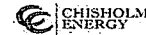


Chisholm Salt Draw 10 State Com WCA 3H MWD 0' to 14061' Survey



Geodetic Report

(Def Survey)

Report Date: May 20, 2019 - 12:42 PM
 Client: Chisholm Energy
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Chisholm Salt Draw 10 State Com WCA 3H / Chisholm Salt Draw 10 State Com WCA 3H
 Well: Chisholm Salt Draw 10 State Com WCA 3H
 Borehole: Original Borehole
 UTM / API#: Unknown / Unknown
 Survey Name: Chisholm Salt Draw 10 State Com WCA 3H MWD 0' to 14061'
 Survey Date: April 22, 2019
 Tort / AHD / DDI / ERD Ratio: 254.855' / 5629.977' ft / 6.321' / 0.585
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 9' 4.09139", W 104° 4' 14.62832"
 Location Grid N/E Y/X: N 418817.930 RUS, E 622607.682 RUS
 CRS Grid Convergence Angle: 0.1397°
 Grid Scale Factor: 0.99991666
 Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 179.630° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 32ft (JDC 12)
 TVD Reference Elevation: 3009.700 ft above MSL
 Seabed / Ground Elevation: 2977.700 ft above MSL
 Magnetic Declination: 7.071°
 Total Gravity Field Strength: 988.4559mg (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47885.868 nT
 Magnetic Dip Angle: 59.864°
 Declination Date: April 22, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.1397°
 Total Corr Mag North->Grid North: 6.9312°
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth (°)
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418817.93	622607.68	N 32° 9' 4.09 W 104° 4' 14.63		0.00	0.00
Begin SLB	117.00	0.56	239.34	117.00	0.29	-0.29	-0.49	0.48	418817.64	622607.19	N 32° 9' 4.09 W 104° 4' 14.63		0.57	239.34
MWD Survey	177.00	0.68	238.97	176.99	0.62	-0.62	-1.05	0.20	418817.31	622606.63	N 32° 9' 4.09 W 104° 4' 14.64		1.22	238.23
	237.00	1.24	233.48	236.99	1.18	-1.19	-1.88	0.94	418816.74	622605.81	N 32° 9' 4.08 W 104° 4' 14.65		2.22	237.51
	297.00	1.10	252.81	296.97	1.73	-1.75	-2.95	0.69	418816.18	622604.73	N 32° 9' 4.07 W 104° 4' 14.66		3.43	236.29
	375.00	1.61	249.59	374.95	2.32	-2.35	-4.69	0.66	418815.58	622602.99	N 32° 9' 4.07 W 104° 4' 14.68		5.25	243.34
	480.00	1.82	267.32	479.91	2.90	-2.95	-7.74	0.54	418814.98	622599.94	N 32° 9' 4.06 W 104° 4' 14.72		8.28	249.15
	533.00	2.31	276.35	532.87	2.81	-2.87	-9.64	1.11	418815.06	622598.04	N 32° 9' 4.06 W 104° 4' 14.74		10.06	253.43
	643.00	3.00	273.31	642.75	2.26	-2.46	-14.72	0.64	418815.47	622592.97	N 32° 9' 4.07 W 104° 4' 14.80		14.92	260.52
	679.00	2.99	273.72	678.70	2.23	-2.34	-16.59	0.07	418815.59	622591.09	N 32° 9' 4.07 W 104° 4' 14.82		16.76	261.97
	741.00	3.04	268.62	740.62	2.15	-2.28	-19.85	0.44	418815.65	622587.83	N 32° 9' 4.07 W 104° 4' 14.86		19.98	263.46
	836.00	3.74	262.76	835.45	2.56	-2.73	-25.44	0.82	418815.20	622582.24	N 32° 9' 4.07 W 104° 4' 14.92		25.59	263.88
	932.00	4.73	261.09	931.19	3.53	-3.73	-32.46	1.04	418814.20	622575.22	N 32° 9' 4.06 W 104° 4' 15.01		32.67	263.44
	1027.00	5.24	260.51	1025.83	4.79	-5.06	-40.61	0.54	418812.87	622567.08	N 32° 9' 4.04 W 104° 4' 15.10		40.92	262.90
	1122.00	5.47	260.48	1120.41	6.20	-6.52	-49.35	0.24	418811.41	622558.33	N 32° 9' 4.03 W 104° 4' 15.20		49.78	262.47
	1216.00	5.76	261.06	1213.96	7.62	-7.99	-58.43	0.31	418809.94	622549.26	N 32° 9' 4.01 W 104° 4' 15.31		58.98	262.21
	1311.00	6.44	262.81	1308.42	8.96	-9.40	-68.43	0.74	418808.53	622539.26	N 32° 9' 4.00 W 104° 4' 15.42		69.07	262.18
	1406.00	6.68	262.55	1402.80	10.27	-10.79	-79.19	0.25	418807.15	622528.50	N 32° 9' 3.99 W 104° 4' 15.55		79.92	262.24
	1501.00	6.86	264.84	1497.14	11.43	-12.01	-90.32	0.34	418805.92	622517.37	N 32° 9' 3.97 W 104° 4' 15.68		91.12	262.42
	1689.00	6.68	279.85	1683.84	10.43	-11.15	-112.28	0.94	418806.78	622495.41	N 32° 9' 3.98 W 104° 4' 15.93		112.83	264.33
	1784.00	6.64	282.48	1778.20	8.22	-9.02	-123.08	0.32	418808.91	622484.61	N 32° 9' 4.01 W 104° 4' 16.06		123.41	265.81
	1878.00	5.13	282.78	1871.70	6.06	-6.92	-132.49	0.61	418811.02	622475.20	N 32° 9' 4.03 W 104° 4' 16.17		132.57	267.00
	1970.00	3.84	280.08	1963.42	4.47	-5.47	-136.63	1.42	418812.46	622468.16	N 32° 9' 4.04 W 104° 4' 16.25		139.64	267.76
	2065.00	3.07	275.02	2058.25	3.75	-4.69	-145.20	0.87	418813.24	622462.49	N 32° 9' 4.05 W 104° 4' 16.32		145.28	268.15
	2158.00	1.79	258.84	2151.16	3.79	-4.75	-149.11	1.55	418813.18	622458.59	N 32° 9' 4.05 W 104° 4' 16.36		149.18	268.18
	2253.00	1.24	261.75	2246.13	4.21	-5.18	-151.58	0.58	418812.75	622456.12	N 32° 9' 4.04 W 104° 4' 16.39		151.67	268.04
	2348.00	0.28	219.54	2341.12	4.52	-5.51	-152.74	1.10	418812.42	622454.95	N 32° 9' 4.04 W 104° 4' 16.41		152.84	267.93
	2444.00	0.60	254.79	2437.12	4.83	-5.82	-153.38	0.42	418812.11	622454.32	N 32° 9' 4.04 W 104° 4' 16.41		153.49	267.83
	2537.00	1.63	276.60	2530.10	4.78	-5.78	-155.32	1.39	418812.15	622452.37	N 32° 9' 4.04 W 104° 4' 16.44		155.43	267.87
	2633.00	2.02	291.98	2626.04	3.95	-4.97	-158.42	0.57	418812.96	622449.28	N 32° 9' 4.05 W 104° 4' 16.47		158.49	268.20
	2727.00	2.39	290.17	2719.97	2.63	-3.68	-161.79	0.40	418814.25	622445.90	N 32° 9' 4.06 W 104° 4' 16.51		161.83	268.70
	2822.00	2.60	292.54	2814.88	1.10	-2.17	-165.64	0.25	418815.76	622442.05	N 32° 9' 4.07 W 104° 4' 16.56		165.66	269.25
	2917.00	2.99	288.69	2908.77	-0.55	-0.55	-169.98	0.46	418817.38	622437.72	N 32° 9' 4.09 W 104° 4' 16.61		169.98	269.82
	3011.00	3.50	287.87	3003.62	-2.25	1.12	-175.03	0.54	418819.05	622432.67	N 32° 9' 4.11 W 104° 4' 16.66		175.04	270.37
	3106.00	3.98	287.57	3098.42	-4.17	3.00	-180.93	0.51	418820.93	622426.76	N 32° 9' 4.13 W 104° 4' 16.73		180.96	270.95
	3200.00	4.51	289.13	3192.16	-6.41	5.29	-187.54	0.59	418823.13	622420.16	N 32° 9' 4.15 W 104° 4' 16.81		187.54	271.59
	3295.00	5.11	292.31	3286.82	-9.29	8.03	-194.98	0.69	418825.96	622412.72	N 32° 9' 4.18 W 104° 4' 16.90		195.14	272.36
	3390.00	5.79	295.04	3381.39	-12.98	11.66	-202.34	0.77	418828.59	622404.46	N 32° 9' 4.21 W 104° 4' 16.99		203.57	273.28
	3485.00	6.45	287.58	3475.85	-16.68	15.30	-212.66	1.09	418833.23	622395.04	N 32° 9' 4.25 W 104° 4' 17.10		213.21	274.12
	3580.00	6.99	279.21	3570.20	-19.28	17.84	-223.46	1.18	418835.77	622384.24	N 32° 9' 4.27 W 104° 4' 17.23		224.17	274.56
	3675.00	7.20	273.72	3664.47	-20.67	19.15	-235.10	0.75	418837.08	622372.80	N 32° 9' 4.28 W 104° 4' 17.36		235.88	274.86
	3770.00	6.84	269.32	3758.76	-21.06	18.47	-246.70	0.68	418837.40	622361.00	N 32° 9' 4.28 W 104° 4' 17.50		247.47	275.51
	3865.00	7.31	265.02	3853.04	-20.55	18.88	-256.38	0.75	418836.81	622349.32	N 32° 9' 4.28 W 104° 4' 17.63		259.07	276.18
	3960.00	8.28	266.39	3947.16	-19.68	17.92	-271.23	1.04	418835.85	622336.48	N 32° 9' 4.28 W 104° 4' 17.78		271.82	276.78
	4055.00	9.13	268.41	4041.07	-19.13	17.29	-285.59	0.95	418835.21	622322.12	N 32° 9' 4.27 W 104° 4' 17.95		286.11	277.46
	4148.00	8.20	266.34	4133.99	-18.59	16.65	-299.73	1.04	418834.58	622307.97	N 32° 9' 4.26 W 104° 4' 18.11		300.20	278.18
	4240.00	7.60	262.03	4224.13	-17.42	15.40	-312.17	0.93	418833.33	622295.54	N 32° 9' 4.25 W 104° 4' 18.26		312.95	278.82
	4338.00	8.60	261.24	4321.15	-15.49	13.39	-325.83	1.03	418831.32	622281.88	N 32° 9' 4.23 W 104° 4' 18.42		326.11	279.35
	4433.00	9.81	260.87	4414.93	-13.24	11.03	-340.84	1.27	418828.96	622266.87	N 32° 9' 4.21 W 104° 4' 18.59		341.02	279.85
	4529.00	10.95	261.68	4509.35	-10.74	8.43	-357.94	1.19	418826.36	622249.77	N 32° 9' 4.18 W 104° 4' 18.79		356.04	279.35
	4624.00	10.25	259.65	4602.73	-8.03	5.61	-375.19	0.84	418823.54	622232.53	N 32° 9' 4.16 W 104° 4' 18.99		375.23	279.86
	4719.00	7.71	254.80	4696.56	-4.93	2.42	-389.65	0.79	418820.35	622218.06	N 32° 9' 4.12 W 104° 4' 19.16		389.66	279.36
	4814.00	7.24	251.01	4790.75	-1.39	-1.20	-401.46	0.72	418816.73	622206.25	N 32° 9' 4.09 W 104° 4' 19.30		401.46	280.83
	4908.00	7.09	256.04	4884.02	1.86	-4.53	-412.69	0.69	418813.40	622195.02	N 32° 9' 4.06 W 104° 4' 19.43		412.72	280.37
	5002.00	6.96	257.54	4977.32	4.36	-7.10	-423.81	0.35	418810.83	622183.90	N 32° 9' 4.03 W 104° 4' 19.56		423.87	280.94
	5097.00	7.07	259.00	5071.62	6.59	-9.40	-435.10	0.26	418808.53	622172.62	N 32° 9' 4.01 W 104° 4' 19.69		435.20	280.76
	5191.00	7.39	260.31	5164.88	8.64	-11.52	-446.74	0.38	418806.41	622160.98	N 32° 9' 3.99 W 104° 4' 19.82		446.69	280.52
	5286.00	8.43	260.81	5258.97	10.69	-13.66	-459.64	1.10	418804.27	622148.09	N 32° 9' 3.97 W 104° 4' 19.97		459.84	280.30
	5380.00	9.52	258.92	5351.82	13.20	-16.26	-474.07	1.20	418801.67	622133.66	N 32° 9' 3.94 W 104° 4' 20.14		474.34	280.04
	5475.00	9.66	257.35	5445.49	16.35	-19.51	-489.55	0.31	418798.42	622118.17	N 32° 9' 3.91 W 104° 4' 20.32		489.94	280.72
	5528.00	8.87	256.62	5497.80	18.22	-21.43	-497.67	1.51	418796.50	622109.86	N 32° 9' 3.89 W 104° 4' 20.42		498.33	280.54
	5571.00	8.93	255.53	5540.28	19.78	-23.03	-504.32	0.42	418794.90	622103.40	N 32° 9' 3.88 W 104° 4' 20.49		504.85	280.77
	5665.00	8.95	255.44	5633.14	23.35	-26.69	-518.47	0.03	418791.24	622089.26	N 32° 9' 3.84 W 104° 4' 20.66		519.15	280.75

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)	Closure (ft)	Closure Azimuth (°)
	8553.00	4.15	265.70	8490.42	31.80	-37.65	-906.02	0.24	418780.28	621701.74	N 32 9 3.74 W 104	4 25 17	906.80	267.62
	8648.00	4.44	263.09	8585.16	32.46	-38.35	-913.10	0.37	418778.58	621694.66	N 32 9 3.73 W 104	4 25 25	913.91	267.59
	8677.00	4.65	262.55	8614.07	32.73	-38.64	-915.38	0.74	418779.29	621692.38	N 32 9 3.73 W 104	4 25 28	916.20	267.58
	8747.00	4.95	259.72	8683.82	33.60	-39.55	-921.17	0.55	418778.39	621686.60	N 32 9 3.72 W 104	4 25 34	922.01	267.54
	8841.00	4.65	254.74	8777.49	35.27	-41.27	-928.83	0.55	418776.66	621678.83	N 32 9 3.71 W 104	4 25 43	929.75	267.46
	8936.00	4.59	254.84	8872.18	37.23	-43.28	-936.22	0.06	418774.65	621671.65	N 32 9 3.69 W 104	4 25 52	937.22	267.35
	9029.00	5.89	245.35	8964.79	40.15	-46.25	-944.14	1.08	418771.69	621663.62	N 32 9 3.66 W 104	4 25 61	945.28	267.20
	9061.00	7.75	240.74	8996.57	41.86	-47.98	-947.52	6.05	418769.95	621660.24	N 32 9 3.64 W 104	4 25 65	948.73	267.10
	9123.00	10.99	238.99	9057.73	46.90	-53.07	-956.23	5.25	418764.86	621651.53	N 32 9 3.59 W 104	4 25 75	957.71	266.82
	9155.00	13.92	229.70	9088.98	50.92	-57.14	-961.79	11.06	418760.80	621645.98	N 32 9 3.55 W 104	4 25 82	963.48	266.60
	9186.00	16.46	220.12	9118.90	55.66	-62.91	-967.46	11.49	418755.03	621640.30	N 32 9 3.49 W 104	4 25 88	969.50	266.28
	9217.00	19.26	211.56	9148.41	64.34	-70.63	-972.97	12.36	418747.31	621634.80	N 32 9 3.42 W 104	4 25 95	975.53	265.85
	9240.00	20.90	208.35	9170.01	71.16	-77.47	-976.90	8.58	418740.47	621630.86	N 32 9 3.35 W 104	4 25 99	979.97	265.47
	9264.00	22.66	205.48	9192.29	79.07	-85.41	-980.92	8.58	418732.53	621626.84	N 32 9 3.27 W 104	4 26 04	984.64	265.02
	9312.00	24.44	193.92	9236.32	87.03	-103.41	-987.30	10.29	418714.53	621620.47	N 32 9 3.09 W 104	4 26 11	992.70	264.02
	9359.00	28.29	184.98	9278.44	117.56	-123.96	-990.60	11.75	418693.99	621617.16	N 32 9 2.89 W 104	4 26 15	998.33	262.87
	9406.00	32.61	180.94	9318.95	141.32	-147.73	-991.78	10.17	418670.22	621615.99	N 32 9 2.65 W 104	4 26 17	1002.72	261.53
	9452.00	34.99	175.43	9357.18	166.87	-173.28	-990.93	8.43	418644.67	621616.84	N 32 9 2.40 W 104	4 26 16	1005.97	260.08
	9500.00	38.97	174.06	9395.52	195.63	-202.02	-988.27	8.47	418615.93	621619.50	N 32 9 2.12 W 104	4 26 13	1008.71	258.45
	9554.00	44.23	174.94	9435.88	231.33	-237.70	-984.85	9.80	418580.25	621622.82	N 32 9 1.76 W 104	4 26 09	1013.13	256.43
	9595.00	48.07	177.37	9464.29	260.84	-267.19	-982.89	10.29	418550.76	621624.88	N 32 9 1.47 W 104	4 26 07	1018.56	254.79
	9642.00	51.16	178.64	9494.74	296.62	-302.96	-981.65	6.89	418514.99	621626.11	N 32 9 1.12 W 104	4 26 05	1027.34	252.85
	9689.00	54.09	176.05	9523.27	333.93	-340.26	-979.91	7.62	418477.70	621627.86	N 32 9 0.75 W 104	4 26 04	1037.50	250.85
	9736.00	60.22	173.85	9548.75	373.26	-376.57	-976.41	13.62	418438.39	621631.36	N 32 9 0.36 W 104	4 26 00	1047.59	248.76
	9784.00	65.31	173.32	9570.71	415.68	-421.97	-971.63	10.85	418396.00	621636.13	N 32 8 59.94 W 104	4 25 94	1059.31	246.53
	9831.00	69.66	174.28	9588.70	458.87	-465.12	-966.95	9.45	418352.85	621640.81	N 32 8 59.51 W 104	4 25 89	1073.00	244.31
	9878.00	73.04	176.07	9603.73	503.25	-508.49	-963.21	8.05	418308.49	621644.55	N 32 8 59.07 W 104	4 25 85	1086.66	242.12
	9973.00	82.03	176.31	9624.21	595.75	-601.95	-957.06	9.47	418216.03	621650.70	N 32 8 58.16 W 104	4 25 78	1103.62	237.83
	10068.00	90.45	174.08	9630.44	690.17	-696.32	-949.12	9.17	418211.67	621658.64	N 32 8 57.22 W 104	4 25 69	1177.15	233.73
	10162.00	91.31	176.15	9629.00	783.86	-789.96	-941.11	2.38	418028.04	621666.65	N 32 8 56.30 W 104	4 25 60	1228.71	228.99
	10258.00	88.97	181.17	9628.76	878.81	-885.89	-938.87	5.77	417932.11	621668.89	N 32 8 55.35 W 104	4 25 57	1290.85	226.66
	10350.00	90.72	179.96	9629.01	971.80	-977.88	-939.78	2.31	417840.13	621667.98	N 32 8 54.44 W 104	4 25 59	1356.26	223.86
	10445.00	91.76	179.34	9628.95	1066.77	-1072.86	-939.20	1.27	417745.16	621668.66	N 32 8 53.50 W 104	4 25 58	1425.67	221.20
	10541.00	91.48	178.54	9624.24	1162.73	-1168.80	-937.42	0.88	417649.23	621670.34	N 32 8 52.55 W 104	4 25 56	1498.29	218.73
	10636.00	92.41	177.76	9621.02	1257.64	-1263.70	-934.36	1.28	417554.34	621673.40	N 32 8 51.61 W 104	4 25 53	1571.61	216.48
	10731.00	94.61	183.55	9615.19	1352.40	-1358.47	-935.44	6.51	417459.58	621672.33	N 32 8 50.67 W 104	4 25 55	1649.38	214.55
	10827.00	91.86	185.90	9609.78	1447.85	-1453.97	-943.33	3.77	417364.08	621664.43	N 32 8 49.73 W 104	4 25 64	1733.18	212.98
	10923.00	90.45	186.59	9607.84	1543.19	-1549.38	-953.77	1.64	417268.68	621653.99	N 32 8 48.78 W 104	4 25 77	1819.41	211.62
	11018.00	92.75	188.85	9605.19	1637.19	-1643.47	-966.53	3.59	417174.60	621641.24	N 32 8 47.85 W 104	4 25 92	1906.51	210.46
	11091.00	93.62	187.69	9601.13	1709.25	-1715.60	-977.01	1.98	417102.48	621630.75	N 32 8 47.14 W 104	4 25 94	1974.29	209.66
	11186.00	92.29	181.73	9596.23	1803.71	-1810.11	-984.79	6.42	417007.98	621622.97	N 32 8 46.20 W 104	4 26 13	2060.65	208.55
	11282.00	91.09	176.91	9593.40	1899.63	-1906.03	-983.65	5.17	416912.07	621624.11	N 32 8 45.25 W 104	4 26 12	2144.88	207.30
	11377.00	90.57	174.40	9592.02	1994.39	-2000.74	-976.46	2.70	416817.36	621631.31	N 32 8 44.32 W 104	4 26 04	2226.30	206.01
	11471.00	89.91	177.50	9591.63	2088.18	-2094.49	-969.82	3.37	416723.62	621637.94	N 32 8 43.39 W 104	4 25 97	2308.12	204.85
	11565.00	90.03	179.85	9591.68	2182.16	-2188.46	-967.65	2.50	416629.66	621640.12	N 32 8 42.48 W 104	4 25 94	2392.84	203.85
	11658.00	88.63	176.27	9592.77	2275.10	-2281.38	-961.60	4.13	416536.75	621643.26	N 32 8 41.54 W 104	4 25 91	2476.88	202.92
	11753.00	89.57	178.51	9584.26	2370.01	-2378.26	-960.17	2.56	416441.87	621647.59	N 32 8 40.60 W 104	4 25 86	2562.92	202.00
	11848.00	89.51	178.10	9595.02	2464.98	-2471.22	-957.36	0.44	416346.92	621650.40	N 32 8 39.66 W 104	4 25 83	2650.18	201.18
	11942.00	89.48	178.73	9595.85	2558.96	-2565.18	-954.76	0.67	416252.97	621653.00	N 32 8 38.73 W 104	4 25 81	2737.10	200.42
	12037.00	89.25	177.38	9596.90	2653.91	-2660.11	-951.54	1.44	416158.04	621656.22	N 32 8 37.79 W 104	4 25 77	2825.18	199.68
	12131.00	88.45	178.75	9598.79	2747.86	-2754.04	-948.37	1.69	416064.13	621659.40	N 32 8 36.86 W 104	4 25 74	2912.75	199.00
	12227.00	87.28	179.23	9602.37	2843.78	-2849.96	-946.68	1.32	415968.22	621661.09	N 32 8 35.91 W 104	4 25 72	3003.07	198.38
	12321.00	87.30	179.10	9606.74	2937.68	-2943.84	-945.31	0.18	415874.34	621662.45	N 32 8 34.98 W 104	4 25 71	3091.90	197.80
	12416.00	87.68	179.66	9610.82	3032.59	-3038.75	-944.28	0.66	415779.48	621663.48	N 32 8 34.04 W 104	4 25 70	3182.09	197.26
	12510.00	87.25	179.75	9614.98	3126.50	-3132.66	-943.80	0.47	415685.54	621663.97	N 32 8 33.12 W 104	4 25 69	3271.74	196.77
	12605.00	89.60	180.12	9617.59	3221.45	-3227.61	-943.69	2.50	415590.59	621664.07	N 32 8 32.18 W 104	4 25 70	3362.74	196.30
	12699.00	89.60	179.22	9618.25	3315.45	-3321.61	-943.15	0.98	415496.60	621664.61	N 32 8 31.25 W 104	4 25 69	3452.91	195.85
	12793.00	89.89	178.77	9618.66	3409.44	-3415.59	-941.50	0.57	415402.63	621666.26	N 32 8 30.32 W 104	4 25 67	3542.98	195.41
	12888.00	89.91	179.23	9618.83	3504.44	-3510.58	-939.84	0.48	415307.65	621667.92	N 32 8 29.38 W 104	4 25 69	3634.21	194.99
	12984.00	89.63	179.59	9618.22	3600.43	-3606.57	-938.85	0.48	415211.67	621668.91	N 32 8 28.43 W 104	4 25 65	3726.77	194.59
	13076.00	89.94	179.78	9619.56	3692.43	-3698.57	-938.35	0.40	415118.88	621669.41	N 32 8 27.52 W 104	4 25 65	3815.75	194.24
	13170.00	89.83	180.28	9619.75	3786.43	-3792.57	-938.40	0.54	415025.68	621669.37	N 32 8 26.59 W 104	4 25 65	3906.94	193.90
	13264.00	89.83	179.39	9620.03	3880.43	-3886.57	-938.13	0.95	414931.69	621669.64	N 32 8 25.66 W 104	4 25 65	3998.19	193.57
	13359.00	89.54	178.86	9620.55	3975.39	-3981.51	-935.02	2.68	414836.76	621672.74	N 32 8 24.72 W 104	4 25 62	4089.82	193.22
	13454.00	89.57	176.41	9621.29	4070.25	-4076.34	-929.44	0.47	414741.94	621678.32	N 32 8 23.78 W 104	4 25 55	4180.99	192.84
	13550.00	89.60	176.26	9621.98	4166.09	-4172.14	-923.31	0.16	414646.14	621684.46	N 32 8 22.83 W 104	4 25 48	4273.09	192.48
	13645.00	90.11	176.07	9622.22	4260.92	-4266.93	-916.95	0.57	414551.37	621690.81	N 32 8 21.89 W 104	4 25 41	4364.34	192.13
	13738.00	89.68	177.08	9622.40	4354.78	-4360.76	-911							