

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

Well Reference:
2, 25S, 29E, Eddy NM
N 32.16534 W 103.95073

I, Ahmed Zarroug certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 07, 2018 through January 10, 2019, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 564.00 feet to a depth of 20521.00 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 Corral Fly 35-26 Fed Com 35H Well (Original Hole) API No. 30-015-44730 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
Ahmed Zarroug
FS



Subscribed and Sworn to before me this 18th day of January (month) 2019 (yr)

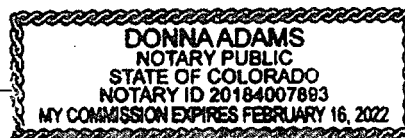
My Commission expires:

2-16-2022

D. Adams
Notary Public

(signature)

Adams County Colorado
(County State)



Schlumberger

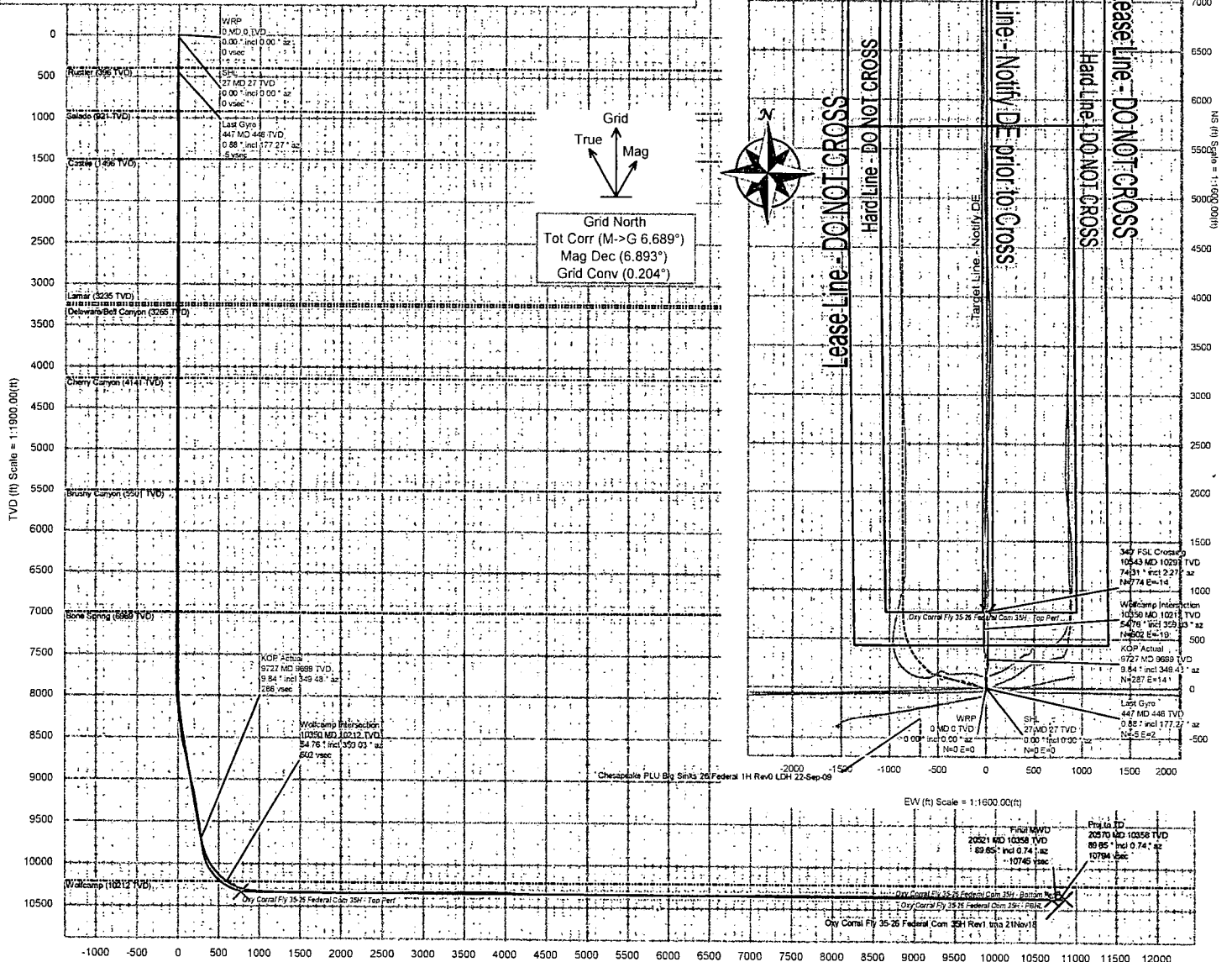
OXY



Borehole:	Well:	Field:	Structure:
Oxy Corral Fly 35-26 Federal Com 35H	Oxy Corral Fly 35-26 Federal Com 35H	NM Eddy County (NAD 83)	Oxy Corral Fly 35-26 Federal Com 35H

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	IFR	Dip:	59.892°	Date:	27-Dec-2018	Lat:	N 32 9 55.23	North:	424996.77NUS	Grid Conv:	0.2037°
MagDec:	6.883°	FS:	47934.7nT	Gravity FS:	998.453mgn (9.80665 Based)	Lon:	W 103 57 2.63	Easting:	658728.83NUS	Scale Fact:	0.99992514
								Oxy Corral Fly 35-26 Federal Com 35H Rev1 TMA 19-Sep-18			

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
WRP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	
Last Gyro	446.50	0.88	177.27	446.46	-5.37	-5.37	1.70	0.40
KOP Actual	9727.00	9.84	349.48	9698.56	286.48	286.52	13.59	0.43
Wolfcamp Intersection	10350.18	54.76	359.03	10212.00	602.16	602.11	-19.19	8.87
340° FSL Crossing	10542.70	74.31	2.27	10296.54	773.93	773.89	-14.49	10.70
340° FNL Crossing	20476.00	89.69	0.97	10357.75	10700.49	10700.46	-23.93	0.42
Final MWD	20521.00	89.65	0.74	10358.00	10745.48	10745.46	-23.26	0.53
Proj to TD	20570.00	89.65	0.74	10358.30	10794.48	10794.45	-22.63	0.00



Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0-20570' MD Survey

Geodetic Report

(Def Survey)



Report Date: January 11, 2019 - 12:50 PM Client: OXY Field: NM Eddy County (NAD 83) Structure / Slot: Oxy Corral Fly 35-26 Federal Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Well: Oxy Corral Fly 35-26 Federal Com 35H Borehole: Oxy Corral Fly 35-26 Federal Com 35H UW / API#: Unknown / Unknown Survey Name: Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0-20570' MD Survey Date: November 20, 2018 Tort / AHD / DDI / ERD Ratio: 249.908' / 10858.498 ft / 6.731 / 1.048 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 9' 55.22998", W 103° 57' 2.63024" Location Grid N/E Y/X: N 424096.770 rUS, E 659726.830 rUS CRS Grid Convergence Angle: 0.2037° Grid Scale Factor: 0.99992514 Version / Patch: 2.10.753.0	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 359.850° (Grid North) Vertical Section Origin: 0.000 ft. 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 3098.500 ft above MSL Seabed / Ground Elevation: 3072.000 ft above MSL Magnetic Declination: 6.893° Total Gravity Field Strength: 998.4533mgn (9.80665 Based) Gravity Model: GARM Total Magnetic Field Strength: 47934.700 nT Magnetic Dip Angle: 59.892° Declination Date: December 27, 2018 Magnetic Declination Model: IIFR North Reference: Grid North Grid Convergence Used: 0.2037° Total Corr Mag North->Grid North: 6.8893° 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 (rUS)	Easting (rUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
WRP SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	424096.77	659726.83	N 32° 9' 55.23"	W 103° 57' 2.63"
	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	424096.77	659726.83	N 32° 9' 55.23"	W 103° 57' 2.63"
	94.50	0.62	176.26	94.50	-0.37	-0.37	0.02	0.91	424096.40	659726.85	N 32° 9' 55.23"	W 103° 57' 2.63"
Last Gyro	180.50	0.69	167.64	180.49	-1.34	-1.34	0.17	0.14	424095.43	659727.00	N 32° 9' 55.22"	W 103° 57' 2.63"
	267.50	1.05	151.46	267.48	-2.55	-2.55	0.66	0.50	424094.22	659727.49	N 32° 9' 55.20"	W 103° 57' 2.62"
	361.50	0.98	156.94	361.47	-4.05	-4.05	1.38	0.13	424092.72	659728.21	N 32° 9' 55.19"	W 103° 57' 2.61"
	446.50	0.88	177.27	446.46	-5.37	-5.37	1.70	0.40	424091.40	659728.53	N 32° 9' 55.18"	W 103° 57' 2.61"
	564.00	0.59	208.03	563.95	-6.81	-6.80	1.46	0.41	424089.97	659728.29	N 32° 9' 55.16"	W 103° 57' 2.61"
	658.00	0.08	41.84	657.95	-7.18	-7.18	1.28	0.71	424089.59	659728.11	N 32° 9' 55.16"	W 103° 57' 2.62"
	752.00	0.00	6.70	751.95	-7.13	-7.13	1.32	0.09	424089.64	659728.15	N 32° 9' 55.16"	W 103° 57' 2.62"
	846.00	0.05	11.83	845.95	-7.09	-7.09	1.33	0.05	424089.68	659728.16	N 32° 9' 55.16"	W 103° 57' 2.62"
	934.00	0.05	193.88	933.95	-7.09	-7.09	1.33	0.11	424089.68	659728.16	N 32° 9' 55.16"	W 103° 57' 2.62"
	1028.00	0.03	209.34	1027.95	-7.16	-7.15	1.30	0.02	424089.62	659728.13	N 32° 9' 55.16"	W 103° 57' 2.62"
	1122.00	0.03	359.11	1121.95	-7.15	-7.15	1.29	0.06	424089.62	659728.12	N 32° 9' 55.16"	W 103° 57' 2.62"
	1216.00	0.08	228.13	1215.95	-7.17	-7.17	1.24	0.11	424089.60	659728.07	N 32° 9' 55.16"	W 103° 57' 2.62"
	1310.00	0.08	48.77	1309.95	-7.17	-7.17	1.24	0.17	424089.60	659728.07	N 32° 9' 55.16"	W 103° 57' 2.62"
	1404.00	0.08	186.24	1403.95	-7.19	-7.19	1.29	0.16	424089.58	659728.12	N 32° 9' 55.16"	W 103° 57' 2.62"
	1499.00	0.05	215.93	1498.95	-7.29	-7.29	1.25	0.05	424089.48	659728.08	N 32° 9' 55.16"	W 103° 57' 2.62"
	1593.00	0.05	173.02	1592.95	-7.37	-7.36	1.23	0.04	424089.41	659728.06	N 32° 9' 55.16"	W 103° 57' 2.62"
	1687.00	0.07	131.14	1686.95	-7.45	-7.44	1.28	0.05	424089.33	659728.11	N 32° 9' 55.16"	W 103° 57' 2.62"
	1877.00	0.00	6.70	1876.95	-7.52	-7.52	1.37	0.04	424089.25	659728.20	N 32° 9' 55.16"	W 103° 57' 2.61"
	1972.00	0.05	243.67	1971.95	-7.54	-7.54	1.33	0.05	424089.23	659728.16	N 32° 9' 55.16"	W 103° 57' 2.62"
	2066.00	0.08	346.85	2065.95	-7.49	-7.49	1.28	0.11	424089.28	659728.11	N 32° 9' 55.16"	W 103° 57' 2.62"
	2161.00	0.21	181.55	2160.95	-7.60	-7.60	1.26	0.30	424089.17	659728.09	N 32° 9' 55.15"	W 103° 57' 2.62"
	2255.00	0.10	169.54	2254.95	-7.86	-7.85	1.27	0.12	424088.92	659728.10	N 32° 9' 55.15"	W 103° 57' 2.62"
	2350.00	0.19	67.81	2349.95	-7.88	-7.88	1.43	0.24	424088.89	659728.26	N 32° 9' 55.15"	W 103° 57' 2.61"
	2439.00	0.20	144.23	2438.94	-7.95	-7.95	1.66	0.27	424088.82	659728.49	N 32° 9' 55.15"	W 103° 57' 2.61"
	2539.00	0.75	124.93	2538.94	-8.47	-8.46	2.30	0.57	424088.31	659729.13	N 32° 9' 55.15"	W 103° 57' 2.60"
	2633.00	2.27	109.01	2632.91	-9.43	-9.42	4.56	1.66	424087.35	659731.39	N 32° 9' 55.14"	W 103° 57' 2.58"
	2729.00	1.98	113.11	2728.84	-10.71	-10.69	7.89	0.34	424086.08	659734.72	N 32° 9' 55.12"	W 103° 57' 2.54"
	2829.00	0.34	95.73	2828.82	-11.42	-11.40	9.77	1.66	424085.37	659736.50	N 32° 9' 55.12"	W 103° 57' 2.52"
	2923.00	0.12	78.61	2922.82	-11.43	-11.41	10.14	0.24	424085.36	659736.97	N 32° 9' 55.12"	W 103° 57' 2.51"
	3018.00	0.04	300.06	3017.82	-11.40	-11.37	10.21	0.16	424085.40	659737.04	N 32° 9' 55.12"	W 103° 57' 2.51"
	3112.00	0.05	266.68	3111.82	-11.38	-11.36	10.14	0.03	424085.41	659736.97	N 32° 9' 55.12"	W 103° 57' 2.51"
	3207.00	0.10	291.81	3206.82	-11.35	-11.33	10.03	0.06	424085.44	659736.85	N 32° 9' 55.12"	W 103° 57' 2.51"
	3301.00	0.10	211.14	3300.82	-11.39	-11.37	9.91	0.14	424085.40	659736.74	N 32° 9' 55.12"	W 103° 57' 2.52"
	3395.00	0.14	172.66	3394.82	-11.58	-11.55	9.88	0.09	424085.22	659736.71	N 32° 9' 55.12"	W 103° 57' 2.52"
	3490.00	0.15	147.53	3489.81	-11.80	-11.77	9.96	0.07	424085.00	659736.79	N 32° 9' 55.11"	W 103° 57' 2.51"
	3584.00	0.10	324.56	3583.81	-11.84	-11.81	9.98	0.27	424084.96	659736.81	N 32° 9' 55.11"	W 103° 57' 2.51"
3680.00	0.12	215.93	3679.81	-11.85	-11.82	9.87	0.19	424084.95	659736.70	N 32° 9' 55.11"	W 103° 57' 2.52"	
3774.00	0.10	297.95	3773.81	-11.89	-11.86	9.74	0.15	424084.91	659736.57	N 32° 9' 55.11"	W 103° 57' 2.52"	
3868.00	0.10	148.13	3867.81	-11.92	-11.90	9.71	0.21	424084.88	659736.54	N 32° 9' 55.11"	W 103° 57' 2.52"	
3963.00	0.10	352.77	3962.81	-11.91	-11.88	9.75	0.21	424084.89	659736.58	N 32° 9' 55.11"	W 103° 57' 2.52"	
4151.00	0.10	207.08	4150.81	-11.89	-11.87	9.65	0.10	424084.90	659736.48	N 32° 9' 55.11"	W 103° 57' 2.52"	
4252.00	0.10	0.28	4251.81	-11.88	-11.86	9.61	0.19	424084.91	659736.44	N 32° 9' 55.11"	W 103° 57' 2.52"	
4346.00	0.12	220.85	4345.81	-11.87	-11.85	9.55	0.22	424084.92	659736.38	N 32° 9' 55.11"	W 103° 57' 2.52"	
4441.00	0.12	336.01	4440.81	-11.86	-11.83	9.44	0.21	424084.94	659736.27	N 32° 9' 55.11"	W 103° 57' 2.52"	
4535.00	0.10	100.88	4534.81	-11.78	-11.76	9.48	0.21	424085.01	659736.31	N 32° 9' 55.11"	W 103° 57' 2.52"	
4631.00	0.12	258.21	4630.81	-11.82	-11.80	9.47	0.22	424084.98	659736.30	N 32° 9' 55.11"	W 103° 57' 2.52"	
4725.00	0.12	120.51	4724.81	-11.89	-11.87	9.45	0.24	424084.91	659736.28	N 32° 9' 55.11"	W 103° 57' 2.52"	
4820.00	0.10	193.97	4819.81	-12.02	-12.00	9.52	0.14	424084.77	659736.35	N 32° 9' 55.11"	W 103° 57' 2.52"	
4914.00	0.10	235.24	4913.81	-12.15	-12.12	9.43	0.07	424084.65	659736.26	N 32° 9' 55.11"	W 103° 57' 2.52"	
5009.00	0.10	129.97	5008.81	-12.25	-12.22	9.43	0.17	424084.55	659736.26	N 32° 9' 55.11"	W 103° 57' 2.52"	
5104.00	0.10	210.65	5103.81	-12.37	-12.35	9.45	0.14	424084.42	659736.28	N 32° 9' 55.11"	W 103° 57' 2.52"	
5198.00	0.07	292.10	5197.81	-12.42	-12.40	9.35	0.12	424084.37	659736.18	N 32° 9' 55.11"	W 103° 57' 2.52"	
5292.00	0.10	142.22	5291.81	-12.46	-12.44	9.35	0.17	424084.33	659736.18	N 32° 9' 55.11"	W 103° 57' 2.52"	
5387.00	0.10	268.02	5386.81	-12.53	-12.51	9.32	0.19	424084.26	659736.15	N 32° 9' 55.11"	W 103° 57' 2.52"	
5481.00	0.14	155.21	5480.81	-12.64	-12.62	9.29	0.21	424084.16	659736.11	N 32° 9' 55.10"	W 103° 57' 2.52"	
5576.00	0.10	2.65	5575.81	-12.66	-12.64	9.34	0.25	424084.13	659736.17	N 32° 9' 55.10"	W 103° 57' 2.52"	
5670.00	0.06	324.19	5669.81	-12.54	-12.52	9.31	0.07	424084.25	659736.14	N 32° 9' 55.11"	W 103° 57' 2.52"	
5859.00	0.10	19.43	5858.81	-12.31	-12.28	9.31	0.04	424084.49	659736.14	N 32° 9' 55.11"	W 103° 57' 2.52"	
5953.00	0.07	334.07	5952.81	-12.18	-12.15	9.31	0.08	424084.62	659736.14	N 32° 9' 55.11"	W 103° 57' 2.52"	
6047.00	0.10	242.64	6046.81	-12.16	-12.14	9.21	0.13	424084.63	659736.04	N 32° 9' 55.11"	W 103° 57' 2.52"	
6142.00	0.10	352.12	6141.81	-12.12	-12.09	9.13	0.17	424084.68	659735.96	N 32° 9' 55.11"	W 103° 57' 2.52"	
6236.00	0.07	85.30	6235.81	-12.03	-12.01	9.18	0.14	424084.76	659736.00	N 32° 9' 55.11"	W 103° 57' 2.52"	
6331.00	0.06	139.27	6330.81	-12.07	-12.05	9.27	0.06	424084.72	659736.10	N 32° 9' 55.11"	W 103° 57' 2.52"	
6425.00	0.10	207.53	6424.81	-12.18	-12.16	9.26	0.10	424084.61	659736.09	N 32° 9' 55.11"	W 103° 57' 2.52"	
6521.00	0.07	239.28	6520.81	-12.29	-12.26	9.17	0.06	424084.51	659736.00	N 32° 9' 55.11"	W 103° 57' 2.52"	
6616.00	0.10	22.76	6615.81	-12.24	-12.21	9.15	0.17	424084.56	659735.98	N 32° 9' 55.11"	W 103° 57' 2.52"	
6710.00	0.10	284.72	6709.81	-12.14	-12.12	9.11	0.16	424084.65	659735.93	N 32° 9' 55.11"	W 103° 57' 2.52"	
6805.00	0.26	193.06	6804.81	-12.33	-12.31	8.98	0.30	424084.46	659735.81	N 32° 9' 55.11"	W 103° 57' 2.53"	
6899.00	0.16	165.34	6898.80	-13.46	-13.44	9.17	1.00	424083.34	659736.00	N 32° 9' 55.10"	W 103° 57' 2.52"	
6993.00	0.94	146.12	6992.79	-15.02	-15.00	9.84	0.44	424081.78	659736.67	N 32° 9' 55.08"	W 103° 57' 2.52"	
7088.00	0.63	164.31	7087.78	-16.17	-16.15	10.42	0.41	424080.63	659737.24	N 32° 9' 55.07"	W 103° 57' 2.51"	
7182.00	0.84	188.05	7181.77	-17.35	-17.33	10.46	0.39	424079.45	659737.29	N 32° 9' 55.06"	W 103° 57' 2.51"	
7371.00	0.10	156.04	7370.76	-18.87	-18.85	10.33	0.40	424077.92	659737.16	N 32° 9' 5		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
	7655.00	0.56	53.38	7654.77	-19.46	-19.43	10.97	0.86	424077.35	659737.80	N 32° 9' 55.04" W	103° 57' 2.50"
	7750.00	1.01	33.34	7749.75	-18.47	-18.44	11.82	0.53	424078.33	659738.64	N 32° 9' 55.05" W	103° 57' 2.49"
	7844.00	1.12	37.64	7843.73	-17.05	-17.02	12.83	0.14	424079.75	659739.66	N 32° 9' 55.06" W	103° 57' 2.48"
	7939.00	2.30	5.18	7938.69	-14.42	-14.39	13.57	1.56	424082.38	659740.40	N 32° 9' 55.09" W	103° 57' 2.47"
	8032.00	4.55	355.02	8031.52	-8.89	-8.85	13.42	2.50	424087.92	659740.25	N 32° 9' 55.14" W	103° 57' 2.47"
	8126.00	6.41	359.93	8125.09	0.08	0.11	13.09	2.04	424096.88	659739.92	N 32° 9' 55.23" W	103° 57' 2.48"
	8221.00	7.43	351.24	8219.40	11.45	11.48	12.15	1.54	424108.25	659738.98	N 32° 9' 55.34" W	103° 57' 2.49"
	8315.00	8.34	345.53	8312.51	24.07	24.09	9.52	1.28	424120.86	659736.35	N 32° 9' 55.47" W	103° 57' 2.52"
	8410.00	8.28	338.89	8406.51	37.13	37.15	5.33	1.01	424133.91	659732.16	N 32° 9' 55.60" W	103° 57' 2.57"
	8504.00	9.50	351.03	8499.39	51.12	51.12	1.68	2.37	424147.89	659728.51	N 32° 9' 55.74" W	103° 57' 2.61"
	8599.00	11.74	355.32	8592.76	68.50	68.50	-0.33	2.50	424165.27	659726.50	N 32° 9' 55.91" W	103° 57' 2.63"
	8693.00	13.95	0.63	8684.40	89.37	89.37	-0.98	2.66	424186.13	659725.85	N 32° 9' 56.11" W	103° 57' 2.64"
	8787.00	12.96	6.96	8775.83	111.16	111.16	0.42	1.89	424207.92	659727.25	N 32° 9' 56.33" W	103° 57' 2.62"
	8882.00	12.59	8.72	8868.48	131.96	131.97	3.28	0.57	424228.73	659730.11	N 32° 9' 56.54" W	103° 57' 2.59"
	8976.00	12.65	11.02	8960.21	152.18	152.20	6.80	0.54	424248.96	659733.63	N 32° 9' 56.74" W	103° 57' 2.54"
	9071.00	12.61	9.60	9052.91	172.61	172.64	10.52	0.33	424269.39	659737.35	N 32° 9' 56.94" W	103° 57' 2.50"
	9165.00	11.80	8.96	9144.78	192.21	192.25	13.73	0.87	424289.00	659740.56	N 32° 9' 57.13" W	103° 57' 2.46"
	9260.00	10.69	10.33	9237.96	210.47	210.51	16.82	1.20	424307.26	659743.65	N 32° 9' 57.31" W	103° 57' 2.43"
	9354.00	9.24	8.92	9330.54	226.49	226.54	19.55	1.56	424323.30	659746.38	N 32° 9' 57.47" W	103° 57' 2.39"
	9449.00	9.08	1.16	9424.33	241.52	241.57	20.89	1.31	424338.33	659747.72	N 32° 9' 57.62" W	103° 57' 2.38"
	9543.00	9.41	348.92	9517.12	256.48	256.53	19.56	2.12	424353.28	659746.39	N 32° 9' 57.77" W	103° 57' 2.39"
	9637.00	9.51	348.26	9609.84	271.63	271.68	16.50	0.16	424368.43	659743.33	N 32° 9' 57.92" W	103° 57' 2.43"
	9727.00	9.84	349.48	9698.56	286.48	286.52	13.59	0.43	424383.26	659740.42	N 32° 9' 58.06" W	103° 57' 2.46"
	9814.00	13.04	343.86	9783.82	303.23	303.26	9.50	3.89	424400.01	659736.33	N 32° 9' 58.23" W	103° 57' 2.51"
	9860.00	17.11	339.21	9828.23	314.56	314.58	5.65	9.22	424411.32	659732.48	N 32° 9' 58.34" W	103° 57' 2.55"
	9954.00	25.73	341.42	9915.66	346.92	346.90	-5.78	9.21	424443.65	659721.05	N 32° 9' 58.66" W	103° 57' 2.68"
	10049.00	32.82	353.30	9998.54	392.16	392.12	-15.37	9.62	424488.86	659711.46	N 32° 9' 59.11" W	103° 57' 2.79"
	10144.00	41.70	1.05	10074.12	449.47	449.43	-17.80	10.56	424546.16	659709.03	N 32° 9' 59.68" W	103° 57' 2.82"
	10238.00	47.16	359.61	10141.22	515.24	515.20	-17.46	5.91	424611.93	659709.37	N 32° 10' 0.33" W	103° 57' 2.81"
	10333.00	53.37	358.26	10201.92	588.25	588.20	-18.86	6.63	424684.93	659707.97	N 32° 10' 1.05" W	103° 57' 2.83"
Wolfcamp Intersection	10350.18	54.76	359.03	10212.00	602.16	602.11	-19.19	8.87	424698.83	659707.64	N 32° 10' 1.19" W	103° 57' 2.83"
	10428.00	61.11	2.23	10253.30	668.05	668.01	-18.40	8.87	424764.72	659708.43	N 32° 10' 1.84" W	103° 57' 2.82"
	10522.00	72.11	2.00	10290.56	754.13	754.09	-15.23	11.70	424850.80	659711.61	N 32° 10' 2.69" W	103° 57' 2.78"
340' FSL Crossing	10542.70	74.31	2.27	10296.54	773.93	773.89	-14.49	10.70	424870.60	659712.34	N 32° 10' 2.89" W	103° 57' 2.77"
	10617.00	82.21	3.19	10311.65	846.52	846.50	-11.02	10.70	424943.20	659715.81	N 32° 10' 3.61" W	103° 57' 2.72"
	10712.00	87.15	1.37	10320.45	941.00	941.98	-7.26	5.54	425037.68	659719.57	N 32° 10' 4.54" W	103° 57' 2.68"
	10734.00	87.24	1.33	10321.53	962.96	962.95	-6.74	0.45	425059.64	659720.09	N 32° 10' 4.76" W	103° 57' 2.67"
	10828.00	87.34	359.76	10325.97	1056.85	1056.84	-5.85	1.67	425153.52	659720.98	N 32° 10' 5.69" W	103° 57' 2.65"
	10921.00	87.38	359.18	10330.26	1149.75	1149.73	-6.71	0.62	425246.41	659720.12	N 32° 10' 6.61" W	103° 57' 2.66"
	11015.00	88.03	359.22	10334.02	1243.66	1243.65	-8.02	0.69	425340.32	659718.81	N 32° 10' 7.54" W	103° 57' 2.67"
	11110.00	88.75	359.04	10336.69	1338.62	1338.60	-9.46	0.78	425435.26	659717.37	N 32° 10' 8.48" W	103° 57' 2.68"
	11204.00	90.44	0.30	10337.36	1432.61	1432.59	-10.01	2.24	425529.25	659716.83	N 32° 10' 9.41" W	103° 57' 2.69"
	11299.00	89.44	1.05	10337.45	1527.60	1527.58	-8.89	1.32	425624.23	659717.94	N 32° 10' 10.35" W	103° 57' 2.67"
	11394.00	89.82	0.81	10338.07	1622.58	1622.57	-7.34	0.47	425719.21	659719.49	N 32° 10' 11.29" W	103° 57' 2.65"
	11488.00	89.99	0.54	10339.04	1716.56	1716.55	-6.24	0.93	425813.19	659720.59	N 32° 10' 12.22" W	103° 57' 2.63"
	11583.00	89.68	0.84	10340.15	1811.55	1811.54	-5.09	0.79	425908.17	659721.74	N 32° 10' 13.16" W	103° 57' 2.61"
	11677.00	90.47	0.83	10340.02	1905.53	1905.53	-3.72	0.84	426002.15	659723.11	N 32° 10' 14.09" W	103° 57' 2.59"
	11772.00	89.85	1.88	10339.76	2000.50	2000.50	-1.48	1.28	426097.12	659725.35	N 32° 10' 15.03" W	103° 57' 2.56"
	11866.00	90.71	1.91	10339.30	2094.43	2094.45	1.63	0.92	426191.05	659728.46	N 32° 10' 15.95" W	103° 57' 2.52"
	11961.00	90.78	2.17	10338.06	2189.36	2189.38	5.01	0.28	426285.98	659731.84	N 32° 10' 16.89" W	103° 57' 2.48"
	12055.00	91.12	1.65	10336.51	2283.28	2283.31	8.15	0.66	426379.91	659734.97	N 32° 10' 17.82" W	103° 57' 2.44"
	12150.00	90.81	1.86	10335.07	2378.22	2378.26	11.05	0.58	426474.84	659737.88	N 32° 10' 18.76" W	103° 57' 2.40"
	12245.00	91.19	1.99	10333.58	2473.14	2473.19	14.25	0.63	426569.77	659741.07	N 32° 10' 19.70" W	103° 57' 2.36"
	12340.00	91.12	1.96	10331.66	2568.06	2568.11	17.52	0.08	426664.69	659744.35	N 32° 10' 20.64" W	103° 57' 2.32"
	12435.00	90.06	0.41	10330.69	2663.02	2663.09	19.48	1.98	426759.65	659746.31	N 32° 10' 21.58" W	103° 57' 2.29"
	12529.00	90.54	1.01	10330.19	2757.01	2757.08	20.65	0.82	426853.63	659747.48	N 32° 10' 22.51" W	103° 57' 2.28"
	12624.00	91.67	1.48	10328.36	2851.96	2852.03	22.71	1.49	426948.58	659749.54	N 32° 10' 23.45" W	103° 57' 2.25"
	12719.00	90.44	0.85	10326.61	2946.92	2947.00	24.64	1.25	427043.54	659751.47	N 32° 10' 24.39" W	103° 57' 2.22"
	12815.00	91.37	1.52	10325.10	3042.88	3042.96	26.63	1.19	427139.50	659753.46	N 32° 10' 25.34" W	103° 57' 2.19"
	12908.00	89.61	1.64	10324.30	3135.83	3135.92	29.19	1.90	427232.45	659756.02	N 32° 10' 26.26" W	103° 57' 2.16"
	13003.00	89.61	1.77	10324.95	3230.78	3230.88	32.02	0.14	427327.40	659758.85	N 32° 10' 27.20" W	103° 57' 2.12"
	13097.00	90.27	1.40	10325.05	3324.74	3324.84	34.62	0.80	427421.35	659761.45	N 32° 10' 28.13" W	103° 57' 2.09"
	13192.00	90.75	359.85	10324.20	3419.72	3419.83	35.65	1.71	427516.33	659762.48	N 32° 10' 29.07" W	103° 57' 2.07"
	13287.00	90.78	0.64	10322.93	3514.71	3514.82	38.06	0.83	427611.32	659762.89	N 32° 10' 30.01" W	103° 57' 2.07"
	13382.00	89.92	0.05	10322.35	3609.70	3609.81	38.63	1.10	427706.30	659763.46	N 32° 10' 30.95" W	103° 57' 2.05"
	13476.00	89.71	359.27	10322.66	3703.70	3703.81	38.07	0.86	427800.29	659762.90	N 32° 10' 31.88" W	103° 57' 2.06"
	13571.00	89.85	357.76	10323.02	3798.67	3798.77	33.61	1.60	427895.25	659760.44	N 32° 10' 32.82" W	103° 57' 2.08"
	13665.00	88.82	357.04	10324.11	3892.58	3892.67	29.35	1.34	427989.14	659756.18	N 32° 10' 33.75" W	103° 57' 2.13"
	13760.00	88.27	356.50	10326.52	3987.41	3987.49	24.00	0.81	428083.95	659750.83	N 32° 10' 34.69" W	103° 57' 2.19"
	13855.00	85.86	355.60	10331.39	4082.07	4082.13	17.46	2.71	428178.58	659744.29	N 32° 10' 35.62" W	103° 57' 2.26"
	13950.00	87.76	357.15	10336.67	4176.74	4176.78	11.47	2.58	428273.23	659738.30	N 32° 10' 36.56" W	103° 57' 2.32"
	14044.00	88.17	357.72	10340.01	4270.60	4270.63	7.26	0.75	428367.07	659734.09	N 32° 10' 37.49" W	103° 57' 2.37"
	14139.00	88.72	357.42	10342.59	4365.49	4365.51	3.24	0.66	428461.94	659730.07	N 32° 10' 38.43" W	103° 57' 2.41"
	14234.00	89.54	357.64	10344.03	4460.40	4460.41	-0.86	0.89	428556.84	659725.97	N 32° 10' 39.37" W	103° 57' 2.46"
	14328.00	90.27	358.39	10344.19	4554.35	4554.35	-4.11	1.11	428650.77	659722.72	N 32° 10' 40.30" W	103° 57' 2.48"
	14423.00	89.34	358.52	10344.51	4649.32							

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 ° ° °)
	17450.00	89.86	359.25	10343.32	7675.94	7675.86	-42.73	0.36	431772.04	659684.11	N 32 11 11.19	W 103 57 2.81
	17545.00	90.07	358.98	10343.38	7770.93	7770.84	-44.19	0.36	431867.02	659682.84	N 32 11 12.13	W 103 57 2.82
	17639.00	90.13	359.37	10343.22	7864.93	7864.83	-45.55	0.42	431961.00	659681.29	N 32 11 13.06	W 103 57 2.83
	17734.00	90.24	1.39	10342.91	7959.92	7959.83	-44.92	2.13	432055.98	659681.92	N 32 11 14.00	W 103 57 2.82
	17828.00	90.75	3.59	10342.10	8053.81	8053.73	-40.83	2.40	432149.88	659686.00	N 32 11 14.92	W 103 57 2.77
	17922.00	90.86	358.34	10340.78	8147.75	8147.67	-39.25	5.59	432243.82	659687.58	N 32 11 15.85	W 103 57 2.75
	18016.00	89.45	359.98	10340.52	8241.73	8241.66	-40.63	2.30	432337.79	659686.20	N 32 11 16.78	W 103 57 2.76
	18111.00	89.82	357.58	10341.13	8336.71	8336.63	-42.65	2.56	432432.75	659684.18	N 32 11 17.72	W 103 57 2.78
	18205.00	89.93	359.29	10341.41	8430.68	8430.59	-45.22	1.82	432526.71	659681.61	N 32 11 18.65	W 103 57 2.81
	18300.00	90.82	358.90	10340.88	8525.66	8525.57	-46.72	1.12	432621.69	659680.11	N 32 11 19.59	W 103 57 2.82
	18394.00	89.03	358.47	10341.00	8619.64	8619.54	-48.88	1.96	432715.65	659677.96	N 32 11 20.52	W 103 57 2.84
	18489.00	89.03	358.92	10342.61	8714.61	8714.50	-51.04	0.47	432810.60	659675.79	N 32 11 21.46	W 103 57 2.86
	18583.00	89.69	1.17	10343.66	8808.60	8808.49	-50.97	2.49	432904.58	659675.87	N 32 11 22.39	W 103 57 2.86
	18678.00	90.68	358.04	10343.35	8903.58	8903.48	-51.62	3.46	432999.56	659675.21	N 32 11 23.33	W 103 57 2.86
	18773.00	89.10	358.73	10343.53	8998.55	8998.43	-54.30	1.81	433094.51	659672.54	N 32 11 24.27	W 103 57 2.89
	18868.00	89.65	359.30	10344.57	9093.53	9093.41	-55.93	0.83	433189.49	659670.90	N 32 11 25.21	W 103 57 2.90
	18962.00	89.24	357.58	10345.48	9187.49	9187.37	-58.49	1.88	433283.44	659668.34	N 32 11 26.14	W 103 57 2.93
	19057.00	89.27	0.99	10346.71	9282.47	9282.34	-59.68	3.59	433378.40	659667.16	N 32 11 27.08	W 103 57 2.94
	19152.00	88.52	1.76	10348.55	9377.41	9377.30	-57.40	1.13	433473.34	659669.44	N 32 11 28.02	W 103 57 2.91
	19246.00	89.41	358.66	10350.25	9471.38	9471.27	-57.05	3.43	433567.31	659669.78	N 32 11 28.95	W 103 57 2.90
	19339.00	89.52	357.78	10351.11	9564.34	9564.22	-59.94	0.95	433660.25	659666.89	N 32 11 29.87	W 103 57 2.93
	19435.00	89.55	3.28	10351.89	9660.29	9660.17	-59.05	5.73	433756.20	659675.21	N 32 11 30.82	W 103 57 2.92
	19529.00	90.13	2.76	10352.16	9754.15	9754.04	-54.10	0.83	433850.06	659672.73	N 32 11 31.75	W 103 57 2.86
	19624.00	89.48	2.34	10352.48	9849.04	9848.95	-49.87	0.81	433944.96	659676.96	N 32 11 32.69	W 103 57 2.80
	19719.00	90.17	3.14	10352.77	9943.92	9943.84	-45.33	1.11	434039.84	659681.50	N 32 11 33.63	W 103 57 2.75
	19813.00	89.65	2.70	10352.92	10037.78	10037.71	-40.54	0.72	434133.71	659686.29	N 32 11 34.56	W 103 57 2.69
	19908.00	89.62	0.70	10353.52	10132.73	10132.66	-37.73	2.11	434228.66	659689.11	N 32 11 35.50	W 103 57 2.65
	20003.00	89.55	2.62	10354.21	10227.67	10227.62	-34.97	2.02	434323.60	659691.86	N 32 11 36.44	W 103 57 2.61
	20098.00	89.52	0.67	10354.98	10322.62	10322.57	-32.25	2.05	434418.55	659694.58	N 32 11 37.37	W 103 57 2.58
	20193.00	89.58	2.02	10355.73	10417.58	10417.54	-30.02	1.42	434513.51	659696.81	N 32 11 38.31	W 103 57 2.55
	20287.00	89.52	0.84	10356.47	10511.54	10511.51	-27.67	1.26	434607.47	659699.16	N 32 11 39.24	W 103 57 2.52
	20382.00	89.62	1.36	10357.18	10606.52	10606.49	-25.85	0.56	434702.44	659700.98	N 32 11 40.18	W 103 57 2.49
340° FNL Crossing	20476.00	89.69	0.97	10357.75	10700.49	10700.46	-23.93	0.42	434796.41	659702.90	N 32 11 41.11	W 103 57 2.47
	20477.00	89.69	0.97	10357.75	10701.49	10701.46	-23.92	0.42	434797.41	659702.91	N 32 11 41.12	W 103 57 2.47
Final MWD	20521.00	89.65	0.74	10358.00	10745.48	10745.46	-23.26	0.53	434841.40	659703.57	N 32 11 41.56	W 103 57 2.46
Proj to TD	20570.00	89.65	0.74	10358.30	10794.48	10794.45	-22.63	0.00	434890.39	659704.20	N 32 11 42.04	W 103 57 2.45

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	26.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Oxy Corral Fly 35-26 Federal Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0- Oxy Corral Fly 35-26 Federal
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0- Oxy Corral Fly 35-26 Federal
	1	26.500	446.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0- Oxy Corral Fly 35-26 Federal
	1	446.500	2350.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0- Oxy Corral Fly 35-26 Federal
	1	2350.000	20570.000	Act Stns	30.000	30.000	NAL_MWD_IFRI+MS	Com 35H / Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0- Oxy Corral Fly 35-26 Federal

...Oxy Corral Fly 35-26 Federal Com 35H/Oxy Corral Fly 35-26 Federal Com 35H Gyro + MWD 0-20570' MD