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30-025-42506

COG Operating LLC.

Lea County, NM
Eata Fajita State
#12H

OH

Survey: MWD #1

Survey Report - Geographic

13 August, 2015

MAR 07 2016

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Wellplanning
Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #12H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.9usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.9usft (Original Well Elev)
Well:	#12H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Eata Fajita State		
Site Position:		Northing:	446,468.40 usft
From:	Map	Easting:	726,689.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 31.198 N
		Longitude:	103° 36' 0.988 W
		Grid Convergence:	0.39 °

Well	#12H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 13' 31.046 N
		Longitude:	103° 36' 5.467 W
		Ground Level:	3,575.9 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	4/7/2015	7.13
			Dip Angle
			(°)
			60.09
			Field Strength
			(nT)
			48,231

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			10.22

Survey Program	Date 8/13/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
109.0	14,092.0	MWD #1 (OH)	MWD
			Description
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
0.0	0.00	0.00	0.0	0.0	0.0	446,450.40	726,304.90	32° 13' 31.046 N	103° 36' 5.467 W
109.0	0.30	322.10	109.0	0.2	-0.2	446,450.63	726,304.72	32° 13' 31.048 N	103° 36' 5.469 W
204.0	0.40	336.20	204.0	0.7	-0.5	446,451.12	726,304.43	32° 13' 31.053 N	103° 36' 5.472 W
297.0	0.40	331.10	297.0	1.3	-0.7	446,451.71	726,304.15	32° 13' 31.059 N	103° 36' 5.476 W
389.0	0.40	333.10	389.0	1.9	-1.1	446,452.27	726,303.85	32° 13' 31.065 N	103° 36' 5.479 W
513.0	0.30	340.10	513.0	2.6	-1.4	446,452.96	726,303.54	32° 13' 31.072 N	103° 36' 5.483 W
603.0	0.30	325.30	603.0	3.0	-1.6	446,453.38	726,303.33	32° 13' 31.076 N	103° 36' 5.485 W
694.0	0.40	291.20	694.0	3.3	-2.0	446,453.69	726,302.89	32° 13' 31.079 N	103° 36' 5.490 W
785.0	0.40	284.40	785.0	3.5	-2.6	446,453.88	726,302.29	32° 13' 31.081 N	103° 36' 5.497 W
876.0	0.40	278.90	876.0	3.6	-3.2	446,454.01	726,301.67	32° 13' 31.082 N	103° 36' 5.504 W
967.0	0.40	281.70	967.0	3.7	-3.9	446,454.13	726,301.04	32° 13' 31.083 N	103° 36' 5.512 W
1,058.0	0.50	273.00	1,058.0	3.8	-4.6	446,454.21	726,300.34	32° 13' 31.084 N	103° 36' 5.520 W



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Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #12H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.9usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.9usft (Original Well Elev)
Well:	#12H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,148.0	0.50	288.20	1,148.0	4.0	-5.3	446,454.35	726,299.57	32° 13' 31.086 N	103° 36' 5.529 W
1,203.0	0.50	285.00	1,203.0	4.1	-5.8	446,454.49	726,299.11	32° 13' 31.087 N	103° 36' 5.534 W
1,329.0	0.70	276.70	1,329.0	4.3	-7.1	446,454.72	726,297.82	32° 13' 31.089 N	103° 36' 5.549 W
1,423.0	0.80	280.50	1,423.0	4.5	-8.3	446,454.91	726,296.60	32° 13' 31.091 N	103° 36' 5.563 W
1,517.0	0.90	276.80	1,516.9	4.7	-9.7	446,455.12	726,295.22	32° 13' 31.093 N	103° 36' 5.579 W
1,611.0	0.90	262.20	1,610.9	4.7	-11.1	446,455.10	726,293.76	32° 13' 31.093 N	103° 36' 5.596 W
1,799.0	1.10	269.90	1,798.9	4.5	-14.4	446,454.90	726,290.49	32° 13' 31.092 N	103° 36' 5.634 W
1,987.0	1.20	262.90	1,986.9	4.3	-18.2	446,454.65	726,286.73	32° 13' 31.089 N	103° 36' 5.678 W
2,175.0	1.20	208.40	2,174.8	2.3	-21.1	446,452.68	726,283.84	32° 13' 31.070 N	103° 36' 5.712 W
2,363.0	1.80	201.40	2,362.8	-2.2	-23.1	446,448.20	726,281.83	32° 13' 31.026 N	103° 36' 5.736 W
2,551.0	1.80	123.20	2,550.7	-6.6	-21.7	446,443.83	726,283.22	32° 13' 30.983 N	103° 36' 5.720 W
2,740.0	2.00	119.50	2,739.6	-9.8	-16.3	446,440.58	726,288.58	32° 13' 30.950 N	103° 36' 5.658 W
2,834.0	2.20	116.40	2,833.5	-11.4	-13.3	446,438.97	726,291.62	32° 13' 30.934 N	103° 36' 5.623 W
3,022.0	2.40	61.50	3,021.4	-11.2	-6.6	446,439.25	726,298.31	32° 13' 30.936 N	103° 36' 5.545 W
3,116.0	1.50	41.60	3,115.3	-9.3	-4.0	446,441.11	726,300.86	32° 13' 30.954 N	103° 36' 5.515 W
3,304.0	0.60	345.50	3,303.3	-6.5	-2.7	446,443.90	726,302.25	32° 13' 30.982 N	103° 36' 5.499 W
3,492.0	0.30	7.40	3,491.3	-5.1	-2.8	446,445.34	726,302.06	32° 13' 30.996 N	103° 36' 5.501 W
3,586.0	0.40	136.00	3,585.3	-5.1	-2.6	446,445.35	726,302.32	32° 13' 30.996 N	103° 36' 5.498 W
3,774.0	1.10	168.30	3,773.3	-7.3	-1.8	446,443.11	726,303.14	32° 13' 30.974 N	103° 36' 5.488 W
3,962.0	1.10	85.70	3,961.3	-8.9	0.4	446,441.48	726,305.31	32° 13' 30.958 N	103° 36' 5.463 W
4,151.0	0.60	51.10	4,150.3	-8.2	3.0	446,442.24	726,307.89	32° 13' 30.965 N	103° 36' 5.433 W
4,339.0	0.40	280.40	4,338.2	-7.4	3.1	446,442.97	726,308.01	32° 13' 30.972 N	103° 36' 5.431 W
4,528.0	0.40	210.80	4,527.2	-7.9	2.1	446,442.52	726,307.02	32° 13' 30.968 N	103° 36' 5.443 W
4,716.0	1.40	175.20	4,715.2	-10.7	2.0	446,439.67	726,306.88	32° 13' 30.940 N	103° 36' 5.445 W
4,810.0	1.10	78.10	4,809.2	-11.7	3.0	446,438.71	726,307.86	32° 13' 30.930 N	103° 36' 5.434 W
4,904.0	1.80	58.90	4,903.2	-10.7	5.1	446,439.66	726,310.00	32° 13' 30.939 N	103° 36' 5.409 W
4,998.0	1.80	49.90	4,997.1	-9.0	7.5	446,441.38	726,312.40	32° 13' 30.956 N	103° 36' 5.381 W
5,057.0	1.90	48.30	5,056.1	-7.8	8.9	446,442.62	726,313.84	32° 13' 30.968 N	103° 36' 5.364 W
5,198.0	2.00	44.70	5,197.0	-4.5	12.4	446,445.93	726,317.31	32° 13' 31.001 N	103° 36' 5.323 W
5,293.0	1.90	46.20	5,292.0	-2.2	14.7	446,448.20	726,319.62	32° 13' 31.023 N	103° 36' 5.296 W
5,387.0	1.70	49.40	5,385.9	-0.2	16.9	446,450.18	726,321.80	32° 13' 31.043 N	103° 36' 5.270 W
5,481.0	1.90	48.00	5,479.9	1.7	19.1	446,452.13	726,324.02	32° 13' 31.062 N	103° 36' 5.244 W
5,575.0	1.80	49.20	5,573.8	3.7	21.4	446,454.14	726,326.29	32° 13' 31.082 N	103° 36' 5.218 W
5,669.0	1.70	46.60	5,667.8	5.7	23.5	446,456.06	726,328.42	32° 13' 31.100 N	103° 36' 5.193 W
5,763.0	3.30	78.00	5,761.7	7.2	27.2	446,457.58	726,332.08	32° 13' 31.115 N	103° 36' 5.160 W
5,858.0	4.60	89.00	5,856.5	7.8	33.7	446,458.22	726,338.57	32° 13' 31.121 N	103° 36' 5.075 W
5,952.0	6.30	78.30	5,950.0	8.9	42.5	446,459.33	726,347.39	32° 13' 31.132 N	103° 36' 4.972 W
6,046.0	7.60	89.10	6,043.3	10.1	53.8	446,460.47	726,358.65	32° 13' 31.142 N	103° 36' 4.841 W
6,140.0	10.50	84.30	6,136.2	11.0	68.5	446,461.42	726,373.39	32° 13' 31.150 N	103° 36' 4.669 W
6,234.0	12.60	78.80	6,228.3	13.9	87.1	446,464.26	726,391.98	32° 13' 31.177 N	103° 36' 4.452 W
6,329.0	12.40	78.20	6,321.0	18.0	107.2	446,468.36	726,412.13	32° 13' 31.217 N	103° 36' 4.217 W
6,423.0	12.40	78.60	6,412.8	22.0	127.0	446,472.42	726,431.90	32° 13' 31.255 N	103° 36' 3.987 W
6,517.0	12.10	79.60	6,504.7	25.8	146.6	446,476.19	726,451.48	32° 13' 31.291 N	103° 36' 3.759 W
6,611.0	11.60	81.00	6,596.7	29.1	165.6	446,479.45	726,470.51	32° 13' 31.322 N	103° 36' 3.537 W
6,705.0	12.80	74.90	6,688.6	33.2	185.0	446,483.64	726,489.90	32° 13' 31.363 N	103° 36' 3.311 W
6,799.0	13.40	74.60	6,780.1	38.8	205.6	446,489.25	726,510.45	32° 13' 31.417 N	103° 36' 3.071 W
6,894.0	12.20	69.00	6,872.7	45.4	225.5	446,495.77	726,530.44	32° 13' 31.480 N	103° 36' 2.838 W
6,988.0	11.50	68.40	6,964.7	52.4	243.5	446,502.78	726,548.42	32° 13' 31.548 N	103° 36' 2.628 W
7,082.0	10.80	71.00	7,057.0	58.7	260.6	446,509.09	726,565.46	32° 13' 31.609 N	103° 36' 2.429 W
7,176.0	12.80	67.60	7,149.0	65.5	278.5	446,515.93	726,583.42	32° 13' 31.676 N	103° 36' 2.220 W
7,270.0	12.30	67.60	7,240.7	73.3	297.4	446,523.71	726,602.30	32° 13' 31.751 N	103° 36' 1.999 W
7,364.0	12.00	68.70	7,332.6	80.7	315.8	446,531.08	726,620.66	32° 13' 31.823 N	103° 36' 1.785 W
7,458.0	11.30	70.50	7,424.7	87.3	333.6	446,537.70	726,638.45	32° 13' 31.887 N	103° 36' 1.577 W
7,552.0	12.50	64.60	7,516.7	94.7	351.4	446,545.14	726,656.32	32° 13' 31.960 N	103° 36' 1.369 W
7,646.0	11.40	66.10	7,608.6	102.9	369.1	446,553.27	726,674.00	32° 13' 32.039 N	103° 36' 1.162 W



Wellplanning Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #12H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.9usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.9usft (Original Well Elev)
Well:	#12H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,740.0	12.80	65.90	7,700.5	110.9	387.1	446,561.28	726,692.00	32° 13' 32.117 N	103° 36' 0.952 W
7,835.0	12.00	67.40	7,793.3	119.0	405.8	446,569.38	726,710.73	32° 13' 32.196 N	103° 36' 0.734 W
7,929.0	13.80	64.70	7,885.0	127.5	425.0	446,577.92	726,729.89	32° 13' 32.279 N	103° 36' 0.510 W
8,023.0	13.30	65.50	7,976.3	136.8	445.0	446,587.20	726,749.86	32° 13' 32.370 N	103° 36' 0.277 W
8,117.0	12.50	66.20	8,068.0	145.4	464.1	446,595.79	726,769.01	32° 13' 32.453 N	103° 36' 0.053 W
8,211.0	11.50	65.30	8,159.9	153.4	481.9	446,603.81	726,786.83	32° 13' 32.532 N	103° 35' 59.845 W
8,305.0	10.60	66.40	8,252.2	160.8	498.4	446,611.19	726,803.26	32° 13' 32.603 N	103° 35' 59.653 W
8,399.0	9.80	66.70	8,344.7	167.4	513.6	446,617.81	726,818.53	32° 13' 32.668 N	103° 35' 59.475 W
8,493.0	9.10	67.10	8,437.4	173.5	527.8	446,623.87	726,832.73	32° 13' 32.727 N	103° 35' 59.309 W
8,587.0	8.40	67.00	8,530.3	179.0	541.0	446,629.44	726,845.90	32° 13' 32.781 N	103° 35' 59.155 W
8,681.0	8.20	64.00	8,623.3	184.7	553.3	446,635.07	726,858.24	32° 13' 32.836 N	103° 35' 59.011 W
8,775.0	7.40	63.20	8,716.5	190.3	564.8	446,640.73	726,869.67	32° 13' 32.891 N	103° 35' 58.878 W
8,870.0	6.20	63.50	8,810.8	195.4	574.8	446,645.78	726,879.72	32° 13' 32.941 N	103° 35' 58.760 W
8,964.0	5.20	65.60	8,904.3	199.4	583.2	446,649.81	726,888.15	32° 13' 32.980 N	103° 35' 58.662 W
8,995.0	4.90	65.60	8,935.2	200.5	585.7	446,650.93	726,890.63	32° 13' 32.991 N	103° 35' 58.633 W
9,045.0	4.50	66.40	8,985.0	202.2	589.5	446,652.60	726,894.37	32° 13' 33.007 N	103° 35' 58.589 W
9,139.0	6.60	61.20	9,078.6	206.3	597.6	446,656.68	726,902.49	32° 13' 33.047 N	103° 35' 58.494 W
9,186.0	18.60	56.70	9,124.4	211.7	606.3	446,662.12	726,911.15	32° 13' 33.100 N	103° 35' 58.393 W
9,233.0	29.50	51.40	9,167.2	223.1	621.6	446,673.49	726,926.51	32° 13' 33.212 N	103° 35' 58.213 W
9,264.0	31.20	50.20	9,194.0	233.0	633.7	446,683.39	726,938.64	32° 13' 33.309 N	103° 35' 58.071 W
9,296.0	32.40	46.30	9,221.2	244.2	646.3	446,694.62	726,951.21	32° 13' 33.419 N	103° 35' 57.924 W
9,327.0	34.10	40.50	9,247.1	256.6	658.0	446,706.97	726,962.86	32° 13' 33.541 N	103° 35' 57.788 W
9,359.0	36.70	30.80	9,273.2	271.6	668.7	446,722.02	726,973.59	32° 13' 33.689 N	103° 35' 57.661 W
9,421.0	41.80	13.60	9,321.3	307.7	683.1	446,758.15	726,987.99	32° 13' 34.045 N	103° 35' 57.491 W
9,453.0	44.40	13.30	9,344.7	329.0	688.2	446,779.41	726,993.07	32° 13' 34.255 N	103° 35' 57.430 W
9,484.0	46.10	14.00	9,366.5	350.4	693.4	446,800.80	726,998.27	32° 13' 34.467 N	103° 35' 57.368 W
9,516.0	49.20	16.10	9,388.1	373.2	699.5	446,823.63	727,004.42	32° 13' 34.692 N	103° 35' 57.294 W
9,547.0	52.90	17.60	9,407.6	396.3	706.5	446,846.70	727,011.42	32° 13' 34.920 N	103° 35' 57.211 W
9,578.0	55.70	18.60	9,425.7	420.2	714.3	446,870.62	727,019.24	32° 13' 35.156 N	103° 35' 57.118 W
9,610.0	57.60	19.00	9,443.3	445.5	723.0	446,895.93	727,027.86	32° 13' 35.406 N	103° 35' 57.016 W
9,657.0	64.90	18.50	9,465.8	484.5	736.2	446,934.92	727,041.09	32° 13' 35.791 N	103° 35' 56.859 W
9,681.0	66.10	18.70	9,475.8	505.2	743.2	446,955.62	727,048.05	32° 13' 35.995 N	103° 35' 56.776 W
9,712.0	66.50	18.60	9,488.3	532.1	752.2	446,982.51	727,057.13	32° 13' 36.261 N	103° 35' 56.668 W
9,759.0	69.10	19.00	9,506.0	573.3	766.3	447,023.70	727,071.15	32° 13' 36.667 N	103° 35' 56.502 W
9,807.0	75.40	17.60	9,520.6	616.7	780.6	447,067.09	727,085.49	32° 13' 37.096 N	103° 35' 56.331 W
9,854.0	83.20	17.30	9,529.4	660.7	794.4	447,111.11	727,099.33	32° 13' 37.531 N	103° 35' 56.167 W
9,901.0	84.60	17.70	9,534.4	705.3	808.5	447,155.68	727,113.38	32° 13' 37.971 N	103° 35' 56.000 W
9,995.0	86.20	16.60	9,541.9	794.8	836.1	447,245.21	727,141.01	32° 13' 38.855 N	103° 35' 55.671 W
10,089.0	88.70	13.10	9,546.1	885.6	860.2	447,335.96	727,165.06	32° 13' 39.751 N	103° 35' 55.384 W
10,183.0	91.50	10.30	9,545.9	977.6	879.2	447,427.99	727,184.12	32° 13' 40.660 N	103° 35' 55.155 W
10,277.0	91.00	7.80	9,543.9	1,070.4	894.0	447,520.79	727,198.90	32° 13' 41.578 N	103° 35' 54.975 W
10,371.0	89.80	4.70	9,543.2	1,163.8	904.2	447,614.21	727,209.14	32° 13' 42.502 N	103° 35' 54.849 W
10,465.0	89.30	1.60	9,543.9	1,257.7	909.4	447,708.05	727,214.30	32° 13' 43.430 N	103° 35' 54.781 W
10,559.0	90.20	358.50	9,544.4	1,351.6	909.5	447,802.04	727,214.38	32° 13' 44.360 N	103° 35' 54.772 W
10,654.0	91.30	359.40	9,543.1	1,446.6	907.7	447,897.01	727,212.64	32° 13' 45.300 N	103° 35' 54.785 W
10,748.0	89.40	356.70	9,542.5	1,540.5	904.5	447,990.95	727,209.44	32° 13' 46.230 N	103° 35' 54.815 W
10,842.0	87.10	355.80	9,545.4	1,634.3	898.4	448,084.69	727,203.30	32° 13' 47.158 N	103° 35' 54.879 W
10,937.0	87.70	357.20	9,549.7	1,729.0	892.6	448,179.42	727,197.51	32° 13' 48.095 N	103° 35' 54.939 W
11,031.0	88.00	357.70	9,553.2	1,822.9	888.4	448,273.26	727,193.33	32° 13' 49.024 N	103° 35' 54.980 W
11,125.0	86.90	358.20	9,557.4	1,916.7	885.1	448,367.10	727,189.97	32° 13' 49.953 N	103° 35' 55.012 W
11,219.0	89.80	357.30	9,560.1	2,010.6	881.4	448,460.98	727,186.28	32° 13' 50.882 N	103° 35' 55.047 W
11,313.0	91.30	359.00	9,559.2	2,104.5	878.3	448,554.92	727,183.24	32° 13' 51.812 N	103° 35' 55.075 W
11,407.0	92.20	359.60	9,556.4	2,198.5	877.2	448,648.87	727,182.10	32° 13' 52.742 N	103° 35' 55.081 W
11,501.0	90.90	0.10	9,553.8	2,292.4	877.0	448,742.83	727,181.85	32° 13' 53.672 N	103° 35' 55.076 W
11,595.0	92.30	0.60	9,551.2	2,386.4	877.5	448,836.79	727,182.42	32° 13' 54.601 N	103° 35' 55.062 W



Wellplanning Survey Report - Geographic

Company:	COG Operating LLC.	Local Co-ordinate Reference:	Well #12H
Project:	Lea County, NM	TVD Reference:	WELL @ 3603.9usft (Original Well Elev)
Site:	Eata Fajita State	MD Reference:	WELL @ 3603.9usft (Original Well Elev)
Well:	#12H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,690.0	91.00	0.50	9,548.5	2,481.3	878.4	448,931.74	727,183.34	32° 13' 55.541 N	103° 35' 55.044 W
11,784.0	90.40	0.60	9,547.3	2,575.3	879.3	449,025.73	727,184.24	32° 13' 56.471 N	103° 35' 55.026 W
11,878.0	91.70	359.80	9,545.6	2,669.3	879.7	449,119.71	727,184.57	32° 13' 57.401 N	103° 35' 55.015 W
11,973.0	92.20	0.60	9,542.4	2,764.3	880.0	449,214.66	727,184.90	32° 13' 58.340 N	103° 35' 55.003 W
12,067.0	90.10	0.60	9,540.5	2,858.2	881.0	449,308.63	727,185.88	32° 13' 59.270 N	103° 35' 54.984 W
12,161.0	88.80	1.30	9,541.4	2,952.2	882.5	449,402.61	727,187.44	32° 14' 0.200 N	103° 35' 54.959 W
12,255.0	87.80	1.70	9,544.2	3,046.1	885.0	449,496.53	727,189.90	32° 14' 1.129 N	103° 35' 54.923 W
12,349.0	88.60	2.10	9,547.1	3,140.0	888.1	449,590.43	727,193.01	32° 14' 2.058 N	103° 35' 54.879 W
12,444.0	89.50	0.80	9,548.7	3,235.0	890.5	449,685.39	727,195.42	32° 14' 2.998 N	103° 35' 54.843 W
12,538.0	88.20	359.10	9,550.6	3,329.0	890.4	449,779.36	727,195.34	32° 14' 3.928 N	103° 35' 54.837 W
12,632.0	88.60	359.40	9,553.2	3,422.9	889.2	449,873.32	727,194.11	32° 14' 4.858 N	103° 35' 54.844 W
12,726.0	89.20	359.70	9,555.0	3,516.9	888.5	449,967.30	727,193.37	32° 14' 5.788 N	103° 35' 54.845 W
12,820.0	89.90	358.70	9,555.7	3,610.9	887.2	450,061.28	727,192.06	32° 14' 6.718 N	103° 35' 54.852 W
12,915.0	92.80	359.70	9,553.5	3,705.8	885.8	450,156.23	727,190.73	32° 14' 7.658 N	103° 35' 54.860 W
13,009.0	93.50	359.50	9,548.3	3,799.7	885.2	450,250.09	727,190.07	32° 14' 8.586 N	103° 35' 54.861 W
13,103.0	93.20	358.20	9,542.8	3,893.5	883.3	450,343.91	727,188.19	32° 14' 9.515 N	103° 35' 54.875 W
13,197.0	94.20	358.10	9,536.8	3,987.3	880.3	450,437.66	727,185.16	32° 14' 10.443 N	103° 35' 54.903 W
13,310.0	93.60	357.80	9,529.1	4,099.9	876.2	450,550.33	727,181.13	32° 14' 11.558 N	103° 35' 54.941 W
13,404.0	91.50	359.10	9,524.9	4,193.8	873.7	450,644.19	727,178.59	32° 14' 12.487 N	103° 35' 54.963 W
13,498.0	90.40	358.70	9,523.4	4,287.8	871.9	450,738.16	727,176.79	32° 14' 13.417 N	103° 35' 54.976 W
13,592.0	90.70	359.60	9,522.5	4,381.7	870.5	450,832.15	727,175.39	32° 14' 14.347 N	103° 35' 54.985 W
13,686.0	87.80	1.90	9,523.7	4,475.7	871.7	450,926.11	727,176.62	32° 14' 15.277 N	103° 35' 54.963 W
13,780.0	89.20	1.30	9,526.1	4,569.6	874.3	451,020.04	727,179.24	32° 14' 16.206 N	103° 35' 54.925 W
13,874.0	90.20	1.30	9,526.6	4,663.6	876.5	451,114.01	727,181.38	32° 14' 17.136 N	103° 35' 54.893 W
13,969.0	91.60	1.20	9,525.1	4,758.6	878.6	451,208.98	727,183.45	32° 14' 18.075 N	103° 35' 54.861 W
14,039.0	92.90	0.40	9,522.4	4,828.5	879.5	451,278.92	727,184.43	32° 14' 18.767 N	103° 35' 54.844 W
14,090.3	92.90	0.40	9,519.8	4,879.8	879.9	451,330.17	727,184.78	32° 14' 19.275 N	103° 35' 54.836 W
PBHL(EFS#12H)									
14,092.0	92.90	0.40	9,519.7	4,881.4	879.9	451,331.85	727,184.80	32° 14' 19.291 N	103° 35' 54.836 W

Checked By: _____	Approved By: _____	Date: _____
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