3	1.40	-0.63	1.25
9,739.0	88.30	91.60	7,380.5	-29.4	2,635.1	2,635.3	4.65	4.38	1.56
9,770.0	89.00	91.80	7,381.2	-30.3	2,666.1	2,666.2	2.35	2.26	0.65
9,834.0	88.30	91.60	7,382.8	-32.2	2,730.1	2,730.2	1.14	-1.09	-0.31
9,897.0	89.90	91.80	7,383.7	-34.0	2,793.0	2,793.2	2.56	2.54	0.32
9,960.0	91.10	90.90	7,383.2	-35.5	2,856.0	2,856.2	2.38	1.90	-1.43
10,024.0	90.30	89.30	7,382.4	-35.6	2,920.0	2,920.2	2.79	-1.25	-2.50
10,087.0	90.70	89.80	7,381.9	-35.2	2,983.0	2,983.2	1.02	0.63	0.79
10,150.0	91.50	91.10	7,380.6	-35.6	3,046.0	3,046.1	2.42	1.27	2.06
10,213.0	89.10	92.00	7,380.3	-37.3	3,108.9	3,109.1	4.07	-3.81	1.43
10,277.0	89.30	92.70	7,381.2	-40.0	3,172.9	3,173.1	1.14	0.31	1.09



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Aries-20 MP Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL 3485 +20 @ 3505.0usft (Patterson #45)
Site:	Section 20-18S-30E Aries-20 MP Federal Com	MD Reference:	GL 3485 +20 @ 3505.0usft (Patterson #45)
Well:	Aries-20 MP Federal Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
10,340.0	89.30	94.20	7,382.0	-43.8	3,235.8	3,236.0	2.38	0.00	2.38
10,372.0	89.40	94.60	7,382.3	-46.2	3,267.7	3,268.0	1.29	0.31	1.25
10,403.0	87.90	93.40	7,383.1	-48.4	3,298.6	3,298.9	6.20	-4.84	-3.87
10,435.0	87.40	93.20	7,384.4	-50.2	3,330.5	3,330.9	1.68	-1.56	-0.63
10,467.0	87.40	93.40	7,385.8	-52.1	3,362.4	3,362.8	0.62	0.00	0.63
10,530.0	87.60	92.50	7,388.6	-55.3	3,425.3	3,425.7	1.46	0.32	-1.43
10,562.0	87.50	92.50	7,390.0	-56.7	3,457.2	3,457.7	0.31	-0.31	0.00
10,625.0	88.70	92.00	7,392.0	-59.2	3,520.1	3,520.6	2.06	1.90	-0.79
10,688.0	88.30	91.80	7,393.7	-61.3	3,583.1	3,583.6	0.71	-0.63	-0.32
10,752.0	90.10	91.60	7,394.6	-63.2	3,647.0	3,647.6	2.83	2.81	-0.31
10,815.0	91.40	91.80	7,393.8	-65.0	3,710.0	3,710.6	2.09	2.06	0.32
10,878.0	89.40	91.40	7,393.3	-66.8	3,773.0	3,773.5	3.24	-3.17	-0.63
10,941.0	90.10	92.10	7,393.6	-68.7	3,835.9	3,836.5	1.57	1.11	1.11
11,005.0	90.20	92.50	7,393.4	-71.3	3,899.9	3,900.5	0.64	0.16	0.63
11,068.0	86.90	87.20	7,395.0	-71.1	3,962.8	3,963.5	9.91	-5.24	-8.41
11,100.0	87.10	87.60	7,396.7	-69.7	3,994.8	3,995.4	1.40	0.63	1.25
11,131.0	88.60	89.00	7,397.9	-68.7	4,025.7	4,026.3	6.62	4.84	4.52
11,163.0	90.10	88.60	7,398.2	-68.1	4,057.7	4,058.3	4.85	4.69	-1.25
11,194.0	90.50	88.80	7,398.1	-67.4	4,088.7	4,089.3	1.44	1.29	0.65
11,258.0	90.10	88.40	7,397.7	-65.8	4,152.7	4,153.2	0.88	-0.63	-0.63
11,321.0	91.30	90.20	7,397.0	-65.0	4,215.7	4,216.2	3.43	1.90	2.86
11,353.0	91.10	90.20	7,396.3	-65.1	4,247.7	4,248.2	0.63	-0.63	0.00
11,384.0	90.10	89.10	7,396.0	-65.0	4,278.7	4,279.1	4.80	-3.23	-3.55
11,416.0	89.20	87.40	7,396.2	-64.0	4,310.6	4,311.1	6.01	-2.81	-5.31
11,448.0	88.80	89.30	7,396.7	-63.1	4,342.6	4,343.1	6.07	-1.25	5.94
11,511.0	89.10	89.00	7,397.9	-62.1	4,405.6	4,406.0	0.67	0.48	-0.48
11,574.0	89.20	89.80	7,398.8	-61.5	4,468.6	4,469.0	1.28	0.16	1.27
11,638.0	88.80	89.00	7,399.9	-60.8	4,532.6	4,533.0	1.40	-0.63	-1.25
11,666.0	87.50	87.70	7,400.8	-60.0	4,560.5	4,560.9	6.56	-4.64	-4.64
11,720.0	87.50	87.70	7,403.2	-57.8	4,614.5	4,614.8	0.00	0.00	0.00

11720' MD Projected to Bit

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,760.0	6,756.2	61.8	25.6	6760' MD MS Gyro Survey
11,720.0	7,403.2	-57.8	4,614.5	11720' MD Projected to Bit

Operating Company Mewbourne Oil Co.
Well Name & Number ARIES 20 MP FED COM #1H
Sales Ticket Number 0005965283-1

Company Rep Jake Nave
Field 0
BOT Service Rep John Davis



Date 11/23/2013 District Location Odessa, TX

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	P-110	6.276	6.151	LTC / 8RD	0.03826	7,616.00	9,960	6,230	
Top Liner	4.500	13.50	P-110	3.920	3.795	LTC / 8RD	0.01492	4,331.03	12,410	10,680	
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-	
TVD	7400.00		KOP		6877.00		Open Hole		6.125	Casing Vol. (bbl)	282.2
Carry Fluid Weight (ppg)		8.4		Propant Content (ppa)				Max Drill Out Size		0	

Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
Liner Top		7375.97							

Zone Length										
20	JR Sleeve S3 Hyd Set Packer		7375.97	8.64	5.313	3.875				
	4-1/2-13.5 LTC Nipple		7384.61	8.11	5.000	3.920				
	7 Joints of 4-1/2-13.5 LTC Casing		7392.72	280.00	5.000	3.920				
	3.625 EX Frac Sleeve		7672.72	2.40	5.750	3.525	2286			
19	3 Joint of 4-1/2-13.5 LTC Casing		7675.12	117.98	5.000	3.920				
	Baker Open Hole Packer		7793.10	3.89	5.820	3.875	2154			
	3 Joints of 4-1/2-13.5 LTC Casing		7796.99	122.20	5.000	3.920				
	3.500 EX Frac Sleeve		7919.19	2.40		3.400	2286			
18	3 Joint of 4-1/2-13.5 LTC Casing		7921.59	120.20	5.000	3.920				
	Baker Open Hole Packer		8041.79	3.89	5.875	3.875	2154			
	2 Joints of 4-1/2-13.5 LTC Casing		8045.68	78.87	5.000	3.920				
	3.375 EX Frac Sleeve		8124.55	2.40		3.275	2286			
17	3 Joint of 4-1/2-13.5 LTC Casing		8126.95	119.02	5.000	3.920				
	Baker Open Hole Packer		8246.87	3.89	5.875	3.875	2154			
	2 Joints of 4-1/2-13.5 LTC Casing		8249.86	78.79	5.000	3.920				
	3.250 EX Frac Sleeve		8326.65	2.40		3.150	2286			
16	3 Joint of 4-1/2-13.5 LTC Casing		8331.05	120.44	5.000	3.920				
	Baker Open Hole Packer		8461.49	3.89	5.875	3.875	2154			
	2 Joints of 4-1/2-13.5 LTC Casing		8455.38	78.89	5.000	3.920				
	3.125 EX Frac Sleeve		8534.27	2.40		3.025	2286			
15	3 Joints of 4-1/2-13.5 LTC Casing		8536.67	117.56	5.000	3.920				
	Baker Open Hole Packer		8654.23	3.89	5.875	3.875	2154			
	2 Joints of 4-1/2-13.5 LTC Casing		8658.12	80.20	5.000	3.920				
	3.000 EX Frac Sleeve		8738.32	2.40		2.900	2286			
14	3 Joint of 4-1/2-13.5 LTC Casing		8740.72	116.79	5.000	3.920				
	Baker Open Hole Packer		8857.51	3.89	5.875	3.875	2154			
	2 Joints of 4-1/2-13.5 LTC Casing		8861.40	74.48	5.000	3.920				
	2.875 EX Frac Sleeve		8935.88	2.40		2.775	2286			
13	3 Joints of 4-1/2-13.5 LTC Casing		8938.28	119.49	5.000	3.920				
	Baker Open Hole Packer		9057.77	3.89	5.875	3.875	2154			
	3 Joints of 4-1/2-13.5 LTC Casing		9061.66	118.46	5.000	3.920				
	2.750 EX Frac Sleeve		9180.12	2.40		2.650	2286			
	3 Joint of 4-1/2-13.5 LTC Casing		9182.52	118.68	5.000	3.920				
	Baker Open Hole Packer		9301.20	3.89	5.875	3.875	2154			

Operating Company Mewbourne Oil Co.
Well Name & Number ARIES 20 MP FED COM #1H
Sales Ticket Number 0005965283-1

Company Rep Jake Nave
Field 0
BOT Service Rep John Davis
District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	P-110	6.276	6.151	LTC / 8RD	0.03826	7,616.00	9,960	6,230
Top Liner	4.500	13.50	P-110	3.920	3.795	LTC / 8RD	0.01492	4,331.03	12,410	10,680
Bot Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD	7400.00			KOP	6877.00		Open Hole	6.125	Casing Vol. (bbl)	282.2
Carry Fluid Weight (ppg)	8.4			Propan Content (ppa)					Max Drill Out Size	0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
12		2 Joints of 4-1/2-13.5 LTC Casing	9305.09	79.58	5.000	3.920				
		2.625 EX Frac Sleeve	9384.67	2.40			2.525	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	9387.07	118.70	5.000	3.920				
11		Baker Open Hole Packer	9505.77	3.68		3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9509.66	79.94	5.000	3.920				
		2.500 EX Frac Sleeve	9589.60	2.40			2.400	2286		
10		3 Joint of 4-1/2-13.5 LTC Casing	9592.00	118.28	5.000	3.920				
		Baker Open Hole Packer	9710.28	3.88		3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9714.17	79.38	5.000	3.920				
9		2.375 EX Frac Sleeve	9793.55	2.40			2.275	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	9795.95	118.74	5.000	3.920				
		Baker Open Hole Packer	9914.69	3.89		3.875		2154		
8		2 Joint of 4-1/2-13.5 LTC Casing	9918.58	79.18	5.000	3.920				
		2.250 EX Frac Sleeve	9997.76	2.40			2.150	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10000.16	117.44	5.000	3.920				
7		Baker Open Hole Packer	10117.80	3.89		3.875		2154		
		2 Joint of 4-1/2-13.5 LTC Casing	10121.49	79.01	5.000	3.920				
		2.125 EX Frac Sleeve	10200.50	2.40			2.025	2286		
6		3 Joints of 4-1/2-13.5 LTC Casing	10202.90	119.78	5.000	3.920				
		Baker Open Hole Packer	10322.68	3.89		3.875		2154		
		3 Joint of 4-1/2-13.5 LTC Casing	10326.57	118.72	5.000	3.920				
5		2.000 EX Frac Sleeve	10445.29	2.40			1.900	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10447.69	122.24	5.000	3.920				
		Baker Open Hole Packer	10563.93	3.89		3.875		2154		
4		2 Joint of 4-1/2-13.5 LTC Casing	10573.82	78.01	5.000	3.920				
		1.875 EX Frac Sleeve	10651.83	2.40			1.775	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10654.23	118.50	5.000	3.920				
3		Baker Open Hole Packer	10772.73	3.89		3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10776.62	79.13	5.000	3.920				
		1.750 EX Frac Sleeve	10855.75	2.40			1.650	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	10858.15	118.96	5.000	3.920				
		Baker Open Hole Packer	10977.11	3.89		3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10981.00	79.15	5.000	3.920				
		1.625 EX Frac Sleeve	11060.15	2.40			1.525	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	11062.55	115.26	5.000	3.920				
		Baker Open Hole Packer	11177.81	3.89		3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11181.70	77.37	5.000	3.920				
		1.500 DBL Ball Frac Sleeve	11259.07	2.40			1.400	2286		

Company Rep	Jake Nave
Field	0
BOT Service Rep	John Davis
District Location	Odessa, TX

[illegible]