Schlumberger

Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD 0-20,375' Survey Geodetic Report

(Def Survey)

30-015-44511

Report Date:	May 24, 2018 - 04:37 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	1.915 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Nimitz MDP1 12 Federal 9H / Oxy Nimitz MDP1 12 Federal 9H	**TVD Reference Datum:**	RKB=26.5'
Well:	Oxy Nimitz MDP1 12 Federal 9H	**TVD Reference Elevation:**	3518.800 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3492.300 ft above MSL
UWI / API#:	Unknown / 30-015-44581	**Magnetic Declination:**	6.925 °
Survey Name:	Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD 0-20,375'	**Total Gravity Field Strength:**	998.4309mgn (9.80665 Based)
Survey Date:	April 30, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	254.318 ° / 11178.989 ft / 6.765 / 1.124	**Total Magnetic Field Strength:**	48021.571 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.977 °
Location Lat / Long:	N 32° 13' 25.86650", W 103° 50' 13.80193"	**Declination Date:**	April 30, 2018
Location Grid N/E Y/X:	N 445525.360 ftUS, E 694769.060 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.2646 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99993605	**Grid Convergence Used:**	0.2646 °
Version / Patch:	2.10.720.0	**Total Corr Mag North->Grid North:**	6.6601 °
		Local Coord Referenced To:	Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 26 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	445525.36	694769.06	N 32 13 25.87	W 103 50 13.80
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	445525.36	694769.06	N 32 13 25.87	W 103 50 13.80
	75.20	0.12	64.92	75.20	0.02	0.02	0.05	0.25	445525.38	694769.11	N 32 13 25.87	W 103 50 13.80
	167.80	0.17	117.75	167.80	0.01	0.00	0.26	0.15	445525.36	694769.32	N 32 13 25.87	W 103 50 13.80
	260.20	0.46	170.30	260.20	-0.42	-0.43	0.44	0.41	445524.93	694769.50	N 32 13 25.86	W 103 50 13.80
	352.70	0.47	180.79	352.70	-1.16	-1.18	0.50	0.09	445524.18	694769.56	N 32 13 25.85	W 103 50 13.80
	445.30	0.27	183.83	445.29	-1.76	-1.77	0.48	0.22	445523.59	694769.54	N 32 13 25.85	W 103 50 13.80
	537.80	0.25	210.01	537.79	-2.15	-2.17	0.36	0.13	445523.19	694769.42	N 32 13 25.85	W 103 50 13.80
	630.30	0.07	247.32	630.29	-2.35	-2.36	0.21	0.22	445523.00	694769.27	N 32 13 25.84	W 103 50 13.80
	722.80	0.07	194.30	722.79	-2.43	-2.44	0.14	0.07	445522.92	694769.20	N 32 13 25.84	W 103 50 13.80
	816.00	0.10	218.70	815.99	-2.55	-2.56	0.08	0.05	445522.80	694769.14	N 32 13 25.84	W 103 50 13.80
	910.60	0.07	219.08	910.59	-2.67	-2.67	-0.01	0.03	445522.69	694769.05	N 32 13 25.84	W 103 50 13.80
	1005.00	0.09	225.54	1004.99	-2.77	-2.76	-0.10	0.02	445522.60	694768.96	N 32 13 25.84	W 103 50 13.80
	1099.60	0.09	213.58	1099.59	-2.88	-2.88	-0.19	0.02	445522.48	694768.87	N 32 13 25.84	W 103 50 13.80
	1194.40	0.09	226.44	1194.39	-3.00	-2.99	-0.29	0.02	445522.37	694768.77	N 32 13 25.84	W 103 50 13.81
	1289.20	0.08	224.21	1289.19	-3.10	-3.09	-0.39	0.01	445522.27	694768.67	N 32 13 25.84	W 103 50 13.81
	1383.70	0.06	219.41	1383.69	-3.19	-3.17	-0.47	0.02	445522.19	694768.59	N 32 13 25.84	W 103 50 13.81
	1478.40	0.09	328.54	1478.39	-3.17	-3.15	-0.54	0.13	445522.21	694768.52	N 32 13 25.84	W 103 50 13.81
	1573.10	0.10	326.42	1573.09	-3.04	-3.02	-0.62	0.01	445522.34	694768.44	N 32 13 25.84	W 103 50 13.81
	1667.80	0.10	324.05	1667.79	-2.90	-2.88	-0.72	0.00	445522.48	694768.34	N 32 13 25.84	W 103 50 13.81
	1762.60	0.11	323.67	1762.59	-2.77	-2.74	-0.82	0.01	445522.62	694768.24	N 32 13 25.84	W 103 50 13.81
	1857.60	0.10	330.70	1857.59	-2.62	-2.60	-0.91	0.02	445522.76	694768.15	N 32 13 25.84	W 103 50 13.81
	1952.10	0.10	323.52	1952.09	-2.49	-2.46	-1.00	0.01	445522.90	694768.06	N 32 13 25.84	W 103 50 13.81
	2046.80	0.06	228.72	2046.79	-2.46	-2.42	-1.09	0.13	445522.94	694767.97	N 32 13 25.84	W 103 50 13.81
	2141.60	0.06	216.87	2141.59	-2.53	-2.50	-1.16	0.01	445522.86	694767.90	N 32 13 25.84	W 103 50 13.82
	2236.40	0.06	233.89	2236.39	-2.60	-2.57	-1.23	0.02	445522.79	694767.83	N 32 13 25.84	W 103 50 13.82
	2330.70	0.07	225.66	2330.69	-2.68	-2.63	-1.31	0.01	445522.73	694767.75	N 32 13 25.84	W 103 50 13.82
	2425.40	0.09	229.57	2425.39	-2.77	-2.72	-1.40	0.02	445522.64	694767.66	N 32 13 25.84	W 103 50 13.82
	2520.00	0.09	229.08	2519.99	-2.87	-2.82	-1.52	0.00	445522.54	694767.54	N 32 13 25.84	W 103 50 13.82
	2614.80	0.08	237.78	2614.79	-2.96	-2.90	-1.63	0.02	445522.46	694767.43	N 32 13 25.84	W 103 50 13.82
	2709.70	0.08	227.31	2709.69	-3.04	-2.98	-1.73	0.02	445522.38	694767.33	N 32 13 25.84	W 103 50 13.82
	2804.30	0.09	197.00	2804.29	-3.16	-3.10	-1.80	0.05	445522.26	694767.26	N 32 13 25.84	W 103 50 13.82
	2898.70	0.14	242.86	2898.69	-3.29	-3.22	-1.93	0.11	445522.14	694767.13	N 32 13 25.83	W 103 50 13.82
	2993.00	0.08	352.55	2992.99	-3.28	-3.21	-2.04	0.19	445522.15	694767.02	N 32 13 25.83	W 103 50 13.83
	3087.50	0.12	325.47	3087.49	-3.13	-3.06	-2.10	0.06	445522.30	694766.96	N 32 13 25.84	W 103 50 13.83
	3182.00	0.09	34.85	3181.99	-2.99	-2.92	-2.12	0.13	445522.44	694766.94	N 32 13 25.84	W 103 50 13.83
	3276.30	0.04	120.11	3276.29	-2.94	-2.88	-2.05	0.10	445522.48	694767.01	N 32 13 25.84	W 103 50 13.83
	3370.70	0.05	103.53	3370.69	-2.97	-2.90	-1.98	0.02	445522.46	694767.08	N 32 13 25.84	W 103 50 13.83
	3465.20	0.10	51.20	3465.19	-2.92	-2.86	-1.87	0.08	445522.50	694767.19	N 32 13 25.84	W 103 50 13.82
	3654.20	0.08	251.51	3654.19	-2.86	-2.80	-1.87	0.09	445522.56	694767.19	N 32 13 25.84	W 103 50 13.82
	3748.60	0.04	343.05	3748.59	-2.85	-2.79	-1.94	0.10	445522.57	694767.12	N 32 13 25.84	W 103 50 13.82
	3843.20	0.12	11.66	3843.19	-2.72	-2.66	-1.93	0.09	445522.70	694767.13	N 32 13 25.84	W 103 50 13.82
	3937.70	0.11	14.35	3937.69	-2.54	-2.48	-1.89	0.01	445522.88	694767.17	N 32 13 25.84	W 103 50 13.82
	4032.00	0.10	349.84	4031.99	-2.37	-2.31	-1.88	0.05	445523.05	694767.18	N 32 13 25.84	W 103 50 13.82
	4126.60	0.10	349.01	4126.59	-2.21	-2.14	-1.91	0.00	445523.22	694767.15	N 32 13 25.85	W 103 50 13.82
	4220.90	0.11	10.83	4220.89	-2.04	-1.98	-1.91	0.04	445523.38	694767.15	N 32 13 25.85	W 103 50 13.82
	4315.30	0.08	28.10	4315.29	-1.89	-1.83	-1.86	0.04	445523.53	694767.20	N 32 13 25.85	W 103 50 13.82
	4410.00	0.02	347.24	4409.99	-1.81	-1.75	-1.84	0.07	445523.61	694767.22	N 32 13 25.85	W 103 50 13.82
	4504.50	0.10	88.42	4504.49	-1.79	-1.74	-1.76	0.11	445523.62	694767.30	N 32 13 25.85	W 103 50 13.82
	4599.10	0.13	336.89	4599.09	-1.69	-1.63	-1.72	0.20	445523.73	694767.34	N 32 13 25.85	W 103 50 13.82
	4694.10	0.10	2.45	4694.09	-1.51	-1.45	-1.76	0.06	445523.91	694767.30	N 32 13 25.85	W 103 50 13.82
	4788.50	0.13	22.75	4788.49	-1.33	-1.27	-1.71	0.05	445524.09	694767.35	N 32 13 25.85	W 103 50 13.82
	4883.10	0.18	346.21	4883.09	-1.08	-1.03	-1.70	0.11	445524.33	694767.36	N 32 13 25.86	W 103 50 13.82
	4977.50	0.10	8.86	4977.49	-0.86	-0.80	-1.73	0.10	445524.56	694767.33	N 32 13 25.86	W 103 50 13.82
	5072.00	0.08	240.49	5071.99	-0.81	-0.75	-1.77	0.17	445524.61	694767.29	N 32 13 25.86	W 103 50 13.82
	5166.70	0.13	226.56	5166.69	-0.92	-0.86	-1.91	0.06	445524.50	694767.15	N 32 13 25.86	W 103 50 13.82
	5261.30	0.08	254.01	5261.29	-1.02	-0.95	-2.05	0.07	445524.41	694767.01	N 32 13 25.86	W 103 50 13.83
	5356.10	0.04	254.85	5356.09	-1.05	-0.98	-2.14	0.04	445524.38	694766.92	N 32 13 25.86	W 103 50 13.83
	5450.70	0.11	199.41	5450.69	-1.15	-1.07	-2.21	0.10	445524.29	694766.85	N 32 13 25.86	W 103 50 13.83
	5545.20	0.10	196.99	5545.19	-1.31	-1.24	-2.26	0.01	445524.12	694766.80	N 32 13 25.85	W 103 50 13.83
	5640.10	0.09	195.30	5640.09	-1.46	-1.39	-2.30	0.01	445523.97	694766.76	N 32 13 25.85	W 103 50 13.83
	5734.80	0.12	204.04	5734.79	-1.63	-1.55	-2.36	0.04	445523.81	694766.70	N 32 13 25.85	W 103 50 13.83
	5829.70	0.13	212.04	5829.69	-1.81	-1.73	-2.46	0.02	445523.63	694766.60	N 32 13 25.85	W 103 50 13.83
	5924.40	1.29	129.56	5924.38	-2.56	-2.50	-1.70	1.35	445522.86	694767.36	N 32 13 25.84	W 103 50 13.82
	6019.00	3.27	104.37	6018.90	-3.79	-3.85	1.74	2.30	445521.51	694770.80	N 32 13 25.83	W 103 50 13.78
	6113.80	5.45	98.89	6113.42	-4.92	-5.22	8.81	2.34	445520.14	694777.86	N 32 13 25.81	W 103 50 13.70
	6208.70	7.63	98.32	6207.70	-6.17	-6.83	19.49	2.30	445518.53	694788.55	N 32 13 25.80	W 103 50 13.58
	6303.30	9.65	97.42	6301.22	-7.63	-8.76	33.57	2.14	445516.60	694802.63	N 32 13 25.78	W 103 50 13.41
	6397.80	9.31	89.16	6394.43	-8.02	-9.67	49.07	1.48	445515.69	694818.13	N 32 13 25.77	W 103 50 13.23
	6492.40	8.23	80.37	6487.93	-6.30	-8.43	63.40	1.82	445516.94	694832.45	N 32 13 25.78	W 103 50 13.06
	6586.80	6.92	55.39	6581.53	-1.56	-4.06	74.74	3.72	445521.30	694843.80	N 32 13 25.82	W 103 50 12.93
	6681.20	7.21	34.74	6675.23	6.80	4.04	82.80	2.69	445529.40	694851.85	N 32 13 25.90	W 103 50 12.84
	6775.90	6.90	31.69	6769.21	16.73	13.76	89.17	0.51	445539.12	694858.23	N 32 13 26.00	W 103 50 12.76
	6870.60	6.97	35.12	6863.22	26.48	23.30	95.47	0.44	445548.66	694864.52	N 32 13 26.09	W 103 50 12.69
	6965.30	7.06	39.48	6957.21	35.90	32.49	102.47	0.57	445557.85	694871.53	N 32 13 26.18	W 103 50 12.61
	7060.00	6.87	47.25	7051.21	44.49	40.83	110.33	1.01	445566.19	694879.39	N 32 13 26.27	W 103 50 12.52
	7154.80	7.03	55.96	7145.32	51.88	47.92	119.30	1.12	445573.28	694888.36	N 32 13 26.34	W 103 50 12.41
	7249.30	7.04	64.60	7239.11	57.94	53.65	129.33	1.12	445579.00	694898.38	N 32 13 26.39	W 103 50 12.29

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 ° ' ")
	7343.90	7.09	72.32	7332.99	62.56	57.91	140.13	1.00	445583.26	694909.18	N 32 13 26.43	W 103 50 12.17
	7438.70	7.01	82.19	7427.08	65.50	60.47	151.43	1.28	445585.82	694920.48	N 32 13 26.46	W 103 50 12.04
	7533.40	7.18	88.15	7521.06	66.86	61.45	163.07	0.80	445586.80	694932.12	N 32 13 26.47	W 103 50 11.90
	7627.90	7.05	94.82	7614.83	66.95	61.15	174.76	0.88	445586.50	694943.80	N 32 13 26.46	W 103 50 11.76
	7722.70	7.11	97.98	7708.91	66.04	59.85	186.36	0.42	445585.20	694955.41	N 32 13 26.45	W 103 50 11.63
	7817.50	6.69	98.05	7803.02	64.83	58.26	197.64	0.44	445583.61	694966.69	N 32 13 26.43	W 103 50 11.50
	7912.30	6.88	102.51	7897.16	63.20	56.25	208.65	0.59	445581.61	694977.70	N 32 13 26.41	W 103 50 11.37
	8006.90	7.01	102.27	7991.06	61.12	53.80	219.82	0.14	445579.16	694988.87	N 32 13 26.39	W 103 50 11.24
	8101.60	6.63	66.83	8085.13	62.40	54.72	230.50	4.39	445580.08	694999.55	N 32 13 26.40	W 103 50 11.12
	8196.30	5.84	33.70	8179.30	68.81	60.88	238.20	3.83	445588.24	695007.25	N 32 13 26.46	W 103 50 11.03
	8291.10	4.85	350.95	8273.73	76.85	68.86	240.25	4.22	445594.21	695009.29	N 32 13 26.54	W 103 50 11.00
	8385.70	4.77	335.63	8368.00	84.30	76.39	238.00	1.36	445601.75	695007.04	N 32 13 26.61	W 103 50 11.03
	8480.30	4.74	338.87	8462.27	91.37	83.57	234.84	0.11	445608.92	695003.88	N 32 13 26.68	W 103 50 11.06
	8574.80	4.58	10.49	8556.48	98.64	90.87	233.99	2.85	445616.22	695003.04	N 32 13 26.75	W 103 50 11.07
	8669.20	4.58	42.79	8650.59	105.22	97.34	237.24	2.70	445622.70	695006.28	N 32 13 26.82	W 103 50 11.04
	8763.60	4.51	66.38	8744.70	109.67	101.60	243.20	1.97	445626.95	695012.24	N 32 13 26.86	W 103 50 10.97
	8858.10	5.31	70.98	8838.85	112.83	104.51	250.74	0.94	445629.86	695019.78	N 32 13 26.89	W 103 50 10.88
	8952.50	6.60	77.91	8932.74	115.70	107.07	260.17	1.56	445632.42	695029.22	N 32 13 26.91	W 103 50 10.77
	9046.90	8.65	70.39	9026.31	119.62	110.59	272.17	2.41	445635.94	695041.21	N 32 13 26.95	W 103 50 10.63
	9141.40	10.96	68.16	9119.42	125.85	116.32	287.20	2.48	445641.67	695056.24	N 32 13 27.00	W 103 50 10.45
	9236.00	12.99	67.01	9211.96	133.95	123.82	305.34	2.16	445649.17	695074.38	N 32 13 27.08	W 103 50 10.24
	9330.70	23.55	67.56	9301.76	146.27	135.23	332.70	11.15	445660.58	695101.74	N 32 13 27.19	W 103 50 9.92
	9425.40	32.89	58.04	9385.15	168.48	156.11	372.11	10.92	445681.46	695141.14	N 32 13 27.39	W 103 50 9.46
	9520.30	34.98	39.67	9464.09	204.43	190.79	411.44	10.99	445716.14	695180.48	N 32 13 27.74	W 103 50 9.00
	9615.20	34.65	16.88	9542.34	252.21	237.74	436.75	13.65	445763.09	695205.78	N 32 13 28.20	W 103 50 8.71
	9709.90	37.41	356.43	9619.19	307.06	292.42	442.80	12.98	445817.77	695211.83	N 32 13 28.74	W 103 50 8.63
	9804.50	38.45	356.04	9693.81	364.92	350.45	438.98	1.13	445875.79	695208.01	N 32 13 29.31	W 103 50 8.67
	9903.10	47.04	354.77	9766.15	431.34	417.09	433.56	8.76	445942.42	695202.59	N 32 13 29.97	W 103 50 8.73
Last Gyro	9997.60	51.68	359.54	9827.71	502.75	488.65	430.11	6.22	446013.98	695199.14	N 32 13 30.68	W 103 50 8.77
	10050.00	55.18	1.00	9858.92	544.81	530.73	430.32	7.04	446056.05	695199.35	N 32 13 31.10	W 103 50 8.76
	10145.00	67.72	2.05	9904.24	628.09	613.98	432.58	13.24	446139.30	695201.61	N 32 13 31.92	W 103 50 8.73
	10239.00	83.02	4.30	9927.91	718.74	704.51	437.67	16.44	446229.82	695206.70	N 32 13 32.82	W 103 50 8.67
	10319.00	87.25	4.30	9934.69	798.37	783.98	443.64	5.29	446309.29	695212.67	N 32 13 33.60	W 103 50 8.60
	10411.00	88.42	3.09	9938.17	890.25	875.72	449.57	1.83	446401.02	695218.60	N 32 13 34.51	W 103 50 8.52
	10501.00	91.20	358.55	9938.80	1080.15	1065.63	452.28	2.80	446590.92	695221.31	N 32 13 36.39	W 103 50 8.48
	10793.00	91.27	356.72	9934.66	1271.56	1257.42	444.36	0.95	446782.69	695213.39	N 32 13 38.29	W 103 50 8.58
	10982.00	91.03	356.52	9930.87	1459.72	1446.05	433.22	0.17	446971.31	695202.25	N 32 13 40.16	W 103 50 8.68
	11077.00	90.93	356.95	9929.24	1554.32	1540.88	427.81	0.46	447066.14	695196.84	N 32 13 41.09	W 103 50 8.74
	11171.00	90.93	356.88	9927.72	1647.95	1634.73	422.75	0.07	447159.98	695191.79	N 32 13 42.02	W 103 50 8.79
	11266.00	91.48	356.68	9925.72	1742.54	1729.56	417.42	0.62	447254.81	695186.45	N 32 13 42.96	W 103 50 8.85
	11361.00	91.65	356.01	9923.12	1837.06	1824.33	411.37	0.73	447349.57	695180.40	N 32 13 43.90	W 103 50 8.92
	11550.00	90.96	358.92	9918.62	2025.42	2013.08	403.01	1.58	447538.30	695172.04	N 32 13 45.77	W 103 50 9.00
	11645.00	91.13	358.75	9917.09	2120.27	2108.04	401.08	0.25	447633.26	695170.11	N 32 13 46.71	W 103 50 9.02
	11740.00	91.07	358.41	9915.26	2215.09	2202.99	398.72	0.36	447728.21	695167.76	N 32 13 47.65	W 103 50 9.04
	11834.00	91.03	358.40	9913.54	2308.89	2296.94	396.11	0.04	447822.15	695165.14	N 32 13 48.58	W 103 50 9.07
	11929.00	90.96	358.27	9911.89	2403.69	2391.89	393.35	0.16	447917.09	695162.38	N 32 13 49.52	W 103 50 9.09
	12024.00	91.03	358.55	9910.24	2498.50	2486.84	390.71	0.30	448012.03	695159.75	N 32 13 50.46	W 103 50 9.12
	12119.00	90.93	358.56	9908.62	2593.33	2581.79	388.32	0.11	448106.98	695157.35	N 32 13 51.40	W 103 50 9.14
	12213.00	91.00	358.94	9907.03	2687.17	2675.76	386.27	0.41	448200.94	695155.30	N 32 13 52.33	W 103 50 9.16
	12307.00	90.96	358.98	9905.43	2781.03	2769.73	384.56	0.06	448294.90	695153.60	N 32 13 53.26	W 103 50 9.18
	12402.00	91.20	359.07	9903.63	2875.89	2864.70	382.95	0.27	448389.87	695151.98	N 32 13 54.20	W 103 50 9.19
	12497.00	91.27	358.95	9901.59	2970.75	2959.66	381.30	0.15	448484.82	695150.34	N 32 13 55.13	W 103 50 9.20
	12592.00	91.72	358.70	9899.11	3065.58	3054.61	379.36	0.54	448579.77	695148.39	N 32 13 56.07	W 103 50 9.22
	12781.00	91.03	358.76	9894.57	3254.23	3243.50	375.17	0.37	448768.65	695144.20	N 32 13 57.94	W 103 50 9.26
	12875.00	89.83	0.95	9893.87	3348.16	3337.49	374.93	2.66	448862.63	695143.97	N 32 13 58.87	W 103 50 9.26
	12969.00	89.48	0.59	9894.43	3442.14	3431.48	376.19	0.53	448956.62	695145.23	N 32 13 59.80	W 103 50 9.24
	13158.00	88.76	0.56	9897.34	3631.06	3620.45	378.09	0.38	449145.57	695147.13	N 32 14 1.67	W 103 50 9.21
	13253.00	88.93	0.47	9899.25	3726.02	3715.43	378.94	0.20	449240.54	695147.98	N 32 14 2.61	W 103 50 9.19
	13347.00	89.42	0.40	9900.60	3819.97	3809.41	379.66	0.53	449334.52	695148.69	N 32 14 3.54	W 103 50 9.18
	13442.00	91.65	0.14	9899.72	3914.92	3904.40	380.11	2.36	449429.51	695149.14	N 32 14 4.48	W 103 50 9.17
	13536.00	88.93	0.47	9899.24	4008.88	3998.39	380.61	2.91	449523.49	695149.64	N 32 14 5.41	W 103 50 9.16
	13631.00	88.87	0.79	9901.07	4103.84	4093.37	381.65	0.34	449618.46	695150.69	N 32 14 6.35	W 103 50 9.14
	13725.00	89.04	0.75	9902.78	4197.80	4187.34	382.91	0.19	449712.43	695151.95	N 32 14 7.28	W 103 50 9.12
	13820.00	89.07	0.74	9904.35	4292.77	4282.32	384.15	0.03	449807.40	695153.18	N 32 14 8.22	W 103 50 9.10
	13914.00	89.07	1.93	9905.87	4386.75	4376.28	386.34	1.27	449901.36	695155.37	N 32 14 9.15	W 103 50 9.07
	14009.00	89.48	1.35	9907.07	4481.74	4471.24	389.06	0.75	449996.30	695158.09	N 32 14 10.09	W 103 50 9.03
	14104.00	88.76	0.92	9908.53	4576.72	4566.21	390.94	0.88	450091.27	695159.97	N 32 14 11.03	W 103 50 9.01
	14197.00	88.80	0.46	9910.51	4669.68	4659.18	392.06	0.50	450184.23	695161.09	N 32 14 11.95	W 103 50 8.99
	14292.00	89.48	1.77	9911.94	4764.65	4754.15	393.91	1.55	450279.19	695162.94	N 32 14 12.89	W 103 50 8.96
	14387.00	89.11	2.19	9913.11	4859.65	4849.08	397.19	0.59	450374.12	695166.22	N 32 14 13.83	W 103 50 8.92
	14481.00	89.69	1.96	9914.09	4953.64	4943.02	400.59	0.66	450468.05	695169.63	N 32 14 14.76	W 103 50 8.87
	14576.00	89.90	2.31	9914.43	5048.64	5037.95	404.13	0.43	450562.98	695173.18	N 32 14 15.70	W 103 50 8.83
	14671.00	90.31	1.58	9914.26	5143.64	5132.89	407.36	0.88	450657.91	695176.39	N 32 14 16.64	W 103 50 8.78
	14765.00	89.76	0.48	9914.20	5237.63	5226.88	409.05	1.31	450751.89	695178.08	N 32 14 17.57	W 103 50 8.76
	14860.00	89.55	359.41	9914.77	5332.57	5321.87	408.95	1.15	450846.88	695177.99	N 32 14 18.51	W 103 50 8.75
	14954.00	90.83	358.73	9914.46	5426.45	5415.86	407.43	1.54	450940.86	695176.46	N 32 14 19.44	W 103 50 8.77
	15049.00	91.48	359.64	9912.55	5521.32	5510.83	406.08	1.18	451035.82	695175.11	N 32 14 20.38	W 103 50 8.78
	15139.00	91.51	357.35	9910.20	5611.12	5600.76	403.71	2.54	451125.75	695172.75	N 32 14 21.27	W 103 50 8.80
	15234.00	90.69	359.02	9908.37	5705.90	5695.69	400.71	1.96	451220.67	695169.74	N 32 14 22.21	W 103 50 8.83
	15329.00	89.66	357.71	9908.08	5800.71	5790.65	398.00	1.75	451315.63	695167.03	N 32 14 23.15	W 103 50 8.86
	15423.00	88.76	358.32	9909.38	5894.48	5884.58	394.74	1.16	451409.55	695163.77	N 32 14 24.08	W 103 50 8.89
	15518.00	89.07	359.26	9911.18	5989.33	5979.54	392.73	1.04	451504.51	695161.77	N 32 14 25.02	W 103 50 8.91
	15613.00	88.80	358.48	9912.95	6084.17	6074.51	390.86	0.87	451599.46	695159.90	N 32 14 25.96	W 103 50 8.92
	15708.00	88.93	358.27	9914.83	6178.97	6169.45	388.17	0.26	451694.40	695157.20	N 32 14 26.90	W 103 50 8.95
	15803.00	88.87	359.17	9916.65	6273.81	6264.41	386.05	0.95	451789.35	695155.08	N 32 14 27.84	W 103 50 8.97
	15897.00	88.87	358.26	9918.50	6367.64	6358.36	383.94	0.97	451883.30	695152.97	N 32 14 28.77	W 103 50 8.99
	15992.00	88.83	358.11	9920.41	6462.42	6453.30	380.93	0.16	451978.23	695149.97	N 32 14 29.70	W 103 50 9.02
	16087.00	88.73	357.92	9922.43	6557.18	6548.22	377.64	0.23	452073.15	695146.68	N 32 14 30.64	W 103 50 9.05
	16181.00	88.93	358.03	9924.35	6650.94	6642.14	374.32	0.24	452167.06	695143.36	N 32 14 31.57	W 103 50 9.09
	16276.00	88.90	358.25	9926.15	6745.72	6737.07	371.24	0.23	452261.99	695140.27	N 32 14 32.51	W 103 50 9.12
	16370.00	89.04	357.89	9927.84	6839.49	6831.00	368.07	0.41	452355.91	695137.11	N 32 14 33.44	W 103 50 9.15
	16465.00	89.97	357.84	9928.66	6934.25	6925.93	364.53	0.98	452450.84	695133.57	N 32 14 34.38	W 103 50 9.19
	16559.00	90.03	357.78	9928.66	7028.01	7019.86	360.94	0.09	452544.76	695129.98	N 32 14 35.31	W 103 50 9.22
	16654.00	90.03	358.11	9928.61	7122.78	7114.80	357.53	0.35	452639.69	695126.57	N 32 14 36.25	W 103 50 9.26
	16749.00	90.00	356.95	9928.59	7217.50	7209.71	353.44	1.22	452734.60	695122.48	N 32 14 37.19	W 103 50 9.30
	16844.00	90.07	357.57	9928.53	7312.18	7304.60	348.90	0.66	452829.48	695117.94	N 32 14 38.13	W 103 50 9.35
	16938.00	89.86	359.75	9928.59	7406.03	7398.57	346.70	2.33	452923.45	695115.74	N 32 14 39.06	W 103 50 9.37
	17033.00	90.00	359.42	9928.70	7500.95	7493.57	346.01	0.38	453018.44	695115.05	N 32 14 40.00	W 103 50 9.37
	17127.00	89.69	0.17	9928.96	7594.88	7587.57	345.68	0.86	453112.43	695114.71	N 32 14 40.93	W 103 50 9.37
	17222.00	89.86	0.64	9929.33	7689.85	7682.57	346.35	0.53	453207.42	695115.38	N 32 14 41.87	W 103 50 9.36
	17411.00	89.45	2.22	9930.47	7878.83	7871.50	351.06	0.86	453396.34	695120.10	N 32 14 43.74	W 103 50 9.29
	17601.00	89.72	1.68	9931.85	8068.83	8061.38	357.53	0.32	453586.21	695126.57	N 32 14 45.62	W 103 50 9.21
	17696.00	89.28	1.38	9932.67	8163.82	8156.34	360.07	0.56	453681.16	695129.10	N 32 14 46.56	W 103 50 9.17
	17790.00	88.90	0.71	9934.17	8257.80	8250.31	361.78	0.82	453775.13	695130.82	N 32 14 47.49	W 103 50 9.15
	17885.00	89.00	0.48	9935.91	8352.76	8345.29	362.77	0.26	453870.10	695131.80	N 32 14 48.43	W 103 50 9.13
	17980.00	88.80	1.71	9937.73	8447.73	8440.26	364.58	1.31	453965.06	695133.62	N 32 14 49.37	W 103 50 9.10
	18075.00	89.55	2.11	9939.10	8542.72	8535.19	367.75	0.89	454059.99	695136.78	N 32 14 50.31	W 103 50 9.06
	18264.00	89.72	359.40	9940.30	8731.65	8724.16	370.24	1.44	454248.94	695139.27	N 32 14 52.18	W 103 50 9.02
	18453.00	87.76	359.84	9944.46	8920.45	8913.10	368.98	1.06	454437.87	695138.02	N 32 14 54.04	W 103 50 9.03

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 ° ' ")
	18547.00	89.35	359.52	9946.83	9014.34	9007.06	368.46	1.73	454531.83	695137.49	N 32 14 54.97	W 103 50 9.03
	18642.00	90.07	360.00	9947.31	9109.27	9102.06	368.06	0.91	454626.82	695137.10	N 32 14 55.91	W 103 50 9.03
	18736.00	90.07	359.59	9947.20	9203.21	9196.06	367.72	0.44	454720.81	695136.76	N 32 14 56.84	W 103 50 9.03
	18830.00	89.97	359.87	9947.16	9297.14	9290.06	367.28	0.32	454814.80	695136.32	N 32 14 57.77	W 103 50 9.03
	18925.00	90.14	359.68	9947.07	9392.07	9385.06	366.89	0.28	454909.80	695135.93	N 32 14 58.72	W 103 50 9.03
	19114.00	90.41	0.16	9946.16	9580.96	9574.05	366.60	0.30	455098.78	695135.63	N 32 15 0.59	W 103 50 9.02
	19209.00	90.00	0.52	9945.82	9675.92	9669.05	367.16	0.57	455193.77	695136.19	N 32 15 1.53	W 103 50 9.01
	19304.00	89.17	359.12	9946.51	9770.85	9764.04	366.86	1.71	455288.76	695135.90	N 32 15 2.47	W 103 50 9.01
	19399.00	90.24	0.56	9947.00	9865.78	9859.04	366.60	1.89	455383.75	695135.63	N 32 15 3.41	W 103 50 9.00
	19493.00	90.96	0.60	9946.02	9959.75	9953.03	367.55	0.77	455477.73	695136.58	N 32 15 4.34	W 103 50 8.99
	19683.00	91.24	359.57	9942.37	10149.62	10142.99	367.83	0.56	455667.68	695136.86	N 32 15 6.21	W 103 50 8.97
	19777.00	91.38	359.03	9940.22	10243.49	10236.96	366.68	0.59	455761.64	695135.72	N 32 15 7.14	W 103 50 8.98
	19966.00	90.62	359.12	9936.92	10432.23	10425.90	363.63	0.40	455950.58	695132.67	N 32 15 9.01	W 103 50 9.01
	20060.00	90.52	0.71	9935.99	10526.17	10519.89	363.49	1.69	456044.56	695132.53	N 32 15 9.94	W 103 50 9.00
	20249.00	91.20	359.06	9933.15	10715.02	10708.87	363.11	0.94	456233.52	695132.15	N 32 15 11.81	W 103 50 9.00
Final MWD Survey	20336.00	90.79	359.63	9931.64	10801.92	10795.85	362.12	0.81	456320.49	695131.15	N 32 15 12.67	W 103 50 9.00
Proj. to Bit	20375.00	90.79	359.63	9931.10	10840.88	10834.84	361.87	0.00	456359.49	695130.90	N 32 15 13.06	W 103 50 9.01

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 (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD 0-20,375'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD 0-20,375'
	1	26.500	9997.600	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD
	1	9997.600	20375.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Nimitz MDP1 12 Federal 9H Gyro+MWD

Schlumberger

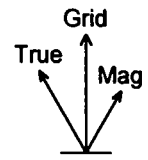
OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Nimitz MDP1 12 Federal 9H	NM Eddy County (NAD 83)	Oxy Nimitz MDP1 12 Federal 9H

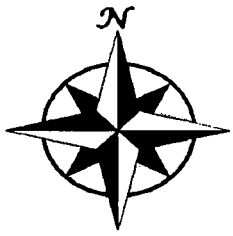
Gravity & Magnetic Parameters

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

Miscellaneous



Grid North
Tot Corr (M->G 6.660°)
Mag Dec (6.925°)
Grid Conv (0.265°)



Vertical Section (ft) Azim = 1.91° Scale = 1:1900.00(ft) Origin = 0N/-S, 0E/-W