

Schlumberger

Caza Desert Rose 17-8 Fed Com 1H MWD Surveys Off to 19215ft MD **Survey Geodetic Report** (Def Survey)



Report Date: January 07, 2019 - 10:27 AM
 Client: Caza Operating
 Field: NM Les County (NAD 83)
 Structure / Slot: Caza Operating Desert Rose 17-8 Fed Com 1H / Caza Operating
 Well: Desert Rose 17-8 Fed Com 1H
 Borehole: Caza Operating Desert Rose 17-8 Fed Com 1H
 UWI / API#: Original Borehole
 Unknown / 30-025-42972

Survey Name: Caza Desert Rose 17-8 Fed Com 1H MWD Surveys Off to 19215ft MD

Survey Date: December 06, 2018
 Tort / AHD / DDI / ERD Ratio: 211.508' / 8140.103 ft / 8.458 / 0.707
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 33' 59.19053" W 103° 29' 11.44772"
 Location Lat N/E Y/X: N 570840 000 RUS, E 802219 000 RUS
 CRS Grid Convergence Angle: 0.4558°
 Grid Scale Factor: 0.99998703
 Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 359.800 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3714.000 ft above MSL
 Seabed / Ground Elevation: 3692.000 ft above MSL
 Magnetic Declination: 6.602 °

Total Gravity Field Strength: 998.5027 mgn (9.80685 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 45114.082 nT
 Magnetic Dip Angle: 60.484 °
 Declination Date: December 06, 2018
 Magnetic Declination Model: HDGM 2018
 North Reference: Grid North
 Grid Convergence Used: 0.4558°
 Total Corr Mag North->Grid: 6.1480°
 Local Coord Referenced To: Structure Reference Point

HOBBS OCD

MAY 15 2019

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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	570840.00	802219.00	N 32 33 59.19 W 103 29 11.45		0.00	0.00
First SLB	241.00	0.08	121.68	241.00	-0.07	-0.07	0.11	0.02	570839.93	802219.11	N 32 33 59.19 W 103 29 11.45		0.13	121.98
Survey	330.00	0.09	339.36	330.00	-0.03	-0.03	0.12	0.16	570839.97	802219.12	N 32 33 59.19 W 103 29 11.45		0.12	102.08
	423.00	0.13	278.03	423.00	0.06	0.06	-0.01	0.13	570840.00	802218.99	N 32 33 59.19 W 103 29 11.45		0.08	351.72
	520.00	0.20	269.25	520.00	0.13	0.13	-0.28	0.08	570840.13	802218.72	N 32 33 59.19 W 103 29 11.45		0.31	294.83
	608.00	0.18	270.18	608.00	0.16	0.16	-0.56	0.07	570840.18	802218.44	N 32 33 59.19 W 103 29 11.45		0.30	287.74
	703.00	0.20	236.40	703.00	0.09	0.09	-0.85	0.12	570840.09	802218.15	N 32 33 59.19 W 103 29 11.46		0.85	275.93
	870.00	0.28	212.95	870.00	-0.41	-0.42	-1.31	0.07	570839.58	802217.69	N 32 33 59.19 W 103 29 11.46		1.38	252.42
	1057.00	0.32	261.67	1056.99	-0.86	-0.87	-2.08	0.13	570839.13	802216.92	N 32 33 59.19 W 103 29 11.47		2.25	247.17
	1242.00	0.30	269.46	1241.99	-0.93	-0.95	-3.07	0.03	570839.05	802215.93	N 32 33 59.18 W 103 29 11.48		3.22	252.75
	1430.00	0.53	261.95	1429.99	-1.05	-1.08	-4.43	0.13	570838.92	802214.57	N 32 33 59.18 W 103 29 11.50		4.56	256.28
	1618.00	0.88	266.14	1617.98	-1.23	-1.28	-6.40	0.08	570838.72	802212.60	N 32 33 59.18 W 103 29 11.52		6.53	258.71
	1775.00	0.68	274.78	1772.97	-1.21	-1.26	-8.21	0.07	570838.74	802210.79	N 32 33 59.18 W 103 29 11.54		8.30	261.24
	1901.00	1.04	261.26	1900.95	-1.31	-1.38	-10.09	0.33	570838.62	802208.91	N 32 33 59.18 W 103 29 11.57		10.18	262.21
	2090.00	0.73	267.17	2089.93	-1.81	-1.70	-12.99	0.17	570838.30	802208.01	N 32 33 59.17 W 103 29 11.60		13.10	262.54
	2279.00	0.83	280.65	2278.91	-1.40	-1.51	-15.54	0.11	570838.49	802203.46	N 32 33 59.18 W 103 29 11.63		15.61	264.80
	2467.00	0.53	290.00	2466.90	-0.83	-0.96	-17.89	0.17	570839.04	802201.31	N 32 33 59.18 W 103 29 11.65		17.72	266.96
	2658.00	0.52	303.54	2657.89	-0.04	-0.18	-19.24	0.07	570839.62	802199.76	N 32 33 59.18 W 103 29 11.67		19.24	269.47
	2848.00	0.56	305.69	2847.88	0.88	0.83	-20.70	0.02	570840.83	802198.30	N 32 33 59.20 W 103 29 11.69		20.72	272.30
	3035.00	0.52	353.59	3034.87	2.37	2.22	-21.55	0.23	570842.22	802197.45	N 32 33 59.21 W 103 29 11.70		21.86	275.89
	3223.00	0.68	23.35	3222.86	4.24	4.09	-21.20	0.18	570844.09	802197.80	N 32 33 59.23 W 103 29 11.70		21.59	280.93
	3411.00	1.01	34.51	3410.84	6.62	6.48	-19.82	0.20	570846.48	802199.18	N 32 33 59.23 W 103 29 11.68		20.85	288.11
	3600.00	0.88	41.31	3599.82	9.07	8.95	-17.92	0.09	570846.95	802201.08	N 32 33 59.28 W 103 29 11.68		20.03	296.53
	3784.00	0.53	37.77	3783.80	10.80	10.68	-16.48	0.18	570850.68	802202.54	N 32 33 59.30 W 103 29 11.84		19.62	302.97
	3976.00	0.18	35.38	3975.80	11.71	11.60	-15.76	0.19	570851.60	802203.24	N 32 33 59.31 W 103 29 11.83		19.37	308.35
	4164.00	0.08	170.37	4163.80	11.79	11.69	-15.59	0.12	570851.69	802203.41	N 32 33 59.31 W 103 29 11.83		19.48	308.85
	4353.00	0.08	256.24	4352.80	11.64	11.53	-15.66	0.05	570851.53	802203.34	N 32 33 59.31 W 103 29 11.83		19.45	308.36
	4542.00	0.08	249.30	4541.80	11.57	11.48	-15.88	0.01	570851.48	802203.12	N 32 33 59.31 W 103 29 11.83		19.59	305.81
	4731.00	0.50	172.56	4730.80	10.71	10.60	-15.90	0.26	570850.60	802203.10	N 32 33 59.30 W 103 29 11.83		19.11	303.68
	4920.00	0.63	168.68	4919.78	8.87	8.78	-15.59	0.07	570848.76	802203.41	N 32 33 59.28 W 103 29 11.83		17.88	299.33
	5107.00	0.65	178.72	5106.78	8.80	8.69	-15.38	0.08	570848.69	802203.84	N 32 33 59.28 W 103 29 11.83		18.76	293.54
	5295.00	0.50	187.85	5294.77	4.92	4.81	-13.45	0.09	570844.81	802203.55	N 32 33 59.24 W 103 29 11.83		18.19	287.30
	5482.00	0.53	212.82	5481.78	3.39	3.28	-18.04	0.12	570843.28	802202.96	N 32 33 59.22 W 103 29 11.83		16.37	281.56
	5675.00	0.33	160.10	5674.75	2.12	2.01	-16.33	0.22	570842.01	802202.87	N 32 33 59.21 W 103 29 11.84		16.45	277.00
	5864.00	0.28	168.42	5863.75	1.15	1.04	-18.05	0.04	570841.04	802202.85	N 32 33 59.20 W 103 29 11.84		16.09	273.71
	6055.00	0.34	188.64	6054.75	0.14	0.02	-16.04	0.06	570840.02	802202.96	N 32 33 59.19 W 103 29 11.84		16.04	270.09
	6244.00	0.33	191.50	6243.75	-0.95	-1.06	-16.24	0.01	570838.94	802202.76	N 32 33 59.18 W 103 29 11.84		16.27	268.25
	6434.00	0.08	276.80	6433.74	-1.47	-1.58	-16.48	0.18	570838.42	802202.52	N 32 33 59.18 W 103 29 11.84		16.55	264.51
	6624.00	0.20	316.18	6623.74	-1.21	-1.33	-16.84	0.08	570838.67	802202.16	N 32 33 59.18 W 103 29 11.84		16.89	265.48
	6813.00	0.13	289.76	6812.74	-0.90	-1.02	-17.21	0.07	570838.98	802201.73	N 32 33 59.17 W 103 29 11.85		17.30	266.63
	7002.00	0.25	276.81	7001.74	-0.77	-0.90	-17.88	0.07	570839.10	802201.12	N 32 33 59.17 W 103 29 11.86		17.60	267.13
	7191.00	0.29	262.18	7190.74	-0.78	-0.91	-18.76	0.04	570839.09	802200.24	N 32 33 59.18 W 103 29 11.87		18.79	267.21
	7379.00	0.25	246.79	7378.74	-1.00	-1.14	-19.81	0.04	570838.88	802199.39	N 32 33 59.18 W 103 29 11.88		19.64	268.67
	7567.00	0.30	272.80	7566.74	-1.13	-1.28	-20.48	0.07	570838.72	802198.52	N 32 33 59.18 W 103 29 11.89		20.52	268.43
	7756.00	0.17	233.12	7755.73	-1.27	-1.42	-21.20	0.11	570838.58	802197.80	N 32 33 59.18 W 103 29 11.90		21.25	268.18
	7945.00	0.17	242.48	7944.73	-1.57	-1.72	-21.67	0.01	570838.28	802197.33	N 32 33 59.18 W 103 29 11.90		21.74	265.46
	8135.00	0.20	239.23	8134.73	-1.86	-2.02	-22.21	0.02	570837.98	802196.79	N 32 33 59.17 W 103 29 11.91		22.30	264.81
	8324.00	0.08	114.40	8323.73	-2.09	-2.24	-22.37	0.13	570837.76	802196.63	N 32 33 59.17 W 103 29 11.91		22.48	264.28
	8512.00	0.18	12.07	8511.73	-1.85	-2.01	-22.19	0.11	570837.99	802196.61	N 32 33 59.17 W 103 29 11.91		22.28	264.83
	8701.00	0.85	37.21	8700.72	-0.45	-0.60	-21.28	0.37	570839.40	802197.72	N 32 33 59.19 W 103 29 11.90		21.29	269.38
	8890.00	1.13	24.00	8889.70	2.36	2.22	-19.67	0.19	570842.22	802199.33	N 32 33 59.21 W 103 29 11.88		19.80	278.43
	8985.00	1.21	25.89	8984.69	4.11	3.98	-18.85	0.08	570843.98	802200.15	N 32 33 59.23 W 103 29 11.87		19.27	281.91
	9079.00	0.29	163.17	9078.83	2.41	2.29	-17.94	4.53	570842.29	802201.38	N 32 33 59.21 W 103 29 11.85		17.79	285.48
	9174.00	6.44	158.43	9173.28	-5.43	-5.54	-15.78	3.35	570834.48	802203.22	N 32 33 59.14 W 103 29 11.83		16.73	290.64
	9268.00	6.19	168.32	9267.71	-15.58	-15.87	-13.70	0.27	570824.33	802203.30	N 32 33 59.04 W 103 29 11.81		20.81	221.15
	9362.00	6.01	168.80	9360.17	-25.38	-25.48	-11.72	0.20	570814.54	802207.28	N 32 33 59.04 W 103 29 11.59		28.03	204.71
	9456.00	7.09	180.94	9453.56	-36.01	-36.09	-10.85	1.88	570803.91	802208.15	N 32 33 58.83 W 103 29 11.58		37.69	198.74
	9550.00	7.08	183.93	9548.85	-47.59	-47.87	-11.35	0.39	570792.33	802207.65	N 32 33 58.72 W 103 29 11.58		48.00	193.39
	9643.00	6.32	184.35	9641.21	-58.41	-58.49	-12.13	0.51	570781.51	802206.67	N 32 33 58.61 W 103 29 11.59		59.74	191.71
	9737.00	6.01	184.86	9732.87	-68.46	-68.55	-12.94	0.33	570771.45	802208.08	N 32 33 58.51 W 103 29 11.61		69.76	190.69
	9832.00	6.37	183.21	9827.11	-78.67	-78.77	-13.85	0.42	570761.23	802205.35	N 32 33 58.41 W 103 29 11.61		79.95	189.83
	9926.00	6.18	177.71	9920.38	-90.55	-90.64	-13.68	2.04	570749.38	802205.32	N 32 33 58.29 W 103 29 11.62		91.67	188.58
	10020.00	7.81	178.13	10013.47	-103.44	-103.53	-13.21	0.59	570736.47	802205.79	N 32 33 58.17 W 103 29 11.61		104.37	187.27
	10114.00	7.63	178.61	10108.64	-115.90	-115.99	-12.86	0.07	570724.01	802206.15	N 32			

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 ° ' '')	Closure (ft)	Closure Azimuth (°)
	12198.00	91.85	0.63	11502.55	677.61	677.61	38.10	2.74	571517.68	602255.10	N 32 34 5.69 W	103 29 10.96	678.83	3.05
	12291.00	92.19	357.68	11499.27	770.53	770.80	34.73	3.18	571610.78	602253.73	N 32 34 8.81 W	103 29 10.97	771.58	2.58
	12385.00	92.30	354.53	11495.59	864.28	864.49	28.35	3.35	571704.48	602247.35	N 32 34 7.74 W	103 29 11.04	864.86	1.88
	12478.00	91.12	356.18	11492.78	957.67	957.14	20.74	2.18	571788.12	602239.74	N 32 34 8.87 W	103 29 11.12	958.38	1.24
	12573.00	89.22	356.20	11492.50	1051.80	1051.93	14.57	2.02	571891.92	602233.57	N 32 34 9.80 W	103 29 11.18	1052.03	0.79
	12667.00	88.77	356.14	11494.15	1145.63	1145.71	8.38	0.50	571985.69	602227.36	N 32 34 10.53 W	103 29 11.24	1145.74	0.42
	12761.00	88.71	355.94	11498.22	1239.42	1239.46	1.87	0.22	572079.45	602220.87	N 32 34 11.45 W	103 29 11.31	1239.47	0.09
	12854.00	90.50	355.38	11498.88	1332.20	1332.19	-5.17	2.02	572172.17	602213.83	N 32 34 12.37 W	103 29 11.38	1332.20	359.78
	12948.00	92.19	355.58	11494.65	1425.92	1425.87	-12.57	1.81	572265.85	602206.43	N 32 34 13.30 W	103 29 11.46	1425.93	359.49
	13042.00	92.24	355.55	11491.02	1519.92	1519.52	-19.83	0.06	572359.50	602199.17	N 32 34 14.23 W	103 29 11.54	1519.65	359.25
	13136.00	92.80	356.36	11486.89	1613.34	1613.19	-26.48	1.05	572453.17	602192.54	N 32 34 15.15 W	103 29 11.61	1613.41	359.08
	13230.00	91.40	358.69	11483.44	1707.20	1707.03	-30.51	2.89	572547.01	602185.49	N 32 34 16.08 W	103 29 11.65	1707.31	358.98
	13323.00	91.01	358.63	11481.49	1800.17	1799.99	-32.69	0.42	572639.96	602178.31	N 32 34 17.00 W	103 29 11.66	1800.28	358.96
	13417.00	92.30	359.42	11478.77	1894.12	1893.93	-34.29	1.81	572733.90	602171.21	N 32 34 17.93 W	103 29 11.67	1894.24	358.96
	13511.00	91.06	359.76	11475.28	1988.06	1987.86	-34.96	0.51	572827.83	602164.04	N 32 34 18.88 W	103 29 11.67	1988.17	358.99
	13605.00	91.68	359.95	11472.29	2082.01	2081.82	-35.20	0.38	572921.78	602156.80	N 32 34 19.79 W	103 29 11.67	2082.11	359.03
	13699.00	92.58	1.54	11468.80	2175.92	2175.74	-33.98	1.84	573015.71	602149.62	N 32 34 20.72 W	103 29 11.68	2176.00	359.11
	13792.00	92.64	1.83	11464.56	2268.77	2268.60	-31.24	0.32	573108.57	602142.44	N 32 34 21.64 W	103 29 11.69	2268.92	359.21
	13886.00	91.91	2.15	11460.83	2362.61	2362.47	-27.88	0.85	573202.44	602135.21	N 32 34 22.57 W	103 29 11.69	2362.84	359.32
	13980.00	91.48	2.31	11458.07	2456.47	2456.38	-24.33	0.51	573296.32	602128.07	N 32 34 23.50 W	103 29 11.69	2456.48	359.43
	14074.00	90.34	2.59	11456.59	2550.34	2550.26	-20.31	1.23	573390.22	602120.89	N 32 34 24.43 W	103 29 11.69	2550.34	359.54
	14168.00	89.83	3.19	11456.45	2644.18	2644.14	-15.57	0.84	573484.10	602113.63	N 32 34 25.35 W	103 29 11.68	2644.19	359.68
	14261.00	90.39	3.79	11456.28	2738.97	2738.87	-8.91	0.88	573578.92	602106.43	N 32 34 26.27 W	103 29 11.67	2738.98	359.76
	14355.00	91.57	1.97	11454.67	2830.79	2830.83	-5.19	2.31	573670.78	602099.21	N 32 34 27.20 W	103 29 11.65	2830.83	359.90
	14449.00	91.90	0.01	11451.82	2924.72	2924.77	-3.58	2.11	573764.72	602092.09	N 32 34 28.13 W	103 29 11.62	2924.77	359.93
	14543.00	91.91	358.60	11448.70	3018.67	3018.71	-4.54	1.29	573858.68	602084.86	N 32 34 29.06 W	103 29 11.62	3018.71	359.91
	14637.00	89.44	357.78	11447.59	3112.63	3112.65	-7.34	2.84	573952.60	602077.62	N 32 34 29.99 W	103 29 11.62	3112.66	359.88
	14730.00	87.03	357.67	11450.45	3205.53	3205.54	-10.79	2.60	574046.49	602070.41	N 32 34 30.91 W	103 29 11.61	3205.55	359.81
	14824.00	87.87	357.57	11454.84	3299.39	3299.37	-14.44	0.99	574139.32	602063.21	N 32 34 31.84 W	103 29 11.61	3299.40	359.75
	14918.00	87.98	357.74	11458.04	3393.27	3393.23	-18.29	0.22	574233.18	602056.01	N 32 34 32.77 W	103 29 11.61	3393.28	359.69
	15012.00	88.65	357.36	11460.80	3487.17	3487.10	-22.30	1.53	574327.05	602048.79	N 32 34 33.69 W	103 29 11.61	3487.17	359.63
	15105.00	90.39	357.51	11461.58	3580.10	3580.00	-26.47	0.88	574419.95	602041.54	N 32 34 34.61 W	103 29 11.62	3580.10	359.58
	15199.00	91.48	358.82	11460.08	3674.05	3673.94	-28.48	1.80	574513.88	602034.33	N 32 34 35.54 W	103 29 11.65	3674.06	359.54
	15293.00	91.06	359.19	11458.00	3768.03	3767.90	-31.11	0.58	574607.84	602027.11	N 32 34 36.47 W	103 29 11.65	3768.03	359.53
	15386.00	92.42	359.98	11454.38	3860.95	3860.82	-31.78	2.88	574700.78	602019.89	N 32 34 37.39 W	103 29 11.65	3860.95	359.53
	15481.00	93.48	0.18	11448.85	3955.77	3955.65	-31.87	0.20	574795.59	602012.67	N 32 34 38.33 W	103 29 11.65	3955.77	359.54
	15575.00	93.48	0.34	11442.94	4049.47	4049.47	-31.26	0.19	574889.41	602005.45	N 32 34 39.28 W	103 29 11.64	4049.48	359.56
	15670.00	92.30	359.49	11436.15	4144.47	4144.35	-31.40	1.53	574984.29	602000.70	N 32 34 40.20 W	103 29 11.63	4144.47	359.57
	15764.00	91.06	358.86	11435.39	4238.42	4238.30	-32.75	1.48	575078.23	602000.70	N 32 34 41.13 W	103 29 11.64	4238.42	359.56
	15859.00	91.40	359.31	11433.35	4333.40	4333.28	-34.27	0.59	575173.20	602000.70	N 32 34 42.07 W	103 29 11.65	4333.40	359.55
	15954.00	92.13	359.44	11430.43	4428.35	4428.21	-35.30	0.78	575268.15	602000.70	N 32 34 43.01 W	103 29 11.65	4428.35	359.54
	16048.00	92.02	359.25	11427.03	4522.29	4522.14	-36.38	0.23	575362.08	602000.70	N 32 34 43.94 W	103 29 11.65	4522.29	359.54
	16143.00	92.36	359.55	11423.40	4617.22	4617.07	-37.37	0.48	575457.00	602000.70	N 32 34 44.88 W	103 29 11.66	4617.22	359.54
	16237.00	92.86	359.52	11419.11	4711.12	4710.97	-38.13	0.53	575550.90	602000.70	N 32 34 45.81 W	103 29 11.66	4711.12	359.54
	16331.00	93.03	359.85	11414.29	4805.00	4804.84	-38.65	0.39	575644.77	602000.70	N 32 34 46.73 W	103 29 11.65	4805.00	359.54
	16426.00	92.91	359.31	11409.38	4899.87	4899.71	-39.34	0.58	575738.64	602000.70	N 32 34 47.67 W	103 29 11.65	4899.87	359.54
	16520.00	92.52	357.96	11404.91	4993.75	4993.58	-41.58	1.49	575833.50	602000.70	N 32 34 48.60 W	103 29 11.67	4993.75	359.52
	16615.00	93.19	357.89	11400.18	5088.59	5088.40	-45.02	0.71	575928.32	602000.70	N 32 34 49.54 W	103 29 11.50	5088.60	359.49
	16709.00	92.13	358.71	11395.82	5182.41	5182.19	-49.44	1.69	576022.11	602000.70	N 32 34 50.47 W	103 29 11.54	5182.42	359.45
	16804.00	92.41	355.58	11392.05	5277.18	5276.80	-55.62	1.22	576116.82	602000.70	N 32 34 51.41 W	103 29 11.61	5277.19	359.39
	16898.00	90.78	354.72	11386.71	5366.75	5366.42	-65.96	1.54	576210.34	602000.70	N 32 34 52.35 W	103 29 11.72	5366.82	359.30
	17018.00	90.50	354.65	11387.65	5461.39	5461.00	-74.76	0.30	576303.92	602000.70	N 32 34 53.33 W	103 29 11.81	5461.01	359.22
	17113.00	90.17	354.26	11387.10	5555.01	5554.58	-83.85	0.54	576402.48	602000.70	N 32 34 54.45 W	103 29 11.81	5555.19	359.14
	17207.00	89.72	355.42	11387.19	5648.68	5648.18	-92.30	1.32	576501.89	602000.70	N 32 34 55.58 W	103 29 12.00	5648.68	359.07
	17302.00	91.18	356.43	11388.45	5743.48	5742.93	-99.05	1.87	576602.84	602000.70	N 32 34 56.72 W	103 29 12.07	5743.48	359.02
	17397.00	91.74	357.87	11384.03	5838.36	5837.78	-103.77	1.83	576707.69	602000.70	N 32 34 57.86 W	103 29 12.11	5838.36	358.99
	17491.00	93.48	358.67	11379.74	5933.25	5932.58	-105.63	2.82	576801.57	602000.70	N 32 34 58.99 W	103 29 12.13	5933.25	358.98
	17586.00	93.03	0.46	11374.35	6028.15	6027.50	-105.35	0.78	576895.41	602000.70	N 32 34 59.12 W	103 29 12.12	6028.15	359.00
	17680.00	92.64	1.19	11369.70	6123.05	6122.38	-104.00	0.88	576989.28	602000.70	N 32 35 0.05 W	103 29 12.09	6123.05	359.03
	17775.00	93.14	2.41	11364.91	6217.95	6217.28	-101.02	1.39	577083.11	602000.70	N 32 35 0.99 W	103 29 12.05	6217.95	359.02
	17869.00	94.10	2.79	11358.98	6312.85	6312.18	-96.76	1.10	577176.93	602000.70	N 32 35 1.92 W	103 29 11.99	6312.85	359.13
	17964.00	93.78	3.22	11352.47	6407.75	6407.08	-91.80	0.58	577270.77	602000.70	N 32 35 2.85 W	103 29 11.92	6407.75	359.18
	18059.00	93.42	2.36	11346.70	6502.65	6501.98	-87.33	1.00	577364.61	602000.70	N 32 35 3.78 W	103 29 11.86	6502.65	359.23
	18151.00	93.87	2.21	11340.66	6600.43	6599.76	-83.55	0.50	577458.45	602000.70	N 32 35 4.70 W	103 29 11.81	6600.43	359.28
	18245.00	94.09	2.05	11334.14	6698.21	6697.54	-80.06	0.29	577552.29	602000.70	N 32 35 5.62 W	103 29 11.76	6698.21	359.32
	18340.00	93.70	1.79	11327.69	6796.00	6795.33	-76.89	0.49	577646.14	602000.70	N 32 35 6.55 W	103 29 11.71	6796.00	359.35
	18434.00	93.31	1.64	11321.84	689									