

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

30-015-45073

**NM OIL CONSERVATION
ARTESIA DISTRICT**

DEC 20 2018

RECEIVED

October 31, 2018

OXY USA INC.

Re:

28, 23S, 31E, Eddy NM
32.26930 103.78910

CLIENT: OXY USA INC.
WELL: Iridium MDP1 28-21 Fed Com 11H ST01
FIELD: Ingle Wells Bone Spring

RIG: H&P 556
COUNTY: Eddy
API NO: 30-015-45073
JOB NO: 18MLD3522

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Chris Heimann FE	Iridium MDP1 28-21 Fed Com 11H ST01 Side Track	9029.00 Ft to 19561.00 Ft	October 1, 2018 to October 10, 2018	SlimPulse Third Party Corrected

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Van Spinks
Field Service Manager

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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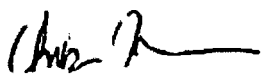
Schlumberger

Well Reference:

28, 23S, 31E, Eddy NM
32.26930 103.78910

I, Chris Heimann certify that: I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of October 01, 2018 through October 10, 2018, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 9029.00 feet to a depth of 19561.00 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 Iridium MDP1 28-21 Fed Com 11H ST01 Well (Side Track) API No. 30-015-45073 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
Chris Heimann
FE



Subscribed and Sworn to before me this 31st day of October (month) 2018 (yr)

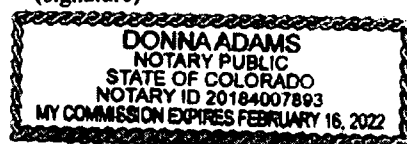
My Commission expires:

2-16-2022

D. Adams
Notary Public

Adams County Colorado
(County State)

(signature)



Oxy Iridium MDP1 28-21 Federal Com 11H ST01 Gyro+MWD IFR 0 to 19919' MD Survey Geodetic Report (Def Survey)



Report Date: October 11, 2018 - 09:06 AM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Oxy Iridium MDP1 28-21 Federal Com 11H / Iridium MDP1 28-21 Federal Com 11H
 Well: Iridium MDP1 28-21 Federal Com 11H
 Borehole: ST01
 UWI / API# : Unknown / Unknown
 Survey Name: Oxy Iridium MDP1 28-21 Federal Com 11H ST01 Gyro+MWD IFR 0 to 19919' MD
 Survey Date: September 28, 2018
 Tort / AMD / DD1 / ERD Ratio: 235.816' / 10648.875 ft / 6.709 / 1.089
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 16' 9.70272", W 103° 47' 21.10569"
 Location Grid N/E Y/X: N 462153.250 NUS, E 709519.680 NUS
 CRS Grid Convergence Angle: 0.2905°
 Grid Scale Factor: 0.99994149
 Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 358.125° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 30'
 TVD Reference Elevation: 3400.300 ft above MSL
 Seabed / Ground Elevation: 3370.300 ft above MSL
 Magnetic Declination: 6.891°
 Total Gravity Field Strength: 998.4510mg (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48008.564 nT
 Magnetic Dip Angle: 60.010°
 Declination Date: September 27, 2018
 Magnetic Declination Model: HDGM 2018
 North Reference: Grid North
 Grid Convergence Used: 0.2905°
 Total Corr Mag North->Grid: 6.8000°
 North: Well Head
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	462153.25	709519.68	N 32 16 9.70	W 103 47 21.11
SHL	30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	462153.25	709519.68	N 32 16 9.70	W 103 47 21.11
	100.00	0.32	51.20	100.00	0.12	0.12	0.15	0.48	462153.37	709519.83	N 32 16 9.70	W 103 47 21.10
	156.00	0.38	62.40	156.00	0.29	0.31	0.44	0.18	462153.56	709520.12	N 32 16 9.71	W 103 47 21.10
	241.00	0.27	83.86	241.00	0.39	0.42	0.89	0.24	462153.67	709520.57	N 32 16 9.71	W 103 47 21.10
	334.00	0.40	103.26	334.00	0.29	0.33	1.42	0.15	462153.58	709521.10	N 32 16 9.71	W 103 47 21.09
	429.00	0.51	109.05	428.99	0.05	0.12	2.15	0.13	462153.37	709521.83	N 32 16 9.70	W 103 47 21.08
	523.62	0.47	129.27	523.61	-0.36	-0.26	2.84	0.19	462152.99	709522.52	N 32 16 9.70	W 103 47 21.07
	596.00	0.44	137.09	595.99	-0.76	-0.65	3.26	0.10	462152.60	709522.94	N 32 16 9.70	W 103 47 21.07
	665.00	0.10	154.31	664.99	-1.02	-0.90	3.47	0.50	462152.35	709523.15	N 32 16 9.69	W 103 47 21.07
	757.00	0.03	70.82	756.99	-1.08	-0.97	3.53	0.11	462152.28	709523.21	N 32 16 9.69	W 103 47 21.06
	848.00	0.03	89.05	847.99	-1.08	-0.96	3.57	0.01	462152.29	709523.25	N 32 16 9.69	W 103 47 21.06
	940.00	0.03	153.89	939.99	-1.10	-0.98	3.81	0.03	462152.27	709523.29	N 32 16 9.69	W 103 47 21.06
	1031.00	0.03	17.85	1030.99	-1.10	-0.98	3.83	0.08	462152.27	709523.31	N 32 16 9.69	W 103 47 21.06
	1120.00	0.03	105.89	1119.99	-1.08	-0.96	3.68	0.05	462152.29	709523.34	N 32 16 9.69	W 103 47 21.06
	1302.00	0.07	118.80	1301.99	-1.15	-1.03	3.80	0.02	462152.22	709523.48	N 32 16 9.69	W 103 47 21.06
	1393.00	0.08	184.42	1392.99	-1.24	-1.12	3.84	0.09	462152.13	709523.52	N 32 16 9.69	W 103 47 21.06
	1487.00	0.07	226.70	1486.99	-1.35	-1.22	3.80	0.08	462152.03	709523.48	N 32 16 9.69	W 103 47 21.06
	1582.00	0.03	2.98	1581.99	-1.36	-1.24	3.75	0.10	462152.01	709523.43	N 32 16 9.69	W 103 47 21.06
	1676.00	0.03	199.30	1675.99	-1.36	-1.24	3.75	0.08	462152.01	709523.43	N 32 16 9.69	W 103 47 21.06
	1771.00	0.03	344.17	1770.99	-1.36	-1.24	3.73	0.06	462152.01	709523.41	N 32 16 9.69	W 103 47 21.06
	1865.00	0.03	303.02	1864.99	-1.32	-1.20	3.71	0.02	462152.05	709523.39	N 32 16 9.69	W 103 47 21.06
	2054.00	0.03	32.20	2053.99	-1.25	-1.13	3.69	0.02	462152.12	709523.37	N 32 16 9.69	W 103 47 21.06
	2149.00	0.03	340.85	2148.99	-1.21	-1.09	3.70	0.03	462152.16	709523.38	N 32 16 9.69	W 103 47 21.06
	2244.00	0.03	150.18	2243.99	-1.21	-1.09	3.70	0.06	462152.16	709523.38	N 32 16 9.69	W 103 47 21.06
	2338.00	0.03	216.50	2337.99	-1.25	-1.13	3.70	0.03	462152.12	709523.38	N 32 16 9.69	W 103 47 21.06
	2433.00	0.03	198.73	2432.99	-1.29	-1.17	3.67	0.01	462152.08	709523.35	N 32 16 9.69	W 103 47 21.06
	2622.00	0.03	149.82	2621.99	-1.38	-1.26	3.68	0.01	462151.99	709523.36	N 32 16 9.69	W 103 47 21.06
	2717.00	0.03	78.56	2716.99	-1.40	-1.28	3.72	0.04	462151.97	709523.40	N 32 16 9.69	W 103 47 21.06
	2812.00	0.08	173.11	2811.99	-1.46	-1.34	3.75	0.09	462151.91	709523.43	N 32 16 9.69	W 103 47 21.06
	2906.00	0.03	313.08	2905.99	-1.51	-1.39	3.74	0.11	462151.86	709523.42	N 32 16 9.69	W 103 47 21.06
	3096.00	0.03	206.07	3095.99	-1.52	-1.40	3.68	0.03	462151.85	709523.36	N 32 16 9.69	W 103 47 21.06
	3191.00	0.14	315.78	3190.99	-1.45	-1.34	3.59	0.18	462151.91	709523.27	N 32 16 9.69	W 103 47 21.06
	3285.00	0.33	293.06	3284.98	-1.25	-1.15	3.26	0.22	462152.10	709522.84	N 32 16 9.69	W 103 47 21.07
	3380.00	0.11	175.39	3379.98	-1.23	-1.13	3.02	0.41	462152.12	709522.70	N 32 16 9.69	W 103 47 21.07
	3569.00	1.80	147.00	3568.96	-3.67	-3.52	4.47	0.80	462149.73	709524.15	N 32 16 9.67	W 103 47 21.05
	3664.00	1.86	147.84	3663.91	-6.13	-5.94	6.02	0.27	462147.31	709525.70	N 32 16 9.64	W 103 47 21.04
	3759.00	2.46	152.21	3758.85	-9.30	-9.05	7.79	0.66	462144.21	709527.47	N 32 16 9.61	W 103 47 21.02
	3948.00	3.47	155.12	3947.59	-18.21	-17.82	12.09	0.54	462135.43	709531.77	N 32 16 9.53	W 103 47 21.05
	4042.00	3.04	155.63	4041.44	-23.13	-22.67	14.32	0.46	462130.58	709534.00	N 32 16 9.51	W 103 47 21.04
	4181.00	2.54	161.41	4180.30	-28.57	-28.05	16.46	0.48	462125.20	709536.14	N 32 16 9.48	W 103 47 20.94
	4338.00	3.05	166.51	4337.09	-36.94	-36.34	18.81	0.32	462116.91	709538.49	N 32 16 9.34	W 103 47 20.89
	4527.00	4.96	183.52	4525.62	-50.00	-49.39	19.48	1.18	462103.86	709539.16	N 32 16 9.21	W 103 47 20.88
	4622.00	5.98	188.63	4620.19	-58.96	-58.36	18.48	1.19	462094.67	709538.16	N 32 16 9.12	W 103 47 20.89
	4716.00	6.29	185.94	4713.65	-68.87	-68.34	17.22	0.45	462084.91	709536.90	N 32 16 9.03	W 103 47 20.91
	4811.00	6.95	182.05	4808.02	-79.76	-79.27	16.47	0.84	462073.99	709536.15	N 32 16 8.92	W 103 47 20.92
	4906.00	7.32	177.23	4902.28	-91.55	-91.05	16.56	0.74	462062.20	709536.24	N 32 16 8.80	W 103 47 20.92
	5000.00	7.02	177.25	4995.55	-103.28	-102.77	17.12	0.32	462050.48	709536.80	N 32 16 8.68	W 103 47 20.91
	5095.00	6.41	180.51	5089.90	-114.38	-113.87	17.38	0.76	462039.38	709537.04	N 32 16 8.58	W 103 47 20.91
	5189.00	6.22	180.57	5183.33	-124.71	-124.21	17.26	0.20	462029.04	709536.94	N 32 16 8.47	W 103 47 20.91
	5284.00	5.92	184.23	5277.79	-134.72	-134.25	16.85	0.52	462019.01	709536.53	N 32 16 8.37	W 103 47 20.92
	5378.00	5.97	183.42	5371.29	-144.41	-143.96	16.20	0.10	462009.30	709535.88	N 32 16 8.28	W 103 47 20.93
	5473.00	6.11	183.01	5465.76	-154.37	-153.94	15.64	0.15	461999.32	709535.32	N 32 16 8.18	W 103 47 20.93
	5567.00	5.84	183.57	5559.25	-164.11	-163.71	15.08	0.29	461989.55	709534.76	N 32 16 8.08	W 103 47 20.94
	5661.00	2.51	167.99	5652.99	-170.90	-170.50	15.21	3.71	461982.76	709534.89	N 32 16 8.01	W 103 47 20.94
	5851.00	0.07	144.88	5842.83	-175.10	-174.66	16.14	1.29	461978.60	709535.82	N 32 16 7.97	W 103 47 20.93
	5945.00	0.14	222.67	5936.93	-175.23	-174.79	16.09	0.15	461978.47	709535.77	N 32 16 7.97	W 103 47 20.93
	6134.00	0.14	19.30	6125.93	-175.18	-174.75	16.01	0.15	461978.52	709535.69	N 32 16 7.97	W 103 47 20.93
	6324.00	0.25	239.13	6315.93	-175.16	-174.74	15.74	0.19	461978.52	709535.41	N 32 16 7.97	W 103 47 20.93
	6418.00	0.43	87.98	6409.93	-175.26	-174.83	15.91	0.70	461978.43	709535.59	N 32 16 7.97	W 103 47 20.93
	6608.00	0.17	173.96	6599.92	-175.54	-175.09	16.65	0.24	461978.17	709536.33	N 32 16 7.97	W 103 47 20.92
	6703.00	0.12	236.42	6694.92	-175.73	-175.28	16.59	0.16	461977.98	709536.27	N 32 16 7.97	W 103 47 20.92
	6892.00	0.15	107.83	6883.92	-175.92	-175.47	16.66	0.13	461977.79	709536.34	N 32 16 7.97	W 103 47 20.92
	7081.00	0.11	236.27	7072.92	-176.10	-175.64	16.74	0.12	461977.62	709536.42	N 32 16 7.96	W 103 47 20.92
	7176.00	0.14	99.25	7167.92	-176.17	-175.71	16.78	0.25	461977.55	709536.46	N 32 16 7.96	W 103 47 20.92
	7270.00	0.24	356.49	7261.92	-175.99	-175.53	16.88	0.32	461977.73	709536.58	N 32 16 7.96	W 103 47 20.92
	7365.00	0.52	310.02	7356.92	-175.51	-175.06	16.54	0.42	461978.20	709536.22	N 32 16 7.97	W 103 47 20.92
	7459.00	0.46	197.83	7450.92	-175.58	-175.14	16.10	0.87	461978.12	709535.78	N 32 16 7.97	W 103 47 20.93
	7554.00	0.32	135.84	7545.92	-176.13	-175.70	16.16	0.44	461977.56	709535.84	N 32 16 7.96	W 103 47 20.93
	7743.00	0.25	212.88	7734.92	-176.86	-176.42	16.31	0.19	461978.84	709535.99	N 32 16 7.96	W 103 47 20.93
	7837.00	0.37	176.37	7828.91	-177.33	-176.90	16.22	0.24	461978.38	709535.90	N 32 16 7.95	W 103 47 20.93
	7928.00	0.35	212.60	7919.91	-177.88	-177.42	16.09	0.25	461975.84	709535.76	N 32 16 7.95	W 103 47 20.93
	8082.00	0.19	275.74	8073.91	-176.21	-177.80	15.58	0.20	461975.47	709535.28	N 32 16 7.94	W 103 47 20.94
	8176.00	0.51	304.50	8167.91	-177.94	-177.54	15.08	0.38	461975.72	709534.76	N 32 16 7.95	W 103 47 20.94
	8271.00	0.										

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ° ' ° '')	Longitude (E/W ° ° ' ° '')
	8650.00	2.21	219.86	8641.65	-185.41	-185.38	-185.38	0.65	481987.90	709524.25	N 32 16 7.87 W 103 47 21.06	
	8745.00	2.89	240.46	8736.56	-187.89	-187.86	-187.86	1.19	481985.32	709420.99	N 32 16 8.26 W 103 47 21.10	
	8934.00	5.88	198.11	8925.93	-199.20	-199.20	-199.20	2.23	481953.78	709513.84	N 32 16 7.74 W 103 47 21.19	
Tie-In	9029.00	7.78	194.71	9019.35	-209.94	-210.35	-210.35	2.04	481942.92	709510.69	N 32 16 7.62 W 103 47 21.22	
KOP Actual	9114.00	10.78	237.46	9103.32	-219.52	-220.20	-219.52	8.59	481933.07	709502.52	N 32 16 7.52 W 103 47 21.32	
	9209.00	13.77	300.24	9196.82	-218.03	-219.28	-218.03	13.65	481933.99	709485.18	N 32 16 7.53 W 103 47 21.52	
	9304.00	14.14	332.29	9288.85	-201.55	-203.29	-201.55	6.04	481949.98	709470.00	N 32 16 7.69 W 103 47 21.70	
Second Bone Sprin Intersection	9332.00	16.35	330.81	9315.86	-194.07	-196.82	-194.07	8.03	481956.45	709468.49	N 32 16 7.76 W 103 47 21.74	
	9398.00	21.60	328.50	9378.26	-176.14	-178.33	-176.14	8.03	481974.93	709455.60	N 32 16 7.94 W 103 47 21.88	
	9493.00	23.18	338.34	9466.12	-143.33	-148.03	-143.33	4.28	482007.23	709439.56	N 32 16 8.26 W 103 47 22.05	
	9587.00	31.56	339.68	9549.53	-102.52	-105.70	-102.52	8.94	482047.56	709424.16	N 32 16 8.66 W 103 47 22.22	
	9681.00	41.04	334.41	9625.22	-50.80	-54.87	-50.80	10.61	482098.59	709402.23	N 32 16 9.17 W 103 47 22.48	
	9775.00	53.59	332.89	9688.82	11.87	7.02	-146.26	13.42	482160.27	709371.43	N 32 16 9.78 W 103 47 22.83	
	9869.00	68.81	335.84	9733.88	87.04	81.07	-183.77	16.45	482234.31	709335.92	N 32 16 10.51 W 103 47 23.24	
	9963.00	82.34	339.84	9757.35	172.24	165.20	-217.93	14.97	482318.44	709301.76	N 32 16 11.35 W 103 47 23.63	
	10058.00	92.54	348.11	9761.59	263.69	255.79	-245.65	12.60	482409.02	709274.05	N 32 16 12.25 W 103 47 23.95	
	10152.00	87.21	354.63	9761.80	356.71	348.34	-261.35	10.69	482501.57	709258.35	N 32 16 13.16 W 103 47 24.13	
	10246.00	88.73	355.44	9770.41	519.24	510.50	-275.44	0.58	482683.72	709244.26	N 32 16 14.77 W 103 47 24.28	
	10340.00	87.66	355.76	9775.06	614.03	605.11	-282.72	1.04	482758.32	709236.98	N 32 16 15.70 W 103 47 24.36	
	10434.00	86.42	357.64	9778.28	707.95	698.89	-288.12	2.16	482852.10	709231.57	N 32 16 16.63 W 103 47 24.42	
	10528.00	89.73	357.61	9779.81	802.93	793.80	-292.06	1.38	482947.00	709227.64	N 32 16 17.57 W 103 47 24.48	
	10622.00	91.51	357.90	9778.78	897.92	888.71	-295.78	1.90	483041.91	709223.92	N 32 16 18.51 W 103 47 24.50	
	10716.00	90.07	359.16	9777.47	992.90	983.67	-298.22	2.01	483136.86	709221.48	N 32 16 19.45 W 103 47 24.52	
	10810.00	90.35	359.42	9777.13	1088.88	1077.66	-299.38	0.41	483230.85	709220.31	N 32 16 20.38 W 103 47 24.53	
	10904.00	89.35	2.74	9777.38	1181.74	1172.63	-297.59	3.65	483325.81	709222.11	N 32 16 21.32 W 103 47 24.50	
	11000.00	89.59	2.34	9778.26	1276.45	1267.53	-293.38	0.49	483420.71	709226.31	N 32 16 22.26 W 103 47 24.45	
	11094.00	89.42	3.47	9779.08	1371.12	1362.40	-288.57	1.20	483515.57	709231.13	N 32 16 23.20 W 103 47 24.39	
	11188.00	90.62	0.76	9779.01	1556.65	1548.26	-281.71	1.59	483701.41	709237.99	N 32 16 25.04 W 103 47 24.30	
	11282.00	91.17	0.68	9776.11	1742.43	1734.22	-279.37	0.30	483887.38	709240.33	N 32 16 26.88 W 103 47 24.26	
	11376.00	89.31	1.03	9775.32	1929.21	1921.19	-276.58	1.01	484074.32	709243.12	N 32 16 28.75 W 103 47 24.19	
	11470.00	90.28	0.37	9775.66	2022.11	2014.18	-275.44	1.26	484167.31	709244.26	N 32 16 29.65 W 103 47 24.19	
	11564.00	90.28	359.52	9774.75	2208.01	2200.17	-275.62	0.48	484353.29	709244.08	N 32 16 31.49 W 103 47 24.19	
	11658.00	90.86	359.62	9773.84	2298.98	2291.17	-276.30	0.65	484444.28	709243.39	N 32 16 32.39 W 103 47 24.19	
	11752.00	90.90	359.73	9770.99	2484.89	2477.14	-277.36	0.06	484630.24	709242.22	N 32 16 34.23 W 103 47 24.19	
	11846.00	90.38	0.12	9769.95	2577.84	2570.14	-277.48	0.70	484723.23	709242.22	N 32 16 35.15 W 103 47 24.19	
	11940.00	90.79	359.36	9768.99	2671.80	2664.13	-277.91	0.82	484817.22	709241.79	N 32 16 36.08 W 103 47 24.19	
	12034.00	90.41	0.41	9768.01	2764.75	2757.12	-278.09	1.20	484910.21	709241.60	N 32 16 37.00 W 103 47 24.18	
	12128.00	91.82	0.37	9764.40	2950.56	2943.08	-276.83	0.78	485096.15	709242.87	N 32 16 38.84 W 103 47 24.16	
	12222.00	90.07	359.14	9762.86	3043.50	3036.06	-277.22	2.30	485189.13	709242.04	N 32 16 39.76 W 103 47 24.16	
	12316.00	89.69	359.99	9763.25	3231.44	3224.05	-276.65	0.50	485377.11	709241.04	N 32 16 41.62 W 103 47 24.16	
	12410.00	89.28	0.38	9764.96	3421.31	3414.04	-276.04	0.30	485567.09	709243.01	N 32 16 43.50 W 103 47 24.12	
	12504.00	89.55	1.25	9765.93	3516.20	3508.03	-275.82	0.96	485662.06	709244.68	N 32 16 45.38 W 103 47 24.10	
	12598.00	89.24	0.04	9766.94	3611.10	3603.01	-275.62	1.31	485757.05	709244.68	N 32 16 47.25 W 103 47 24.10	
	12692.00	89.49	359.48	9767.99	3706.06	3697.97	-274.41	2.20	485945.99	709243.01	N 32 16 49.12 W 103 47 24.10	
	12786.00	90.35	357.60	9768.12	3800.05	3792.97	-278.41	0.62	486039.90	709237.53	N 32 16 51.92 W 103 47 24.16	
	12880.00	90.89	357.82	9767.10	3894.04	3886.89	-282.17	0.97	486134.83	709233.91	N 32 16 54.78 W 103 47 24.20	
	12974.00	89.97	357.81	9766.38	3988.04	3980.82	-285.79	0.24	486228.76	709230.49	N 32 16 57.65 W 103 47 24.23	
	13068.00	89.90	359.02	9766.50	4083.03	4075.75	-289.21	0.51	486323.69	709227.13	N 32 16 50.99 W 103 47 24.27	
	13162.00	90.38	357.83	9766.26	4178.03	4170.69	-292.57	1.28	486417.65	709224.64	N 32 16 51.92 W 103 47 24.29	
	13256.00	90.86	359.03	9765.25	4272.02	4264.65	-295.06	1.30	486512.60	709222.19	N 32 16 52.86 W 103 47 24.31	
	13350.00	90.17	358.01	9764.39	4367.02	4359.62	-297.51	2.25	486606.58	709220.55	N 32 16 53.79 W 103 47 24.33	
	13444.00	89.42	359.33	9763.18	4461.00	4453.60	-299.15	0.95	486701.57	709219.98	N 32 16 54.73 W 103 47 24.33	
	13538.00	90.04	0.16	9765.01	4555.96	4548.59	-299.72	0.89	486795.56	709219.56	N 32 16 55.68 W 103 47 24.33	
	13632.00	90.24	0.17	9764.67	4649.93	4642.59	-299.88	0.08	486889.55	709219.83	N 32 16 56.59 W 103 47 24.32	
	13726.00	90.07	0.30	9764.41	4743.87	4736.59	-299.47	0.23	486984.55	709220.22	N 32 16 57.53 W 103 47 24.31	
	13820.00	91.10	0.47	9762.48	4838.80	4831.59	-299.20	0.55	487079.52	709221.49	N 32 16 59.40 W 103 47 24.28	
	13914.00	89.83	359.88	9760.95	4933.81	4926.58	-297.63	0.74	487173.52	709222.07	N 32 17 1.27 W 103 47 24.26	
	14008.00	89.86	359.76	9761.20	5028.84	5021.57	-298.20	0.13	487267.49	709221.78	N 32 17 2.20 W 103 47 24.26	
	14102.00	89.55	359.68	9761.69	5123.81	5116.51	-297.92	0.35	487361.46	709221.48	N 32 17 3.14 W 103 47 24.26	
	14196.00	90.04	0.19	9762.37	5218.81	5211.51	-297.63	0.31	487455.46	709221.59	N 32 17 4.07 W 103 47 24.25	
	14290.00	89.68	0.17	9762.88	5313.81	5306.51	-297.34	0.20	487549.47	709222.19	N 32 17 5.01 W 103 47 24.23	
	14384.00	89.42	359.92	9764.38	5408.81	5401.51	-297.05	0.18	487643.48	709222.80	N 32 17 6.94 W 103 47 24.22	
	14478.00	89.62	0.36	9765.98	5503.81	5496.51	-296.76	0.26	487737.49	709223.41	N 32 17 7.87 W 103 47 24.20	
	14572.00	90.35	358.99	9765.99	5598.81	5591.51	-296.47	1.65	487831.50	709224.02	N 32 17 8.80 W 103 47 24.20	
	14666.00	89.76	359.73	9765.90	5693.81	5686.51	-296.18	1.00	487925.51	709224.63	N 32 17 9.73 W 103 47 24.21	
	14760.00	88.25	0.30	9769.20	5788.81	5781.51	-295.89	0.85	488019.52	709225.24	N 32 17 10.66 W 103 47 24.20	
	14854.00	89.69	0.07	9770.90	5883.81	5876.51	-295.60	1.53	488113.53	709225.85	N 32 17 11.59 W 103 47 24.20	
	14948.00	90.07	0.68	9771.10	5978.81	5971.51	-295.31	0.75	488207.54	709226.46	N 32 17 12.52 W 103 47 24.17	
	15042.00	90.17	0.63	9770.70	6073.81	6066.51	-295.02	0.05	488301.55	709227.07	N 32 17 13.45 W 103 47 24.14	
	15136.00	89.86	358.32	9770.42	6168.81	6161.51	-294.73	0.80	488395.56	709227.68	N 32 17 14.38 W 103 47 24.14	
	15230.00	89.90	358.32	9770.40	6263.81	6256.51	-294.44	1.67	488489.57	709228.29	N 32 17 15.31 W 103 47 24.14	
	15324.00	90.04	357.96	9770.56	6358.81	6351.51	-294.15	0.21	488583.58	709228.90	N 32 17 16.24 W 103 47 24.13	
	15418.00	90.21	359.12	9770.38	6453.81	6446.51	-293.86	1.25	488677.59	709229.51	N 32 17 17.17 W 103 47 24.13	
	15512.00	90.00	358.58	9770.01	6548.81	6541.51	-293.57	0.30	488771.60	709230.12	N 32 17 18.10 W 103 47 24.13	
	15606.00	91.00	358.68	9769.38	6643.81	6636.51	-293.28	0.53	488865.61	709230.73	N 32 17 19.03 W 103 47 24.13	
	15700.00	90.35	358.20	9768.12	6738.81	6731.51	-292.99	0.43				

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Eastng (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1	30.000	596.000	Act Strs	30.000	30.000	NAL_NSG+MSHOT			Pilot Hole / Oxy Iridium MDP1 28-21 Federal Com 11H Gyro+MWD	
		1	596.000	9029.000	Act Strs	30.000	30.000	NAL_MWD_IFR1+MS			Pilot Hole / Oxy Iridium MDP1 28-21 Federal Com 11H Gyro+MWD	
		1	9029.000	19561.000	Act Strs	30.000	30.000	NAL_MWD_IFR1+MS			ST01 / Oxy Iridium MDP1 28-21 Federal Com 11H ST01	
		1	19561.000	19812.000	1/98.425	30.000	30.000	NAL_MWD_IFR1+MS			ST01 / Oxy Iridium MDP1 28-21 Federal Com 11H ST01	
		1	19812.000	19812.000	Act Strs	30.000	30.000	NAL_MWD_IFR1+MS			ST01 / Oxy Iridium MDP1 28-21 Federal Com 11H ST01	
		1	19812.000	19919.000	Act Strs	30.000	30.000	SLB_BLIND+TREND			ST01 / Oxy Iridium MDP1 28-21 Federal Com 11H ST01	



oxy

Borehole:

8T01

Well:

Field:

Iridium MDP1 28-21 Federal Com 11H

NM Eddy County (NAD 83)

Structure:

Oxy Hydrium MDP-1 28-21 Federal Com 11H

Gravity & Magnetic Parameters

Model:	HDOM 2018	Dip:	60.01°	Date:	77
MagDec:	6.531°	F3:	4000.004n7	Gravity F3:	500

Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet			
Lat	N 32.16	8.70	Northings:	462163.282013
			Grid Conv:	0.230587
Long	W 103.47	21.11	Eastings:	706819.025153
			Scale Fact:	0.999994

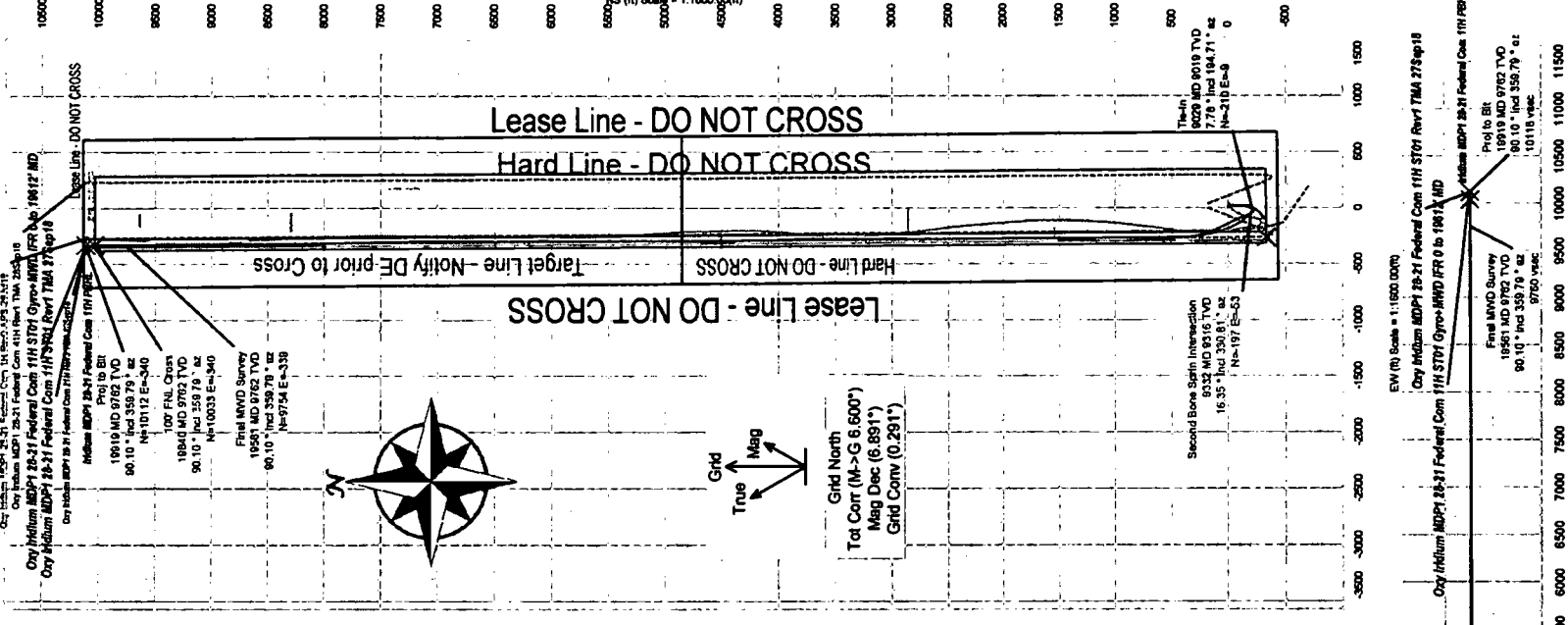
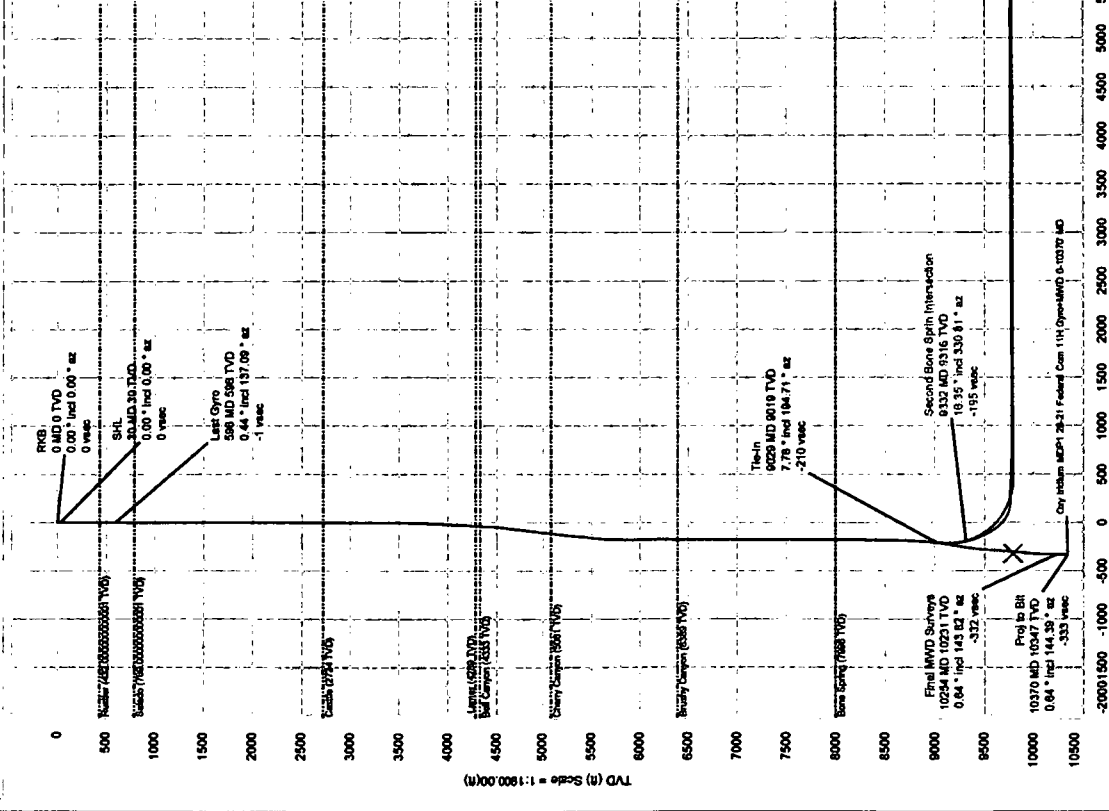
Miscellaneous
Medium 21 Federa
Plan: 11M
 Qty: 100

TVD Ref: P03 = 2673400.311 above MSL.

9 to 19817 500

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	INP(MH)	ELP(MH)	DLS
176-In	9029.00	7.78	194.71	9019.35	-209.94	-210.35	-8.99	
Second Bone Sprtn Intersection	9332.00	16.35	330.81	9315.86	-194.97	-196.82	-53.20	8.03
Final MWD Survey	19561.00	90.10	359.79	9762.23	9759.70	9753.83	-339.09	0.32
100' FNL Cross	19840.00	90.10	359.79	9761.74	10038.59	10032.82	-340.12	0.00
Prof to Bit	19919.00	90.10	359.79	9761.61	10117.55	10111.82	-340.40	0.00



Vertical Section (°) Azim = 358 13° Scale = 1:1800 00/01 Ordino = 01/15 05/16