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

Well Reference:
1, 25S, 29E, Eddy NM
N 32.16349 W 103.93360

I, Jude Omokwale certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 14, 2018 through September 30, 2018, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 751.00 feet to a depth of 21127.00 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 Canyon 36-25 Fed Com 34H Well (Original Hole) API No. 30-015-44644 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
Jude Omokwale
FS

Omokwale

Subscribed and Sworn to before me this 29th day of October (month) 2018 (yr)

My Commission expires:

2-16-2022

D. Adams (signature)

Notary Public

Adams County Colorado

(County State)

DONNA ADAMS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20184007803
MY COMMISSION EXPIRES FEBRUARY 16, 2022

Final PVA - Rev0

H&P 636 (RKB=26.5')

Schlumberger

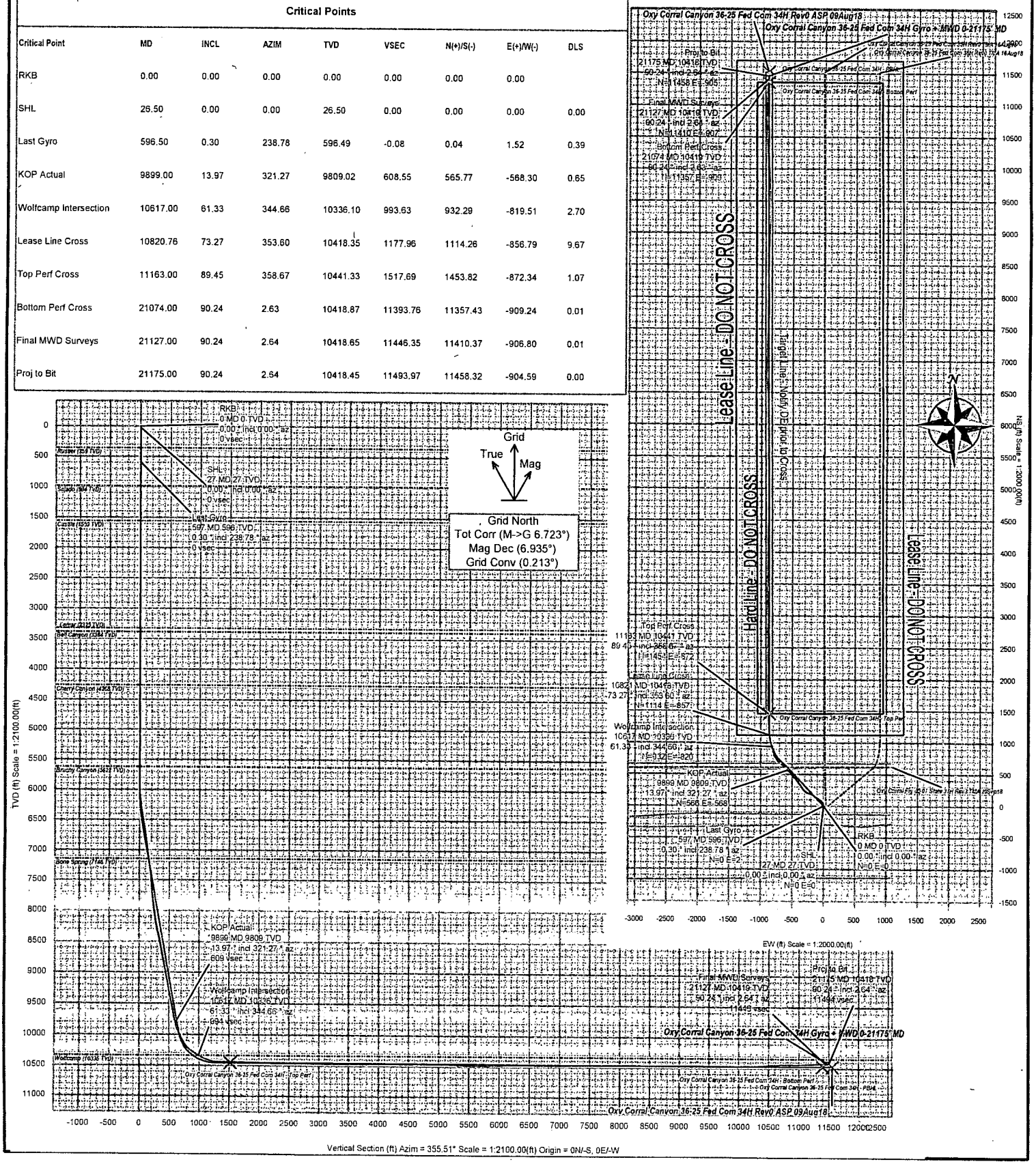
OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Corral Canyon 36-25 Fed Com 34H	NM Eddy County (NAD 83)	Oxy Corral Canyon 36-25 Fed Com 34H

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2018	Dip:	59.904°	Date:	12-Sep-2018	Lat:	N 32 9 48.57	Northing:	423443.29ftUS	Grid Conv:	0.2128°	Slot:	Oxy Corral Canyon 36-25 Fed Com 34H	TVD Ref:	RKB(3158.7ft above MSL)
MagDec:	6.935°	FS:	47954.601nT	Gravity FS:	998.449mgn (9.80665 Based)	Lon:	W 103 56 0.97	Easting:	665028.98ftUS	Scale Fact:	0.99992661	Plan:	Oxy Corral Canyon 36-25 Fed Com 34H Gyro + MWD 0-21175' MD		

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
RKB	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	0.00
Last Gyro	596.50	0.30	238.78	596.49	-0.08	0.04	1.52	0.39
KOP Actual	9899.00	13.97	321.27	9809.02	608.55	565.77	-568.30	0.65
Wolfcamp Intersection	10617.00	61.33	344.66	10336.10	993.63	932.29	-819.51	2.70
Lease Line Cross	10820.76	73.27	353.60	10418.35	1177.96	1114.26	-856.79	9.67
Top Perf Cross	11163.00	89.45	358.67	10441.33	1517.69	1453.82	-872.34	1.07
Bottom Perf Cross	21074.00	90.24	2.63	10418.87	11393.76	11357.43	-909.24	0.01
Final MWD Surveys	21127.00	90.24	2.64	10418.65	11446.35	11410.37	-906.80	0.01
Proj to Bit	21175.00	90.24	2.64	10418.45	11493.97	11458.32	-904.59	0.00



Schlumberger

Oxy Corral Canyon 36-25 Fed Com 34H Gyro + MWD 0-21175' MD Survey
Geodetic Report
(Def Survey)

Report Date:	October 01, 2018 - 11:28 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	355.507 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Corral Canyon 36-25 Fed Com 34H / Oxy Corral Canyon 36-25 Fed Com 34H	**TVD Reference Datum:**	RKB
Well:	Corral Canyon 36-25 Fed Com 34H	**TVD Reference Elevation:**	3158.700 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3132.200 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.935 °
Survey Name:	Oxy Corral Canyon 36-25 Fed Com 34H Gyro + MWD 0-21175' MD	**Total Gravity Field Strength:**	998.4491mgn (9.80665 Based)
Survey Date:	September 12, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	279.986 ° / 11841.828 ft / 6.826 / 1.130	**Total Magnetic Field Strength:**	47954.601 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.904 °
Location Lat / Long:	N 32° 9' 48.57249", W 103° 56' 0.97326"	**Declination Date:**	September 12, 2018
Location Grid N/E Y/X:	N 423443.290 ftUS, E 665028.980 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.2128 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992661	**Grid Convergence Used:**	0.2128 °
Version / Patch:	2.10.740.0	**Total Corr Mag North->Grid North:**	6.7226 °
		Local Coord Referenced To:	Well Head

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	423443.29	665028.98	N 32 9 48.57	W 103 56 0.97
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	423443.29	665028.98	N 32 9 48.57	W 103 56 0.97
	69.88	0.50	112.97	69.88	-0.09	-0.07	0.17	1.15	423443.22	665029.15	N 32 9 48.57	W 103 56 0.97
	156.86	0.39	103.24	156.86	-0.35	-0.29	0.81	0.15	423443.00	665029.79	N 32 9 48.57	W 103 56 0.96
	244.87	0.37	89.97	244.86	-0.47	-0.36	1.39	0.10	423442.93	665030.37	N 32 9 48.57	W 103 56 0.96
	336.05	0.18	65.31	336.04	-0.44	-0.30	1.81	0.24	423442.99	665030.79	N 32 9 48.57	W 103 56 0.95
	430.62	0.16	340.11	430.61	-0.26	-0.11	1.90	0.24	423443.18	665030.88	N 32 9 48.57	W 103 56 0.95
	525.26	0.15	306.05	525.25	-0.05	0.09	1.76	0.10	423443.38	665030.74	N 32 9 48.57	W 103 56 0.95
Last Gyro	596.50	0.30	238.78	596.49	-0.08	0.04	1.52	0.39	423443.33	665030.50	N 32 9 48.57	W 103 56 0.96
	751.00	0.81	258.20	750.99	-0.40	-0.39	0.11	0.35	423442.90	665029.09	N 32 9 48.57	W 103 56 0.97
	845.00	0.63	238.15	844.98	-0.72	-0.80	-0.98	0.33	423442.49	665028.00	N 32 9 48.56	W 103 56 0.98
	935.00	0.06	228.82	934.98	-0.97	-1.09	-1.44	0.63	423442.20	665027.54	N 32 9 48.56	W 103 56 0.99
	1029.00	0.39	318.69	1028.98	-0.75	-0.88	-1.69	0.42	423442.41	665027.29	N 32 9 48.56	W 103 56 0.99
	1123.00	0.39	117.73	1122.97	-0.66	-0.79	-1.61	0.82	423442.50	665027.37	N 32 9 48.56	W 103 56 0.99
	1218.00	0.27	324.50	1217.97	-0.64	-0.76	-1.46	0.68	423442.53	665027.52	N 32 9 48.57	W 103 56 0.99
	1312.00	0.49	166.44	1311.97	-0.85	-0.97	-1.49	0.79	423442.32	665027.49	N 32 9 48.56	W 103 56 0.99
	1406.00	0.28	328.35	1405.97	-1.04	-1.16	-1.52	0.81	423442.13	665027.46	N 32 9 48.56	W 103 56 0.99
	1500.00	0.41	335.18	1499.97	-0.52	-0.66	-1.78	0.14	423442.63	665027.20	N 32 9 48.57	W 103 56 0.99
	1594.00	0.44	223.37	1593.97	-0.45	-0.62	-2.17	0.75	423442.67	665026.81	N 32 9 48.57	W 103 56 1.00
	1688.00	0.20	342.75	1687.97	-0.53	-0.73	-2.47	0.60	423442.56	665026.51	N 32 9 48.57	W 103 56 1.00
	1784.00	0.40	255.39	1783.97	-0.43	-0.65	-2.84	0.46	423442.64	665026.14	N 32 9 48.57	W 103 56 1.01
	1879.00	0.36	121.31	1878.97	-0.66	-0.89	-2.91	0.74	423442.40	665026.07	N 32 9 48.56	W 103 56 1.01
	1973.00	0.58	94.56	1972.96	-0.91	-1.08	-2.18	0.32	423442.21	665026.80	N 32 9 48.56	W 103 56 1.00
	2068.00	0.02	24.72	2067.96	-0.97	-1.10	-1.69	0.60	423442.19	665027.29	N 32 9 48.56	W 103 56 0.99
	2162.00	0.22	150.09	2161.96	-1.12	-1.25	-1.60	0.25	423442.04	665027.38	N 32 9 48.56	W 103 56 0.99
	2256.00	0.52	94.45	2255.96	-1.35	-1.44	-1.08	0.46	423441.85	665027.90	N 32 9 48.56	W 103 56 0.99
	2351.00	0.53	90.13	2350.96	-1.45	-1.47	-0.21	0.04	423441.82	665028.77	N 32 9 48.56	W 103 56 0.98
	2446.00	0.44	79.34	2445.95	-1.45	-1.40	0.59	0.13	423441.89	665029.57	N 32 9 48.56	W 103 56 0.97
	2540.00	0.63	76.04	2539.95	-1.32	-1.21	1.44	0.20	423442.08	665030.42	N 32 9 48.56	W 103 56 0.96
	2635.00	0.12	47.11	2634.95	-1.17	-1.02	2.02	0.56	423442.27	665031.00	N 32 9 48.56	W 103 56 0.95
	2730.00	0.40	31.13	2729.94	-0.84	-0.67	2.27	0.30	423442.62	665031.25	N 32 9 48.57	W 103 56 0.95
	2830.00	0.43	38.27	2829.94	-0.28	-0.07	2.68	0.06	423443.22	665031.66	N 32 9 48.57	W 103 56 0.94
	2924.00	0.42	50.11	2923.94	0.18	0.42	3.16	0.09	423443.71	665032.14	N 32 9 48.58	W 103 56 0.94
	3018.00	0.29	153.07	3017.94	0.16	0.43	3.53	0.60	423443.72	665032.51	N 32 9 48.58	W 103 56 0.93
	3113.00	0.44	63.09	3112.94	0.07	0.38	3.97	0.55	423443.67	665032.95	N 32 9 48.58	W 103 56 0.93
	3207.00	1.07	308.23	3206.93	0.81	1.09	3.60	1.40	423444.38	665032.58	N 32 9 48.58	W 103 56 0.93
	3302.00	1.37	300.08	3301.91	2.05	2.21	1.92	0.36	423445.50	665030.90	N 32 9 48.59	W 103 56 0.95
	3396.00	0.32	223.43	3395.90	2.51	2.58	0.77	1.42	423445.87	665029.75	N 32 9 48.60	W 103 56 0.96
	3491.00	0.60	35.68	3490.90	2.72	2.79	0.88	0.97	423446.08	665029.86	N 32 9 48.60	W 103 56 0.96
	3585.00	0.42	202.40	3584.90	2.78	2.87	1.03	1.08	423446.16	665030.01	N 32 9 48.60	W 103 56 0.96
	3679.00	0.37	27.93	3678.90	2.73	2.82	1.04	0.84	423446.11	665030.02	N 32 9 48.60	W 103 56 0.96
	3777.00	0.39	227.96	3776.90	2.80	2.88	0.94	0.76	423446.17	665029.92	N 32 9 48.60	W 103 56 0.96
	3871.00	0.24	148.00	3870.89	2.43	2.50	0.81	0.45	423445.79	665029.79	N 32 9 48.60	W 103 56 0.96
	3966.00	0.12	224.15	3965.89	2.19	2.26	0.85	0.25	423445.55	665029.83	N 32 9 48.59	W 103 56 0.96
	4060.00	0.39	227.25	4059.89	1.92	1.97	0.54	0.29	423445.26	665029.52	N 32 9 48.59	W 103 56 0.97
	4155.00	0.62	227.19	4154.89	1.40	1.40	-0.07	0.24	423444.69	665028.91	N 32 9 48.59	W 103 56 0.97
	4249.00	0.13	165.67	4248.89	0.98	0.95	-0.42	0.61	423444.24	665028.56	N 32 9 48.58	W 103 56 0.98
	4344.00	0.08	189.20	4343.89	0.81	0.78	-0.40	0.07	423444.07	665028.58	N 32 9 48.58	W 103 56 0.98
	4444.00	0.08	34.56	4443.89	0.80	0.77	-0.37	0.16	423444.06	665028.61	N 32 9 48.58	W 103 56 0.98
	4538.00	0.09	97.97	4537.89	0.83	0.82	-0.26	0.10	423444.11	665028.72	N 32 9 48.58	W 103 56 0.98
	4633.00	0.03	43.20	4632.89	0.83	0.82	-0.17	0.08	423444.11	665028.81	N 32 9 48.58	W 103 56 0.98
	4727.00	0.15	72.89	4726.89	0.88	0.88	-0.04	0.13	423444.17	665028.94	N 32 9 48.58	W 103 56 0.97
	4822.00	0.03	9.44	4821.89	0.93	0.94	0.08	0.15	423444.23	665029.06	N 32 9 48.58	W 103 56 0.97
	4916.00	0.16	137.95	4915.89	0.85	0.87	0.18	0.19	423444.16	665029.16	N 32 9 48.58	W 103 56 0.97
	5011.00	0.12	345.83	5010.89	0.84	0.86	0.24	0.29	423444.15	665029.22	N 32 9 48.58	W 103 56 0.97
	5105.00	0.19	275.08	5104.89	0.96	0.97	0.06	0.20	423444.26	665029.04	N 32 9 48.58	W 103 56 0.97
	5199.00	0.26	233.27	5198.89	0.88	0.86	-0.26	0.18	423444.15	665028.72	N 32 9 48.58	W 103 56 0.98
	5294.00	0.34	166.93	5293.88	0.48	0.46	-0.37	0.35	423443.75	665028.61	N 32 9 48.58	W 103 56 0.98
	5388.00	0.06	19.89	5387.88	0.25	0.23	-0.29	0.42	423443.52	665028.69	N 32 9 48.57	W 103 56 0.98
	5483.00	0.08	324.96	5482.88	0.35	0.33	-0.31	0.07	423443.62	665028.67	N 32 9 48.58	W 103 56 0.98
	5577.00	0.06	133.20	5576.88	0.37	0.35	-0.32	0.15	423443.64	665028.66	N 32 9 48.58	W 103 56 0.98
	5671.00	0.05	113.94	5670.88	0.32	0.30	-0.24	0.02	423443.59	665028.74	N 32 9 48.58	W 103 56 0.98
	5765.00	0.02	344.16	5764.88	0.32	0.30	-0.21	0.07	423443.59	665028.77	N 32 9 48.58	W 103 56 0.98
	5860.00	0.18	254.02	5859.88	0.30	0.27	-0.36	0.19	423443.56	665028.62	N 32 9 48.58	W 103 56 0.98
	5954.00	1.27	345.42	5953.88	1.30	1.24	-0.76	1.37	423444.53	665028.22	N 32 9 48.58	W 103 56 0.98
	6049.00	3.54	349.37	6048.79	5.25	5.14	-1.57	2.39	423448.43	665027.41	N 32 9 48.62	W 103 56 0.99
	6143.00	5.75	351.59	6142.47	12.84	12.66	-2.79	2.36	423455.94	665026.19	N 32 9 48.70	W 103 56 1.01
	6237.00	7.36	339.94	6235.86	23.33	22.97	-5.55	2.21	423466.26	665023.43	N 32 9 48.80	W 103 56 1.04
	6332.00	9.31	333.14	6329.85	36.30	35.54	-11.11	2.30	423478.83	665017.87	N 32 9 48.92	W 103 56 1.10
	6426.00	10.87	325.80	6422.40	51.04	49.66	-19.52	2.15	423492.94	665009.46	N 32 9 49.06	W 103 56 1.20
	6521.00	12.42	320.36	6515.44	67.17	64.94	-31.08	2.00	423508.22	664997.90	N 32 9 49.22	W 103 56 1.33
	6615.00	12.24	313.51	6607.28	82.84	79.58	-44.75	1.57	423522.86	664984.23	N 32 9 49.36	W 103 56 1.49
	6709.00	12.20	308.08	6699.15	96.97	92.57	-59.80	1.22	423535.85	664969.18	N 32 9 49.49	W 103 56 1.66
	6804.00	12.19	306.77	6792.01	110.37	104.76	-75.74	0.29	423548.04	664953.25	N 32 9 49.61	W 103 56 1.85
	6898.00	12.33	301.71	6883.87	122.85	115.98	-92.22	1.15	423559.26	664936.76	N 32 9 49.72	W 103 56 2.04
	6993.00	11.93	299.35	6976.75	134.31	126.12	-109.41	0.67	423569.40	664919.58	N 32 9 49.82	W 103 56 2.24
	7087.00	12.18	303.17	7068.68	145.78	136.31	-126.18	0.89	423579.59	664902.81	N 32 9 49.93	W 103 56 2.44

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 ° ' ")	
	7184.00	12.15	311.22	7163.51	159.34	148.64	-142.43	1.75	423591.92	664886.56	N 32 9 50.05	W 103 56	2.62
	7279.00	12.06	310.76	7256.39	173.54	161.70	-157.46	0.14	423604.98	664871.53	N 32 9 50.18	W 103 56	2.80
	7373.00	11.61	306.74	7348.40	186.75	173.77	-172.48	1.00	423617.05	664856.51	N 32 9 50.30	W 103 56	2.97
	7467.00	11.95	296.13	7440.43	197.94	183.72	-188.80	2.33	423627.00	664840.19	N 32 9 50.40	W 103 56	3.16
	7562.00	11.05	289.88	7533.52	206.71	191.15	-206.19	1.62	423634.42	664822.80	N 32 9 50.47	W 103 56	3.36
	7656.00	11.83	288.35	7625.66	214.17	197.24	-223.81	0.89	423640.52	664805.19	N 32 9 50.53	W 103 56	3.57
	7751.00	12.02	289.15	7718.61	221.92	203.55	-242.40	0.27	423646.83	664786.60	N 32 9 50.60	W 103 56	3.78
	7845.00	11.64	291.15	7810.61	229.95	210.19	-260.49	0.59	423653.46	664768.51	N 32 9 50.66	W 103 56	3.99
	7939.00	11.73	301.75	7902.67	239.70	218.64	-277.46	2.28	423661.91	664751.54	N 32 9 50.75	W 103 56	4.19
	8034.00	11.94	312.40	7995.66	252.59	230.35	-292.93	2.31	423673.62	664736.07	N 32 9 50.86	W 103 56	4.37
	8128.00	10.16	316.04	8087.92	266.09	242.87	-305.87	2.03	423686.14	664723.14	N 32 9 50.99	W 103 56	4.52
	8223.00	12.02	319.63	8181.14	280.57	256.44	-318.09	2.09	423699.71	664710.91	N 32 9 51.12	W 103 56	4.66
	8317.00	13.80	327.90	8272.77	298.44	273.40	-330.39	2.72	423716.67	664698.61	N 32 9 51.29	W 103 56	4.80
	8411.00	14.04	327.62	8364.01	318.45	292.53	-342.45	0.27	423735.79	664686.55	N 32 9 51.48	W 103 56	4.94
	8506.00	13.32	324.53	8456.31	338.02	311.17	-354.98	1.08	423754.44	664674.03	N 32 9 51.66	W 103 56	5.09
	8600.00	13.42	321.79	8547.77	356.38	328.56	-368.01	0.68	423771.83	664661.00	N 32 9 51.84	W 103 56	5.24
	8695.00	13.49	322.70	8640.16	374.86	346.04	-381.54	0.23	423789.30	664647.47	N 32 9 52.01	W 103 56	5.40
	8789.00	13.07	322.93	8731.65	393.03	363.24	-394.59	0.45	423806.50	664634.42	N 32 9 52.18	W 103 56	5.55
	8884.00	14.52	321.54	8823.90	411.96	381.14	-408.47	1.57	423824.40	664620.54	N 32 9 52.36	W 103 56	5.71
	8978.00	13.42	325.77	8915.12	431.21	399.38	-421.94	1.60	423842.64	664607.07	N 32 9 52.54	W 103 56	5.86
	9073.00	13.85	321.21	9007.45	450.18	417.36	-435.27	1.22	423860.62	664593.75	N 32 9 52.72	W 103 56	6.02
	9167.00	13.98	315.16	9098.70	468.13	434.18	-450.32	1.55	423877.44	664578.69	N 32 9 52.89	W 103 56	6.19
	9261.00	13.82	314.69	9189.94	485.28	450.13	-466.31	0.21	423893.39	664562.71	N 32 9 53.04	W 103 56	6.38
	9356.00	13.84	318.71	9282.19	502.96	466.65	-481.87	1.01	423909.90	664547.14	N 32 9 53.21	W 103 56	6.56
	9451.00	14.05	319.19	9374.39	521.35	483.91	-496.91	0.25	423927.17	664532.11	N 32 9 53.38	W 103 56	6.73
	9546.00	14.23	318.07	9466.51	539.91	501.33	-512.25	0.34	423944.58	664516.77	N 32 9 53.55	W 103 56	6.91
	9640.00	14.05	317.97	9557.66	558.14	518.40	-527.61	0.19	423961.65	664501.41	N 32 9 53.72	W 103 56	7.09
	9735.00	13.99	319.23	9649.84	576.54	535.66	-542.83	0.33	423978.91	664486.20	N 32 9 53.89	W 103 56	7.26
	9829.00	13.85	319.44	9741.07	594.79	552.81	-557.56	0.16	423996.06	664471.46	N 32 9 54.06	W 103 56	7.44
KOP Actual	9899.00	13.97	321.27	9809.02	608.55	565.77	-568.30	0.65	424009.02	664460.73	N 32 9 54.19	W 103 56	7.56
	9991.00	21.22	317.09	9896.66	630.81	586.66	-586.60	7.99	424029.90	664442.42	N 32 9 54.40	W 103 56	7.77
	10086.00	34.09	312.17	9980.64	663.78	617.25	-618.18	13.75	424060.50	664410.85	N 32 9 54.70	W 103 56	8.14
	10181.00	36.88	309.20	10058.00	702.85	653.15	-660.01	3.45	424096.39	664369.02	N 32 9 55.06	W 103 56	8.62
	10276.00	39.76	311.89	10132.53	744.55	691.47	-704.73	3.50	424134.70	664324.30	N 32 9 55.44	W 103 56	9.14
	10371.00	48.74	326.38	10200.68	797.98	741.72	-747.32	14.19	424184.95	664281.72	N 32 9 55.94	W 103 56	9.63
	10466.00	56.48	338.59	10258.46	867.33	808.58	-781.68	13.04	424251.81	664247.36	N 32 9 56.60	W 103 56	10.03
	10561.00	59.85	345.04	10308.61	945.69	885.21	-806.76	6.77	424328.43	664222.28	N 32 9 57.36	W 103 56	10.32
Wolfcamp Intersection	*10617.00*	*61.33*	*344.66*	*10336.10*	*993.63*	*932.29*	*-819.51*	*2.70*	*424375.51*	*664209.53*	*N 32 9 57.83*	*W 103 56*	*10.47*
	10655.00	62.33	344.40	10354.04	1026.51	964.58	-828.45	2.70	424407.80	664200.59	N 32 9 58.15	W 103 56	10.57
	10750.00	67.30	350.05	10394.49	1111.52	1048.37	-847.36	7.50	424491.58	664181.69	N 32 9 58.98	W 103 56	10.79
	10845.00	75.33	354.76	10424.91	1201.29	1137.48	-859.15	9.67	424580.68	664169.89	N 32 9 59.86	W 103 56	10.92
	10940.00	87.04	357.25	10439.45	1294.99	1230.96	-865.65	12.59	424674.16	664163.40	N 32 10 0.78	W 103 56	10.99
	11002.00	89.80	358.12	10441.16	1356.91	1292.88	-868.15	4.67	424736.07	664160.89	N 32 10 1.40	W 103 56	11.02
	11090.00	90.23	358.65	10441.13	1444.80	1380.84	-870.63	0.78	424824.03	664158.41	N 32 10 2.27	W 103 56	11.04
Top Perf Cross	*11163.00*	*89.45*	*358.67*	*10441.33*	*1517.69*	*1453.82*	*-872.34*	*1.07*	*424897.00*	*664156.71*	*N 32 10 2.99*	*W 103 56*	*11.06*
	11183.00	89.24	358.68	10441.56	1537.66	1473.82	-872.80	1.07	424916.99	664156.25	N 32 10 3.19	W 103 56	11.06
	11371.00	88.31	0.15	10445.58	1725.17	1661.76	-874.72	0.93	425104.92	664154.33	N 32 10 5.05	W 103 56	11.08
	11466.00	88.03	359.74	10448.62	1819.84	1756.71	-874.81	0.52	425199.86	664154.24	N 32 10 5.99	W 103 56	11.07
	11561.00	88.93	0.23	10451.14	1914.51	1851.67	-874.83	1.08	425294.82	664154.21	N 32 10 6.93	W 103 56	11.07
	11656.00	88.14	0.57	10453.56	2009.14	1946.64	-874.17	0.91	425389.78	664154.88	N 32 10 7.87	W 103 56	11.06
	11751.00	87.93	0.52	10456.82	2103.71	2041.58	-873.27	0.23	425484.71	664155.78	N 32 10 8.81	W 103 56	11.04
	11846.00	88.07	359.65	10460.14	2198.35	2136.52	-873.13	0.93	425579.65	664155.92	N 32 10 9.75	W 103 56	11.04
	11941.00	88.03	358.72	10463.37	2293.10	2231.45	-874.48	0.98	425674.57	664154.57	N 32 10 10.69	W 103 56	11.05
	12036.00	89.10	358.91	10465.75	2387.91	2326.40	-876.44	1.14	425769.52	664152.61	N 32 10 11.62	W 103 56	11.07
	12131.00	89.99	358.47	10466.50	2482.76	2421.37	-878.61	1.05	425864.48	664150.43	N 32 10 12.56	W 103 56	11.09
	12226.00	90.03	359.78	10466.49	2577.57	2516.36	-880.06	1.38	425959.46	664148.98	N 32 10 13.50	W 103 56	11.10
	12321.00	89.96	359.48	10466.49	2672.32	2611.36	-880.68	0.32	426054.45	664148.37	N 32 10 14.44	W 103 56	11.11
	12416.00	90.17	358.73	10466.39	2767.13	2706.35	-882.16	0.82	426149.43	664146.89	N 32 10 15.38	W 103 56	11.12
	12511.00	89.51	359.41	10466.65	2861.95	2801.33	-883.70	1.00	426244.41	664145.34	N 32 10 16.32	W 103 56	11.13
	12606.00	89.92	359.04	10467.12	2956.75	2896.32	-884.99	0.58	426339.39	664144.06	N 32 10 17.26	W 103 56	11.14
	12701.00	90.06	358.98	10467.14	3051.57	2991.31	-886.63	0.16	426434.37	664142.42	N 32 10 18.20	W 103 56	11.16
	12797.00	89.92	359.11	10467.16	3147.39	3087.29	-888.23	0.20	426530.35	664140.82	N 32 10 19.15	W 103 56	11.17
	12892.00	89.89	358.55	10467.32	3242.23	3182.27	-890.17	0.59	426625.32	664138.88	N 32 10 20.09	W 103 56	11.19
	12987.00	89.99	358.88	10467.42	3337.08	3277.25	-892.30	0.36	426720.29	664136.75	N 32 10 21.03	W 103 56	11.21
	13082.00	89.96	359.07	10467.46	3431.90	3372.23	-894.00	0.20	426815.27	664135.05	N 32 10 21.97	W 103 56	11.23
	13177.00	89.82	0.66	10467.64	3526.63	3467.23	-894.22	1.68	426910.26	664134.83	N 32 10 22.91	W 103 56	11.23
	13272.00	90.20	1.49	10467.62	3621.18	3562.21	-892.44	0.96	427005.23	664136.61	N 32 10 23.85	W 103 56	11.20
	13367.00	89.96	1.92	10467.49	3715.62	3657.17	-889.61	0.52	427100.18	664139.43	N 32 10 24.79	W 103 56	11.17
	13462.00	90.41	0.80	10467.18	3810.12	3752.14	-887.36	1.27	427195.15	664141.69	N 32 10 25.73	W 103 56	11.13
	13557.00	90.44	0.59	10466.48	3904.73	3847.13	-886.21	0.22	427290.13	664142.84	N 32 10 26.67	W 103 56	11.12
	13652.00	90.44	0.92	10465.75	3999.33	3942.12	-884.95	0.35	427385.11	664144.09	N 32 10 27.61	W 103 56	11.10
	13747.00	90.44	0.86	10465.02	4093.91	4037.11	-883.48	0.06	427480.09	664145.57	N 32 10 28.55	W 103 56	11.08
	13842.00	90.61	0.50	10464.15	4188.52	4132.09	-882.35	0.42	427575.07	664146.70	N 32 10 29.49	W 103 56	11.06
	13937.00	90.75	1.14	10463.02	4283.10	4227.08	-880.99	0.69	427670.05	664148.05	N 32 10 30.43	W 103 56	11.04
	14032.00	91.13	1.01	10461.46	4377.64	4322.05	-879.21	0.42	427765.01	664149.84	N 32 10 31.37	W 103 56	11.02
	14127.00	90.13	0.39	10460.42	4472.24	4417.03	-878.05	1.24	427859.99	664151.00	N 32 10 32.31	W 103 56	11.00
	14222.00	90.37	0.61	10460.00	4566.88	4512.03	-877.22	0.34	427954.98	664151.83	N 32 10 33.25	W 103 56	10.98
	14317.00	90.54	0.70	10459.25	4661.50	4607.02	-876.13	0.20	428049.96	664152.91	N 32 10 34.19	W 103 56	10.97
	14412.00	89.34	0.17	10459.35	4756.14	4702.01	-875.41	1.38	428144.95	664153.63	N 32 10 35.13	W 103 56	10.96
	14507.00	89.44	0.30	10460.36	4850.81	4797.01	-875.02	0.17	428239.94	664154.02	N 32 10 36.07	W 103 56	10.95
	14602.00	89.48	359.84	10461.26	4945.51	4892.00	-874.91	0.49	428334.93	664154.14	N 32 10 37.01	W 103 56	10.94
	14791.00	88.27	359.45	10464.97	5133.98	5080.96	-876.08	0.67	428523.87	664152.97	N 32 10 38.88	W 103 56	10.95
	14886.00	88.48	359.78	10467.66	5228.69	5175.92	-876.72	0.41	428618.82	664152.33	N 32 10 39.82	W 103 56	10.95
	14981.00	87.66	0.15	10470.86	5323.35	5270.86	-876.77	0.95	428713.76	664152.27	N 32 10 40.76	W 103 56	10.95
	15076.00	88.55	359.86	10474.00	5418.01	5365.81	-876.77	0.99	428808.70	664152.28	N 32 10 41.70	W 103 56	10.94
	15171.00	89.65	359.84	10475.49	5512.72	5460.80	-877.01	1.16	428903.68	664152.03	N 32 10 42.64	W 103 56	10.94
	15267.00	90.51	359.86	10475.36	5608.44	5556.80	-877.27	0.90	428999.67	664151.78	N 32 10 43.59	W 103 56	10.94
	15362.00	90.13	359.67	10474.83	5703.18	5651.79	-877.66	0.45	429094.66	664151.39	N 32 10 44.53	W 103 56	10.94
	15457.00	90.85	359.78	10474.02	5797.92	5746.79	-878.11	0.77	429189.65	664150.93	N 32 10 45.47	W 103 56	10.94
	15552.00	91.20	0.14	10472.32	5892.62	5841.77	-878.18	0.53	429284.62	664150.87	N 32 10 46.41	W 103 56	10.94
	15647.00	90.65	359.17	10470.78	5987.35	5936.76	-878.75	1.17	429379.60	664150.30	N 32 10 47.35	W 103 56	10.94
	15741.00	90.54	358.56	10469.81	6081.19	6030.73	-880.61	0.66	429473.57	664148.43	N 32 10 48.28	W 103 56	10.96
	15836.00	90.51	359.17	10468.94	6176.02	6125.71	-882.49	0.64	429568.54	664146.55	N 32 10 49.22	W 103 56	10.98
	15931.00	89.89	359.30	10468.61	6270.82	6220.70	-883.76	0.67	429663.52	664145.28	N 32 10 50.16	W 103 56	10.99
	16026.00	90.41	359.29	10468.36	6365.61	6315.69	-884.93	0.55	429758.51	664144.12	N 32 10 51.10	W 103 56	11.00
	16121.00	90.20	358.91	10467.85	6460.42	6410.68	-886.42	0.46	429853.49	664142.62	N 32 10 52.04	W 103 56	11.01
	16216.00	88.17	355.06	10469.20	6555.36	6505.52	-891.42	4.58	429948.32	664137.63	N 32 10 52.98	W 103 56	11.06
	16311.00	89.31	355.22	10471.29	6650.33	6600.15	-899.46	1.21	430042.94	664129.58	N 32 10 53.91	W 103 56	11.15
	16502.00	90.13	357.60	10472.22	6841.29	6790.76	-911.42	1.32	430233.54	664117.63	N 32 10 55.80	W 103 56	11.28
	16692.00	90.51	1.28	10471.16	7030.80	6980.71	-913.28	1.95	430423.48	664115.77	N 32 10 57.68	W 103 56	11.30
	16882.00	91.89	3.46	10467.18	7219.39	7170.49	-905.43	1.36	430613.24	664123.62	N 32 10 59.56	W 103 56	11.20
	16977.00	90.47	2.97	10465.23	7313.50	7265.32	-900.10	1.58	430708.06	664128.95	N 32 11 0.50	W 103 56	11.13
	17072.00	90.75	1.86	10464.22	7407.81	7360.23	-896.10	1.20	430802.96	664132.95	N 32 11 1.44	W 103 56	11.08
	17262.00	90.27	0.27	10462.52	7596.90	7550.18	-892.56	0.87	430992.90	664136.48	N 32 11 3.32	W 103 56	11.03
	17357.00	90.72	3.81	10461.70	7691.27	7645.10	-889.18	3.76	431087.82	664139.86	N 32 11 4.25	W 103 56	10.99
	17452.00	89.79	2.30	10461.28	7785.44	7739.96	-884.12	1.87	431182.67	664144.93	N 32 11 5.19	W 103 56	10.93
	17547.00	90.10	358.38	10461.37	7880.08	7834.94	-883.56	4.14	431277.64	664145.49	N 32 11 6.13	W 103 56	10.92
	17641.00	90.30	359.31	10461.04	7973.92	7928.92	-885.45	1.01	431371.61	664143.59	N 32 11 7.06	W 103 56	10.93

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 ° ' ")
	17736.00	89.14	358.87	10461.51	8068.73	8023.91	-886.96	1.31	431466.59	664142.09	N 32 11 8.00	W 103 56 10.95
	17831.00	89.52	357.98	10462.62	8163.60	8118.86	-889.57	1.02	431561.54	664139.48	N 32 11 8.94	W 103 56 10.97
	17927.00	89.79	358.78	10463.20	8259.48	8214.82	-892.29	0.88	431657.49	664136.76	N 32 11 9.89	W 103 56 11.00
	18022.00	89.45	359.63	10463.83	8354.28	8309.81	-893.60	0.96	431752.47	664135.44	N 32 11 10.83	W 103 56 11.01
	18117.00	89.24	359.54	10464.91	8449.03	8404.80	-894.29	0.24	431847.46	664134.76	N 32 11 11.77	W 103 56 11.02
	18212.00	89.89	0.47	10465.63	8543.73	8499.80	-894.28	1.19	431942.45	664134.76	N 32 11 12.71	W 103 56 11.01
	18307.00	89.89	0.70	10465.82	8638.36	8594.79	-893.31	0.24	432037.43	664135.73	N 32 11 13.65	W 103 56 11.00
	18402.00	90.89	1.73	10465.17	8732.88	8689.77	-891.30	1.51	432132.40	664137.75	N 32 11 14.59	W 103 56 10.97
	18497.00	91.03	2.08	10463.58	8827.28	8784.70	-888.14	0.40	432227.33	664140.91	N 32 11 15.53	W 103 56 10.93
	18592.00	90.07	2.82	10462.67	8921.58	8879.61	-884.08	1.28	432322.23	664144.97	N 32 11 16.47	W 103 56 10.88
	18687.00	90.10	3.06	10462.53	9015.78	8974.48	-879.21	0.25	432417.10	664149.84	N 32 11 17.41	W 103 56 10.82
	18782.00	89.62	2.84	10462.76	9109.98	9069.36	-874.32	0.56	432511.96	664154.73	N 32 11 18.35	W 103 56 10.75
	18877.00	90.96	2.84	10462.28	9204.20	9164.24	-869.61	1.41	432606.83	664159.43	N 32 11 19.29	W 103 56 10.70
	18971.00	89.45	1.66	10461.94	9297.54	9258.16	-865.92	2.04	432700.75	664163.12	N 32 11 20.22	W 103 56 10.65
	19066.00	89.03	359.86	10463.20	9392.13	9353.14	-864.66	1.95	432795.72	664164.38	N 32 11 21.15	W 103 56 10.63
	19161.00	87.52	358.91	10466.06	9486.87	9448.08	-865.68	1.88	432890.66	664163.36	N 32 11 22.09	W 103 56 10.64
	19256.00	89.14	359.00	10468.83	9581.65	9543.03	-867.41	1.71	432985.60	664161.63	N 32 11 23.03	W 103 56 10.65
	19351.00	90.86	358.45	10468.83	9676.50	9638.00	-869.53	1.90	433080.56	664159.52	N 32 11 23.97	W 103 56 10.67
	19446.00	89.86	357.23	10468.23	9771.41	9732.93	-873.11	1.66	433175.48	664155.94	N 32 11 24.91	W 103 56 10.71
	19541.00	90.03	357.45	10468.32	9866.36	9827.82	-877.52	0.29	433270.37	664151.53	N 32 11 25.85	W 103 56 10.76
	19636.00	91.78	356.49	10466.82	9961.32	9922.67	-882.54	2.10	433365.22	664146.51	N 32 11 26.79	W 103 56 10.81
	19731.00	91.61	355.79	10464.01	10056.27	10017.42	-888.93	0.76	433459.95	664140.12	N 32 11 27.73	W 103 56 10.88
	19826.00	89.65	354.98	10462.97	10151.26	10112.10	-896.57	2.23	433554.62	664132.48	N 32 11 28.67	W 103 56 10.97
	19921.00	91.27	355.65	10462.21	10246.25	10206.77	-904.33	1.85	433649.29	664124.72	N 32 11 29.60	W 103 56 11.06
	20015.00	93.13	356.81	10458.60	10340.17	10300.49	-910.51	2.33	433743.01	664118.54	N 32 11 30.53	W 103 56 11.12
	20110.00	93.78	356.80	10452.87	10434.97	10395.17	-915.79	0.68	433837.68	664113.26	N 32 11 31.47	W 103 56 11.18
	20205.00	94.26	357.35	10446.21	10529.70	10489.82	-920.63	0.77	433932.32	664108.42	N 32 11 32.40	W 103 56 11.23
	20300.00	92.20	358.04	10440.86	10624.47	10584.58	-924.44	2.29	434027.07	664104.61	N 32 11 33.34	W 103 56 11.27
	20394.00	91.92	358.77	10437.48	10718.29	10678.49	-927.06	0.83	434120.97	664101.99	N 32 11 34.27	W 103 56 11.30
	20489.00	89.52	359.49	10436.29	10813.09	10773.46	-928.50	2.64	434215.94	664100.55	N 32 11 35.21	W 103 56 11.31
	20584.00	88.11	359.56	10438.25	10907.83	10868.43	-929.29	1.49	434310.90	664099.76	N 32 11 36.15	W 103 56 11.32
	20679.00	92.51	1.95	10437.74	11002.40	10963.39	-928.04	5.27	434405.86	664101.01	N 32 11 37.09	W 103 56 11.30
	20774.00	93.16	2.42	10433.04	11096.64	11058.21	-924.42	0.84	434500.66	664104.63	N 32 11 38.03	W 103 56 11.25
	20869.00	93.68	3.30	10427.37	11190.69	11152.92	-919.69	1.07	434595.37	664109.36	N 32 11 38.97	W 103 56 11.19
	20964.00	93.13	2.93	10421.73	11284.69	11247.61	-914.53	0.70	434690.05	664114.52	N 32 11 39.90	W 103 56 11.13
	21059.00	90.24	2.63	10418.94	11378.87	11342.45	-909.93	3.06	434784.88	664119.12	N 32 11 40.84	W 103 56 11.07
Bottom Perf Cross	*21074.00*	*90.24*	*2.63*	*10418.87*	*11393.76*	*11357.43*	*-909.24*	*0.01*	*434799.87*	*664119.81*	*N 32 11 40.99*	*W 103 56 11.06*
Final MWD Surveys	21127.00	90.24	2.64	10418.65	11446.35	11410.37	-906.80	0.01	434852.80	664122.25	N 32 11 41.51	W 103 56 11.03
Proj to Bit	21175.00	90.24	2.64	10418.45	11493.97	11458.32	-904.59	0.00	434900.75	664124.46	N 32 11 41.99	W 103 56 11.00

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 Corral Canyon 36-25 Fed Com 34H Gyro + MWD 0-21175' MD
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Canyon 36-25 Fed Com 34H Gyro + MWD 0-21175' MD
	1	26.500	596.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Corral Canyon 36-25 Fed Com 34H Gyro
	1	596.500	21175.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Corral Canyon 36-25 Fed Com 34H Gyro