

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

15-43906

Well Reference:

22, 24S, 29E, EDDY NM
N 32.19841 W -103.97972

I, Kalu Chibueze Uga certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 29, 2016 through October 09, 2016, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 470.00 feet to a depth of 13365.00 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 CEDAR CANYON 22 FEDERAL COM 6Y Well (Original Hole) API No. 30-015-43906 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
Kalu Chibueze Uga
FS

Kalu Chibueze Uga

Subscribed and Sworn to before me this 19th day of October (month) 2016 (yr)

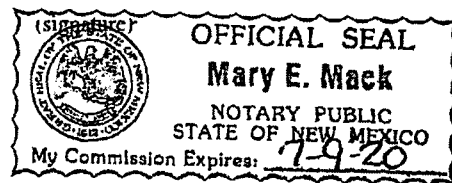
My Commission expires:

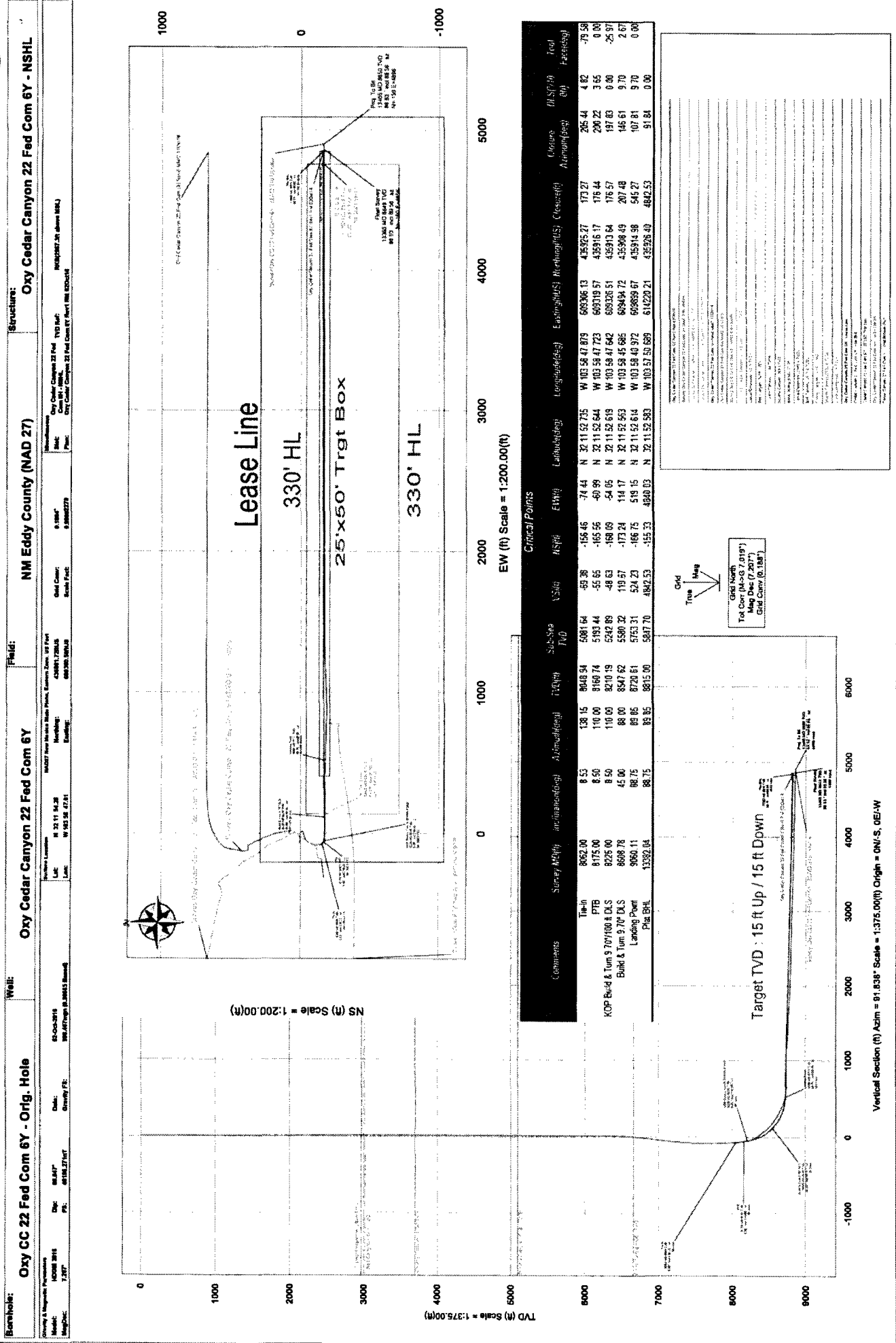
7-9-20

Mary E. Mack

Notary Public

Eddy New Mexico
(County State)





Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD Survey Geodetic Report (Def Survey)



Report Date: October 20, 2016 - 09:45 AM
Client: OXY
Field: NM Eddy County (NAD 27)
Structure / Slot: Oxy Cedar Canyon 22 Fed Com 6Y - NSHL / Oxy Cedar Canyon 22 Fed Com 6H - NSHL
Well: Oxy Cedar Canyon 22 Fed Com 6Y
Borehole: Oxy CC 22 Fed Com 6Y - Orig Hole
UWI / API#: Unknown / Unknown
Survey Name: Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD
Survey Date: September 27, 2016
Tort / AHD / DDI / ERD Ratio: 184.355 * / 5204.801 ft / 6.162 / 0.588
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 11' 54.28070", W 103° 58' 47.00705"
Location Grid N/E Y/X: N 436081.720 NUS, E 609380.560 NUS
CRS Grid Convergence Angle: 0.1884 *
Grid Scale Factor: 0.99992279
Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 91.838 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 2987.300 ft above MSL
Seasbed / Ground Elevation: 2939.100 ft above MSL
Magnetic Declination: 7.208 *
Total Gravity Field Strength: 998.4670mgN (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48197.757 nT
Magnetic Dip Angle: 60.047 *
Declination Date: September 27, 2016
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.1884 *
Total Corr Mag North-Grid North: 7.0200 *
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (NUS)	Easting (EUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	0.00	0.00	-2987.30	0.00	0.00	0.00	N/A	436081.72	609380.56	N 32 11 54.28	W 103 58 47.01
RKB	28.20	0.00	0.00	28.20	-2939.10	0.00	0.00	0.00	0.00	436081.72	609380.56	N 32 11 54.28	W 103 58 47.01
	470.00	1.54	118.52	469.95	-2497.35	5.30	-2.83	5.22	0.35	436078.89	609385.78	N 32 11 54.25	W 103 58 46.95
	531.00	0.46	133.11	530.94	-2436.36	6.22	-3.39	6.12	1.80	436078.33	609386.68	N 32 11 54.25	W 103 58 46.94
	621.00	0.07	242.02	620.94	-2346.36	8.45	-3.67	6.33	0.54	436078.05	609386.68	N 32 11 54.24	W 103 58 46.93
	711.00	0.04	177.47	710.94	-2256.36	8.40	-3.72	6.28	0.07	436078.00	609386.84	N 32 11 54.24	W 103 58 46.93
	802.00	0.07	13.53	801.94	-2165.36	8.41	-3.70	6.30	0.12	436078.02	609386.68	N 32 11 54.24	W 103 58 46.93
	893.00	0.11	84.04	892.94	-2074.36	8.51	-3.64	6.40	0.12	436078.08	609386.96	N 32 11 54.24	W 103 58 46.93
	983.00	0.07	114.01	982.94	-1984.38	8.65	-3.65	6.53	0.07	436078.07	609387.09	N 32 11 54.24	W 103 58 46.93
	1074.00	0.02	171.29	1073.94	-1893.38	8.70	-3.69	6.59	0.07	436078.03	609387.15	N 32 11 54.24	W 103 58 46.93
	1188.00	0.11	116.78	1167.94	-1799.36	8.79	-3.75	6.67	0.11	436077.97	609387.23	N 32 11 54.24	W 103 58 46.93
	1292.00	0.07	98.55	1291.94	-1705.38	8.93	-3.80	6.81	0.05	436077.92	609387.37	N 32 11 54.24	W 103 58 46.93
	1356.00	0.46	301.83	1355.93	-1611.37	8.66	-3.61	6.54	0.56	436078.12	609387.10	N 32 11 54.24	W 103 58 46.93
	1450.00	0.15	226.24	1449.93	-1517.37	8.24	-3.49	6.13	0.48	436078.23	609386.69	N 32 11 54.25	W 103 58 46.94
	1544.00	0.51	144.14	1543.93	-1423.37	6.41	-3.92	6.29	0.54	436077.80	609386.85	N 32 11 54.24	W 103 58 46.93
	1638.00	0.73	152.57	1637.93	-1329.37	6.96	-4.79	6.81	0.25	436076.93	609387.37	N 32 11 54.23	W 103 58 46.93
	1732.00	0.88	158.86	1731.92	-1235.38	7.54	-5.99	7.35	0.18	436075.73	609387.91	N 32 11 54.22	W 103 58 46.92
	1826.00	0.88	167.58	1825.91	-1141.39	7.99	-7.37	7.76	0.14	436074.35	609388.32	N 32 11 54.21	W 103 58 46.92
	1919.00	0.77	179.49	1918.90	-1048.40	8.19	-8.69	7.92	0.22	436073.03	609388.48	N 32 11 54.19	W 103 58 46.92
	2108.00	1.30	141.11	2107.87	-859.43	9.65	-11.83	8.28	0.45	436070.09	609389.84	N 32 11 54.17	W 103 58 46.90
	2296.00	0.46	126.00	2295.94	-671.46	11.66	-13.73	11.23	0.46	436067.99	609391.79	N 32 11 54.14	W 103 58 46.88
	2484.00	0.31	158.90	2483.94	-483.46	12.48	-14.65	12.02	0.14	436067.07	609392.58	N 32 11 54.14	W 103 58 46.87
	2578.00	0.46	155.93	2577.84	-389.46	12.75	-15.23	12.27	0.16	436066.49	609392.82	N 32 11 54.13	W 103 58 46.86
	2767.00	0.57	151.54	2766.93	-290.47	13.55	-16.75	13.02	0.06	436064.97	609393.58	N 32 11 54.11	W 103 58 46.86
	2955.00	0.53	124.06	2954.92	-12.48	14.78	-18.06	14.19	0.14	436063.56	609394.75	N 32 11 54.10	W 103 58 46.84
	3049.00	0.09	47.80	3048.82	81.52	15.18	-18.26	14.80	0.55	436063.47	609395.16	N 32 11 54.10	W 103 58 46.84
	3237.00	0.04	49.20	3236.82	269.52	15.34	-18.11	14.76	0.03	436063.61	609395.32	N 32 11 54.10	W 103 58 46.84
	3332.00	0.04	13.05	3331.82	384.52	15.37	-18.06	14.80	0.03	436063.66	609395.35	N 32 11 54.10	W 103 58 46.84
	3520.00	0.04	324.91	3519.82	552.52	15.34	-17.94	14.77	0.02	436063.78	609395.33	N 32 11 54.10	W 103 58 46.84
	3708.00	0.09	241.94	3707.92	740.52	15.17	-17.96	14.80	0.05	436063.76	609395.18	N 32 11 54.10	W 103 58 46.84
	3802.00	0.07	30.87	3801.92	834.52	15.14	-17.94	14.57	0.16	436063.78	609395.13	N 32 11 54.10	W 103 58 46.84
	3897.00	0.04	120.68	3896.92	929.52	15.19	-17.91	14.63	0.08	436063.81	609395.19	N 32 11 54.10	W 103 58 46.84
	3991.00	0.04	270.58	3990.92	1023.52	15.19	-17.93	14.62	0.08	436063.79	609395.18	N 32 11 54.10	W 103 58 46.84
	4179.00	0.04	319.90	4178.92	1211.52	15.08	-17.88	14.51	0.02	436063.85	609395.07	N 32 11 54.10	W 103 58 46.84
	4367.00	0.04	331.01	4366.92	1399.52	15.00	-17.77	14.44	0.00	436063.95	609395.00	N 32 11 54.10	W 103 58 46.84
	4461.00	0.04	17.02	4460.92	1493.52	15.00	-17.71	14.43	0.03	436064.01	609394.99	N 32 11 54.10	W 103 58 46.84
	4555.00	0.09	159.13	4554.92	1587.52	15.03	-17.75	14.47	0.13	436063.58	609395.03	N 32 11 54.10	W 103 58 46.84
	4743.00	0.07	65.34	4742.92	1775.52	15.19	-17.84	14.63	0.08	436063.89	609395.10	N 32 11 54.10	W 103 58 46.84
	4931.00	0.53	70.47	4930.92	1963.52	16.10	-17.50	15.55	0.24	436064.22	609396.11	N 32 11 54.11	W 103 58 46.83
	5025.00	0.07	242.49	5024.91	2057.51	16.48	-17.38	15.91	0.64	436064.34	609396.47	N 32 11 54.11	W 103 58 46.82
	5213.00	0.04	170.52	5212.91	2245.51	18.37	-17.50	15.82	0.04	436064.22	609396.38	N 32 11 54.11	W 103 58 46.82
	5402.00	0.07	231.76	5401.91	2434.51	18.30	-17.63	15.74	0.03	436064.08	609396.30	N 32 11 54.11	W 103 58 46.82
	5590.00	0.07	254.25	5589.91	2622.51	16.10	-17.74	15.54	0.01	436063.99	609396.10	N 32 11 54.10	W 103 58 46.83
	5778.00	0.07	124.75	5777.91	2810.51	16.09	-17.83	15.52	0.07	436063.88	609396.08	N 32 11 54.10	W 103 58 46.83
	5967.00	0.07	149.23	5966.91	2998.51	16.25	-18.00	15.68	0.02	436063.72	609396.24	N 32 11 54.10	W 103 58 46.83
	6155.00	0.09	163.43	6154.91	3187.51	16.35	-18.24	15.78	0.01	436063.48	609396.34	N 32 11 54.10	W 103 58 46.82
	6343.00	0.02	172.22	6342.91	3375.51	16.41	-18.41	15.82	0.04	436063.31	609396.38	N 32 11 54.10	W 103 58 46.82
	6532.00	2.62	258.12	6531.75	3564.45	12.21	-19.33	11.60	1.39	436062.39	609392.16	N 32 11 54.09	W 103 58 46.87
	6727.00	5.36	259.94	6726.91	3659.21	5.77	-20.59	5.11	2.89	436061.14	609385.67	N 32 11 54.08	W 103 58 46.95
	6920.00	7.01	261.01	6919.96	3751.66	-4.05	-22.26	-4.77	1.78	436059.48	609375.79	N 32 11 54.06	W 103 58 47.08
	6909.00	7.45	245.57	6908.48	3939.18	-26.37	-29.13	-27.32	1.05	436052.59	609365.25	N 32 11 53.89	W 103 58 47.39
	7003.00	7.52	245.00	6999.68	4032.38	-37.32	-34.25	-38.44	0.11	436047.47	609342.12	N 32 11 53.94	W 103 58 47.46
	7088.00	7.58	233.36	7083.86	4126.56	-47.77	-40.82	-49.10	1.81	436041.10	609331.46	N 32 11 53.88	W 103 58 47.58
	7182.00	8.55	221.53	7181.94	4219.64	-57.09	-48.55	-58.71	2.04	436032.17	609321.85	N 32 11 53.79	W 103 58 47.69
	7286.00	10.81	211.97	7279.60	4312.30	-65.98	-52.26	-68.01	2.94	436019.46	609312.55	N 32 11 53.67	W 103 58 47.80
	7390.00	9.03	204.32	7382.04	4414.74	-74.00	-77.97	-76.54	2.13	436003.75	609304.03	N 32 11 53.51	W 103 58 47.90
	7474.00	7.36	201.90	7465.16	4497.88	-78.33	-88.99	-81.23	2.04	435992.74	609299.34	N 32 11 53.40	W 103 58 47.95
	7568.00	8.35	186.83	7559.52	4591.22	-80.81	-99.75	-84.05	2.14	435981.97	609288.52	N 32 11 53.30	W 103 58 47.99
	7662.00	5.87	175.58	7651.99	4684.69	-80.73	-109.71	-84.30	1.37	435972.02	609288.27	N 32 11 53.20	W 103 58 47.99
	7756.00	7.27	178.27	7745.37	4778.07	-78.84	-120.44	-83.74	1.53	435961.28	609288.82	N 32 11 53.09	W 103 58 47.99
	7850.00	8.11	177.84	7839.52	4871.22	-78.01	-133.02	-83.92	0.90	435948.71	609287.25	N 32 11 52.97	W 103 58 47.99
	7944.00	6.04	164.55	7931.81	4964.51	-77.07	-144.41	-81.75	2.79	435937.32	609286.82	N 32 11 52.85	W 103 58 47.96
	8038.00	7.45	141.12	8025.17	5057.87	-71.63	-153.92	-76.60	3.26	435927.81	609283.96	N 32 11 52.78	W 103 58 47.90
	8062.00	8.53	138.15	8048.94	5081.84	-69.38	-156.45	-74.44	4.82	435925.27	609283.13	N 32 11 52.73	W 103 58 47.88
	8206.00	11.19	116.42	8190.85	5223.55	-49.29	-170.64	-54.79	3.15	435911.09	609275.77	N 32 11 52.59	W 103 58 47.85
	8234.00	12.42	99.50	8218.26	5250.96	-43.83	-172.35	-49.39	13.05	435909.39	609273.18	N 32 11 52.58	W 103 58 47.59
	8285.00	16.43	87.95	8248.28	5260.98	-36.15	-172.74	-41.71	15.88	435908.99	609268.85	N 32 11 52.57	W 103 58 47.50

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8672.00	52.82	89.21	8568.23	5598.93	209.46	-175.04	203.95	7.03	435906.89	809584.49	N 32 11 52.54	W 103 58 44.84
	8703.00	56.11	89.30	8584.25	5618.95	234.85	-174.71	229.17	10.62	435907.02	809609.71	N 32 11 52.54	W 103 58 44.35
	8734.00	58.33	89.51	8601.03	5633.73	260.89	-174.44	255.23	7.18	435907.29	809635.77	N 32 11 52.55	W 103 58 44.04
	8768.00	59.45	89.32	8617.59	5650.26	288.06	-174.16	282.62	3.54	435907.57	809663.16	N 32 11 52.55	W 103 58 43.72
	8797.00	60.49	88.55	8633.08	5665.78	314.87	-173.89	309.46	3.84	435908.05	809689.99	N 32 11 52.55	W 103 58 43.41
	8827.00	61.77	87.77	8647.56	5680.26	341.08	-172.87	335.71	4.98	435908.87	809716.25	N 32 11 52.58	W 103 58 43.11
	8859.00	63.48	88.20	8662.28	5694.98	368.44	-171.87	364.11	5.48	435909.87	809744.84	N 32 11 52.57	W 103 58 42.78
	8890.00	65.14	90.54	8675.72	5708.42	397.34	-171.56	392.04	8.66	435910.17	809772.57	N 32 11 52.57	W 103 58 42.45
	8922.00	66.78	92.05	8688.75	5721.45	428.57	-172.23	421.28	6.70	435909.51	809801.78	N 32 11 52.58	W 103 58 42.11
	8953.00	70.29	93.52	8700.09	5732.79	455.41	-173.63	450.07	12.15	435908.10	809830.59	N 32 11 52.55	W 103 58 41.78
	8985.00	74.19	94.03	8709.85	5742.55	485.86	-175.64	480.47	12.28	435906.09	809860.99	N 32 11 52.53	W 103 58 41.42
	9015.00	80.39	92.38	8716.45	5749.15	515.10	-177.27	509.87	21.35	435904.46	809890.19	N 32 11 52.51	W 103 58 41.08
	9078.00	83.90	90.82	8725.06	5757.76	577.49	-179.01	572.05	6.09	435902.73	809952.56	N 32 11 52.49	W 103 58 40.36
	9144.00	85.59	90.39	8731.11	5763.81	643.20	-179.70	637.76	2.64	435902.03	810018.27	N 32 11 52.48	W 103 58 39.89
	9331.00	92.44	92.71	8734.32	5767.02	830.05	-184.76	824.54	3.87	435898.97	810205.04	N 32 11 52.43	W 103 58 37.42
	9425.00	90.83	90.03	8731.64	5764.34	923.99	-187.01	918.47	3.32	435894.73	810298.85	N 32 11 52.40	W 103 58 36.33
	9518.00	90.38	87.80	8730.65	5763.35	1018.86	-185.25	1011.44	2.45	435896.49	810391.92	N 32 11 52.41	W 103 58 35.24
	9612.00	84.49	87.08	8734.86	5767.58	1110.45	-181.05	1105.21	6.31	435900.68	810485.68	N 32 11 52.58	W 103 58 34.15
	9705.00	86.59	87.50	8742.09	5774.79	1202.87	-176.57	1197.82	2.30	435905.06	810578.28	N 32 11 52.49	W 103 58 33.07
	9799.00	85.00	88.08	8748.25	5780.95	1296.43	-173.05	1291.55	0.98	435908.68	810672.00	N 32 11 52.53	W 103 58 31.98
	9893.00	86.16	88.61	8754.74	5787.44	1390.03	-170.35	1385.28	0.64	435911.39	810765.73	N 32 11 52.55	W 103 58 30.89
	9986.00	89.35	90.88	8758.37	5791.07	1482.68	-169.92	1478.19	4.18	435911.82	810858.84	N 32 11 52.55	W 103 58 29.81
	10081.00	87.45	89.77	8761.02	5793.72	1577.81	-170.44	1573.15	2.31	435911.29	810953.58	N 32 11 52.54	W 103 58 28.71
	10175.00	86.89	90.18	8765.82	5798.52	1671.63	-170.40	1667.02	0.92	435911.33	811047.45	N 32 11 52.54	W 103 58 27.61
	10269.00	88.17	89.57	8770.04	5802.74	1765.48	-170.19	1760.93	1.70	435911.54	811141.35	N 32 11 52.54	W 103 58 26.52
	10363.00	87.52	89.44	8773.57	5806.27	1858.33	-169.38	1854.86	0.71	435912.35	811235.27	N 32 11 52.54	W 103 58 25.43
	10458.00	86.25	89.95	8778.73	5811.43	1954.13	-168.88	1949.71	1.44	435912.86	811330.12	N 32 11 52.55	W 103 58 24.32
	10551.00	89.28	89.41	8782.36	5815.06	2046.98	-168.38	2042.63	3.31	435913.38	811423.03	N 32 11 52.55	W 103 58 23.24
	10646.00	89.07	89.87	8783.73	5816.43	2141.90	-167.76	2137.62	0.53	435913.97	811518.01	N 32 11 52.55	W 103 58 22.14
	10740.00	89.11	90.44	8785.22	5817.92	2235.84	-168.02	2231.60	0.61	435913.72	811611.99	N 32 11 52.54	W 103 58 21.04
	10833.00	88.49	89.78	8787.17	5819.67	2328.78	-168.18	2324.58	0.59	435913.56	811704.96	N 32 11 52.54	W 103 58 19.96
	10927.00	87.84	89.91	8790.10	5822.80	2422.68	-167.91	2418.54	0.61	435913.83	811798.90	N 32 11 52.54	W 103 58 18.87
	11021.00	89.07	89.90	8792.55	5825.25	2516.59	-167.75	2512.50	1.20	435913.98	811892.86	N 32 11 52.54	W 103 58 17.78
	11115.00	87.90	89.97	8795.03	5827.73	2610.50	-167.84	2606.47	1.25	435914.09	811986.82	N 32 11 52.54	W 103 58 16.68
	11209.00	89.07	90.22	8797.52	5830.22	2704.43	-167.80	2700.43	1.27	435913.93	812080.78	N 32 11 52.53	W 103 58 15.59
	11303.00	89.38	89.82	8798.79	5831.49	2798.37	-167.83	2794.42	0.54	435913.90	812174.76	N 32 11 52.53	W 103 58 14.49
	11397.00	87.90	89.75	8801.02	5833.72	2892.28	-167.48	2888.39	1.58	435914.25	812268.73	N 32 11 52.53	W 103 58 13.40
	11490.00	88.28	90.01	8804.12	5836.82	2985.17	-167.29	2981.34	0.50	435914.45	812361.67	N 32 11 52.53	W 103 58 12.32
	11584.00	88.04	90.10	8807.14	5839.84	3078.08	-167.38	3075.29	0.27	435914.36	812455.61	N 32 11 52.52	W 103 58 11.23
	11678.00	88.11	89.74	8810.30	5843.00	3172.97	-167.24	3169.24	0.39	435914.49	812549.55	N 32 11 52.52	W 103 58 10.13
	11771.00	87.90	89.76	8813.54	5846.24	3265.88	-166.84	3262.18	0.23	435914.89	812642.48	N 32 11 52.52	W 103 58 9.05
	11865.00	88.66	89.96	8816.36	5849.06	3359.78	-166.61	3356.14	0.84	435915.12	812736.43	N 32 11 52.52	W 103 58 7.96
	11959.00	89.07	90.71	8818.22	5850.92	3453.71	-167.16	3450.12	0.91	435914.57	812830.41	N 32 11 52.51	W 103 58 6.88
	12053.00	88.59	89.50	8820.14	5852.84	3547.64	-167.33	3544.10	1.38	435914.40	812924.38	N 32 11 52.51	W 103 58 5.77
	12147.00	88.52	86.73	8822.51	5855.21	3641.54	-168.70	3638.06	0.26	435915.03	813018.34	N 32 11 52.51	W 103 58 4.68
	12242.00	88.62	89.51	8824.88	5857.58	3735.44	-168.07	3733.03	0.25	435915.86	813113.30	N 32 11 52.51	W 103 58 3.57
	12336.00	88.69	89.63	8827.09	5859.79	3830.34	-165.37	3827.00	0.15	435916.37	813207.26	N 32 11 52.52	W 103 58 2.48
	12430.00	88.56	89.89	8829.34	5862.04	3924.25	-164.97	3920.98	0.31	435916.76	813301.23	N 32 11 52.52	W 103 58 1.38
	12524.00	88.45	89.59	8831.79	5864.49	4018.16	-164.55	4014.94	0.34	435917.19	813395.19	N 32 11 52.52	W 103 58 0.29
	12617.00	88.86	89.11	8834.14	5866.84	4111.04	-163.49	4107.91	0.50	435918.24	813488.14	N 32 11 52.53	W 103 57 59.21
	12710.00	88.56	90.11	8836.40	5869.10	4203.94	-162.86	4200.88	1.08	435918.88	813581.10	N 32 11 52.53	W 103 57 58.13
	12803.00	88.89	89.75	8838.63	5871.33	4296.86	-162.74	4293.85	0.41	435918.99	813674.07	N 32 11 52.53	W 103 57 57.05
	12991.00	89.17	89.84	8842.14	5874.84	4484.71	-162.07	4481.82	0.26	435919.86	813862.02	N 32 11 52.53	W 103 57 54.86
	13084.00	88.62	88.31	8843.93	5876.63	4577.62	-161.38	4574.79	0.82	435920.35	813954.98	N 32 11 52.53	W 103 57 53.78
	13271.00	89.04	89.85	8847.75	5880.45	4764.43	-160.01	4761.75	0.37	435921.72	814141.93	N 32 11 52.54	W 103 57 51.60
Final Survey	13365.00	88.93	89.56	8849.41	5882.11	4858.35	-159.53	4855.73	0.33	435922.21	814235.91	N 32 11 52.54	W 103 57 50.51
Proj. To Bit	13405.00	88.93	89.56	8850.16	5882.86	4898.31	-159.22	4895.73	0.00	435922.51	814275.90	N 32 11 52.54	W 103 57 50.04

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	28.200	Act Sins	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD
	1	28.200	470.000	1/98.425	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD
	1	470.000	13405.000	Act Sins	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Oxy CC 22 Fed Com 6Y - Orig. Hole / Survey Oxy CC 22 Fed Com 6Y - MWD 0 to 13405 ft MD