

30.015-44550

Schlumberger

Oxy Mesa Verde BS Unit 17H Gyro+MWD(IFR1) 0-15345' MD Survey
Geodetic Report
(Def Survey)

Report Date: August 11, 2018 - 02:54 PM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Mesa Verde BS Unit 17H / Mesa Verde BS Unit 17H
Well: Mesa Verde BS Unit 17H
Borehole: Original Borehole
UWI / API#: Unknown / 30-015-44550
Survey Name: Oxy Mesa Verde BS Unit 17H Gyro+MWD(IFR1) 0-15345' MD
Survey Date: July 10, 2018
Tori / AHD / DDI / ERD Ratio: 225.083 * / 5595.846 ft / 6.268 / 0.534
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 12' 38.09715", W 103° 43' 33.02587"
Location Grid N/E Y/X: N 440874.950 ftUS, E 729222.880 ftUS
CRS Grid Convergence Angle: 0.3238 *
Grid Scale Factor: 0.99994952
Version / Patch: 2.10.720.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 355.430 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB-30'
TVD Reference Elevation: 3607.800 ft above MSL
Seabed / Ground Elevation: 3577.800 ft above MSL
Magnetic Declination: 6.819 *
Total Gravity Field Strength: 998.4270mgn (9.80665 Base)
Gravity Model: GARM
Total Magnetic Field Strength: 47986.154 nT
Magnetic Dip Angle: 59.921 *
Declination Date: July 10, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Total Convergence Used: 0.3238 *
Total Corr Mag North->Grid North: 6.4950 *
Local Coord Referenced To: Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 30 2018

RECEIVED

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 ° ' '')
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	440874.95	729222.88	N 32 12 38.10	W 103 43 33.03
SHL	30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	440874.95	729222.88	N 32 12 38.10	W 103 43 33.03
	71.80	0.92	333.52	71.80	0.31	0.30	-0.15	2.20	440875.25	729222.73	N 32 12 38.10	W 103 43 33.03
	134.20	0.84	339.98	134.19	1.22	1.18	-0.53	0.20	440876.13	729222.35	N 32 12 38.11	W 103 43 33.03
	223.00	0.88	338.75	222.98	2.50	2.43	-1.00	0.05	440877.38	729221.88	N 32 12 38.12	W 103 43 33.04
	315.50	0.83	338.83	315.47	3.82	3.71	-1.50	0.05	440876.66	729221.38	N 32 12 38.13	W 103 43 33.04
	409.80	0.73	335.91	409.78	5.04	4.90	-1.99	0.11	440879.85	729220.89	N 32 12 38.15	W 103 43 33.05
	504.00	0.61	334.11	503.96	6.07	5.90	-2.45	0.13	440880.85	729220.43	N 32 12 38.16	W 103 43 33.05
	598.40	0.43	0.73	598.35	6.89	6.70	-2.67	0.31	440881.65	729220.21	N 32 12 38.16	W 103 43 33.06
	692.70	0.38	18.16	692.65	7.52	7.34	-2.57	0.15	440882.29	729220.31	N 32 12 38.17	W 103 43 33.06
	787.10	0.40	33.93	787.05	8.05	7.89	-2.30	0.12	440882.84	729220.58	N 32 12 38.18	W 103 43 33.05
	882.30	0.51	47.57	882.24	8.57	8.46	-1.80	0.16	440883.40	729221.08	N 32 12 38.18	W 103 43 33.05
Last Gyro	983.20	0.47	44.93	983.14	9.12	9.05	-1.17	0.05	440884.00	729221.71	N 32 12 38.19	W 103 43 33.04
	1111.00	0.35	338.30	1110.94	9.83	9.78	-0.95	0.36	440884.73	729221.93	N 32 12 38.19	W 103 43 33.04
	1202.00	0.51	339.06	1201.94	10.48	10.42	-1.20	0.18	440885.37	729221.68	N 32 12 38.20	W 103 43 33.04
	1293.00	0.53	342.71	1292.93	11.28	11.20	-1.47	0.04	440886.15	729221.41	N 32 12 38.21	W 103 43 33.04
	1478.00	0.64	358.40	1477.92	13.15	13.05	-1.75	0.10	440888.00	729221.13	N 32 12 38.23	W 103 43 33.05
	1668.00	1.11	352.89	1667.90	16.05	15.94	-2.01	0.25	440890.89	729220.87	N 32 12 38.25	W 103 43 33.05
	1762.00	1.29	355.01	1761.88	18.01	17.90	-2.21	0.20	440892.84	729220.67	N 32 12 38.27	W 103 43 33.05
	1857.00	1.50	6.44	1856.85	20.30	20.20	-2.16	0.37	440895.15	729220.72	N 32 12 38.30	W 103 43 33.05
	1952.00	1.81	10.90	1951.82	22.81	22.74	-1.77	0.17	440897.69	729221.11	N 32 12 38.32	W 103 43 33.05
	2046.00	1.84	17.54	2045.77	25.48	25.48	-1.07	0.32	440900.43	729221.81	N 32 12 38.35	W 103 43 33.04
	2235.00	2.30	16.87	2234.65	31.82	32.00	0.95	0.24	440906.95	729223.83	N 32 12 38.41	W 103 43 33.01
	2349.00	2.32	19.95	2348.56	36.05	36.36	2.40	0.11	440911.31	729225.28	N 32 12 38.46	W 103 43 33.00
	2444.00	0.25	34.09	2443.53	37.96	38.34	3.17	2.19	440913.29	729226.05	N 32 12 38.48	W 103 43 32.99
	2538.00	0.08	177.96	2537.53	38.06	38.44	3.29	0.34	440913.39	729226.17	N 32 12 38.48	W 103 43 32.99
	2728.00	0.08	82.41	2727.53	37.93	38.33	3.42	0.06	440913.28	729226.30	N 32 12 38.48	W 103 43 32.98
	2822.00	0.06	284.05	2821.53	37.95	38.35	3.44	0.15	440913.30	729226.32	N 32 12 38.48	W 103 43 32.98
	3012.00	0.06	322.31	3011.53	38.07	38.45	3.28	0.02	440913.40	729226.16	N 32 12 38.48	W 103 43 32.99
	3201.00	0.00	113.16	3200.53	38.15	38.53	3.22	0.03	440913.48	729226.10	N 32 12 38.48	W 103 43 32.99
	3296.00	0.06	60.79	3295.53	38.17	38.55	3.27	0.06	440913.50	729226.15	N 32 12 38.48	W 103 43 32.98
	3390.00	0.00	69.78	3389.53	38.19	38.58	3.31	0.08	440913.53	729226.18	N 32 12 38.48	W 103 43 32.98
	3485.00	0.06	352.15	3484.53	38.24	38.63	3.30	0.06	440913.57	729226.18	N 32 12 38.48	W 103 43 32.98
	3579.00	0.00	55.84	3578.53	38.29	38.68	3.30	0.06	440913.62	729226.18	N 32 12 38.48	W 103 43 32.98
	3674.00	0.00	116.65	3673.53	38.29	38.68	3.30	0.00	440913.62	729226.18	N 32 12 38.48	W 103 43 32.98
	3769.00	0.00	302.65	3768.53	38.29	38.68	3.30	0.00	440913.62	729226.18	N 32 12 38.48	W 103 43 32.98
	3863.00	0.00	300.94	3862.53	38.29	38.68	3.33	0.03	440913.53	729226.21	N 32 12 38.48	W 103 43 32.98
	4053.00	0.06	157.71	4052.53	38.20	38.58	3.37	0.03	440913.44	729226.25	N 32 12 38.48	W 103 43 32.98
	4242.00	0.00	306.65	4241.53	38.10	38.49	3.37	0.06	440913.26	729226.27	N 32 12 38.48	W 103 43 32.98
	4432.00	0.11	175.54	4431.53	37.92	38.31	3.39	0.12	440913.05	729225.95	N 32 12 38.47	W 103 43 32.99
	4621.00	0.20	264.58	4620.53	37.73	38.10	3.07	0.24	440913.13	729225.75	N 32 12 38.47	W 103 43 32.99
	4817.00	0.18	322.09	4816.53	37.83	38.18	2.87	0.08	440913.31	729225.53	N 32 12 38.48	W 103 43 32.99
	4992.00	0.17	296.91	4991.53	38.03	38.36	2.65	0.21	440913.48	729225.43	N 32 12 38.48	W 103 43 32.99
	4886.00	0.14	14.32	4885.53	38.21	38.54	2.55	0.27	440913.50	729225.53	N 32 12 38.48	W 103 43 32.99
	4981.00	0.14	142.64	4980.53	38.22	38.56	2.65	0.24	440913.51	729225.67	N 32 12 38.48	W 103 43 32.99
	5076.00	0.14	33.99	5075.53	38.21	38.56	2.79	0.08	440913.73	729225.74	N 32 12 38.48	W 103 43 32.99
	5170.00	0.15	5.50	5169.52	38.43	38.78	2.86	0.16	440913.75	729225.63	N 32 12 38.48	W 103 43 32.99
	5360.00	0.16	211.53	5359.52	38.46	38.80	2.75	0.14	440913.62	729225.46	N 32 12 38.48	W 103 43 32.99
	5455.00	0.12	264.95	5454.52	38.35	38.68	2.58	0.29	440913.62	729225.46	N 32 12 38.48	W 103 43 32.99
	5549.00	0.15	90.23	5548.52	38.34	38.67	2.60	0.05	440913.53	729225.85	N 32 12 38.48	W 103 43 32.99
	5739.00	0.09	126.03	5738.52	38.22	38.58	2.97	0.12	440913.53	729226.00	N 32 12 38.48	W 103 43 32.99
	5834.00	0.12	64.88	5833.52	38.21	38.58	3.12	0.28	440913.54	729225.98	N 32 12 38.48	W 103 43 32.99
	5928.00	0.14	256.34	5927.52	38.22	38.59	3.10	0.54	440913.61	729225.35	N 32 12 38.48	W 103 43 32.99
	6023.00	0.64	280.52	6022.52	38.34	38.66	2.47	1.91	440913.62	729222.86	N 32 12 38.48	W 103 43 33.02
	6117.00	2.41	267.38	6116.48	38.55	38.67	-0.02	1.55	440913.36	729217.65	N 32 12 38.48	W 103 43 33.08
	6212.00	3.88	267.04	6211.34	38.70	38.41	-5.23	1.42	440912.77	729210.15	N 32 12 38.47	W 103 43 33.17
	6307.00	5.21	264.39	6306.04	38.72	37.82	-12.73	1.43	440911.45	729200.55	N 32 12 38.46	W 103 43 33.28
	6402.00	6.51	260.38	6400.54	38.16	36.50	-22.33	1.60	440909.40	729188.85	N 32 12 38.44	W 103 43 33.42
	6496.00	8.01	259.83	6493.78	37.06	34.45	-34.04	0.71	440906.85	729175.31	N 32 12 38.42	W 103 43 33.58
	6591.00	8.67	258.85	6587.78	35.59	31.90	-47.58	0.49	440903.74	729161.50	N 32 12 38.39	W 103 43 33.74
	6685.00	8.66	255.80	6680.71	33.59	28.79	-61.39	1.17	440899.85	729148.46	N 32 12 38.35	W 103 43 33.89
	6780.00	7.82	250.70	6774.73	30.75	24.90	-74.42	1.09	440894.82	729136.17	N 32 12 38.30	W 103 43 34.03
	6874.00	8.45	244.98	6867.78	26.71	19.87	-86.72	1.09	440888.51	729124.27	N 32 12 38.24	W 103 43 34.17
	6969.00	7.87	238.93	6961.82	21.37	13.56	-98.61	0.36	440881.94	729112.89	N 32 12 38.17	W 103 43 34.31
	7064.00	8.04	241.07	7055.91	15.73	6.99	-110.00	0.23	440875.33	729101.26	N 32 12 38.11	W 103 43 34.44
	7159.00	8.15	239.76	7149.96	10.07	0.38	-121.63	0.11	440868.60	729089.66	N 32 12 38.04	W 103 43 34.58
	7253.00	8.25	239.96	7243.00	4.29	-6.35	-133.22	0.04	440854.94	729066.29	N 32 12 37.91	W 103 43 34.85
	7442.00	8.22	239.43	7430.05	-7.47	-20.01	-156.60	0.36	440848.30	729054.70	N 32 12 37.84	W 103 43 34.99
	7537.00	7.95	240.95	7524.11	-13.17	-26.65	-168.19	0.76	440841.41	729043.26	N 32 12 37.78	W 103 43 35.12
	7631.00	8.40	237.01	7617.15	-19.13	-33.55	-179.63	0.24	440833.68	729031.69	N 32 12 37.70	W 103 43 35.25
	7726.00	8.45	235.51	7711.13	-25.91	-41.28	-191.20	0.57	440825.81	729020.63	N 32 12 37.62	W 103 43 35.38
	7821.00	7.98	233.65	7805.15	-32.87	-49.14	-202.27	0.34	440817.88	729009.95	N 32 12 37.54	W 103 43 35.51
	7915.00	8.29	233.09	7898.21	-39.93	-57.08	-212.94	0.06	440809.61	728998.98	N 32 12 37.46	W 103

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 ° ' ")
	8576.00	0.54	230.78	8555.10	-63.68	-85.74	-273.46	2.20	440789.22	728949.43	N 32 12 37.26	W 103 43 38.21
	8671.00	0.75	263.64	8650.09	-63.95	-86.09	-274.43	0.44	440788.87	728948.47	N 32 12 37.26	W 103 43 38.23
	8860.00	0.63	138.36	8839.08	-64.82	-87.00	-274.97	0.65	440787.95	728947.93	N 32 12 37.25	W 103 43 38.23
	8954.00	0.51	173.58	8933.08	-65.65	-87.80	-274.58	0.39	440787.15	728948.32	N 32 12 37.24	W 103 43 38.23
	9049.00	0.47	153.62	9028.08	-66.43	-88.57	-274.36	0.18	440786.38	728948.54	N 32 12 37.24	W 103 43 38.22
	9162.00	3.26	272.81	9141.02	-66.45	-88.83	-277.36	3.11	440786.12	728945.53	N 32 12 37.23	W 103 43 38.26
	9257.00	5.92	269.95	9235.71	-65.72	-88.70	-284.96	2.81	440786.25	728937.94	N 32 12 37.24	W 103 43 38.47
	9351.00	6.60	273.17	9329.15	-64.61	-88.41	-295.20	0.81	440786.55	728927.69	N 32 12 37.25	W 103 43 38.59
	9445.00	6.00	279.91	9422.58	-62.85	-87.26	-305.44	1.01	440787.69	728917.46	N 32 12 37.27	W 103 43 38.69
	9540.00	4.81	280.55	9517.15	-60.37	-85.68	-314.24	1.25	440789.27	728900.87	N 32 12 37.29	W 103 43 38.78
	9634.00	5.04	288.52	9610.81	-57.72	-83.65	-322.03	0.77	440791.31	728893.25	N 32 12 37.32	W 103 43 38.87
	9728.00	4.99	295.06	9704.45	-54.08	-80.60	-329.65	0.61	440796.71	728888.86	N 32 12 37.34	W 103 43 38.92
	9785.00	5.06	301.53	9761.23	-51.38	-78.24	-334.04	1.00	440802.96	728881.45	N 32 12 37.40	W 103 43 37.00
	9870.00	8.13	315.50	9845.66	-44.56	-71.99	-341.45	4.05	440817.09	728869.51	N 32 12 37.54	W 103 43 37.14
	9975.00	12.20	322.65	9949.00	-29.53	-57.87	-353.39	4.05	440841.34	728855.01	N 32 12 37.79	W 103 43 37.31
	10070.00	22.58	332.68	10039.55	-4.19	-33.61	-367.89	11.33	440880.76	728840.95	N 32 12 38.18	W 103 43 37.47
	10164.00	30.69	346.16	10123.58	36.22	5.81	-381.95	10.71	440935.84	728830.67	N 32 12 38.72	W 103 43 37.59
	10259.00	41.81	351.92	10200.10	91.95	60.90	-392.24	12.23	441005.80	728825.75	N 32 12 39.41	W 103 43 37.64
	10354.00	53.75	359.33	10263.87	162.09	130.86	-397.16	13.82	441085.47	728826.00	N 32 12 40.20	W 103 43 37.63
	10449.00	60.35	0.97	10315.51	241.48	210.53	-396.90	7.10	441170.24	728827.40	N 32 12 41.04	W 103 43 37.61
	10544.00	66.12	0.93	10358.27	325.88	295.30	-395.50	6.07	441259.49	728827.75	N 32 12 41.92	W 103 43 37.60
	10639.00	74.10	359.55	10390.57	414.82	384.56	-395.15	8.51	441351.36	728825.99	N 32 12 42.83	W 103 43 37.61
	10734.00	76.55	358.26	10414.64	506.54	476.43	-396.91	2.89	441444.32	728822.94	N 32 12 43.75	W 103 43 37.64
	10829.00	80.06	357.99	10433.89	599.45	569.40	-399.96	3.71	441538.72	728821.21	N 32 12 44.69	W 103 43 37.66
	10924.00	88.23	359.90	10443.57	693.70	663.80	-401.69	8.83	441593.70	728821.21	N 32 12 45.23	W 103 43 37.65
	10979.00	89.43	0.10	10444.70	748.51	718.79	-401.69	2.21	441714.65	728818.58	N 32 12 46.43	W 103 43 37.68
	11100.00	89.13	357.40	10446.22	869.29	839.74	-404.33	2.24	441809.52	728814.15	N 32 12 47.37	W 103 43 37.72
	11195.00	88.93	357.26	10447.83	964.22	934.62	-408.75	0.26	441904.37	728809.18	N 32 12 48.31	W 103 43 37.77
	11290.00	89.06	356.74	10449.49	1059.17	1029.48	-413.72	0.56	441999.30	728806.54	N 32 12 49.25	W 103 43 37.80
	11385.00	88.82	0.07	10451.25	1154.01	1124.41	-416.36	3.51	442094.19	728810.35	N 32 12 50.19	W 103 43 37.75
	11480.00	89.65	4.53	10452.52	1248.30	1219.30	-412.55	4.77	442188.83	728818.43	N 32 12 51.12	W 103 43 37.65
	11575.00	89.00	5.23	10453.64	1342.00	1313.95	-404.47	1.01	442283.39	728827.31	N 32 12 52.06	W 103 43 37.54
	11670.00	88.51	5.50	10455.70	1435.55	1408.51	-395.59	0.59	442378.14	728833.68	N 32 12 52.99	W 103 43 37.46
	11765.00	89.31	2.20	10457.51	1529.50	1503.26	-389.22	3.57	442473.04	728837.60	N 32 12 53.93	W 103 43 37.41
	11860.00	88.82	2.53	10459.06	1623.79	1598.17	-385.30	0.62	442567.92	728842.11	N 32 12 54.87	W 103 43 37.35
	11955.00	89.96	2.91	10460.07	1718.01	1693.06	-380.79	1.26	442662.78	728847.13	N 32 12 55.81	W 103 43 37.28
	12050.00	89.51	3.15	10460.51	1812.18	1787.92	-375.77	0.54	442757.70	728850.82	N 32 12 56.75	W 103 43 37.23
	12145.00	89.79	1.30	10461.09	1906.51	1882.85	-372.08	1.97	442852.68	728851.92	N 32 12 57.69	W 103 43 37.21
	12240.00	89.20	0.03	10461.93	2001.10	1977.83	-370.98	1.47	442947.67	728851.71	N 32 12 58.63	W 103 43 37.21
	12335.00	89.68	359.71	10462.86	2095.81	2072.83	-371.19	0.61	443042.68	728851.54	N 32 12 59.57	W 103 43 37.21
	12430.00	90.23	0.09	10462.93	2190.52	2167.83	-371.36	0.70	443137.65	728852.55	N 32 13 0.51	W 103 43 37.19
	12525.00	90.68	1.13	10462.18	2285.13	2262.82	-370.35	1.19	443232.62	728854.28	N 32 13 1.45	W 103 43 37.16
	12620.00	90.20	0.95	10461.45	2379.67	2357.80	-368.62	0.54	443422.59	728857.20	N 32 13 3.33	W 103 43 37.11
	12810.00	90.37	0.81	10460.50	2568.81	2547.77	-365.70	0.12	443611.55	728855.32	N 32 13 5.20	W 103 43 37.12
	12999.00	89.48	358.05	10460.75	2757.33	2736.74	-367.58	1.53	443706.31	728849.20	N 32 13 6.14	W 103 43 37.19
	13094.00	88.31	354.57	10462.58	2852.29	2831.51	-373.69	3.86	443800.40	728836.42	N 32 13 7.07	W 103 43 37.33
	13189.00	89.44	349.95	10464.45	2947.09	2925.60	-386.48	5.01	443894.64	728825.09	N 32 13 8.00	W 103 43 37.46
	13284.00	87.79	356.35	10466.75	3041.94	3018.84	-397.81	6.95	443989.51	728822.45	N 32 13 8.94	W 103 43 37.48
	13379.00	87.96	0.46	10470.27	3136.73	3114.72	-400.45	4.33	444084.46	728823.19	N 32 13 9.88	W 103 43 37.47
	13474.00	88.79	0.43	10472.97	3231.32	3209.68	-399.71	0.87	444274.44	728823.59	N 32 13 11.76	W 103 43 37.45
	13664.00	90.16	359.81	10474.71	3420.67	3399.67	-399.31	0.79	444369.43	728822.83	N 32 13 12.70	W 103 43 37.45
	13759.00	90.10	359.27	10474.49	3515.43	3494.66	-400.08	0.57	444464.39	728820.45	N 32 13 13.64	W 103 43 37.50
	13854.00	89.37	357.86	10474.93	3610.28	3589.63	-402.45	1.67	444559.33	728817.97	N 32 13 14.58	W 103 43 37.52
	13949.00	92.44	359.15	10473.43	3705.12	3684.57	-404.93	3.51	444654.10	728815.45	N 32 13 15.52	W 103 43 37.52
	14044.00	94.71	357.81	10467.51	3799.79	3779.34	-407.45	2.77	444748.51	728808.24	N 32 13 16.45	W 103 43 37.60
	14139.00	94.16	353.45	10460.16	3894.48	3873.76	-414.68	4.61	444842.71	728797.86	N 32 13 17.38	W 103 43 37.71
	14234.00	93.71	353.97	10453.64	3989.22	3967.97	-425.05	0.72	444937.00	728786.27	N 32 13 18.32	W 103 43 37.82
	14329.00	94.02	354.42	10447.23	4083.98	4062.26	-434.63	0.57	445031.51	728780.22	N 32 13 19.25	W 103 43 37.91
	14424.00	92.16	355.84	10442.11	4178.83	4156.78	-445.11	3.32	445126.27	728770.79	N 32 13 20.19	W 103 43 37.97
	14519.00	89.06	356.40	10441.10	4273.81	4251.54	-452.56	3.38	445221.16	728770.34	N 32 13 21.13	W 103 43 38.01
	14614.00	88.03	359.44	10443.51	4368.68	4346.44	-449.89	4.72	445316.06	728773.01	N 32 13 22.07	W 103 43 37.97
	14709.00	89.17	3.78	10445.90	4463.07	4441.34	-442.29	2.38	445410.75	728770.61	N 32 13 23.01	W 103 43 37.88
	14804.00	90.75	5.40	10445.97	4556.85	4536.03	-434.10	1.92	445505.38	728768.80	N 32 13 23.94	W 103 43 37.77
	14899.00	89.17	4.49	10445.97	4650.54	4630.68	-428.34	1.25	445599.03	728766.56	N 32 13 24.87	W 103 43 37.68
	14993.00	88.10	4.98	10448.21	4743.28	4724.33	-418.30	3.78	445693.67	728804.61	N 32 13 25.80	W 103 43 37.58
	15088.00	91.68	4.74	10448.39	4836.98	4818.97	-410.56	1.56	445788.33	728812.34	N 32 13 26.74	W 103 43 37.48
	15183.00	90.20	4.60	10448.83	4930.73	4913.64	-403.28	1.14	445882.04	728819.62	N 32 13 27.67	W 103 43 37.39
	15277.00	91.22	4.28	10445.67	5023.56	5007.35	-403.21	1.14	445949.83	728819.69	N 32 13 27.68	W 103 43 37.39
	15278.00	91.23	4.28	10445.65	5024.55	5008.35	-403.21	1.14	445949.83	728824.69	N 32 13 28.34	W 103 43 37.33
	15345.00	91.23	4.28	10444.21	5090.74	5075.14	-398.21	0.00				

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	30.000	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 17H
	1	30.000	30.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Gyro+MWD(IFR1) 0-15345' MD
	1	30.000	983.200	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 17H
	1	983.200	9785.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Gyro+MWD(IFR1) 0-15345' MD
	1	9785.000	15345.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Mesa Verde BS Unit 17H



OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Mesa Verde BS Unit 17H	NM Eddy County (NAD 83)	Oxy Mesa Verde BS Unit 17H

Gravity & Magnetic Parameters

Model: HDGM 2019 Dip: 53.921° Date: 10-Jul-2019
MagDec: 6.819° FS: 47986.164mT Gravity FS: 959.427mgn (9.80665 Based)

Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet

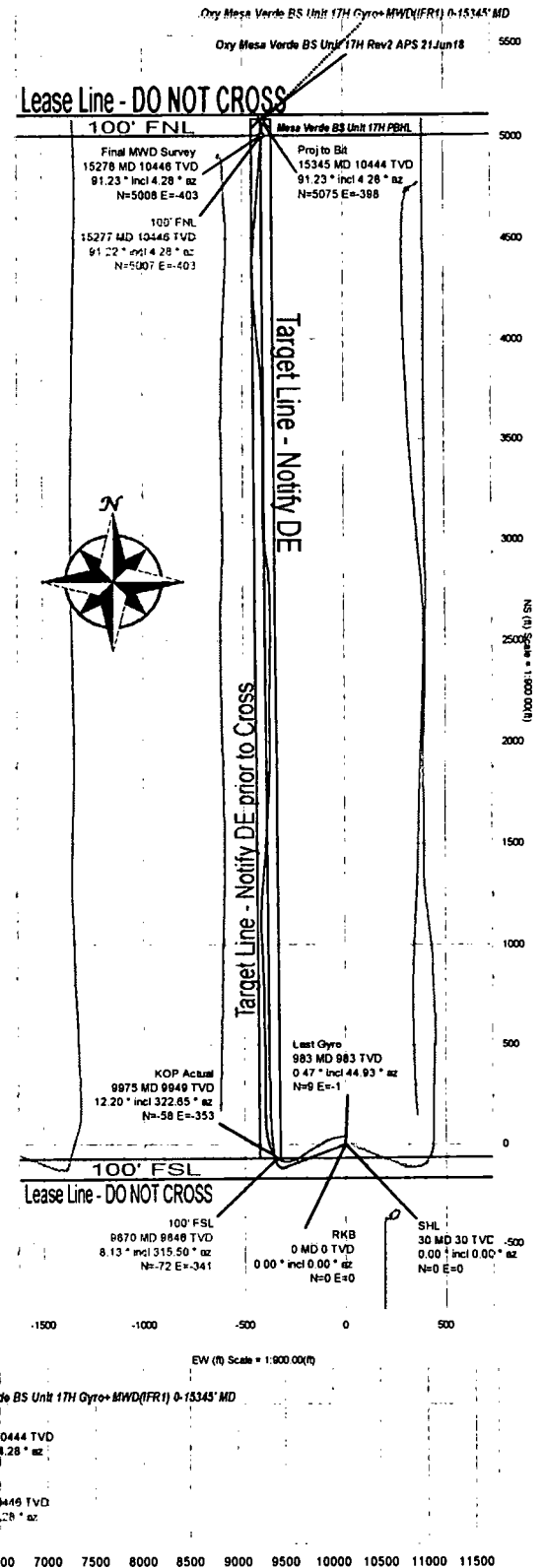
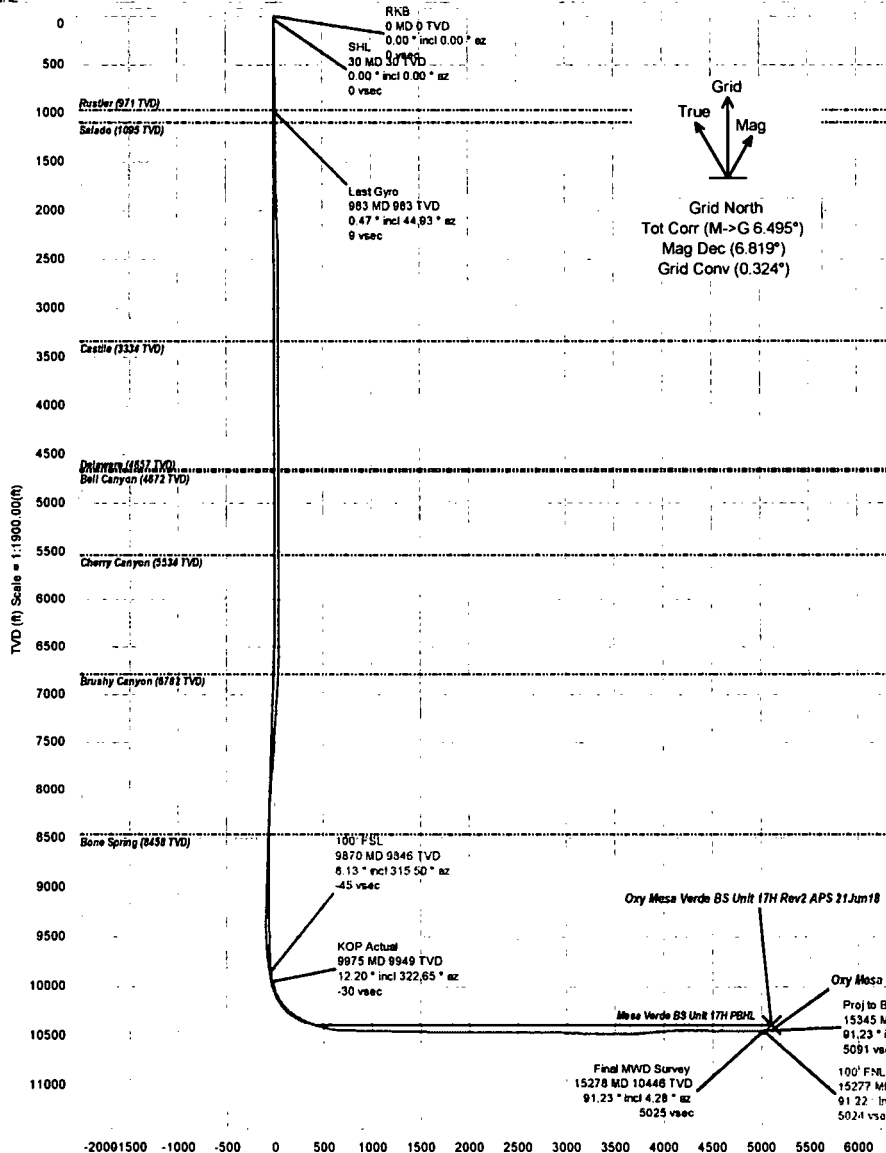
Lat: N 32 12 38.10 Northing: 440874.96RUS Grid Conv: 0.3238°
Lon: W 103 43 33.03 Easting: 729222.88RUS Scale Fact: 0.99994962

Miscellaneous

Slot: Mesa Verde BS TVD Ref: RKB=30'(3607.BR above MSL)
Unit 17H
Plan: Oxy Mesa Verde BS Unit 17H Rev2 APB 21Jun18

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	971.00	0.00	248.77	971.00	0.00	0.00	0.00	0.00
Salado	1095.00	0.00	248.77	1095.00	0.00	0.00	0.00	0.00
Castile	3334.00	0.00	248.77	3334.00	0.00	0.00	0.00	0.00
Delaware	4657.00	0.00	248.77	4657.00	0.00	0.00	0.00	0.00
Bell Canyon	4672.00	0.00	248.77	4672.00	0.00	0.00	0.00	0.00
Cherry Canyon	5534.00	0.00	248.77	5534.00	0.00	0.00	0.00	0.00
Build 2"/100'	6025.00	0.00	248.77	6025.00	0.00	0.00	0.00	0.00
Hold Tangent	6324.89	8.00	248.77	6324.34	-4.50	-5.68	-14.62	2.00
Brushy Canyon	6785.07	6.00	248.77	6782.00	-18.28	-23.09	-59.44	0.00
Bone Spring	8470.29	6.00	248.77	8458.00	-68.77	-86.86	-223.57	0.00
Build/Turn 2"/100'	9303.12	6.00	248.77	9298.27	-63.72	-118.38	-304.68	0.00
Hold to KOP	9931.33	10.50	344.25	9910.00	-46.79	-75.00	-351.00	2.00
ICP	9931.33	10.50	344.25	9910.00	-46.79	-75.00	-351.00	2.00
Build/Turn 11"/100'	9981.33	10.50	344.25	9959.18	-37.85	-66.23	-353.47	0.00
Landing Point	10707.52	90.00	359.64	10388.00	475.08	446.40	-377.77	11.00
Mesa Verde BS Unit 17H	15349.18	90.00	359.64	10388.00	5104.21	5087.97	-406.73	0.00
PBHL								



Vertical Section (ft) Azim = 355.43° Scale = 1:1900.00(ft) Origin = 0N-S, 0E-W