

Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
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SEP 17 2018

Schlumberger

DISTRICT II-ARTESIA O.C.D.

30-015-44771

Well Reference:
35, 23 South, 31 East, Eddy NM
-32.26789 -103.75398

I, Tyler Matthews certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of April 14, 2018 through May 09, 2018, conduct or supervise the taking of the TelePacer surveys from a depth of 9827.00 feet to a depth of 14856.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA INC. for the Cal-Mon MDPI 35 Fed 1H Well (Original Hole) API No. 30-015-44771 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By Tyler Matthews
Tyler Matthews
FE

Subscribed and Sworn to before me this 26th day of June (month) 2018 (yr)

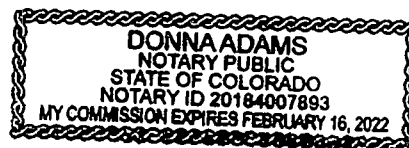
My Commission expires:

2-16-2022

D. Adams
Notary Public

Adams County Colorado
(County State)

(signature)



Schlumberger

OXY



Borehole: Original Borehole Well: Oxy Cal-Mon MDP1 35 Federal 1H Field: NM Eddy County (NAD 83) Structure: Oxy Cal-Mon MDP1 35 Federal 1H

Gravity & Magnetic Parameters

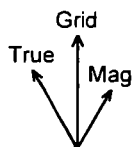
Model: HOGM 2018 Op: 60 017 Date: 01-May-2018
MagDec: 6.89° FB: 48097.834N Gravity FB: 998.448mg (9.80665 Based)

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

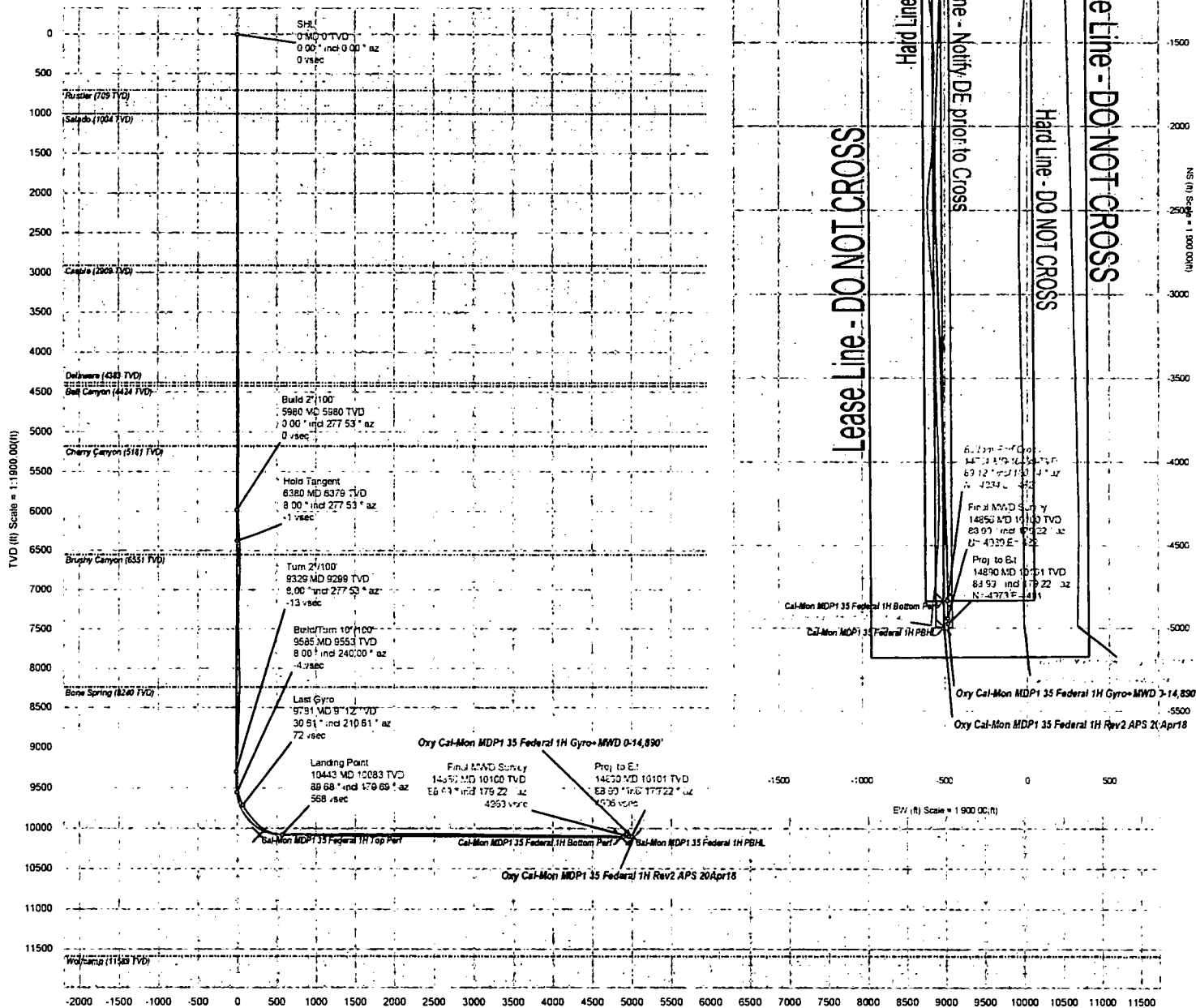
Lat: N 32 16 4.39 Northing: 461872.997US Grid Conv: 0.3093
Lon: W 103 45 14.32 Easting: 720487.827US Scale Fact: 0.9994582

Miscellaneous

Stat: Oxy Cal-Mon MDP1 35 Federal 1H TVD Ref: RKB=26.5 (3482.71 above MSL)
Plan: Oxy Cal-Mon MDP1 35 Federal 1H Rev2 APS 20Apr18



Grid North
Tot Corr (M->G 6.590°)
Mag Dec (6.899°)
Grid Conv (0.309°)



Oxy Cal-Mon MDP1 35 Federal 1H Gyro+MWD 0-14,890' Survey Geodetic Report (Def Survey)



Report Date: May 09, 2018 - 04:23 PM Client: OXY Field: NM Eddy County (NAD 83) Structure / Slot: Oxy Cal-Mon MDP1 35 Federal 1H / Oxy Cal-Mon MDP1 35 Federal 1H Well: Oxy Cal-Mon MDP1 35 Federal 1H Borehole: Original Borehole UW / API#: Unknown / 30-015-44771 Survey Name: Oxy Cal-Mon MDP1 35 Federal 1H Gyro+MWD 0-14,890' Survey Date: May 01, 2018 Tor / AHD / DDI / ERD Ratio: 180 392' / 5622 567 ft / 6 175 / 0.557 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 16' 4.38630" W 103° 45' 14.32217" Location Grid N/E Y/X: N 461672.990 NUS E 720407.820 NUS CRS Grid Convergence Angle: 0.3093° Grid Scale Factor: 0.99994582 Version / Patch: 2 10 720 0	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 0 000' (Grid North) Vertical Section Origin: 0 000 ft. 0.000 ft TVD Reference Datum: RKB=26 5' TVD Reference Elevation: 3482.700 ft above MSL Seabed / Ground Elevation: 3456.200 ft above MSL Magnetic Declination: 6 599° Total Gravity Field Strength: 998.4459mgn (9 80665 Based) Gravity Model: GARM Total Magnetic Field Strength: 48057 834 nT Magnetic Dip Angle: 60 017° Declination Date: May 01, 2018 Magnetic Declination Model: HDGM 2018 North Reference: Grid North Grid Convergence Used: 0.3093° Total Corr Mag North->Grid North: 6.5897° Local Coord Referenced To: Well Head	
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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	461672.99	720407.82	N 32° 16' 4.39"	W 103° 45' 14.32"
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	461672.99	720407.82	N 32° 16' 4.39"	W 103° 45' 14.32"
	84.00	0.15	184.23	84.00	-0.08	-0.08	-0.01	0.26	461672.91	720407.81	N 32° 16' 4.39"	W 103° 45' 14.32"
	176.00	0.09	197.49	176.00	-0.26	-0.26	-0.04	0.07	461672.73	720407.78	N 32° 16' 4.38"	W 103° 45' 14.32"
	269.00	0.12	282.05	269.00	-0.31	-0.31	-0.15	0.15	461672.68	720407.67	N 32° 16' 4.38"	W 103° 45' 14.32"
	361.00	0.25	284.19	361.00	-0.24	-0.24	-0.44	0.14	461672.75	720407.68	N 32° 16' 4.38"	W 103° 45' 14.32"
	452.00	0.37	270.98	452.00	-0.19	-0.19	-0.93	0.15	461672.80	720406.89	N 32° 16' 4.38"	W 103° 45' 14.33"
	543.00	0.66	261.64	542.99	-0.26	-0.26	-1.74	0.33	461672.73	720406.08	N 32° 16' 4.38"	W 103° 45' 14.34"
	634.00	0.94	263.24	633.99	-0.43	-0.43	-3.00	0.31	461672.56	720404.82	N 32° 16' 4.38"	W 103° 45' 14.36"
	727.00	1.01	263.69	726.97	-0.61	-0.61	-4.57	0.08	461672.38	720403.25	N 32° 16' 4.38"	W 103° 45' 14.38"
	819.00	0.86	258.93	818.96	-0.83	-0.83	-6.06	0.18	461672.15	720401.76	N 32° 16' 4.38"	W 103° 45' 14.39"
	909.00	0.81	258.88	908.95	-1.08	-1.08	-7.34	0.06	461671.91	720400.48	N 32° 16' 4.38"	W 103° 45' 14.41"
	1001.00	0.69	259.48	1000.94	-1.31	-1.31	-8.53	0.13	461671.68	720399.29	N 32° 16' 4.37"	W 103° 45' 14.42"
	1092.00	0.18	226.03	1091.94	-1.51	-1.51	-9.17	0.60	461671.48	720398.65	N 32° 16' 4.37"	W 103° 45' 14.43"
	1183.00	0.15	216.56	1182.94	-1.70	-1.70	-9.34	0.04	461671.29	720398.48	N 32° 16' 4.37"	W 103° 45' 14.43"
	1275.00	0.13	223.97	1274.94	-1.87	-1.87	-9.49	0.03	461671.12	720398.33	N 32° 16' 4.37"	W 103° 45' 14.43"
	1368.00	0.14	219.31	1367.94	-2.04	-2.04	-9.63	0.02	461670.95	720398.19	N 32° 16' 4.37"	W 103° 45' 14.43"
	1462.00	0.15	210.71	1461.94	-2.23	-2.23	-9.77	0.03	461670.76	720398.05	N 32° 16' 4.36"	W 103° 45' 14.44"
	1557.00	0.15	207.21	1556.94	-2.45	-2.45	-9.89	0.01	461670.54	720397.93	N 32° 16' 4.36"	W 103° 45' 14.44"
	1651.00	0.15	217.62	1650.94	-2.66	-2.66	-10.02	0.03	461670.34	720397.80	N 32° 16' 4.36"	W 103° 45' 14.44"
	1745.00	0.14	217.09	1744.94	-2.84	-2.84	-10.16	0.01	461670.15	720397.66	N 32° 16' 4.36"	W 103° 45' 14.44"
	1840.00	0.14	213.02	1839.94	-3.03	-3.03	-10.30	0.01	461669.96	720397.52	N 32° 16' 4.36"	W 103° 45' 14.44"
	1934.00	0.13	212.17	1933.94	-3.22	-3.22	-10.42	0.01	461669.77	720397.41	N 32° 16' 4.35"	W 103° 45' 14.44"
	2029.00	0.13	230.32	2028.94	-3.38	-3.38	-10.56	0.04	461669.61	720397.27	N 32° 16' 4.35"	W 103° 45' 14.45"
	2123.00	0.12	217.35	2122.94	-3.53	-3.53	-10.70	0.03	461669.46	720397.12	N 32° 16' 4.35"	W 103° 45' 14.45"
	2218.00	0.13	210.37	2217.94	-3.70	-3.70	-10.81	0.02	461669.29	720397.01	N 32° 16' 4.35"	W 103° 45' 14.45"
	2313.00	0.13	211.17	2312.94	-3.88	-3.88	-10.92	0.00	461669.11	720396.90	N 32° 16' 4.35"	W 103° 45' 14.45"
	2407.00	0.11	216.81	2406.94	-4.05	-4.05	-11.03	0.02	461668.94	720396.79	N 32° 16' 4.35"	W 103° 45' 14.45"
	2502.00	0.11	220.43	2501.94	-4.19	-4.19	-11.15	0.01	461668.80	720396.68	N 32° 16' 4.35"	W 103° 45' 14.45"
	2596.00	0.11	216.13	2595.93	-4.33	-4.33	-11.26	0.01	461668.66	720396.56	N 32° 16' 4.35"	W 103° 45' 14.45"
	2691.00	0.10	242.41	2690.93	-4.44	-4.44	-11.38	0.05	461668.55	720396.44	N 32° 16' 4.34"	W 103° 45' 14.46"
	2785.00	0.11	216.21	2784.93	-4.55	-4.55	-11.51	0.05	461668.44	720396.31	N 32° 16' 4.34"	W 103° 45' 14.46"
	2880.00	0.10	231.27	2879.93	-4.68	-4.68	-11.63	0.03	461668.31	720396.19	N 32° 16' 4.34"	W 103° 45' 14.46"
	2974.00	0.12	196.90	2973.93	-4.83	-4.83	-11.72	0.07	461668.16	720396.10	N 32° 16' 4.34"	W 103° 45' 14.46"
	3069.00	0.15	171.57	3068.93	-5.04	-5.04	-11.73	0.07	461667.95	720396.09	N 32° 16' 4.34"	W 103° 45' 14.46"
	3258.00	0.13	208.39	3257.93	-5.48	-5.48	-11.80	0.05	461667.81	720396.02	N 32° 16' 4.33"	W 103° 45' 14.46"
	3353.00	0.15	232.93	3352.93	-5.65	-5.65	-11.95	0.07	461667.64	720395.87	N 32° 16' 4.33"	W 103° 45' 14.46"
	3447.00	0.15	325.08	3446.93	-5.82	-5.82	-12.12	0.23	461667.37	720395.70	N 32° 16' 4.33"	W 103° 45' 14.46"
	3542.00	0.15	244.68	3541.93	-5.57	-5.57	-12.30	0.20	461667.42	720395.52	N 32° 16' 4.33"	W 103° 45' 14.47"
	3637.00	0.18	184.85	3636.93	-5.77	-5.77	-12.43	0.18	461667.22	720395.40	N 32° 16' 4.33"	W 103° 45' 14.47"
	3731.00	0.31	178.32	3730.93	-6.17	-6.17	-12.43	0.14	461666.82	720395.39	N 32° 16' 4.33"	W 103° 45' 14.47"
	3825.00	0.25	207.57	3824.93	-6.61	-6.61	-12.52	0.16	461666.38	720395.30	N 32° 16' 4.32"	W 103° 45' 14.47"
	3920.00	0.29	197.59	3919.93	-7.02	-7.02	-12.69	0.06	461665.97	720395.13	N 32° 16' 4.32"	W 103° 45' 14.47"
	4015.00	0.45	195.94	4014.93	-7.61	-7.61	-12.86	0.17	461665.38	720394.98	N 32° 16' 4.31"	W 103° 45' 14.47"
	4109.00	0.56	204.93	4108.92	-8.38	-8.38	-13.16	0.14	461664.61	720394.66	N 32° 16' 4.30"	W 103° 45' 14.48"
	4204.00	0.23	205.52	4203.92	-8.98	-8.98	-13.43	0.35	461664.01	720394.39	N 32° 16' 4.30"	W 103° 45' 14.48"
	4298.00	0.13	216.29	4297.92	-9.23	-9.23	-13.58	0.11	461663.76	720394.24	N 32° 16' 4.30"	W 103° 45' 14.48"
	4393.00	0.12	250.00	4392.92	-9.35	-9.35	-13.74	0.08	461663.64	720394.08	N 32° 16' 4.29"	W 103° 45' 14.48"
	4487.00	0.11	252.60	4486.92	-9.41	-9.41	-13.91	0.01	461663.58	720393.91	N 32° 16' 4.29"	W 103° 45' 14.48"
	4582.00	0.08	248.87	4581.92	-9.46	-9.46	-14.06	0.03	461663.53	720393.76	N 32° 16' 4.29"	W 103° 45' 14.49"
	4676.00	0.07	251.05	4675.92	-9.51	-9.51	-14.18	0.01	461663.48	720393.64	N 32° 16' 4.29"	W 103° 45' 14.49"
	4771.00	0.03	227.26	4770.92	-9.54	-9.54	-14.25	0.05	461663.45	720393.57	N 32° 16' 4.29"	W 103° 45' 14.49"
	4866.00	0.11	179.62	4865.92	-9.65	-9.65	-14.27	0.10	461663.34	720393.55	N 32° 16' 4.29"	W 103° 45' 14.49"
	4960.00	0.14	169.86	4959.92	-9.85	-9.85	-14.25	0.04	461663.14	720393.57	N 32° 16' 4.29"	W 103° 45' 14.49"
	5055.00	0.24	158.62	5054.92	-10.15	-10.15	-14.16	0.11	461662.84	720393.66	N 32° 16' 4.29"	W 103° 45' 14.49"
	5149.00	0.19	161.51	5148.92	-10.48	-10.48	-14.04	0.05	461662.51	720393.79	N 32° 16' 4.28"	W 103° 45' 14.49"
	5244.00	0.14	169.31	5243.92	-10.75	-10.75	-13.96	0.06	461662.24	720393.86	N 32° 16' 4.28"	W 103° 45' 14.49"
	5339.00	0.09	211.34	5338.92	-10.93	-10.93	-13.88	0.10	461662.05	720393.84	N 32° 16' 4.28"	W 103° 45' 14.49"
	5433.00	0.10	224.02	5432.92	-11.05	-11.05	-14.08	0.02	461661.94	720393.74	N 32° 16' 4.28"	W 103° 45' 14.49"
	5622.00	0.13	233.30	5621.92	-11.29	-11.29	-14.36	0.02	461661.70	720393.46	N 32° 16' 4.27"	W 103° 45' 14.49"
	5717.00	0.11	196.92	5716.92	-11.45	-11.45	-14.48	0.08	461661.54	720393.34	N 32° 16' 4.27"	W 103° 45' 14.49"
	5811.00	0.12	207.29	5810.92	-11.62	-11.62	-14.55	0.02	461661.37	720393.27	N 32° 16' 4.27"	W 103° 45' 14.49"
	5906.00	0.13	10.41	5905.92	-11.60	-11.60	-14.57	0.26	461661.39	720393.25	N 32° 16' 4.27"	W 103° 45' 14.49"
	6000.00	1.79	113.52	5999.90	-12.08	-12.08	-13.21	1.94	461660.91	720394.61	N 32° 16' 4.27"	W 103° 45' 14.48"
	6095.00	5.46	122.88	6094.70	-15.13	-15.13	-8.05	3.80	461657.86	720399.77	N 32° 16' 4.24"	W 103° 45' 14.42"
	6189.00	7.99	121.78	6188.04	-21.00	-21.00	1.26	2.69	461651.99	720409.08	N 32° 16' 4.18"	W 103° 45' 14.31"
	6284.00	6.52	119.94	6282.28	-27.17	-27.17	11.55	1.57	461645.82	720419.37	N 32° 16' 4.12"	W 103° 45' 14.19"
	6378.00	5.50	119.56	6375.76	-32.06	-32.06	20.09	1.09	461640.94	720427.91	N 32° 16' 4.07"	W 103° 45' 14.09"
	6473.00	4.24	118.47	6470.42	-35.98	-35.98	27.14	1.33	461637.02	720434.96	N 32° 16' 4.03"	W 103° 45' 14.01"
	6567.00	1.76	109.48	6564.28	-38.11	-38.11	31.55	2.68	461634.88	720439.37	N 32° 16' 4.01"	W 103° 45' 13.96"
	6662.00	0.56	38.66	6659.26	-38.24	-38.24	33.22	1.75	461634.75	720441.04	N 32° 16' 4.01"	W 103° 45'

[illegible]