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30-015-45079

Schlumberger

Patton MDP1 17 Federal 176H ST02 MWD to 14025MD Survey Geodetic Report

(Def Survey)

Report Date:	October 09, 2018 - 09:39 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	168.130 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Patton MDP1 17 Federal 176H / Patton MDP1 17 Federal 176H	**TVD Reference Datum:**	RKB = 26.5
Well:	Patton MDP1 17 Federal 176H	**TVD Reference Elevation:**	3572.800 ft above MSL
Borehole:	ST002	**Seabed / Ground Elevation:**	3546.300 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.650 °
Survey Name:	Patton MDP1 17 Federal 176H ST02 MWD to 14025MD	**Total Gravity Field Strength:**	998.4271mgn (9.80665 Based)
Survey Date:	October 03, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	256.038 ° / 8115.835 ft / 6.387 / 0.679	**Total Magnetic Field Strength:**	47970.368 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.946 °
Location Lat / Long:	N 32° 13' 20.91268", W 103° 47' 43.78826"	**Declination Date:**	October 03, 2018
Location Grid N/E Y/X:	N 445086.770 ftUS, E 707657.830 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.2858 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99994077	**Grid Convergence Used:**	0.2858 °
Version / Patch:	2.10.740.0	**Total Corr Mag North->Grid North:**	6.5634 °
		Local Coord Referenced To:	Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 02 2018

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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	N/A	445086.77	707657.83	N 32 13 20.91	W 103 47 43.79
Ground Level	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	445086.77	707657.83	N 32 13 20.91	W 103 47 43.79
	98.50	0.51	145.48	98.50	0.10	-0.26	0.18	0.71	445086.51	707658.01	N 32 13 20.91	W 103 47 43.78
	185.50	0.59	114.73	185.50	0.92	-0.77	0.81	0.35	445086.00	707658.64	N 32 13 20.91	W 103 47 43.78
	273.50	0.42	158.27	273.49	1.51	-1.26	1.34	0.46	445085.51	707659.17	N 32 13 20.90	W 103 47 43.77
	368.50	0.34	191.21	368.49	2.11	-1.86	1.41	0.24	445084.91	707659.24	N 32 13 20.89	W 103 47 43.77
	462.50	0.60	205.31	462.49	2.76	-2.58	1.15	0.30	445084.19	707658.98	N 32 13 20.89	W 103 47 43.77
	557.50	0.71	195.03	557.48	3.66	-3.60	0.78	0.17	445083.17	707658.61	N 32 13 20.88	W 103 47 43.78
	651.50	0.88	205.43	651.47	4.77	-4.81	0.32	0.24	445081.96	707658.15	N 32 13 20.87	W 103 47 43.78
End of Gyro	745.50	0.93	203.16	745.48	5.97	-6.16	-0.29	0.07	445080.61	707657.54	N 32 13 20.85	W 103 47 43.79
	861.00	0.06	267.51	860.95	6.73	-7.03	-0.72	0.78	445079.74	707657.11	N 32 13 20.84	W 103 47 43.80
	978.00	0.03	339.87	977.95	6.69	-7.00	-0.79	0.05	445079.77	707657.04	N 32 13 20.84	W 103 47 43.80
	1071.00	0.03	322.51	1070.95	6.64	-6.96	-0.81	0.01	445079.81	707657.02	N 32 13 20.84	W 103 47 43.80
	1254.00	0.08	184.84	1253.95	6.72	-7.05	-0.87	0.06	445079.72	707656.96	N 32 13 20.84	W 103 47 43.80
	1439.00	0.03	309.20	1438.95	6.79	-7.14	-0.94	0.05	445079.63	707656.89	N 32 13 20.84	W 103 47 43.80
	1533.00	0.03	29.44	1532.95	6.76	-7.10	-0.95	0.04	445079.67	707656.88	N 32 13 20.84	W 103 47 43.80
	1628.00	0.04	283.80	1627.95	6.72	-7.07	-0.97	0.06	445079.70	707656.86	N 32 13 20.84	W 103 47 43.80
	1722.00	0.03	83.95	1721.95	6.71	-7.06	-0.98	0.07	445079.71	707656.85	N 32 13 20.84	W 103 47 43.80
	1817.00	0.03	280.38	1816.95	6.70	-7.06	-0.98	0.06	445079.71	707656.85	N 32 13 20.84	W 103 47 43.80
	1911.00	0.03	141.51	1910.95	6.72	-7.07	-0.99	0.06	445079.70	707656.84	N 32 13 20.84	W 103 47 43.80
	2100.00	0.03	60.10	2099.95	6.75	-7.08	-0.91	0.02	445079.69	707656.92	N 32 13 20.84	W 103 47 43.80
	2194.00	0.03	121.78	2193.95	6.75	-7.09	-0.87	0.03	445079.69	707656.96	N 32 13 20.84	W 103 47 43.80
	2288.00	0.03	134.91	2287.95	6.79	-7.12	-0.83	0.01	445079.65	707657.00	N 32 13 20.84	W 103 47 43.80
	2383.00	0.04	219.19	2382.95	6.83	-7.16	-0.84	0.05	445079.61	707656.99	N 32 13 20.84	W 103 47 43.80
	2477.00	0.03	330.37	2476.95	6.83	-7.16	-0.87	0.06	445079.61	707656.96	N 32 13 20.84	W 103 47 43.80
	2571.00	0.04	218.67	2570.95	6.83	-7.17	-0.90	0.06	445079.60	707656.93	N 32 13 20.84	W 103 47 43.80
	2666.00	0.03	254.02	2665.95	6.85	-7.20	-0.95	0.02	445079.57	707656.88	N 32 13 20.84	W 103 47 43.80
	2760.00	0.04	122.48	2759.95	6.88	-7.22	-0.94	0.07	445079.55	707656.89	N 32 13 20.84	W 103 47 43.80
	2854.00	0.03	229.10	2853.95	6.91	-7.26	-0.93	0.06	445079.51	707656.90	N 32 13 20.84	W 103 47 43.80
	2949.00	0.03	283.28	2948.95	6.91	-7.27	-0.98	0.03	445079.50	707656.85	N 32 13 20.84	W 103 47 43.80
	3137.00	0.03	225.80	3136.95	6.92	-7.28	-1.06	0.02	445079.48	707656.77	N 32 13 20.84	W 103 47 43.80
	3325.00	0.08	272.02	3324.95	6.91	-7.32	-1.23	0.03	445079.45	707656.60	N 32 13 20.84	W 103 47 43.80
	3477.00	0.08	281.41	3476.95	6.84	-7.30	-1.44	0.01	445079.47	707656.39	N 32 13 20.84	W 103 47 43.81
	3609.00	0.08	239.71	3608.95	6.84	-7.32	-1.61	0.04	445079.45	707656.22	N 32 13 20.84	W 103 47 43.81
	3770.00	0.03	225.98	3769.95	6.90	-7.41	-1.73	0.03	445079.36	707656.10	N 32 13 20.84	W 103 47 43.81
	3892.00	0.03	150.43	3891.95	6.94	-7.46	-1.74	0.03	445079.31	707656.09	N 32 13 20.84	W 103 47 43.81
	3987.00	0.09	296.10	3986.95	6.92	-7.45	-1.80	0.12	445079.32	707656.03	N 32 13 20.84	W 103 47 43.81
	4081.00	0.14	244.95	4080.95	6.90	-7.47	-1.97	0.12	445079.30	707655.86	N 32 13 20.84	W 103 47 43.81
	4175.00	0.04	260.37	4174.95	6.93	-7.52	-2.10	0.11	445079.25	707655.73	N 32 13 20.84	W 103 47 43.81
	4269.00	0.08	294.90	4268.95	6.89	-7.50	-2.19	0.06	445079.27	707655.64	N 32 13 20.84	W 103 47 43.81
	4364.00	0.08	342.22	4363.95	6.78	-7.41	-2.27	0.07	445079.36	707655.56	N 32 13 20.84	W 103 47 43.81
	4552.00	0.03	296.68	4551.95	6.62	-7.20	-2.36	0.03	445079.51	707655.47	N 32 13 20.84	W 103 47 43.81
	4647.00	0.03	68.03	4646.95	6.60	-7.24	-2.38	0.06	445079.53	707655.47	N 32 13 20.84	W 103 47 43.81
	4741.00	0.03	1.91	4740.95	6.57	-7.21	-2.33	0.03	445079.56	707655.50	N 32 13 20.84	W 103 47 43.81
	4835.00	0.03	185.88	4834.95	6.57	-7.21	-2.34	0.06	445079.57	707655.49	N 32 13 20.84	W 103 47 43.81
	4930.00	0.03	283.61	4929.95	6.58	-7.22	-2.36	0.05	445079.55	707655.47	N 32 13 20.84	W 103 47 43.81
	5118.00	0.14	21.78	5117.95	6.37	-7.00	-2.32	0.08	445079.77	707655.51	N 32 13 20.84	W 103 47 43.81
	5307.00	0.68	119.80	5306.95	6.92	-7.34	-1.27	0.38	445079.43	707656.56	N 32 13 20.84	W 103 47 43.80
	5402.00	1.91	70.77	5401.92	7.10	-7.10	0.72	1.63	445078.87	707658.55	N 32 13 20.84	W 103 47 43.78
	5496.00	3.43	56.52	5495.82	5.86	-5.03	4.54	1.75	445081.74	707662.37	N 32 13 20.88	W 103 47 43.73
	5590.00	6.57	45.59	5589.45	1.93	0.28	10.73	3.48	445087.05	707668.58	N 32 13 20.91	W 103 47 43.66
	5685.00	9.77	41.12	5683.38	-6.66	11.20	20.88	3.10	445097.97	707678.71	N 32 13 21.02	W 103 47 43.54
	5800.00	12.52	30.98	5796.40	-20.38	27.68	32.60	3.21	445114.44	707690.43	N 32 13 21.18	W 103 47 43.41
	5874.00	13.08	25.64	5868.56	-32.90	42.10	40.35	1.76	445128.87	707698.18	N 32 13 21.33	W 103 47 43.31
	6070.00	13.07	22.32	6059.48	-68.63	82.60	58.37	0.38	445169.36	707716.19	N 32 13 21.73	W 103 47 43.10
	6157.00	12.64	21.71	6144.30	-84.90	100.54	65.62	0.52	445187.31	707723.45	N 32 13 21.90	W 103 47 43.02
	6251.00	12.61	20.53	6236.03	-102.13	119.71	73.02	0.26	445206.47	707730.85	N 32 13 22.09	W 103 47 42.93
	6440.00	15.84	25.43	6419.21	-140.08	162.34	91.34	1.82	445249.10	707749.17	N 32 13 22.51	W 103 47 42.71
	6535.00	17.43	27.95	6510.24	-161.32	186.02	103.58	1.84	445273.37	707761.40	N 32 13 22.75	W 103 47 42.57
	6629.00	18.58	28.11	6599.83	-183.61	212.26	117.23	1.22	445299.02	707775.06	N 32 13 23.01	W 103 47 42.41
	6723.00	18.94	29.33	6688.84	-206.56	238.77	131.76	0.57	445325.53	707789.58	N 32 13 23.27	W 103 47 42.24
	6817.00	17.92	29.15	6777.82	-228.95	264.70	146.28	1.09	445351.45	707804.10	N 32 13 23.52	W 103 47 42.07
	7006.00	17.69	30.59	6957.78	-272.07	314.81	175.06	0.26	445401.56	707832.88	N 32 13 24.02	W 103 47 41.73
	7100.00	15.62	30.21	7047.82	-292.01	338.05	188.69	2.21	445424.80	707846.51	N 32 13 24.25	W 103 47 41.57
	7195.00	14.77	30.05	7139.49	-310.51	359.58	201.19	0.90	445446.33	707859.01	N 32 13 24.46	W 103 47 41.42
	7289.00	13.75	29.45	7230.60	-327.82	379.88	212.69	1.10	445466.63	707870.50	N 32 13 24.66	W 103 47 41.29
	7384.00	12.60	29.08	7323.09	-344.12	398.57	223.27	1.21	445485.32	707881.09	N 32 13 24.85	W 103 47 41.16
	7572.00	11.81	30.14	7506.85	-372.48	432.03	244.59	0.90	445518.77	707902.40	N 32 13 25.18	W 103 47 40.91
	7761.00	10.13	31.50	7690.28	-397.21	464.02	276.57	2.99	445550.76	707934.38	N 32 13 25.49	W 103 47 40.54
	7856.00	17.52	49.47	7781.21	-409.98	481.53	297.76	1.59	445568.27	707955.57	N 32 13 25.66	W 103 47 40.29
	7950.00	18.55	47.82	7870.59	-424.31	500.76	319.60	1.22	445587.50	707977.41	N 32 13 25.85	W 103 47 40.04
Tie-In	8045.00	17.84	43.91	7960.90	-440.04	521.28	340.78	1.60	445608.02	707998.59	N 32 13 26.05	W 103 47 39.79
	8172.00	18.68	38.85	8082.26	-462.39	549.32	365.55	1.40	445636.06	708023.35	N 32 13 26.33	W 103 47 39.50
	8267.00	25.36	51.07	8170.90	-480.31	572.77	389.97	10.21	445659.50	708047.78	N 32 13 26.56	W 103 47 39.21
	8361.00	30.68	58.75	8253.99	-493.40	594.16	428.08	10.44	445680.89	708085.88	N 32 13 26.77	W 103 47 38.77
	8456.00	28.13	78.04	8338.80	-497.00	607.21	472.69	5.85	445693.95	708130.49	N 32 13 26.90	W 103 47 38.25
	8556.00	28.15	83.87	8424.99	-494.27	614.22	519.29	2.28	445700.95	708177.09	N 32 13 26.96	W 103 47 37.71
	8650.00	34.43	98.57	8505.40	-482.74	612.62	567.74	10.48	445699.35	708225.53	N 32 13 26.95	W 103 47 37.14

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 ° ' ")
	8745.00	38.24	124.76	8582.38	-451.78	591.71	618.77	10.72	445678.45	708276.56	N 32 13 26.74	W 103 47 38.55
	8840.00	37.76	137.57	8657.35	-405.27	553.40	662.62	8.29	445640.14	708320.41	N 32 13 26.36	W 103 47 38.04
	8934.00	40.21	140.99	8727.15	-350.18	505.69	703.48	9.29	445592.43	708361.27	N 32 13 25.88	W 103 47 37.57
	9029.00	51.59	148.28	8789.83	-284.56	447.30	744.70	14.09	445534.04	708402.48	N 32 13 25.30	W 103 47 37.09
	9124.00	61.60	154.98	8841.91	-208.61	377.55	782.07	12.05	445464.30	708439.86	N 32 13 24.61	W 103 47 36.66
	9219.00	69.90	159.70	8880.91	-123.61	297.68	815.31	9.85	445384.43	708473.09	N 32 13 23.82	W 103 47 36.28
	9313.00	74.53	164.92	8909.63	-34.62	212.45	842.44	7.22	445299.21	708500.22	N 32 13 22.97	W 103 47 35.97
	9408.00	78.74	169.09	8931.59	57.74	122.42	863.18	6.15	445209.19	708520.96	N 32 13 22.08	W 103 47 35.73
	9503.00	81.44	172.03	8947.95	151.22	30.13	878.52	4.17	445118.90	708536.30	N 32 13 21.17	W 103 47 35.56
	9597.00	86.32	174.96	8957.97	244.24	-62.70	889.09	6.05	445026.08	708546.87	N 32 13 20.25	W 103 47 35.44
	9645.00	87.93	175.97	8960.37	291.78	-110.49	892.86	3.98	444978.29	708550.66	N 32 13 19.78	W 103 47 35.40
	9696.00	89.17	176.26	8961.66	342.27	-161.35	896.34	2.50	444925.43	708554.11	N 32 13 19.27	W 103 47 35.36
	9790.00	88.21	177.26	8963.81	435.18	-255.17	901.65	1.47	444831.61	708559.42	N 32 13 18.34	W 103 47 35.31
	9884.00	87.66	179.53	8967.20	527.61	-349.07	904.26	2.48	444737.72	708562.05	N 32 13 17.41	W 103 47 35.28
	9977.00	88.00	178.66	8970.72	618.81	-441.99	905.59	0.81	444644.80	708563.36	N 32 13 16.49	W 103 47 35.27
	10072.00	87.04	179.62	8974.63	712.04	-536.89	907.34	1.02	444549.92	708565.12	N 32 13 15.56	W 103 47 35.26
	10167.00	87.76	178.39	8978.14	805.33	-631.78	909.49	1.01	444455.05	708567.28	N 32 13 14.62	W 103 47 35.24
	10262.00	87.38	179.21	8983.17	898.60	-726.66	911.47	0.95	444360.16	708569.25	N 32 13 13.68	W 103 47 35.22
	10356.00	87.62	178.05	8987.27	990.94	-820.54	913.72	1.26	444266.28	708571.49	N 32 13 12.75	W 103 47 35.20
	10448.00	87.42	178.18	8991.25	1081.46	-912.40	916.74	0.26	444174.42	708574.52	N 32 13 11.84	W 103 47 35.17
Tie-In to ST01	10631.00	87.76	181.59	8998.95	1260.30	-1095.21	918.47	2.09	443991.63	708574.24	N 32 13 10.03	W 103 47 35.18
	10818.00	86.19	183.50	9008.82	1440.82	-1281.68	908.88	1.32	443805.18	708564.65	N 32 13 8.19	W 103 47 35.30
	10912.00	84.73	174.69	9008.08	1532.85	-1375.49	908.03	13.35	443711.37	708563.80	N 32 13 7.26	W 103 47 35.30
	11006.00	85.78	174.22	9999.45	1625.88	-1468.65	917.07	1.22	443618.21	708574.85	N 32 13 6.33	W 103 47 35.20
	11101.00	85.26	175.69	9990.32	1719.77	-1562.84	925.39	1.63	443524.02	708583.18	N 32 13 5.40	W 103 47 35.11
	11195.00	85.50	177.04	8981.50	1812.39	-1656.24	931.32	1.45	443430.63	708589.09	N 32 13 4.48	W 103 47 35.04
	11290.00	84.01	176.37	8973.13	1905.86	-1750.71	938.76	1.17	443336.17	708594.53	N 32 13 3.54	W 103 47 32.98
	11385.00	83.37	177.12	8966.52	1999.66	-1845.32	942.14	1.52	443241.56	708599.91	N 32 13 2.61	W 103 47 32.93
	11574.00	88.79	177.16	8962.98	2186.24	-2034.00	951.57	2.42	443052.89	708609.34	N 32 13 0.74	W 103 47 32.83
	11764.00	91.40	178.51	8962.64	2373.50	-2223.85	958.74	1.55	442863.06	708616.52	N 32 12 58.88	W 103 47 32.76
	11858.00	91.61	182.18	8960.17	2465.33	-2317.80	956.16	3.91	442769.11	708615.95	N 32 12 57.93	W 103 47 32.77
	11953.00	91.37	186.47	8957.70	2556.50	-2412.47	951.02	4.52	442674.44	708608.79	N 32 12 56.99	W 103 47 32.86
	12047.00	90.27	189.69	8956.36	2644.84	-2505.52	937.81	3.62	442581.41	708595.58	N 32 12 56.07	W 103 47 33.02
	12142.00	88.38	188.58	8957.48	2733.52	-2599.30	922.73	2.31	442487.63	708580.50	N 32 12 55.15	W 103 47 33.20
	12236.00	87.93	185.89	8960.50	2822.28	-2692.49	910.90	2.90	442394.44	708568.67	N 32 12 54.23	W 103 47 33.34
	12331.00	89.98	184.09	8962.25	2913.18	-2787.11	902.64	2.88	442299.83	708560.41	N 32 12 53.29	W 103 47 33.44
	12426.00	91.40	181.22	8961.13	3005.12	-2881.99	898.24	3.38	442204.96	708556.01	N 32 12 52.35	W 103 47 33.50
	12520.00	90.54	181.01	8959.53	3096.70	-2975.86	896.41	0.94	442111.00	708554.18	N 32 12 51.42	W 103 47 33.53
	12615.00	89.34	179.15	8959.63	3189.64	-3070.85	896.26	2.33	442016.01	708554.05	N 32 12 50.48	W 103 47 33.53
	12805.00	89.17	178.95	8962.10	3376.77	-3260.81	902.74	1.16	441826.16	708560.51	N 32 12 48.60	W 103 47 33.47
	12994.00	88.62	174.04	8965.75	3564.16	-3449.17	917.58	1.57	441637.81	708575.35	N 32 12 46.74	W 103 47 33.31
	13183.00	88.93	176.10	8969.79	3751.26	-3637.64	930.53	2.15	441449.35	708588.30	N 32 12 44.87	W 103 47 33.17
	13278.00	89.20	176.80	8971.34	3844.71	-3732.50	933.10	0.79	441354.40	708590.87	N 32 12 43.93	W 103 47 33.14
	13373.00	89.27	177.76	8972.61	3938.22	-3827.54	935.95	1.10	441259.46	708593.72	N 32 12 42.99	W 103 47 33.12
	13467.00	89.24	178.36	8973.83	4030.80	-3921.48	939.13	0.64	441165.53	708596.90	N 32 12 42.06	W 103 47 33.08
	13561.00	89.10	177.81	8975.19	4123.37	-4015.42	942.27	0.60	441071.60	708600.04	N 32 12 41.13	W 103 47 33.05
	13751.00	90.06	178.63	8976.59	4310.43	-4205.32	948.17	0.66	440881.71	708605.94	N 32 12 39.25	W 103 47 33.00
	13845.00	89.92	180.79	8976.60	4402.51	-4299.31	948.65	2.30	440787.72	708606.42	N 32 12 38.32	W 103 47 33.00
Final MWD Survey	13983.00	90.30	181.87	8976.34	4538.86	-4437.27	945.44	0.83	440649.77	708603.22	N 32 12 36.96	W 103 47 33.04
Proj to TD	14025.00	90.30	181.87	8976.12	4577.66	-4479.25	944.07	0.00	440607.80	708601.85	N 32 12 36.54	W 103 47 33.06

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)	(in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/99.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Patton MDP1 17 Federal 176H Gyro + MWD 0-11405' MD (USE)
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Patton MDP1 17 Federal 176H Gyro + MWD 0-11405' MD (USE)
	1	26.500	745.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Patton MDP1 17 Federal 176H Gyro +
	1	745.000	8045.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Patton MDP1 17 Federal 176H Gyro +
	1	8045.000	10631.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	ST001 / Oxy Patton MDP1 17 Federal 176H ST01 MD + Gyro to
	1	10031.000	14025.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	ST002 / Patton MDP1 17 Federal 176H ST02 MWD to 14025MD

Schlumberger

OXY

Borehole:	Well:	Field:	Structure:
ST002	Patton MDP1 17 Federal 176H	NM Eddy County (NAD 83)	Oxy Patton MDP1 17 Federal 176H

Gravity & Magnetic Parameters

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

Miscellaneous

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie-In to ST01	10631 00	87 70	181 99	8998 95	1260 30	-1095 21	918 47	
Ext Target Box	11626 00	89 50	177 53	8963 73	2237 56	-2085 94	953 98	1 55
Enter Target Box	11901 00	91 50	184 12	8959 01	2506 84	-2360 72	955 82	4 52
100' FSL Cross	13950 00	90 21	181 61	8976 49	4504 79	-4404 29	946 45	0 83
Final MWD Survey	13983 00	90 30	181 87	8976 34	4536 86	-4437 27	945 44	0 83
Proj to TD	14025 00	90 30	181 87	8976 12	4577 66	-4479 25	944 07	0 00