

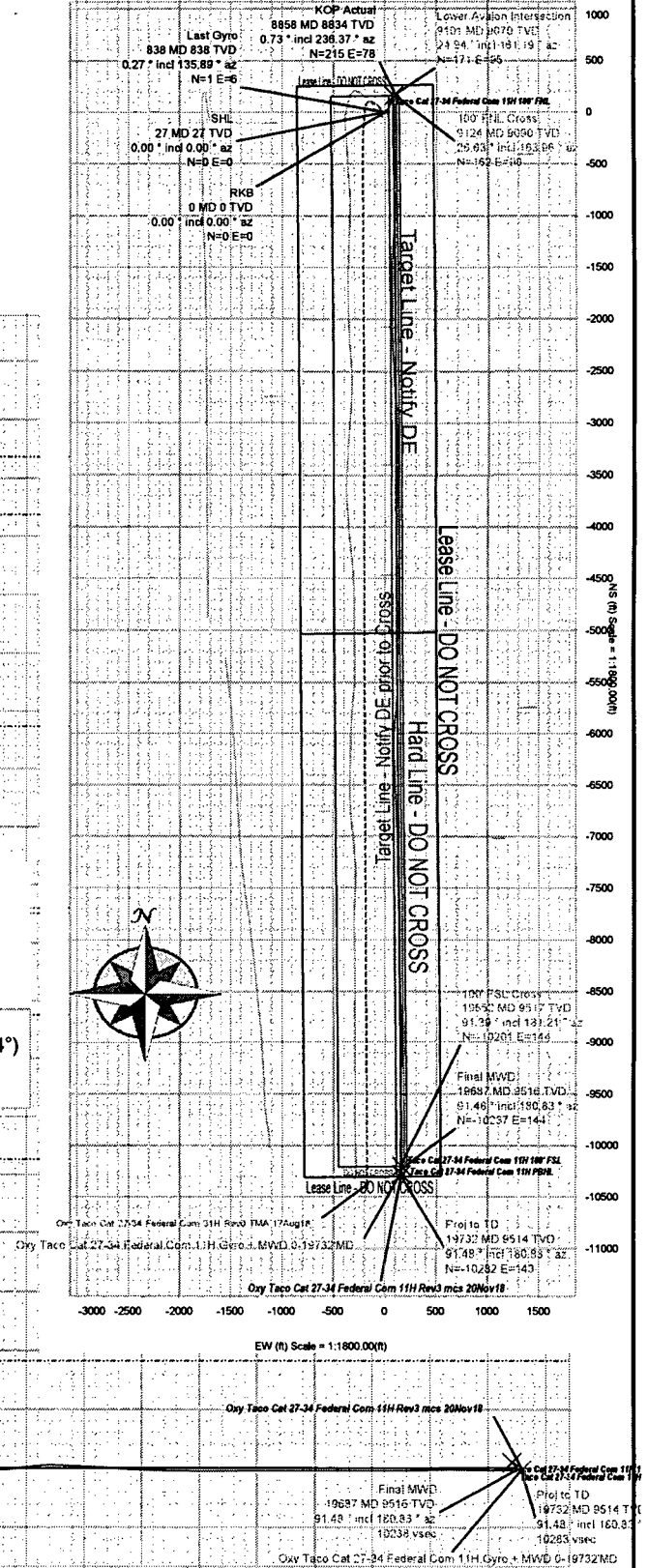
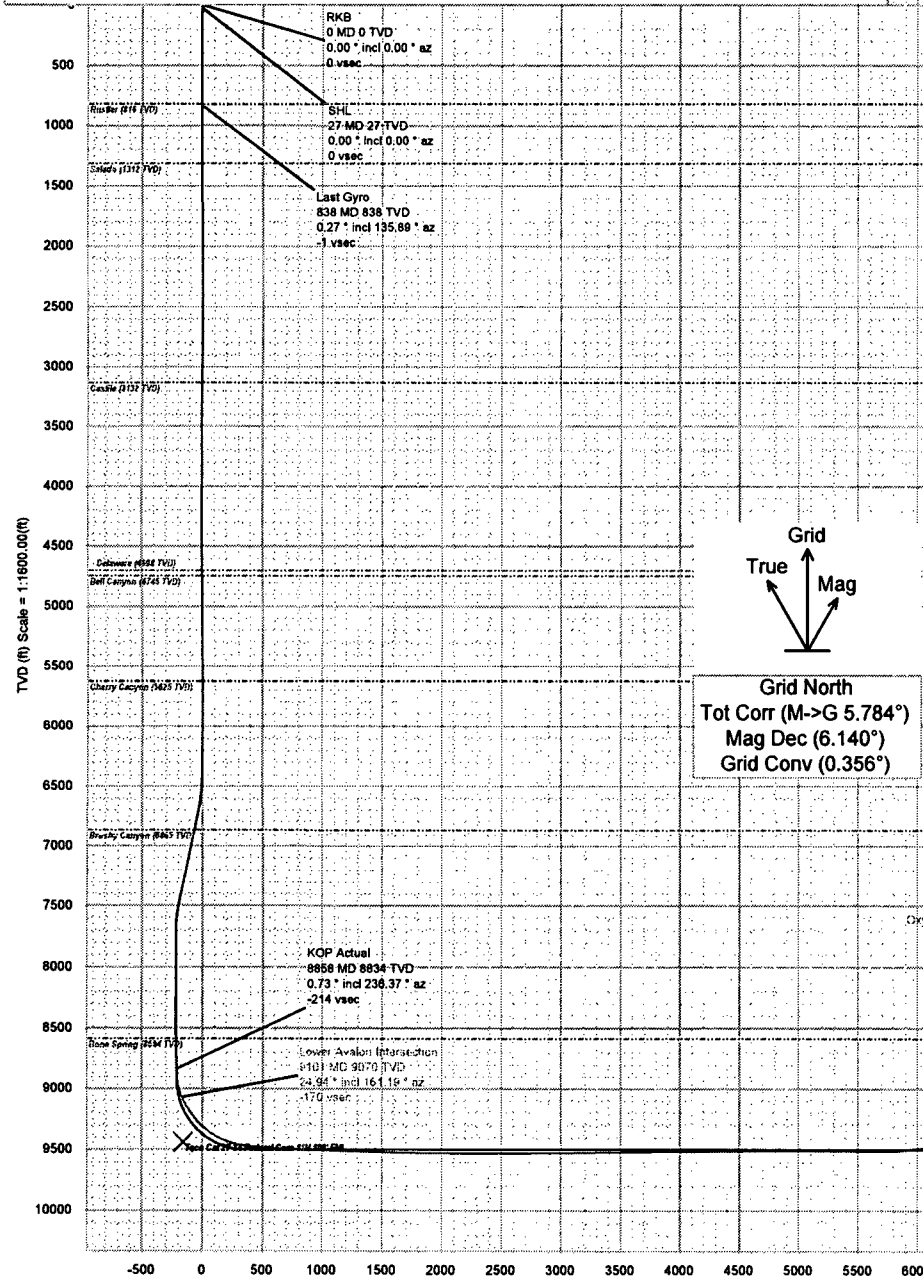
Borehole:	Well:	Field:	Structure:
Original Borehole	Taco Cat 27-34 Federal Com 11H	NM Lea County (NAD 83)	Oxy Taco Cat 27-34 Federal Com 11H

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Gravity & Magnetic Parameters			Surface Location			NAD83 New Mexico State Plane, Eastern Zone, US Feet			Miscellaneous		
Model:	IPR1	Dip:	60.187°	Date:	20-Nov-2018	Lat:	N 32 22 9.14	Northing:	489886.81US	Grid Conv:	0.356°
MagDec:	6.14°	FS:	48168.7nT	Gravity FS:	988.454mgals (9.80665 Based)	Lon:	W 103 40 6.04	Eastng:	746647.78US	Scale Fact:	0.99995737
									Oxy Taco Cat 27-34 Federal Com 11H		
									TVD Ref: RKB(1662.3ft above MSL)		
									Plan: Oxy Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732MD		

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	
Last Gyro	837.86	0.27	135.89	837.83	-1.39	1.48	5.88	0.06
KOP Actual	8858.00	0.73	236.37	8834.23	-213.80	215.02	78.49	0.49
Lower Avalon Intersection	9101.05	24.94	161.19	9070.00	-169.62	171.09	95.16	9.36
100' FNL Cross	9123.50	26.63	163.96	9090.20	-160.25	161.77	98.17	11.23
100' FSL Cross	19651.50	91.39	181.21	9516.53	10202.45	-10201.43	144.42	1.11
Final MWD	19687.00	91.48	180.83	9515.64	10237.92	-10238.91	143.79	1.10
Proj to TD	19732.00	91.48	180.83	9514.48	10282.88	-10281.89	143.13	0.00



Oxy Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732'MD Survey Geodetic Report (Def Survey)



Report Date: December 05, 2018 - 03:07 PM
Client: OXY
Field: NM Lea County (NAD 83)
Structure / Slot: Oxy Taco Cat 27-34 Federal Com 11H / Oxy Taco Cat 27-34 Federal Com 11H
Well: Taco Cat 27-34 Federal Com 11H
Borehole: Original Borehole
UWI / API#: Unknown / 30-025-44933
Survey Name: Oxy Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732'MD
Survey Date: September 21, 2018
Tort / AHD / DDI / ERD Ratio: 238.517' / 10783.351 ft / 6.726 / 1.130
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 22' 9.14270", W 103° 40' 6.04020"
Location Grid N/E Y/X: N 498686.800 ftUS, E 746647.779 ftUS
CRS Grid Convergence Angle: 0.3560°
Grid Scale Factor: 0.99995737
Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.128° (Grid North)
Vertical Section Origin: 0,000 ft, 0,000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3662.300 ft above MSL
Seabed / Ground Elevation: 3635.800 ft above MSL
Magnetic Declination: 6.140°
Total Gravity Field Strength: 989.4542mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48155.700 nT
Magnetic Dip Angle: 60.157°
Declination Date: November 20, 2018
Magnetic Declination Model: IFR1
North Reference: Grid North
Grid Convergence Used: 0.3560°
Total Corr Mag North->Grid North: 5.7840°
Local Coord Referenced To: Well Head

HOBBS OCD

JAN 29 2019

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/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	498686.80	746647.78	N 32 22 9.14	W 103 40 6.04
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	498686.80	746647.78	N 32 22 9.14	W 103 40 6.04
	126.88	0.92	69.17	126.88	-0.28	0.29	0.75	0.92	498687.09	746648.53	N 32 22 9.15	W 103 40 6.03
	211.24	0.86	78.72	211.23	-0.59	0.62	1.86	0.34	498687.42	746649.64	N 32 22 9.15	W 103 40 6.02
	298.91	0.81	67.69	298.89	-0.86	0.90	2.79	0.15	498687.70	746650.57	N 32 22 9.15	W 103 40 6.01
	393.36	0.46	64.54	393.34	-1.20	1.25	3.60	0.16	498688.05	746651.38	N 32 22 9.15	W 103 40 6.00
	487.88	0.42	62.23	487.86	-1.51	1.58	4.25	0.05	498688.38	746652.02	N 32 22 9.16	W 103 40 5.99
	582.42	0.44	64.37	582.39	-1.82	1.90	4.88	0.03	498688.70	746652.66	N 32 22 9.16	W 103 40 5.98
	676.98	0.25	122.07	676.95	-1.86	1.94	5.38	0.39	498688.74	746653.16	N 32 22 9.16	W 103 40 5.98
	771.83	0.23	138.42	771.80	-1.60	1.69	5.68	0.08	498688.49	746653.46	N 32 22 9.16	W 103 40 5.97
	837.86	0.27	135.89	837.83	-1.39	1.48	5.88	0.06	498688.28	746653.66	N 32 22 9.16	W 103 40 5.97
	974.00	0.15	165.89	973.97	-0.98	1.08	6.15	0.12	498687.88	746653.93	N 32 22 9.15	W 103 40 5.97
	980.00	0.18	172.95	979.97	-0.97	1.06	6.15	0.60	498687.86	746653.93	N 32 22 9.15	W 103 40 5.97
	1072.00	0.04	113.61	1071.97	-0.81	0.90	6.20	0.18	498687.70	746653.98	N 32 22 9.15	W 103 40 5.97
	1249.00	0.04	183.57	1248.97	-0.72	0.82	6.25	0.03	498687.62	746654.03	N 32 22 9.15	W 103 40 5.97
	1340.00	0.04	43.98	1339.97	-0.71	0.81	6.27	0.08	498687.61	746654.05	N 32 22 9.15	W 103 40 5.97
	1521.00	0.05	71.93	1520.97	-0.76	0.88	6.39	0.01	498687.68	746654.17	N 32 22 9.15	W 103 40 5.97
	1613.00	0.05	320.19	1612.97	-0.82	0.92	6.40	0.09	498687.72	746654.18	N 32 22 9.15	W 103 40 5.97
	1802.00	0.05	341.91	1801.97	-0.97	1.06	6.32	0.01	498687.86	746654.10	N 32 22 9.15	W 103 40 5.97
	1896.00	0.05	305.18	1895.97	-1.03	1.13	6.28	0.03	498687.93	746654.06	N 32 22 9.15	W 103 40 5.97
	2085.00	0.08	122.99	2084.97	-1.00	1.10	6.32	0.07	498687.90	746654.10	N 32 22 9.15	W 103 40 5.97
	2178.00	0.01	213.70	2178.97	-0.96	1.06	6.37	0.09	498687.86	746654.15	N 32 22 9.15	W 103 40 5.97
	2274.00	0.12	149.39	2273.97	-0.87	0.97	6.42	0.12	498687.77	746654.20	N 32 22 9.15	W 103 40 5.97
	2368.00	0.08	143.37	2367.97	-0.73	0.83	6.51	0.04	498687.63	746654.28	N 32 22 9.15	W 103 40 5.96
	2463.00	0.01	199.17	2462.97	-0.67	0.77	6.54	0.08	498687.57	746654.32	N 32 22 9.15	W 103 40 5.96
	2558.00	0.01	205.00	2557.97	-0.65	0.75	6.54	0.00	498687.55	746654.31	N 32 22 9.15	W 103 40 5.96
	2652.00	0.06	51.03	2651.97	-0.68	0.78	6.57	0.07	498687.58	746654.35	N 32 22 9.15	W 103 40 5.96
	2747.00	0.08	72.58	2746.97	-0.73	0.83	6.67	0.03	498687.63	746654.45	N 32 22 9.15	W 103 40 5.96
	2842.00	0.04	155.11	2841.97	-0.71	0.82	6.75	0.09	498687.62	746654.53	N 32 22 9.15	W 103 40 5.96
	2936.00	0.08	90.60	2935.97	-0.68	0.79	6.83	0.08	498687.59	746654.61	N 32 22 9.15	W 103 40 5.96
	3031.00	0.06	36.95	3030.97	-0.72	0.83	6.93	0.07	498687.63	746654.70	N 32 22 9.15	W 103 40 5.96
	3125.00	0.09	114.30	3124.97	-0.73	0.83	7.02	0.10	498687.63	746654.80	N 32 22 9.15	W 103 40 5.96
	3220.00	0.07	57.57	3219.97	-0.73	0.83	7.14	0.08	498687.63	746654.82	N 32 22 9.15	W 103 40 5.96
	3314.00	0.09	74.51	3313.97	-0.77	0.89	7.28	0.03	498687.69	746655.04	N 32 22 9.15	W 103 40 5.96
	3409.00	0.08	74.62	3408.97	-0.81	0.92	7.40	0.01	498687.72	746655.17	N 32 22 9.15	W 103 40 5.95
	3504.00	0.05	109.88	3503.97	-0.81	0.93	7.50	0.05	498687.73	746655.28	N 32 22 9.15	W 103 40 5.95
	3693.00	0.04	166.16	3692.97	-0.72	0.83	7.59	0.02	498687.63	746655.37	N 32 22 9.15	W 103 40 5.95
	3788.00	0.09	136.49	3787.97	-0.83	0.75	7.65	0.06	498687.55	746655.43	N 32 22 9.15	W 103 40 5.95
	3882.00	0.08	117.21	3881.97	-0.55	0.66	7.76	0.03	498687.46	746655.54	N 32 22 9.15	W 103 40 5.95
	3977.00	0.04	92.15	3976.97	-0.51	0.83	7.85	0.05	498687.43	746655.63	N 32 22 9.15	W 103 40 5.95
	4071.00	0.09	67.46	4070.97	-0.54	0.66	7.95	0.06	498687.46	746655.73	N 32 22 9.15	W 103 40 5.95
	4166.00	0.12	104.32	4165.97	-0.54	0.66	8.12	0.08	498687.46	746655.90	N 32 22 9.15	W 103 40 5.95
	4261.00	0.14	72.08	4260.97	-0.55	0.67	8.33	0.08	498687.47	746656.10	N 32 22 9.15	W 103 40 5.94
	4355.00	0.08	75.90	4354.97	-0.80	0.73	8.50	0.06	498687.53	746656.28	N 32 22 9.15	W 103 40 5.94
	4450.00	0.07	257.40	4449.97	-0.80	0.73	8.51	0.16	498687.53	746656.28	N 32 22 9.15	W 103 40 5.94
	4638.00	0.11	273.78	4637.97	-0.59	0.72	8.21	0.03	498687.52	746656.99	N 32 22 9.15	W 103 40 5.94
	4827.00	0.05	144.10	4826.97	-0.54	0.66	8.08	0.08	498687.48	746655.88	N 32 22 9.15	W 103 40 5.95
	4922.00	0.04	293.84	4921.97	-0.52	0.64	8.07	0.09	498687.44	746655.85	N 32 22 9.15	W 103 40 5.95
	5016.00	0.05	170.99	5015.97	-0.49	0.61	8.05	0.08	498687.41	746655.83	N 32 22 9.15	W 103 40 5.95
	5111.00	0.45	104.28	5110.97	-0.35	0.48	8.42	0.46	498687.28	746656.20	N 32 22 9.15	W 103 40 5.94
	5205.00	0.06	240.18	5204.96	-0.23	0.37	8.73	0.53	498687.17	746656.51	N 32 22 9.15	W 103 40 5.94
	5300.00	0.01	340.52	5299.96	-0.22	0.35	8.69	0.07	498687.15	746656.47	N 32 22 9.15	W 103 40 5.94
	5395.00	0.06	289.40	5394.96	-0.24	0.37	8.64	0.06	498687.17	746656.42	N 32 22 9.15	W 103 40 5.94
	5489.00	0.04	21.19	5488.96	-0.29	0.42	8.60	0.08	498687.22	746656.38	N 32 22 9.15	W 103 40 5.94
	5679.00	0.05	138.12	5678.96	-0.29	0.42	8.68	0.04	498687.22	746656.46	N 32 22 9.15	W 103 40 5.94
	5774.00	0.08	181.46	5773.96	-0.19	0.32	8.71	0.06	498687.12	746656.49	N 32 22 9.15	W 103 40 5.94
	5963.00	0.08	290.58	5962.96	-0.11	0.24	8.58	0.07	498687.04	746656.36	N 32 22 9.14	W 103 40 5.94
	6057.00	0.08	310.31	6056.96	-0.17	0.30	8.47	0.03	498687.10	746656.25	N 32 22 9.15	W 103 40 5.94
	6152.00	0.08	276.33	6151.96	-0.23	0.35	8.35	0.05	498687.15	746656.13	N 32 22 9.15	W 103 40 5.94
	6246.00	0.05	347.41	6245.96	-0.27	0.40	8.28	0.08	498687.20	746656.06	N 32 22 9.15	W 103 40 5.94
	6341.00	0.06	335.19	6340.96	-0.36	0.49	8.25	0.02	498687.29	746656.03	N 32 22 9.15	W 103 40 5.94
	6435.00	2.51	28.39	6434.93	-2.20	2.34	9.21	2.63	498686.99	746656.99	N 32 22 9.17	W 103 40 5.93
	6530.00	5.91	29.89	6529.86	-8.22	8.41	12.64	3.58	498695.21	746660.41	N 32 22 9.23	W 103 40 5.89
	6624.00	9.47	28.97	6622.80	-19.09	19.38	18.80	3.79	498706.18	746666.57	N 32 22 9.33	W 103 40 5.82
	6719.00	12.75	28.94	6718.01	-34.97	35.39	27.66	3.45	498722.19	746675.43	N 32 22 9.49	W 103 40 5.72
	6813.00	12.70	26.43	6807.70	-53.15	53.72	37.27	0.59	498740.52	746685.05	N 32 22 9.67	W 103 40 5.60
	6908.00	13.04	22.59	6900.32	-72.26	72.97	46.04	0.97	498759.77	746693.82	N 32 22 9.86	W 103 40 5.50
	7002.00	13.34	20.74	6991.84	-92.07	92.90	53.95	0.55	498779.70	746701.73	N 32 22 10.06	W 103 40 5.40
	7097.00	12.43	18.63	7084.44	-111.90	112.84	61.10	1.08	498799.64	746708.88	N 32 22 10.26	W 103 40 5.32
	7191.00	12.31	15.99	7176.26	-131.03	132.06	67.09	0.81	498818.86	746714.87	N 32 22 10.45	W 103 40 5.25
	7286.00	12.59	13.58	7269.03	-150.74	151.86	72.31	0.82	498838.66	746720.09	N 32 22 10.64	W 103 40 5.19
	7381.00	12.95	12.30	7361.68	-171.13	172.33	77.01	0.48	498859.12	746724.79	N 32 22 10.84	W 103 40 5.13
	7485.00	12.56	8.25	7443.81	-189.32	190.56	80.33	1.16	498877.35	746728.10	N 32 22 11.02	W 103 40 5.09
	7559.00	9.04	3.23	7535.93	-206.78	208.06	82.21	3.87	498894.85	746729.99	N 32 22 11.20	W 103 40 5.07
	7654.00	3.46	347.75	7630.33	-217.04	218.32	82.02	6.08	498905.11	746729.80	N 32 22 11.30	W 103 40 5.07
	7749.00	0.04	303.96	7725.28	-219.87	221.14						

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 ° ' ")
	8127.00	0.02	341.44	8103.28	-219.83	220.89	81.35	0.00	498907.68	746729.12	N 32 22 11.32	W 103 40 5.08
	8221.00	0.18	191.85	8197.28	-219.51	220.78	81.32	0.19	498907.57	746729.09	N 32 22 11.32	W 103 40 5.08
	8315.00	0.14	163.84	8291.28	-219.28	220.54	81.32	0.08	498907.33	746729.10	N 32 22 11.32	W 103 40 5.08
	8410.00	0.62	234.82	8386.27	-218.87	220.13	80.93	0.62	498906.92	746728.71	N 32 22 11.32	W 103 40 5.08
	8504.00	0.71	226.82	8480.27	-218.19	219.44	80.09	0.14	498906.23	746727.87	N 32 22 11.31	W 103 40 5.09
	8599.00	0.76	188.92	8575.26	-217.18	218.41	79.57	0.50	498905.20	746727.34	N 32 22 11.30	W 103 40 5.10
	8694.00	0.97	182.75	8670.25	-215.75	218.99	79.43	0.24	498903.78	746727.21	N 32 22 11.28	W 103 40 5.10
	8858.00	0.73	236.37	8834.23	-213.80	215.02	78.49	0.49	498901.81	746726.27	N 32 22 11.27	W 103 40 5.11
	8923.00	1.97	165.21	8899.22	-212.49	213.71	78.44	2.87	498900.50	746726.21	N 32 22 11.25	W 103 40 5.11
	9018.00	17.35	156.44	8992.59	-197.75	199.06	84.55	16.22	498885.85	746732.33	N 32 22 11.11	W 103 40 5.04
Lower Avalon Intersection	9101.05	24.94	161.19	9070.00	-169.62	171.09	95.16	9.36	498857.88	746742.94	N 32 22 10.83	W 103 40 4.92
	9113.00	26.04	161.66	9080.78	-164.72	166.22	96.80	9.36	498853.01	746744.57	N 32 22 10.78	W 103 40 4.90
	9123.50	26.63	163.96	9090.20	-160.25	161.77	98.17	11.23	498848.56	746745.95	N 32 22 10.74	W 103 40 4.88
	9207.00	32.44	179.00	9182.91	-119.70	121.30	103.75	11.23	498808.09	746751.53	N 32 22 10.34	W 103 40 4.82
	9302.00	38.38	180.15	9240.31	-64.69	66.28	104.12	6.29	498753.08	746751.89	N 32 22 9.79	W 103 40 4.82
	9397.00	47.67	182.44	9309.68	0.00	1.56	102.54	9.91	498688.36	746750.32	N 32 22 9.15	W 103 40 4.84
	9491.00	57.41	184.63	9366.79	74.29	-72.81	97.86	10.52	498613.99	746745.63	N 32 22 8.42	W 103 40 4.90
	9586.00	65.70	182.34	9412.01	157.51	-156.11	92.85	8.98	498530.70	746740.62	N 32 22 7.58	W 103 40 4.97
	9681.00	73.60	181.00	9445.02	246.42	-245.07	90.28	8.42	498441.74	746738.06	N 32 22 6.71	W 103 40 5.01
	9776.00	81.71	178.64	9465.31	339.13	-337.79	90.60	8.87	498349.02	746738.38	N 32 22 5.79	W 103 40 5.01
	9870.00	81.57	177.16	9478.98	432.11	-430.73	94.01	1.56	498256.09	746741.78	N 32 22 4.88	W 103 40 4.98
	9965.00	87.27	176.84	9488.22	526.55	-525.11	98.96	6.01	498161.72	746746.73	N 32 22 3.94	W 103 40 4.92
	10013.00	88.58	176.12	9489.95	574.47	-572.98	101.90	3.11	498113.84	746748.68	N 32 22 3.47	W 103 40 4.89
	10105.00	88.25	177.22	9492.50	666.35	-664.79	107.24	1.25	498022.04	746755.02	N 32 22 2.58	W 103 40 4.84
	10200.00	87.73	181.78	9495.83	761.26	-759.70	108.07	4.83	497927.13	746755.85	N 32 22 1.62	W 103 40 4.84
	10388.00	88.35	183.86	9502.26	948.75	-947.36	98.83	1.15	497739.49	746746.60	N 32 21 59.78	W 103 40 4.96
	10483.00	87.97	182.95	9505.31	1043.44	-1042.14	93.19	1.04	497644.71	746740.96	N 32 21 58.83	W 103 40 5.03
	10577.00	88.25	183.40	9508.41	1137.15	-1135.94	87.99	0.56	497550.91	746735.76	N 32 21 57.90	W 103 40 5.10
	10671.00	87.97	184.40	9511.51	1230.77	-1229.67	81.60	1.10	497457.18	746729.37	N 32 21 56.97	W 103 40 5.18
	10766.00	88.21	184.72	9514.68	1325.29	-1324.32	74.05	0.42	497362.54	746721.82	N 32 21 56.03	W 103 40 5.27
	10854.00	88.66	179.73	9519.82	1512.89	-1512.05	66.75	2.66	497174.82	746714.53	N 32 21 54.18	W 103 40 5.37
	11048.00	89.04	180.78	9521.70	1608.85	-1608.03	66.34	1.19	497080.85	746714.11	N 32 21 53.25	W 103 40 5.38
	11143.00	88.90	180.32	9523.41	1701.80	-1701.01	65.42	0.51	496985.87	746713.20	N 32 21 52.31	W 103 40 5.40
	11331.00	89.62	179.63	9525.84	1889.77	-1888.99	65.51	0.53	496797.90	746713.28	N 32 21 50.45	W 103 40 5.41
	11426.00	89.45	179.73	9526.61	1984.76	-1983.98	66.04	0.21	496702.91	746713.81	N 32 21 49.51	W 103 40 5.41
	11520.00	89.59	179.23	9527.40	2078.75	-2077.98	66.89	0.55	496608.92	746714.67	N 32 21 48.58	W 103 40 5.41
	11710.00	89.86	177.08	9528.31	2268.71	-2267.86	73.01	1.14	496418.04	746720.78	N 32 21 46.70	W 103 40 5.35
	11899.00	90.14	176.79	9528.31	2457.57	-2456.59	83.11	0.21	496230.32	746730.89	N 32 21 44.83	W 103 40 5.25
	11983.00	90.28	176.49	9527.97	2551.48	-2550.43	88.62	0.35	496136.48	746736.40	N 32 21 43.90	W 103 40 5.19
	12088.00	90.11	177.32	9527.84	2646.41	-2645.29	93.75	0.89	496041.63	746741.53	N 32 21 42.96	W 103 40 5.14
	12182.00	90.31	176.34	9527.30	2740.33	-2739.14	98.95	1.06	495947.78	746746.72	N 32 21 42.03	W 103 40 5.09
	12276.00	90.66	177.22	9526.50	2834.25	-2832.99	104.23	1.01	495853.93	746752.00	N 32 21 41.10	W 103 40 5.03
	12371.00	90.42	177.03	9525.61	2929.19	-2927.87	108.99	0.32	495759.06	746756.77	N 32 21 40.17	W 103 40 4.98
	12466.00	90.17	176.14	9525.12	3024.15	-3022.78	113.00	1.20	495664.15	746760.77	N 32 21 39.23	W 103 40 4.94
	12560.00	90.79	176.88	9524.33	3118.14	-3116.74	115.44	1.03	495570.19	746763.21	N 32 21 38.30	W 103 40 4.92
	12655.00	90.93	176.57	9522.91	3213.13	-3211.72	116.73	0.74	495475.22	746764.50	N 32 21 37.36	W 103 40 4.91
	12844.00	90.52	176.96	9520.51	3402.11	-3400.69	119.15	0.39	495286.26	746766.92	N 32 21 35.49	W 103 40 4.90
	12939.00	90.79	176.42	9519.43	3497.10	-3495.66	121.32	0.64	495191.29	746769.10	N 32 21 34.55	W 103 40 4.88
	13034.00	90.62	176.93	9518.26	3592.09	-3590.63	123.52	0.57	495096.33	746771.29	N 32 21 33.61	W 103 40 4.86
	13128.00	90.66	176.14	9517.21	3688.08	-3686.59	125.92	0.84	495002.37	746773.69	N 32 21 32.68	W 103 40 4.84
	13223.00	90.55	177.90	9516.21	3781.06	-3779.53	129.20	0.28	494907.44	746776.98	N 32 21 31.74	W 103 40 4.81
	13317.00	90.48	176.47	9515.36	3875.04	-3873.48	132.18	0.61	494813.50	746779.95	N 32 21 30.81	W 103 40 4.78
	13506.00	89.93	176.00	9514.68	4064.03	-4062.43	136.35	0.40	494624.55	746784.13	N 32 21 28.94	W 103 40 4.74
	13695.00	90.73	180.73	9513.60	4253.01	-4251.42	136.80	1.01	494435.57	746784.57	N 32 21 27.07	W 103 40 4.75
	13884.00	90.35	180.37	9511.81	4441.94	-4440.40	134.98	0.28	494246.60	746782.76	N 32 21 25.20	W 103 40 4.79
	14073.00	90.38	179.91	9510.61	4630.90	-4629.39	134.52	0.24	494057.61	746782.30	N 32 21 23.33	W 103 40 4.81
	14263.00	90.38	181.72	9509.35	4820.81	-4819.36	131.82	0.95	493867.65	746779.59	N 32 21 21.45	W 103 40 4.85
	14452.00	90.21	180.87	9508.38	5009.67	-5008.31	127.55	0.46	493678.71	746775.32	N 32 21 19.58	W 103 40 4.92
	14641.00	89.38	180.70	9509.05	5198.59	-5197.29	124.96	0.45	493489.74	746772.73	N 32 21 17.71	W 103 40 4.96
	14831.00	89.66	180.34	9510.65	5388.53	-5387.27	123.23	0.24	493299.77	746771.01	N 32 21 15.83	W 103 40 4.99
	15020.00	89.56	180.12	9511.93	5577.49	-5576.27	122.48	0.13	493110.78	746770.25	N 32 21 13.96	W 103 40 5.02
	15115.00	88.88	182.98	9513.23	5672.38	-5671.21	119.91	3.09	493015.84	746767.68	N 32 21 13.02	W 103 40 5.05
	15210.00	90.97	187.17	9513.35	5766.84	-5765.82	111.51	4.93	492821.24	746759.28	N 32 21 12.08	W 103 40 5.16
	15304.00	95.52	186.98	9508.03	5859.77	-5858.93	99.95	4.84	492628.14	746747.72	N 32 21 11.16	W 103 40 5.30
	15399.00	97.45	184.15	9497.30	5953.55	-5952.86	90.79	3.59	492734.21	746738.57	N 32 21 10.24	W 103 40 5.41
	15493.00	96.90	181.51	9485.56	6046.81	-6046.00	86.19	2.85	492641.07	746733.96	N 32 21 9.31	W 103 40 5.47
	15588.00	94.27	179.74	9476.31	6141.12	-6140.53	85.16	3.33	492546.54	746732.94	N 32 21 8.38	W 103 40 5.49
	15682.00	89.00	176.78	9473.63	6235.02	-6234.41	88.02	6.43	492452.67	746735.79	N 32 21 7.45	W 103 40 5.47
	15777.00	87.11	177.12	9476.85	6329.90	-6329.21	93.07	2.02	492357.87	746740.84	N 32 21 6.51	W 103 40 5.41
	15871.00	86.97	177.55	9481.71	6423.72	-6422.98	97.43	0.48	492264.10	746745.21	N 32 21 5.58	W 103 40 5.37
	15966.00	88.01	177.90	9485.87	6518.60	-6517.82	101.20	1.15	492169.27	746748.97	N 32 21 4.64	W 103 40 5.33
	16061.00	86.46	176.64	9480.45	6613.44	-6612.59	105.72	2.10	492074.50	746753.49	N 32 21 3.71	W 103 40 5.29
	16156.00	86.87	177.77	9485.98	6708.22	-6707.32	110.34	1.26	491979.78	746758.12	N 32 21 2.77	W 103 40 5.24
	16250.00	86.59	177.59	9501.34	6802.04	-6801.09	114.14	0.35	491886.01	746761.92	N 32 21 1.84	W 103 40 5.20
	16345.00	86.77	177.65	9506.84	6896.85	-6895.85	118.08	0.20	491791.26	746765.85	N 32 21 0.90	W 103 40 5.16
	16439.00	86.94	177.42	9512.00	6990.67	-6989.62	122.12	0.30	491697.49	746769.89	N 32 20 59.97	W 103 40 5.12
	16535.00	87.94	179.20</									

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 ° ' ")
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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 Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732'MD
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732'MD
	1	26.500	837.660	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Taco Cat 27-34 Federal Com 11H Gyro +
	1	837.660	19732.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Taco Cat 27-34 Federal Com 11H Gyro +

...Original Borehole\Oxy Taco Cat 27-34 Federal Com 11H Gyro + MWD 0-19732'MD