

Schlumberger

Oxy Sunrise MDP1 8-5 Federal Com 6H Gyro+MWD 0-20,290' Survey Geodetic Report (Def Survey)



Report Date: January 14, 2018 - 02:10 PM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Sunrise MDP1 8-5 Federal Com 6H / Oxy Sunrise MDP1 8-5 Federal Com 6H
Well: Oxy Sunrise MDP1 8-5 Federal Com 6H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Oxy Sunrise MDP1 8-5 Federal Com 6H Gyro+MWD 0-20,290'
Survey Date: December 18, 2017
Tort / AHD / DDI / ERD Ratio: 282.942' / 11068.037' / 6.801' / 1.101
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 13' 33.08835", W 103° 47' 30.75647"
Location Grid N/E Y/X: N 446322.770 RUS, E 706770.900 RUS
CRS Grid Convergence Angle: 0.2887°
Grid Scale Factor: 0.9999412
Version / Patch: 2.10.696.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 358.248° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB=26.5'
TVD Reference Elevation: 3539.700 ft above MSL
Seabed / Ground Elevation: 3513.200 ft above MSL
Magnetic Declination: 6.929°
Total Gravity Field Strength: 998.4310mg (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48064.730 nT
Magnetic Dip Angle: 59.981°
Declination Date: December 18, 2017
Magnetic Declination Model: HDGM 2017
North Reference: Grid North
Grid Convergence Used: 0.2887°
Total Corr Mag North->Grid North: 6.6401°
Local Coord Referenced To: Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 05 2018

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	446322.77	706770.90	N 32 13 33.09	W 103 47 30.76
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	446322.77	706770.90	N 32 13 33.09	W 103 47 30.76
	81.10	0.81	61.66	81.10	0.17	0.18	0.34	1.48	446322.95	706771.24	N 32 13 33.09	W 103 47 30.75
	175.60	0.70	60.64	175.59	0.74	0.78	1.43	0.12	446323.55	706772.33	N 32 13 33.10	W 103 47 30.74
	270.20	0.76	43.08	270.18	1.45	1.52	2.36	0.24	446324.29	706773.26	N 32 13 33.10	W 103 47 30.73
	364.70	0.68	44.92	364.67	2.28	2.38	3.19	0.09	446325.15	706774.09	N 32 13 33.11	W 103 47 30.72
	459.30	0.52	43.72	459.27	2.97	3.09	3.88	0.17	446325.86	706774.78	N 32 13 33.12	W 103 47 30.71
	550.50	0.33	29.33	550.47	3.48	3.62	4.29	0.24	446326.39	706775.19	N 32 13 33.12	W 103 47 30.71
	641.70	0.11	25.56	641.67	3.79	3.92	4.46	0.24	446326.69	706775.36	N 32 13 33.13	W 103 47 30.70
	731.90	0.12	1.49	731.87	3.96	4.10	4.50	0.05	446326.87	706775.40	N 32 13 33.13	W 103 47 30.70
	821.90	0.23	10.18	821.87	4.23	4.37	4.54	0.13	446327.14	706775.43	N 32 13 33.13	W 103 47 30.70
	912.50	0.38	33.16	912.46	4.65	4.80	4.73	0.21	446327.57	706775.63	N 32 13 33.14	W 103 47 30.70
	1003.90	0.25	53.64	1003.86	5.01	5.17	5.06	0.19	446327.94	706775.96	N 32 13 33.14	W 103 47 30.70
	1094.50	0.15	5.07	1094.46	5.24	5.41	5.23	0.21	446328.18	706776.13	N 32 13 33.14	W 103 47 30.70
	1185.40	0.36	12.67	1185.36	5.64	5.80	5.30	0.23	446328.57	706776.20	N 32 13 33.15	W 103 47 30.69
	1275.30	0.32	35.09	1275.26	6.11	6.28	5.51	0.15	446329.05	706776.41	N 32 13 33.15	W 103 47 30.69
	1365.60	0.24	28.47	1365.56	6.48	6.66	5.74	0.10	446329.43	706776.64	N 32 13 33.15	W 103 47 30.69
	1460.10	0.33	20.42	1460.06	6.90	7.09	5.93	0.10	446329.86	706776.83	N 32 13 33.16	W 103 47 30.68
	1554.70	0.38	30.23	1554.66	7.42	7.61	6.18	0.08	446330.38	706777.08	N 32 13 33.16	W 103 47 30.68
	1649.30	0.38	30.25	1649.25	7.95	8.15	6.50	0.00	446330.92	706777.40	N 32 13 33.17	W 103 47 30.68
	1743.70	0.21	43.56	1743.65	8.34	8.55	6.78	0.19	446331.32	706777.68	N 32 13 33.17	W 103 47 30.68
	1838.60	0.25	24.15	1838.55	8.85	8.86	6.98	0.09	446331.63	706777.88	N 32 13 33.18	W 103 47 30.67
	1933.50	0.37	35.14	1933.45	9.08	9.30	7.24	0.14	446332.07	706778.14	N 32 13 33.18	W 103 47 30.67
	2028.20	0.38	41.38	2028.15	9.55	9.79	7.63	0.04	446332.56	706778.53	N 32 13 33.18	W 103 47 30.67
	2122.90	0.36	40.13	2122.85	10.00	10.25	8.03	0.02	446333.02	706778.93	N 32 13 33.19	W 103 47 30.66
	2217.60	0.24	22.35	2217.55	10.41	10.66	8.29	0.16	446333.43	706779.19	N 32 13 33.19	W 103 47 30.66
	2312.20	0.32	24.57	2312.14	10.82	11.09	8.48	0.09	446333.86	706779.38	N 32 13 33.20	W 103 47 30.66
	2406.80	0.25	9.72	2406.74	11.26	11.53	8.62	0.11	446334.30	706779.52	N 32 13 33.20	W 103 47 30.66
	2501.50	0.24	14.20	2501.44	11.66	11.93	8.71	0.02	446334.70	706779.61	N 32 13 33.21	W 103 47 30.65
	2595.30	0.23	2.80	2595.24	12.03	12.31	8.76	0.05	446335.07	706779.66	N 32 13 33.21	W 103 47 30.65
	2689.70	0.24	357.53	2689.64	12.42	12.69	8.76	0.03	446335.46	706779.66	N 32 13 33.21	W 103 47 30.65
	2784.40	0.23	6.31	2784.34	12.80	13.08	8.78	0.04	446335.85	706779.68	N 32 13 33.22	W 103 47 30.65
	2879.10	0.23	20.30	2879.04	13.17	13.45	8.86	0.06	446336.22	706779.76	N 32 13 33.22	W 103 47 30.65
	2973.90	0.22	21.89	2973.84	13.51	13.79	9.00	0.01	446336.56	706779.90	N 32 13 33.22	W 103 47 30.65
	3068.50	0.15	8.04	3068.44	13.80	14.08	9.08	0.09	446336.85	706779.98	N 32 13 33.23	W 103 47 30.65
	3163.10	0.22	221.23	3163.04	13.79	14.07	8.98	0.38	446336.84	706779.98	N 32 13 33.23	W 103 47 30.65
	3257.90	0.17	241.02	3257.84	13.59	13.87	8.74	0.09	446336.64	706779.64	N 32 13 33.23	W 103 47 30.65
	3352.60	0.09	249.93	3352.54	13.50	13.77	8.54	0.09	446336.54	706779.44	N 32 13 33.22	W 103 47 30.66
	3447.20	0.07	358.32	3447.14	13.54	13.80	8.47	0.14	446336.57	706779.37	N 32 13 33.22	W 103 47 30.66
	3541.80	0.23	350.39	3541.74	13.79	14.06	8.47	0.17	446336.82	706779.37	N 32 13 33.23	W 103 47 30.66
	3636.60	0.37	297.21	3636.54	14.13	14.38	8.20	0.35	446337.15	706779.09	N 32 13 33.23	W 103 47 30.66
	3731.20	0.45	306.37	3731.13	14.50	14.74	7.62	0.11	446337.51	706778.52	N 32 13 33.23	W 103 47 30.67
	3825.80	0.44	314.46	3825.73	14.99	15.22	7.07	0.07	446337.99	706777.97	N 32 13 33.24	W 103 47 30.67
	3920.40	0.18	217.14	3920.33	15.14	15.35	6.72	0.52	446338.12	706777.62	N 32 13 33.24	W 103 47 30.68
	4014.80	0.40	229.70	4014.73	14.82	15.02	6.38	0.24	446337.79	706777.28	N 32 13 33.24	W 103 47 30.68
	4109.40	0.46	253.38	4109.33	14.52	14.70	5.76	0.20	446337.47	706776.86	N 32 13 33.24	W 103 47 30.69
	4204.10	0.57	254.41	4204.02	14.31	14.46	4.94	0.12	446337.23	706775.84	N 32 13 33.23	W 103 47 30.70
	4298.70	0.30	256.89	4298.62	14.14	14.28	4.25	0.29	446337.05	706775.15	N 32 13 33.23	W 103 47 30.71
	4393.40	0.31	257.61	4393.32	14.05	14.17	3.76	0.01	446336.94	706774.66	N 32 13 33.23	W 103 47 30.71
	4488.10	0.32	257.79	4488.02	13.95	14.06	3.25	0.01	446336.83	706774.15	N 32 13 33.23	W 103 47 30.72
	4582.60	0.20	264.56	4582.51	13.90	13.99	2.83	0.13	446336.76	706773.73	N 32 13 33.23	W 103 47 30.72
	4677.10	0.14	235.58	4677.01	13.82	13.91	2.57	0.11	446336.68	706773.47	N 32 13 33.23	W 103 47 30.73
	4771.70	0.18	246.16	4771.61	13.71	13.79	2.33	0.06	446336.56	706773.23	N 32 13 33.22	W 103 47 30.73
	4866.50	0.23	234.54	4866.41	13.56	13.63	2.04	0.08	446336.39	706772.94	N 32 13 33.22	W 103 47 30.73
	4961.10	0.19	229.45	4961.01	13.35	13.41	1.76	0.05	446336.18	706772.66	N 32 13 33.22	W 103 47 30.74
	5056.00	0.14	205.76	5055.91	13.15	13.21	1.59	0.09	446335.98	706772.49	N 32 13 33.22	W 103 47 30.74
	5150.60	0.14	228.94	5150.51	12.98	13.03	1.46	0.06	446335.80	706772.36	N 32 13 33.22	W 103 47 30.74
	5245.20	0.18	230.02	5245.11	12.81	12.86	1.26	0.04	446335.62	706772.16	N 32 13 33.22	W 103 47 30.74
	5339.90	0.48	218.31	5339.81	12.42	12.45	0.90	0.32	446335.22	706771.80	N 32 13 33.21	W 103 47 30.75
	5434.60	0.52	227.87	5434.51	11.83	11.85	0.33	0.10	446334.82	706771.23	N 32 13 33.21	W 103 47 30.75
	5529.30	0.52	227.90	5529.20	11.28	11.27	-0.31	0.00	446334.04	706770.59	N 32 13 33.20	W 103 47 30.76
	5623.80	0.12	100.44	5623.70	10.96	10.97	-0.53	0.64	446333.74	706770.37	N 32 13 33.20	W 103 47 30.76
	5718.50	0.16	77.81	5718.40	10.98	10.98	-0.28	0.09	446333.75	706770.62	N 32 13 33.20	W 103 47 30.76
	5813.20	0.11	136.18	5813.10	10.94	10.95	-0.08	0.16	446333.72	706770.82	N 32 13 33.20	W 103 47 30.76
	5907.90	0.11	137.17	5907.80	10.81	10.81	0.05	0.00	446333.58	706770.95	N 32 13 33.20	W 103 47 30.76
	6002.50	0.27	228.48	6002.40	10.60	10.60	-0.06	0.31	446333.37	706770.84	N 32 13 33.19	W 103 47 30.76
	6096.90	0.27	228.24	6096.80	10.31	10.30	-0.39	0.00	446333.07	706770.51	N 32 13 33.19	W 103 47 30.76
	6191.40	0.27	228.52	6191.30	10.03	10.01	-0.72	0.00	446332.78	706770.18	N 32 13 33.19	W 103 47 30.76
	6286.00	0.50	246.73	6285.90	9.73	9.70	-1.27	0.27	446332.47	706769.63	N 32 13 33.18	W 103 47 30.77
	6380.20	0.62	243.38	6380.09	9.37	9.31	-2.10	0.13	446332.08	706768.80	N 32 13 33.18	W 103 47 30.78
	6474.90	0.69	244.32	6474.79	8.92	8.83	-3.07	0.07	446331.60	706767.83	N 32 13 33.18	W 103 47 30.79
	6569.10	0.70	247.50	6568.98	8.49	8.36	-4.12	0.04	446331.13	706766.78	N 32 13 33.17	W 103 47 30.80
	6663.60	0.78	262.85	6663.47	8.22	8.06	-5.29	0.23	446330.83	706765.61	N 32 13 33.17	W 103 47 30.82

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	7231.20	5.64	214.47	7230.73	5.17	4.62	-18.12	3.63	446327.39	708752.78	N 32 13 33.13 W	103 47 30.97
	7325.70	8.95	208.58	7324.45	-4.92	-5.67	-24.27	3.59	446317.10	708746.63	N 32 13 33.03 W	103 47 31.04
	7420.30	11.97	202.09	7417.47	-20.25	-21.22	-31.48	3.42	446301.55	708739.42	N 32 13 32.88 W	103 47 31.12
	7514.90	14.28	195.12	7509.60	-40.39	-41.58	-38.22	2.96	446281.19	708732.69	N 32 13 32.68 W	103 47 31.20
	7609.40	15.42	189.02	7600.95	-63.89	-65.24	-43.23	2.05	446257.53	708727.68	N 32 13 32.44 W	103 47 31.26
	7704.00	15.26	184.29	7692.18	-88.62	-90.08	-46.13	1.33	446232.70	708724.77	N 32 13 32.20 W	103 47 31.30
	7796.60	15.80	179.65	7783.37	-113.72	-115.21	-46.98	1.35	446207.57	708723.92	N 32 13 31.95 W	103 47 31.31
	7893.20	15.46	171.01	7874.53	-138.95	-140.39	-44.93	2.45	446182.39	708725.97	N 32 13 31.70 W	103 47 31.29
	7987.70	15.76	163.93	7965.55	-163.88	-165.16	-39.41	2.04	446157.62	708731.49	N 32 13 31.46 W	103 47 31.22
	8082.20	15.61	158.95	8066.54	-188.32	-189.36	-31.29	1.43	446133.42	708739.61	N 32 13 31.22 W	103 47 31.13
	8177.00	15.12	158.44	8147.95	-211.99	-212.77	-22.17	0.54	446110.02	708748.73	N 32 13 30.98 W	103 47 31.03
	8271.60	15.00	161.01	8239.30	-235.29	-235.82	-13.65	0.72	446086.97	708757.25	N 32 13 30.76 W	103 47 31.03
	8366.00	14.99	161.19	8330.49	-258.63	-258.92	-5.74	0.05	446063.86	708765.16	N 32 13 30.53 W	103 47 30.84
	8460.60	14.99	161.15	8421.87	-282.02	-282.08	2.16	0.01	446040.70	708773.06	N 32 13 30.30 W	103 47 30.75
	8555.30	14.67	164.62	8513.42	-305.38	-305.24	9.30	1.00	446017.55	708780.19	N 32 13 30.07 W	103 47 30.67
	8650.10	13.97	168.69	8605.27	-328.33	-328.03	14.72	1.29	445994.76	708785.62	N 32 13 29.84 W	103 47 30.60
	8744.60	14.02	173.58	8696.97	-350.99	-350.59	18.24	1.25	445972.72	708789.14	N 32 13 29.62 W	103 47 30.56
	8839.10	14.21	177.74	8788.62	-373.96	-373.56	19.98	1.09	445948.24	708790.88	N 32 13 29.39 W	103 47 30.55
	8934.10	12.70	178.11	8881.01	-396.10	-396.65	20.78	1.59	445927.15	708791.68	N 32 13 29.17 W	103 47 30.54
	9028.80	11.94	177.64	8973.53	-416.30	-415.84	21.53	0.81	445906.96	708792.43	N 32 13 28.97 W	103 47 30.53
	9123.40	12.64	180.89	9065.96	-436.43	-435.97	21.77	1.04	445886.83	708792.67	N 32 13 28.77 W	103 47 30.53
Last Gyro	9219.90	14.55	188.91	9159.76	-458.89	-458.50	19.73	2.78	445864.90	708790.63	N 32 13 28.55 W	103 47 30.55
	9275.00	15.04	188.47	9213.03	-472.73	-472.41	17.60	0.91	445850.39	708788.50	N 32 13 28.41 W	103 47 30.58
	9370.00	11.95	215.99	9305.49	-492.66	-492.59	10.00	7.41	445830.21	708780.90	N 32 13 28.21 W	103 47 30.67
	9464.00	10.55	282.03	9398.03	-498.33	-498.69	-4.19	13.04	445824.11	708766.71	N 32 13 28.15 W	103 47 30.83
	9559.00	15.44	314.74	9490.69	-487.06	-487.96	-21.71	9.10	445834.84	708749.19	N 32 13 28.26 W	103 47 31.04
	9654.00	20.96	310.89	9580.90	-466.35	-467.91	-43.57	5.96	445854.89	708727.33	N 32 13 28.46 W	103 47 31.29
	9748.00	25.38	311.98	9667.29	-441.02	-443.40	-71.28	4.70	445879.39	708699.63	N 32 13 28.70 W	103 47 31.61
	9842.00	34.03	322.37	9748.92	-405.69	-408.01	-102.39	10.68	445913.79	708668.51	N 32 13 29.05 W	103 47 31.97
	9937.00	42.28	329.30	9823.59	-356.08	-360.37	-135.01	9.77	445962.42	708635.90	N 32 13 29.53 W	103 47 32.35
	10031.00	51.35	332.36	9887.86	-295.25	-300.54	-188.25	9.93	446022.25	708602.66	N 32 13 30.12 W	103 47 32.73
	10126.00	59.97	339.67	9941.45	-222.69	-228.91	-199.84	11.07	446093.87	708571.07	N 32 13 30.83 W	103 47 33.10
	10221.00	72.66	346.16	9979.57	-138.96	-145.91	-225.10	14.74	446176.87	708545.81	N 32 13 31.66 W	103 47 33.39
	10316.00	78.26	347.59	10003.41	-48.84	-56.39	-245.96	6.07	446266.38	708524.94	N 32 13 32.54 W	103 47 33.62
	10372.00	78.58	347.93	10014.65	5.10	-2.78	-257.59	0.82	446319.99	708513.33	N 32 13 33.07 W	103 47 33.76
	10467.00	81.68	352.85	10030.94	97.78	89.47	-273.19	6.06	446412.23	708497.73	N 32 13 33.99 W	103 47 33.93
	10562.00	84.66	357.20	10042.25	191.92	183.40	-281.35	5.52	446506.16	708489.56	N 32 13 34.92 W	103 47 34.02
	10656.00	87.87	0.41	10048.37	285.69	277.16	-283.30	4.82	446599.91	708487.61	N 32 13 35.84 W	103 47 34.04
	10751.00	91.14	1.12	10049.19	380.58	372.13	-282.04	3.52	446694.88	708488.88	N 32 13 36.78 W	103 47 34.02
	10845.00	90.52	358.75	10047.83	474.53	466.12	-282.14	2.61	446788.86	708488.77	N 32 13 37.71 W	103 47 34.01
	10940.00	90.83	359.49	10046.71	569.51	561.10	-283.80	0.84	446883.83	708487.31	N 32 13 38.65 W	103 47 34.02
	11035.00	90.34	0.46	10045.74	664.46	656.09	-283.64	1.14	446978.62	708487.27	N 32 13 39.59 W	103 47 34.02
	11130.00	90.59	358.12	10044.98	759.42	751.09	-283.99	1.43	447073.81	708486.93	N 32 13 40.53 W	103 47 34.02
	11225.00	90.52	359.33	10043.16	849.38	840.96	-286.55	0.12	447169.77	708484.37	N 32 13 42.40 W	103 47 34.04
	11320.00	90.17	359.78	10042.02	938.33	929.91	-289.02	0.30	447262.77	708482.90	N 32 13 44.27 W	103 47 34.04
	11415.00	90.38	358.94	10041.57	1027.31	1018.89	-289.08	0.81	447356.74	708481.84	N 32 13 45.21 W	103 47 34.05
	11510.00	89.35	358.55	10041.79	1116.29	1107.87	-291.16	1.16	447451.71	708479.76	N 32 13 46.15 W	103 47 34.07
	11605.00	89.04	358.81	10043.11	1205.29	1196.87	-293.32	0.43	447546.67	708477.59	N 32 13 47.06 W	103 47 34.09
	11700.00	89.89	359.10	10045.21	1294.29	1285.87	-295.47	0.38	447641.61	708475.15	N 32 13 48.05 W	103 47 34.12
	11795.00	89.83	359.36	10045.61	1383.29	1374.87	-297.60	0.31	447736.57	708472.87	N 32 13 48.99 W	103 47 34.13
	11890.00	90.00	0.72	10045.89	1472.29	1463.89	-299.73	0.73	447831.54	708470.00	N 32 13 49.98 W	103 47 34.14
	11985.00	91.82	359.66	10044.38	1561.29	1552.89	-301.86	2.22	447926.51	708467.32	N 32 13 50.97 W	103 47 34.10
	12080.00	94.82	358.19	10038.88	1650.29	1641.89	-303.99	3.52	448021.48	708464.54	N 32 13 51.96 W	103 47 34.12
	12175.00	90.03	358.63	10030.63	1739.29	1730.89	-306.12	2.47	448116.45	708461.76	N 32 13 52.95 W	103 47 34.17
	12270.00	89.97	359.86	10030.63	1828.29	1819.89	-308.25	1.31	448211.42	708458.98	N 32 13 53.94 W	103 47 34.18
	12365.00	88.07	357.09	10033.86	1917.29	1908.89	-310.38	1.78	448306.39	708456.20	N 32 13 54.93 W	103 47 34.23
	12460.00	89.59	357.01	10035.80	2006.29	1997.89	-312.45	1.60	448401.36	708453.42	N 32 13 55.92 W	103 47 34.28
	12555.00	89.72	0.27	10036.37	2095.29	2086.89	-314.52	3.47	448496.33	708450.64	N 32 14 0.01 W	103 47 34.30
	12650.00	90.72	358.89	10035.64	2184.29	2175.89	-316.59	0.90	448591.30	708447.86	N 32 14 0.99 W	103 47 34.30
	12745.00	90.34	359.59	10034.77	2273.29	2264.89	-318.66	0.85	448686.27	708445.08	N 32 14 0.97 W	103 47 34.31
	12840.00	90.21	1.42	10033.86	2362.29	2353.89	-319.73	0.97	448781.24	708442.30	N 32 14 0.95 W	103 47 34.28
	12935.00	89.79	3.08	10033.86	2451.29	2442.89	-320.80	0.91	448876.21	708439.52	N 32 14 0.93 W	103 47 34.19
	13030.00	89.04	1.48	10035.79	2540.29	2531.89	-322.87	0.93	448971.18	708436.74	N 32 14 0.91 W	103 47 34.09
	13125.00	90.24	3.25	10036.98	2629.29	2620.89	-324.94	1.13	449066.15	708433.96	N 32 14 0.89 W	103 47 33.98
	13220.00	90.28	3.28	10038.12	2718.29	2709.89	-327.01	0.03	449161.12	708431.18	N 32 14 0.87 W	103 47 33.85
	13315.00	92.27	4.50	10034.03	2807.29	2798.89	-329.08	2.48	449256.09	708428.40	N 32 14 0.85 W	103 47 33.77
	13410.00	92.61	2.23	10025.94	2896.29	2887.89	-331.15	1.21	449351.06	708425.62	N 32 14 0.83 W	103 47 33.63
	13505.00	95.96	2.27	10018.92	2985.29	2976.89	-333.22	3.58	449446.03	708422.84	N 32 14 0.81 W	103 47 33.58
	13600.00	94.79	2.37	10010.02	3074.29	3065.89	-335.29	1.24	449541.00	708420.06	N 32 14 0.79 W	103 47 33.53
	13695.00	92.93	358.21	10003.62	3163.29	3154.89	-337.36	4.79	449635.97	708417.28	N 32 14 0.77 W	103 47 33.52
	13790.00	88.35	355.10	10002.56	3252.29	3243.89	-339.43	5.83	449730.94	708414.50	N 32 14 0.75 W	103 47 33.58
	13885.00	89.52	358.60	10004.31	3341.29	3332.89	-341.50	3.93	449825.91	708411.72	N 32 14 0.73 W	103 47 33.63
	13980.00	87.90	357.96	10006.45	3430.29	3421.89	-343.57	1.83	449920.88	708408.94	N 32 14 0.71 W	103 47 33.66
	14075.00	88.59	358.54	10008.36	3519.29	3510.89	-345.64	0.95	449995.85	708406.16	N 32 14 0.69 W	103 47 33.69
	14170.00	89.38	358.78	10011.02	3608.29	3600.89	-347.71	0.88	450090.82	708403.38	N 32 14 0.67 W	103 47 33.71
	14265.00	88.21	358.23	10013.02	3697.29	3689.89	-349.78	1.36	450185.79	708400.60	N 32 14 0.65 W	103 47 33.73
	14360.00	88.35	358.00	10015.84	37							

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Final MWD Survey Proj. to Bit	20252.00	90.10	1.54	9996.21	9868.78	9865.35	-263.29	4.65	456187.52	708507.62	N 32 15 10.72 W 103 47 33.24	
	20290.00	90.10	1.54	9996.14	9906.72	9903.33	-262.27	0.00	456225.50	708508.64	N 32 15 11.09 W 103 47 33.23	

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/96.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Sunrise MDP1 8-5 Federal Com 6H Gyro+MWD 0-20,290'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Sunrise MDP1 8-5 Federal Com 6H Gyro+MWD 0-20,290'
	1	26.500	9219.900	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Sunrise MDP1 8-5 Federal Com 6H
	1	9219.900	20290.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Sunrise MDP1 8-5 Federal Com 6H

Schlumberger

OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Sunrise MDP1 8-5 Federal Com 6H	NM Eddy County (NAD 83)	Oxy Sunrise MDP1 8-5 Federal Com 6H

Gravity & Magnetic Parameters		Surface Location		Miscellaneous	
Model: HDGM 2017	Dip: 59.981°	Date: 18-Dec-2017	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Slot: Oxy Sunrise MDP1	Oxy Sunrise MDP1 TVD Ref: RKB=26.5' (3559.7ft above MSL)
MagDec: 6.929°	FS: 48864.73nT	Gravity FS: 998.431mgm (8.86666 Based)	Lat: N 32 13 33.09	Northing: 448322.77RUS	Grid Conv: 0.2887°
			Lon: W 103 47 36.76	Easting: 708770.9NUS	Scale Fact: 0.9999412
				Plan: Oxy Sunrise MDP1 8-5 Federal Com 6H REV1 LBN 18Dec17	

