

Schlumberger

Reservoir Development
Schlumberger Drilling and Measurements
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
Fax: (405) 789-1519

December 1, 2016

OXY USA INC
5 Greenway Plaza, Suite 110
Houston, TX 77046-052

Re:

CLIENT: OXY USA INC
WELL: CEDAR CANYON 28 FEDERAL COM 8H
FIELD: PIERCE CROSSING; BONE SPRING, EAST
RIG: H&P 636
COUNTY: Eddy
API NO: 30-015-43819-00-X1
JOB NO: 16MLD1411

29, 24S, 29E, Eddy NM
-32.19509 -104.16528

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Leslie Bullard FS	CEDAR CANYON 28 FEDERAL COM 8H Original Hole	286.00 Ft to 13417.00 Ft	October 22, 2016 to November 25, 2016	TelePacer SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Cody Nelms
Field Service Manager

Schlumberger

Reservoir Development
Schlumberger Drilling and Measurements
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
Fax: (405) 789-1519

Well Reference:
29, 24S, 29E, Eddy NM
-32.19509 -104.16528

I, Leslie Bullard certify that: I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of October 22, 2016 through November 25, 2016, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 286.00 feet to a depth of 13417.00 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 28 FEDERAL COM 8H Well (Original Hole) API No. 30-015-43819-00-X1 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
Leslie Bullard
FS

Leslie Bullard

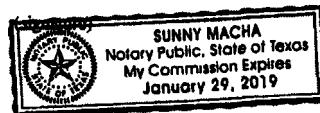
Subscribed and Sworn to before me this 1 day of December (month) 2016 (yr)

My Commission expires:

January 29, 2019
Sunny Macha

Notary Public

Texas
(County State)



Survey Oxy Cedar Canyon 28 Federal 8H MWD 0 to 13460 ftMD Survey Geodetic Report (Def Survey)



Report Date: November 27, 2016 - 08:36 PM
Client: OXY
Field: NM Eddy County (NAD 27)

Structure / Slot: Oxy Cedar Canyon 28 Federal 8H / Cedar Canyon 28 Federal 8H

Well: Cedar Canyon 28 Federal 8H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Survey Oxy Cedar Canyon 28 Federal 8H MWD 0 to 13460 ftMD
Survey Date: November 19, 2016
Tort / AHD / DOI / ERD Ratio: 193.878 * / 5559.975 ft / 0.222 / 0.638
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 11' 42.32136", W 103° 59' 55.00889"
Location Grid N/E Y/X: N 434854.560 ftUS, E 603541.220 ftUS
CRS Grid Convergence Angle: 0.1783 *
Grid Scale Factor: 0.99992137
Version / Patch: 2 10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 92.849 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft

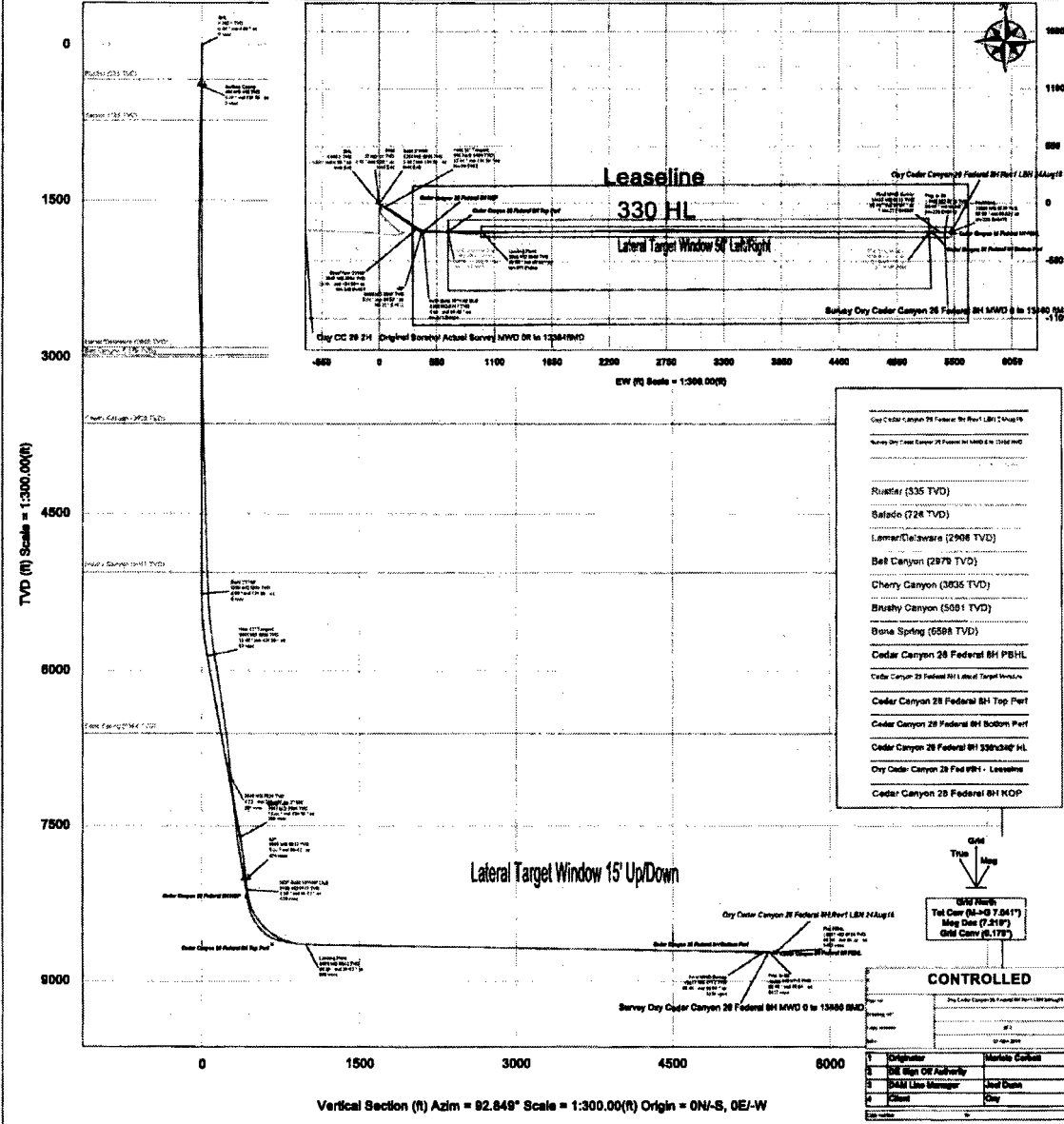
TVD Reference Datum: RKB
TVD Reference Elevation: 2975.800 ft above MSL
Seabed / Ground Elevation: 2949.300 ft above MSL
Magnetic Declination: 7.219 *
Total Gravity Field Strength: 968.4645mgm (9.80685 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48179.722 nT
Magnetic Dip Angle: 80.042 *
Declination Date: November 19, 2016
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.1783 *
Total Corr Mag North->Grid North: 7.0410 *
Local Coord Referenced To: Structure Reference Point

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 ° ' '')
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	434854.56	603541.22	N 32 11 42.32	W 103 59 55.01
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	434854.56	603541.22	N 32 11 42.32	W 103 59 55.01
	286.00	0.68	323.92	286.99	-0.97	1.24	-0.91	0.28	434855.80	603540.31	N 32 11 42.33	W 103 59 55.02
	352.00	0.77	31.85	351.99	-1.00	1.94	-0.90	1.23	434856.50	603540.32	N 32 11 42.34	W 103 59 55.02
	443.00	1.60	243.72	442.98	-1.82	1.90	-1.72	2.52	434856.46	603539.50	N 32 11 42.34	W 103 59 55.03
	471.00	2.31	263.98	470.98	-2.71	1.88	-2.83	3.50	434856.22	603538.59	N 32 11 42.34	W 103 59 55.04
	499.00	2.22	260.05	498.94	-3.80	1.51	-3.73	0.64	434856.07	603537.49	N 32 11 42.34	W 103 59 55.05
	635.00	2.24	263.74	634.91	-5.18	1.31	-5.12	0.40	434855.87	603536.10	N 32 11 42.33	W 103 59 55.07
	626.00	2.35	261.33	625.84	-8.76	0.84	-8.73	0.18	434855.40	603532.49	N 32 11 42.33	W 103 59 55.11
	672.00	2.37	259.36	671.80	-10.81	0.52	-10.80	0.18	434855.08	603530.83	N 32 11 42.33	W 103 59 55.13
	718.00	2.35	256.77	717.78	-12.44	0.13	-12.45	0.24	434854.69	603528.77	N 32 11 42.32	W 103 59 55.15
	768.00	2.57	258.15	767.72	-14.51	-0.33	-14.54	0.46	434854.23	603526.68	N 32 11 42.32	W 103 59 55.18
	901.00	1.80	266.25	900.82	-19.47	-1.08	-19.55	0.82	434853.48	603521.89	N 32 11 42.31	W 103 59 55.24
	983.00	0.48	335.23	982.60	-21.08	-0.83	-21.15	1.84	434853.73	603520.07	N 32 11 42.31	W 103 59 55.28
	1083.00	0.46	333.34	1082.60	-21.43	-0.18	-21.47	0.03	434854.40	603519.75	N 32 11 42.32	W 103 59 55.28
	1178.00	0.73	342.34	1177.59	-21.83	0.75	-21.82	0.30	434855.31	603519.40	N 32 11 42.33	W 103 59 55.28
	1273.00	0.84	353.68	1272.59	-22.16	2.02	-22.08	0.20	434856.58	603519.14	N 32 11 42.34	W 103 59 55.27
	1367.00	0.88	355.95	1366.57	-22.36	3.43	-22.21	0.08	434857.99	603519.01	N 32 11 42.38	W 103 59 55.27
	1462.00	1.08	358.59	1461.58	-22.54	5.05	-22.32	0.21	434858.61	603518.91	N 32 11 42.37	W 103 59 55.27
	1557.00	0.97	358.32	1556.55	-22.97	6.69	-22.67	0.36	434861.25	603518.55	N 32 11 42.39	W 103 59 55.27
	1652.00	1.23	303.54	1651.53	-24.18	8.00	-23.81	0.74	434862.56	603517.41	N 32 11 42.40	W 103 59 55.29
	1746.00	1.56	285.93	1745.50	-26.30	8.91	-25.89	0.57	434863.47	603515.34	N 32 11 42.41	W 103 59 55.31
	1839.00	1.08	294.55	1838.48	-28.34	9.82	-27.90	0.56	434864.18	603513.32	N 32 11 42.42	W 103 59 55.33
	1932.00	0.24	312.79	1931.47	-29.31	10.12	-28.84	0.92	434864.68	603512.38	N 32 11 42.42	W 103 59 55.35
	2025.00	0.42	258.75	2024.47	-29.79	10.18	-29.32	0.37	434864.74	603511.81	N 32 11 42.42	W 103 59 55.35
	2118.00	0.42	223.22	2117.47	-30.34	9.87	-29.88	0.28	434864.43	603511.34	N 32 11 42.42	W 103 59 55.36
	2213.00	1.23	128.97	2212.46	-29.74	8.97	-29.33	1.40	434863.53	603511.69	N 32 11 42.41	W 103 59 55.35
	2307.00	1.74	124.45	2306.43	-27.71	7.53	-27.37	0.58	434862.09	603513.85	N 32 11 42.40	W 103 59 55.33
	2402.00	2.24	114.42	2401.37	-24.75	5.95	-24.49	0.64	434860.51	603516.73	N 32 11 42.38	W 103 59 55.29
	2497.00	3.19	118.98	2496.28	-20.85	3.90	-20.49	1.02	434858.46	603520.74	N 32 11 42.36	W 103 59 55.25
	2592.00	3.38	130.94	2591.11	-18.08	0.79	-18.06	0.75	434855.35	603525.18	N 32 11 42.33	W 103 59 55.20
	2686.00	3.30	142.50	2684.95	-12.14	-3.18	-12.32	0.72	434851.98	603528.80	N 32 11 42.29	W 103 59 55.15
	2781.00	2.18	132.08	2779.84	-8.97	-6.56	-9.31	1.29	434848.00	603531.91	N 32 11 42.28	W 103 59 55.12
	2876.00	1.98	127.57	2874.78	-8.24	-8.78	-8.68	0.29	434845.80	603534.54	N 32 11 42.23	W 103 59 55.09
	2971.00	1.86	130.16	2969.72	-3.68	-10.74	-4.22	0.15	434843.82	603537.00	N 32 11 42.22	W 103 59 55.06
	3066.00	1.80	128.72	3064.68	-1.26	-12.66	-1.89	0.07	434841.90	603539.33	N 32 11 42.20	W 103 59 55.03
	3160.00	1.78	128.88	3158.63	1.12	-14.50	0.40	0.02	434840.06	603541.82	N 32 11 42.18	W 103 59 55.01
	3255.00	1.45	107.85	3253.59	3.48	-16.79	2.89	0.71	434838.77	603543.91	N 32 11 42.17	W 103 59 54.98
	3350.00	1.32	98.12	3348.57	5.73	-18.32	4.92	0.28	434836.24	603546.14	N 32 11 42.16	W 103 59 54.95
	3445.00	1.41	97.33	3443.54	7.98	-18.82	7.16	0.10	434837.94	603548.38	N 32 11 42.16	W 103 59 54.93
	3540.00	1.34	99.32	3538.51	10.25	-18.95	9.42	0.06	434837.61	603550.84	N 32 11 42.15	W 103 59 54.90
	3635.00	1.43	100.29	3633.48	12.53	-17.34	11.68	0.10	434837.22	603552.90	N 32 11 42.15	W 103 59 54.87
	3729.00	1.47	98.20	3727.45	14.99	-17.72	14.03	0.07	434836.84	603555.25	N 32 11 42.15	W 103 59 54.85
	3824.00	1.43	100.00	3822.42	17.28	-18.10	16.40	0.08	434836.46	603557.82	N 32 11 42.14	W 103 59 54.82
	3919.00	1.43	97.71	3917.39	19.64	-18.47	18.75	0.08	434836.09	603559.96	N 32 11 42.14	W 103 59 54.79
	4014.00	1.47	98.87	4012.36	22.03	-18.81	21.12	0.05	434835.75	603562.34	N 32 11 42.13	W 103 59 54.76
	4109.00	1.58	95.30	4107.33	24.55	-19.12	23.83	0.15	434835.44	603564.85	N 32 11 42.13	W 103 59 54.74
	4204.00	1.83	83.33	4202.29	27.21	-19.32	26.28	0.08	434835.24	603567.50	N 32 11 42.13	W 103 59 54.70
	4298.00	1.85	84.14	4296.25	29.90	-19.50	28.97	0.03	434835.06	603570.19	N 32 11 42.13	W 103 59 54.67
	4393.00	1.74	115.04	4391.21	32.81	-20.21	31.84	0.65	434834.36	603572.86	N 32 11 42.12	W 103 59 54.64
	4488.00	1.91	119.09	4486.18	35.36	-21.59	34.33	0.22	434832.97	603575.55	N 32 11 42.11	W 103 59 54.61
	4583.00	1.91	121.23	4581.11	38.17	-23.18	37.07	0.08	434831.38	603578.28	N 32 11 42.09	W 103 59 54.58
	4678.00	2.00	118.75	4676.06	41.08	-24.80	39.87	0.13	434829.77	603581.09	N 32 11 42.07	W 103 59 54.55
	4772.00	2.04	119.41	4770.00	44.03	-26.41	42.77	0.05	434828.16	603583.89	N 32 11 42.06	W 103 59 54.51
	4867.00	2.20	119.74	4864.93	47.17	-28.14	45.83	0.17	434826.42	603587.04	N 32 11 42.04	W 103 59 54.48
	4962.00	2.28	121.87	4959.86	50.44	-30.03	49.00	0.10	434824.53	603590.22	N 32 11 42.02	W 103 59 54.44
	5145.00	1.87	123.38	5142.74	58.17	-33.67	54.57	0.22	434821.00	603595.78	N 32 11 41.99	W 103 59 54.38
	5240.00	2.90	123.58	5237.86	69.57	-35.75	57.87	1.08	434818.82	603599.08	N 32 11 41.97	W 103 59 54.34
	5335.00	4.42	118.91	5332.48	84.93	-38.84	83.07	1.63	434815.72	603604.29	N 32 11 41.94	W 103 59 54.28
	5431.00	4.90	118.90	5428.14	71.93	-42.81	89.90	0.50	434811.95	603611.12	N 32 11 41.90	W 103 59 54.20
	5524.00	5.85	117.73	5520.73	79.80	-46.74	77.57	1.03	434807.82	603618.79	N 32 11 41.86	W 103 59 54.11
	5619.00	6.92	114.85	5615.14	89.50	-51.40	87.05	1.18	434803.17	603628.27	N 32 11 41.81	W 103 59 54.00
	5715.00	8.61	116.80	5710.28	101.43	-57.07	98.71	1.78	434797.50	603639.93	N 32 11 41.75	W 103 59 53.88
	5809.00	10.24	122.11	5802.99	115.15	-64.68	112.07	1.98	434788.88	603653.28	N 32 11 41.68	W 103 59 53.71
	5904.00	10.66	124.39	5898.41	130.01	-74.13	126.48	0.82	434780.43	603667.69	N 32 11 41.58	W 103 59 53.54
	5999.00	10.46	123.93	5893.81	144.88	-83.91	140.88	0.23	434770.88	603682.09	N 32 11 41.49	W 103 59 53.37
	6094.00	10.46	123.83	6083.23	159.67	-93.50	155.22	0.06	434761.07	603696.43	N 32 11 41.39	W 103 59 53.21
	6189.00	10.33	123.98	6175.88	174.22	-102.93	169.31	0.15	434751.84	603710.52	N 32 11 41.30	W 103 59 53.04
	6283.00	10.20	124.57	6269.18	188.67	-112.48	183.30	0.18	434742.11	603724.51	N 32 11 41.20	W 103 59 52.88
	6378.00	9.84	124.87	6362.71	202.71	-121.88	196.89	0.38	434732.86	603738.10	N 32 11 41.11	W 103 59 52.72
	6567.00	9.08	124.10	6549.14	229.15	-138.47	222.49	0.41	434715.10	603763.89	N 32 11 40.93	W 103 59 52.43

Borehole:	Well:	Field:	Structure:
Original Borehole	Cedar Canyon 28 Federal 8H	NM Eddy County (NAD 27)	Oxy Cedar Canyon 28 Federal 8H

Survey & Magnitude Parameters	Survey Location	Survey Date	Survey Time	Survey User	Survey Instrument	Survey Method	Survey Notes
Model: 8000 8H1 Height: 12.00'	Lat: N 32 11 42.32 Long: W 103 59 55.01	15-Aug-2016	08:00:00	W. J. Smith	Trimble R10	RTK	Survey of Cedar Canyon 28 Federal 8H well location.

Production Summary																
Well Name	Well ID	Well Type	Well Status	Well Depth (ft)	Well Diameter (in)	Well Completion	Well Production	Well Injection	Well Flow Rate (bbl/d)	Well Pressure (psi)	Well Temperature (°F)	Well Corrosion Rate (mpy)	Well Integrity	Well Notes		
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Rustler	335.00	0.00	0.00	124.59	335.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Surface Casing	400.00	0.00	0.00	124.59	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Salado	726.00	0.00	0.00	124.59	726.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lamar/Delaware	2906.00	0.00	0.00	124.59	2906.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Bell Canyon	2979.00	0.00	0.00	124.59	2979.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Cherry Canyon	3635.00	0.00	0.00	124.59	3635.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Brushy Canyon	5081.00	0.00	0.00	124.59	5081.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Bone Spring	6283.00	0.00	0.00	124.59	6283.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Held 12" Tangent	8982.80	12.00	0.00	124.59	8982.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Bone Spring	8618.88	12.00	0.00	124.59	8618.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Drop/Turn 2" 100'	7647.07	12.00	0.00	124.59	7647.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
ICP	8068.42	5.00	0.00	90.02	8017.46	8041.86	423.88	-270.78	410.93	32.11	38.629	W 103 59 50.238	6039582.12	434583.82	2.00	-160.13
ICP	8068.42	5.00	0.00	90.02	8017.46	8041.86	423.88	-270.78	410.93	32.11	38.629	W 103 59 50.238	6039582.12	434583.82	2.00	0.00
KOP Build 10"/100' DLS	8165.42	8.00	0.00	90.02	8117.07	8161.27	432.89	-270.78	418.64	32.11	38.629	W 103 59 50.138	6039580.83	434583.82	0.00	0.00
Landing Point	9005.22	88.99	0.00	90.02	8640.00	8684.20	892.48	-270.96	880.23	32.11	38.610	W 103 59 43.613	604521.37	434583.82	10.00	0.00
Plat P8H	13800.78	88.99	0.00	90.02	8720.00	8744.20	649.12	-272.57	647.64	32.11	38.482	W 103 58 51.309	603916.82	434582.07	0.00	0.00



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 ° ' '')
	8757.00	7.38	121.58	8737.18	252.84	-154.25	245.28	0.93	434700.32	603786.48	N 32 11 40.79 W	103 59 52.18
	8857.00	6.75	120.47	8836.43	283.47	-160.58	255.80	0.82	434693.99	603797.00	N 32 11 40.72 W	103 59 52.04
	8905.00	6.39	120.29	8884.11	268.34	-163.36	260.54	0.75	434681.21	603801.74	N 32 11 40.70 W	103 59 51.98
	8951.00	5.80	118.97	8929.86	272.66	-165.67	264.75	1.87	434688.91	603805.95	N 32 11 40.67 W	103 59 51.84
	7046.00	4.72	115.10	7024.47	280.51	-169.43	272.42	0.94	434685.15	603813.82	N 32 11 40.64 W	103 59 51.85
	7140.00	5.74	124.16	7118.08	288.10	-173.71	278.81	1.39	434680.87	603821.01	N 32 11 40.59 W	103 59 51.76
	7235.00	7.85	126.38	7212.41	297.57	-180.22	288.97	2.24	434674.35	603830.18	N 32 11 40.53 W	103 59 51.85
	7330.00	7.38	127.13	7306.57	308.02	-187.76	298.05	0.51	434666.82	603840.25	N 32 11 40.45 W	103 59 51.54
	7424.00	7.58	128.92	7399.77	318.02	-195.29	308.89	0.33	434659.28	603848.89	N 32 11 40.38 W	103 59 51.42
	7519.00	6.66	127.41	7484.04	327.82	-202.58	317.94	0.99	434652.00	603858.14	N 32 11 40.31 W	103 59 51.32
	7614.00	8.70	130.31	7588.18	337.86	-210.57	327.80	2.19	434644.00	603868.99	N 32 11 40.23 W	103 59 51.20
	7709.00	10.28	126.48	7681.88	350.82	-220.26	340.09	1.79	434634.32	603881.29	N 32 11 40.13 W	103 59 51.08
	7803.00	9.87	116.91	7774.44	364.96	-229.90	354.02	1.83	434625.68	603895.21	N 32 11 40.05 W	103 59 50.90
	7998.00	9.54	109.38	7868.08	378.95	-235.19	368.71	1.38	434619.38	603909.90	N 32 11 39.98 W	103 59 50.73
	7959.00	10.90	108.04	7928.11	390.41	-238.48	379.02	2.43	434616.12	603920.21	N 32 11 39.95 W	103 59 50.61
	8078.00	12.91	119.82	8044.57	413.24	-248.14	401.40	2.89	434606.44	603942.59	N 32 11 39.85 W	103 59 50.35
	8172.00	7.43	98.89	8137.09	428.69	-254.07	416.58	7.12	434600.51	603957.77	N 32 11 39.79 W	103 59 50.17
	8265.00	10.44	111.09	8229.96	442.70	-257.82	430.42	3.99	434596.76	603971.80	N 32 11 39.76 W	103 59 50.01
	8286.00	11.71	105.18	8249.57	448.59	-259.07	434.25	8.10	434595.52	603975.43	N 32 11 39.74 W	103 59 49.97
	8384.00	19.14	84.69	8344.04	472.26	-260.18	459.90	9.29	434594.40	604001.08	N 32 11 39.73 W	103 59 49.87
	8431.00	25.81	88.91	8387.45	490.12	-259.28	477.82	14.59	434595.30	604019.00	N 32 11 39.74 W	103 59 49.46
	8477.00	31.10	91.08	8427.88	512.00	-259.31	499.73	11.72	434595.27	604040.91	N 32 11 39.74 W	103 59 49.20
	8570.00	44.14	93.87	8501.39	568.63	-261.96	558.30	14.14	434592.82	604097.47	N 32 11 39.71 W	103 59 48.55
	8663.00	58.82	98.19	8559.30	640.94	-269.84	628.31	18.98	434584.74	604166.48	N 32 11 39.63 W	103 59 47.71
	8724.00	88.93	95.85	8586.22	695.44	-276.47	682.54	17.25	434578.11	604223.71	N 32 11 39.58 W	103 59 47.08
	8755.00	71.76	95.13	8598.85	724.60	-279.26	711.60	9.39	434575.32	604252.78	N 32 11 39.54 W	103 59 46.74
	8787.00	73.87	94.70	8606.10	755.15	-281.88	742.06	6.72	434572.70	604283.22	N 32 11 39.51 W	103 59 46.39
	8817.00	77.55	94.56	8613.51	784.21	-284.23	771.03	12.27	434570.35	604312.19	N 32 11 39.48 W	103 59 46.05
	8848.00	79.92	94.31	8619.56	814.80	-286.56	801.34	7.89	434568.00	604342.50	N 32 11 39.48 W	103 59 45.70
	8875.00	80.78	93.82	8624.09	841.21	-288.42	827.89	4.06	434566.16	604399.05	N 32 11 39.44 W	103 59 45.38
	8910.00	82.38	91.90	8629.21	875.83	-290.09	862.47	6.87	434564.50	604403.82	N 32 11 39.42 W	103 59 44.98
	8941.00	85.28	88.88	8632.54	906.81	-290.29	893.29	13.46	434564.29	604434.44	N 32 11 39.42 W	103 59 44.63
	9012.00	85.84	86.63	8638.04	977.12	-287.52	964.01	3.26	434567.06	604505.16	N 32 11 39.45 W	103 59 43.80
	9105.00	87.87	87.02	8643.14	1089.46	-282.38	1056.73	2.22	434572.20	604597.86	N 32 11 39.49 W	103 59 42.72
	9198.00	89.18	90.24	8645.54	1182.16	-280.16	1148.66	3.74	434574.43	604690.78	N 32 11 39.51 W	103 59 41.64
	9291.00	88.76	89.36	8647.21	1255.01	-279.83	1242.64	1.05	434574.75	604783.78	N 32 11 39.51 W	103 59 40.56
	9383.00	88.82	86.70	8649.31	1346.78	-278.27	1334.60	0.73	434576.31	604875.71	N 32 11 39.53 W	103 59 39.49
	9476.00	88.56	86.95	8651.60	1439.53	-276.37	1427.55	0.28	434578.21	604968.68	N 32 11 39.54 W	103 59 38.41
	9569.00	89.28	88.17	8653.35	1532.31	-274.84	1520.52	0.81	434579.74	605061.82	N 32 11 39.55 W	103 59 37.33
	9662.00	88.07	89.14	8655.51	1625.09	-273.47	1613.49	1.30	434581.11	605154.58	N 32 11 39.57 W	103 59 36.24
	9755.00	88.45	89.38	8658.33	1717.88	-272.27	1706.44	0.48	434582.31	605247.52	N 32 11 39.57 W	103 59 35.16
	9848.00	89.79	89.20	8660.77	1811.67	-271.11	1800.42	1.44	434583.48	605341.49	N 32 11 39.58 W	103 59 34.07
	10036.00	89.83	88.57	8660.39	1998.22	-267.47	1987.98	0.34	434587.11	605528.44	N 32 11 39.61 W	103 59 31.89
	10128.00	89.00	89.04	8661.34	2090.96	-265.53	2080.35	1.03	434589.05	605821.40	N 32 11 39.63 W	103 59 30.81
	10222.00	88.90	88.98	8663.05	2183.76	-263.92	2173.32	0.13	434590.66	605714.37	N 32 11 39.64 W	103 59 29.73
	10315.00	89.83	89.11	8664.89	2278.53	-262.37	2268.29	0.18	434592.21	605807.33	N 32 11 39.65 W	103 59 28.85
	10409.00	88.80	89.21	8665.83	2370.32	-260.99	2360.26	0.11	434593.59	605901.29	N 32 11 39.67 W	103 59 27.55
	10501.00	89.83	88.92	8668.86	2462.10	-259.49	2452.23	0.35	434595.09	605993.25	N 32 11 39.68 W	103 59 26.48
	10595.00	89.45	88.97	8669.88	2555.87	-257.76	2546.21	0.56	434596.82	606087.22	N 32 11 39.69 W	103 59 25.39
	10688.00	89.55	88.79	8670.80	2648.64	-255.94	2636.18	0.22	434598.64	606180.19	N 32 11 39.71 W	103 59 24.31
	10780.00	89.78	88.99	8671.35	2740.42	-254.18	2731.16	0.32	434600.42	606272.18	N 32 11 39.72 W	103 59 23.24
	10874.00	89.45	90.82	8672.00	2834.29	-254.01	2825.16	1.97	434600.57	606366.15	N 32 11 39.72 W	103 59 22.14
	10967.00	89.35	90.75	8672.87	2927.23	-255.28	2918.14	0.13	434599.30	606459.13	N 32 11 39.70 W	103 59 21.06
	11061.00	89.59	90.70	8673.84	3021.16	-256.47	3012.13	0.26	434598.11	606553.11	N 32 11 39.69 W	103 59 19.97
	11154.00	88.97	91.05	8675.01	3114.10	-257.89	3106.11	0.77	434596.69	606648.08	N 32 11 39.67 W	103 59 18.89
	11248.00	90.45	91.04	8675.49	3208.04	-259.80	3198.09	1.57	434594.98	606740.08	N 32 11 39.65 W	103 59 17.79
	11341.00	88.42	90.46	8676.40	3300.97	-260.82	3292.08	2.27	434593.78	606833.03	N 32 11 39.64 W	103 59 16.71
	11434.00	87.42	90.85	8679.78	3393.84	-261.72	3385.01	1.09	434592.86	606925.96	N 32 11 39.63 W	103 59 15.63
	11527.00	88.52	90.78	8683.07	3486.71	-262.88	3477.94	1.19	434591.70	607018.88	N 32 11 39.61 W	103 59 14.55
	11620.00	90.07	90.74	8684.22	3579.64	-264.12	3570.92	1.67	434590.47	607111.86	N 32 11 39.60 W	103 59 13.47
	11807.00	88.14	90.54	8687.14	3766.47	-266.20	3757.88	1.04	434588.38	607298.80	N 32 11 39.57 W	103 59 11.29
	11899.00	89.69	90.54	8688.98	3858.37	-267.07	3848.86	1.58	434587.51	607390.77	N 32 11 39.56 W	103 59 10.22
	11993.00	89.55	90.75	8689.89	3950.30	-268.13	3943.85	0.23	434586.45	607484.75	N 32 11 39.54 W	103 59 9.13
	12087.00	90.72	90.98	8689.44	4048.24	-269.55	4037.84	1.27	434585.03	607578.73	N 32 11 39.53 W	103 59 8.03
	12180.00	88.35	90.19	8690.20	4139.18	-270.50	4130.82	2.89	434584.08	607671.71	N 32 11 39.51 W	103 59 6.95
	12273.00	89.04	90.49	8692.32	4232.05	-271.05	4223.79	0.61	434583.63	607764.67	N 32 11 39.51 W	103 59 5.87
	12367.00	86.90	90.81	8695.85	4325.91	-271.95	4317.72	2.28	434582.83	607858.80	N 32 11 39.49 W	103 59 4.78
	12461.00	88.07	90.29	8698.77	4419.73	-272.69	4411.63	1.29	434581.89	607952.49	N 32 11 39.48 W	103 59 3.68
	12553.00	87.18	88.56	8703.58	4511.48	-271.77	4503.54	2.11	434582.82	608044.40	N 32 11 39.49 W	103 59 2.61
	12646.00	89.14	88.63	8706.57	4604.19	-269.85	4596.48	2.13	434584.93	608137.31	N 32 11 39.51 W	103 59 1.53
	12740.00	89.38	88.70	8707.78	4697.94	-267.82	4690.44	0.29	434586.96	608231.28	N 32 11 39.53 W	103 59 0.44
	12833.00	89.93	91.16	8708.34	4790.81	-267.51	4783.43	2.71	434587.07	608324.26	N 32 11 39.52 W	103 59 58.36
	12927.00	89.97	90.83	8708.43	4884.76	-269.14	4877.41	0.36	434585.44	608418.24	N 32 11 39.50 W	103 59 58.26
	13020.00	89.80	90.83	8708.53	4977.70	-270.49	4970.40	0.08	434584.09	608511.22	N 32 11 39.49 W	103 59 57.18
	13114.00	89.86	91.04	8708.89	5071.65	-272.02	5064.39	0.34	434582.56	608605.20	N 32 11 39.47 W	103 59 56.09
	13207.00	90.00	90.79	8709.17	5164.60	-273.51	5157.38	0.45	434581.07	608698.18	N 32 11 39.45 W	103 59 55.01
	13300.00	88.78	91.05	8710.17	5257.54	-275.00	5					