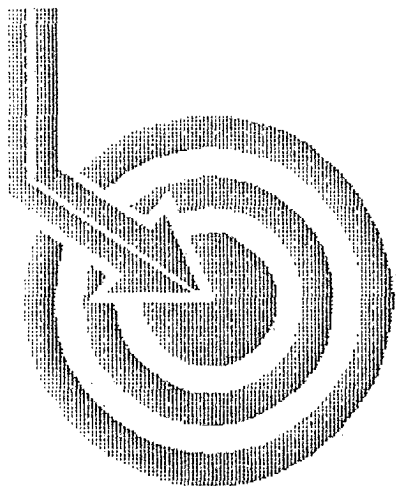




Scientific Drilling

30-015-37547

MARBOB ENERGY

Field: Welch
Site: Eddy County, NM
Well: Cluster State Com #1H
Wellpath: VH - Job #32K0310177
Survey: 03/14/10

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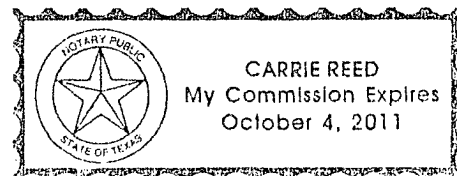
MAR 30 2010

This survey is correct to the best of my knowledge and is supported by actual field data.

Richard Harton
Company Representative

Notarized this date 29th of March, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: MARBOB ENERGY
Field: Welch
Site: Eddy County, NM
Well: Cluster State Com #1H
Wellpath: VH - Job #32K0310177

Date: 3/16/2010 Time: 11:57:33 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,90.94Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 03/14/10
KSRG 0'-7000'

Start Date: 3/14/2010

Company: Scientific Drilling Internatio
Tool: Keeper, Keeper Gyro

Engineer: Guebara/Sutherland w/?
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	359.93	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.48	219.74	100.0	-0.3	-0.3	-0.3	0.48	0.4	219.74
200.0	0.61	227.60	200.0	-0.9	-1.0	-0.9	0.15	1.4	222.79
300.0	1.02	232.52	300.0	-2.0	-1.9	-2.0	0.42	2.8	226.81
400.0	0.96	233.01	400.0	-3.4	-2.9	-3.4	0.06	4.5	229.09
500.0	0.91	228.47	500.0	-4.6	-4.0	-4.7	0.09	6.1	229.54
600.0	0.70	128.32	599.9	-4.7	-4.9	-4.8	1.24	6.8	224.39
700.0	1.73	103.83	699.9	-2.7	-5.6	-2.8	1.13	6.3	206.77
800.0	2.44	95.90	799.9	0.8	-6.2	0.7	0.76	6.2	173.15
900.0	2.52	95.74	899.8	5.2	-6.6	5.1	0.08	8.3	142.75
1000.0	2.02	101.88	999.7	9.1	-7.2	9.0	0.56	11.5	128.88
1100.0	2.19	85.32	1099.6	12.7	-7.4	12.6	0.63	14.6	120.55
1200.0	2.35	65.67	1199.5	16.5	-6.4	16.4	0.79	17.6	111.46
1300.0	3.36	43.19	1299.4	20.3	-3.5	20.2	1.49	20.5	99.68
1400.0	4.11	36.08	1399.2	24.3	1.6	24.4	0.88	24.4	86.28
1500.0	3.94	37.27	1499.0	28.4	7.2	28.5	0.19	29.4	75.82
1600.0	3.02	48.18	1598.8	32.4	11.7	32.6	1.13	34.6	70.25
1700.0	2.14	55.20	1698.7	35.8	14.5	36.1	0.93	38.9	68.07
1800.0	1.24	60.19	1798.6	38.3	16.1	38.6	0.91	41.8	67.30
1900.0	0.79	65.11	1898.6	39.8	17.0	40.1	0.46	43.6	67.09
2000.0	0.41	44.43	1998.6	40.7	17.5	41.0	0.43	44.6	66.88
2100.0	0.31	46.31	2098.6	41.1	17.9	41.4	0.10	45.2	66.59
2200.0	0.16	19.73	2198.6	41.4	18.3	41.7	0.18	45.5	66.34
2300.0	0.25	48.83	2298.6	41.6	18.5	41.9	0.13	45.8	66.13
2400.0	0.32	16.99	2398.6	41.8	18.9	42.1	0.17	46.2	65.79
2500.0	0.21	326.40	2498.6	41.8	19.4	42.1	0.25	46.4	65.31
2600.0	0.24	336.73	2598.6	41.6	19.7	41.9	0.05	46.3	64.82
2700.0	0.29	292.23	2698.6	41.3	20.0	41.6	0.21	46.2	64.33
2800.0	0.20	290.80	2798.6	40.9	20.2	41.2	0.09	45.9	63.94
2900.0	0.44	276.03	2898.6	40.3	20.3	40.7	0.25	45.4	63.52
3000.0	0.42	260.75	2998.6	39.6	20.2	39.9	0.12	44.8	63.12
3100.0	0.44	266.02	3098.6	38.9	20.2	39.2	0.04	44.1	62.78
3200.0	0.48	260.78	3198.6	38.1	20.1	38.4	0.06	43.3	62.41
3300.0	0.42	270.72	3298.6	37.3	20.0	37.6	0.10	42.6	62.00
3400.0	0.53	257.41	3398.6	36.5	19.9	36.8	0.16	41.8	61.59
3500.0	0.46	266.72	3498.6	35.6	19.8	35.9	0.11	41.0	61.18
3600.0	0.63	259.43	3598.6	34.7	19.7	35.0	0.18	40.1	60.68
3700.0	0.72	257.82	3698.6	33.5	19.4	33.8	0.09	39.0	60.15
3800.0	0.81	252.56	3798.6	32.2	19.1	32.6	0.11	37.7	59.63
3900.0	0.74	254.92	3898.6	31.0	18.7	31.3	0.08	36.4	59.11
4000.0	0.80	252.77	3998.5	29.7	18.3	30.0	0.07	35.1	58.56
4100.0	0.75	251.97	4098.5	28.4	17.9	28.7	0.05	33.8	58.01
4200.0	0.68	247.37	4198.5	27.2	17.5	27.5	0.09	32.6	57.56
4300.0	0.65	240.55	4298.5	26.2	17.0	26.5	0.08	31.4	57.33
4400.0	0.64	243.40	4398.5	25.2	16.4	25.5	0.03	30.3	57.15
4500.0	0.57	239.04	4498.5	24.3	15.9	24.6	0.08	29.3	57.00
4600.0	0.56	241.35	4598.5	23.4	15.5	23.7	0.02	28.3	56.89
4700.0	0.59	233.95	4698.5	22.6	14.9	22.9	0.08	27.3	56.87
4800.0	0.55	230.32	4798.5	21.8	14.3	22.1	0.05	26.3	57.04



Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: MARBOB ENERGY
Field: Welch
Site: Eddy County, NM
Well: Cluster State Com #1H
Wellpath: VH - Job #32K0310177

Date: 3/16/2010 Time: 11:57:33 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,90.94Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.65	218.14	4898.5	21.1	13.6	21.3	0.16	25.3	57.59
5000.0	0.72	219.02	4998.5	20.4	12.6	20.6	0.07	24.2	58.51
5100.0	0.71	212.19	5098.5	19.7	11.6	19.9	0.09	23.0	59.72
5200.0	0.79	198.71	5198.5	19.2	10.4	19.3	0.19	22.0	61.64
5300.0	0.91	196.48	5298.5	18.7	9.0	18.9	0.12	20.9	64.47
5400.0	0.99	196.60	5398.4	18.3	7.4	18.4	0.08	19.8	68.03
5500.0	1.20	206.06	5498.4	17.6	5.7	17.7	0.28	18.6	72.28
5600.0	1.21	209.65	5598.4	16.7	3.8	16.7	0.08	17.1	77.20
5700.0	1.36	208.40	5698.4	15.6	1.8	15.6	0.15	15.7	83.30
5800.0	1.36	224.48	5798.3	14.2	-0.1	14.2	0.38	14.2	90.22
5900.0	1.18	228.23	5898.3	12.7	-1.6	12.6	0.20	12.7	97.16
6000.0	0.89	234.90	5998.3	11.3	-2.7	11.2	0.31	11.6	103.61
6100.0	1.29	251.66	6098.3	9.6	-3.5	9.5	0.51	10.2	110.28
6200.0	1.51	223.04	6198.3	7.6	-4.8	7.6	0.72	9.0	122.61
6300.0	1.49	209.27	6298.2	6.1	-6.9	6.0	0.36	9.2	139.01
6400.0	1.05	185.30	6398.2	5.5	-9.0	5.3	0.68	10.4	149.43
6500.0	0.60	185.67	6498.2	5.3	-10.4	5.2	0.45	11.6	153.61
6600.0	0.26	347.45	6598.2	5.2	-10.7	5.1	0.85	11.9	154.69
6700.0	0.67	80.91	6698.2	5.8	-10.4	5.6	0.73	11.8	151.72
6800.0	0.48	59.01	6798.2	6.7	-10.1	6.5	0.29	12.0	147.09
6900.0	0.63	10.60	6898.2	7.1	-9.3	7.0	0.48	11.7	143.17
7000.0	0.75	4.14	6998.2	7.3	-8.1	7.1	0.14	10.8	138.75



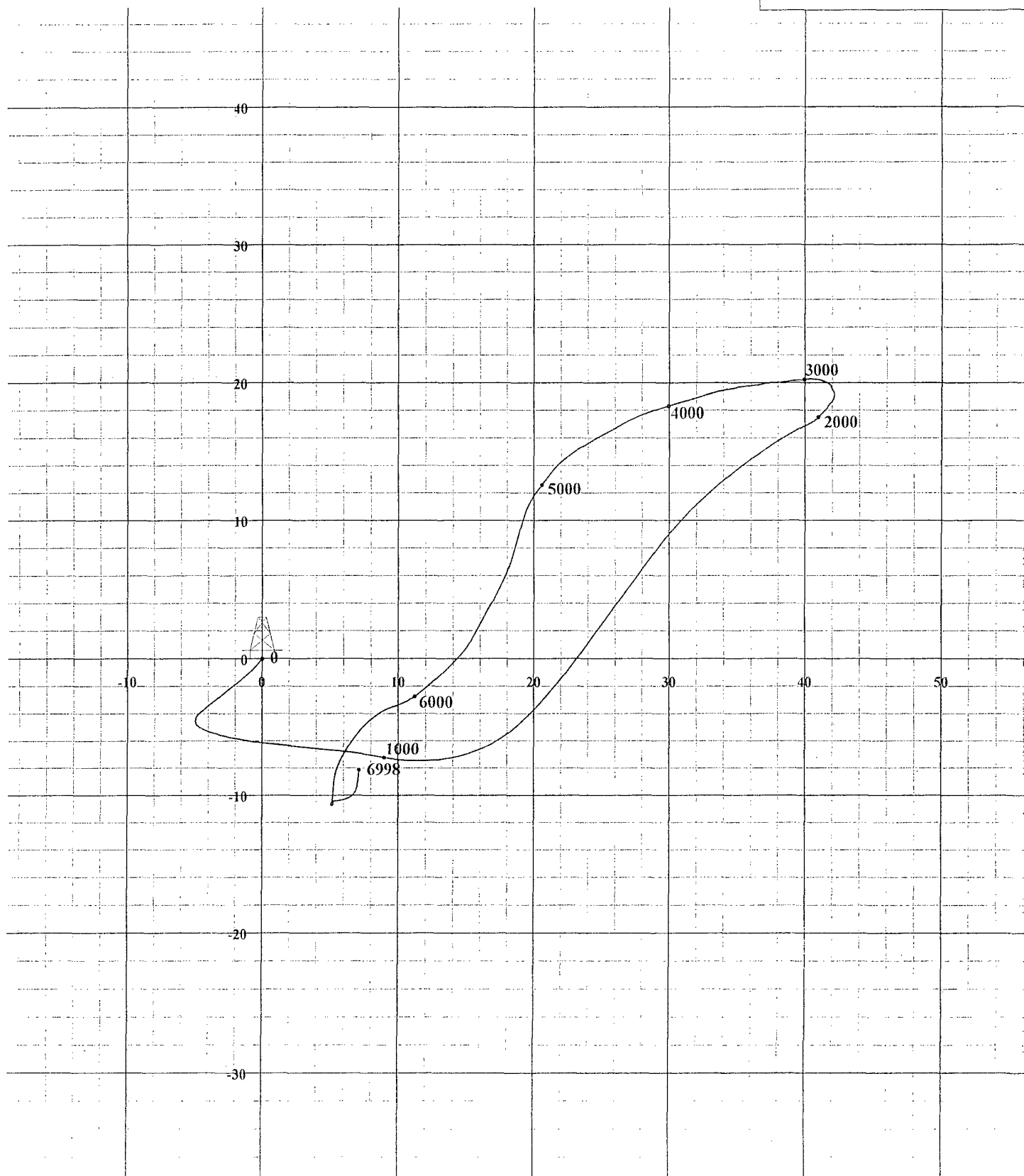
Scientific
Drilling

Field: Welch
Site: Eddy County, NM
Well: Cluster State Com #1H
Survey: 03/14/10



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°
Magnetic Field
Dip Angle: 0.00°
Date: 3/16/2010
Model: igri2000

South(-)/North(+) [10ft/in]



West(-)/East(+) [10ft/in]

PATHFINDER

Job Number: 101009958

Company: Marbob

Lease/Well: Cluster State Com # 1H

Location:

Rig Name: Patriot # 2

RKB:

G.L. or M.S.L.:

State/Country: New Mexico / USA

Declination: 7.94

Grid: .07

File name: F:\CSC1.SVY

Date/Time: 25-Mar-10 / 00:51

Curve Name: Working Curve

WINSERVE SURVEY CALCULATIONS Minimum Curvature Method Vertical Section Plane 90.94 Vertical Section Referenced to Wellhead Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Gyro Tie in									
5700.00	1.36	208.40	5698.37	1.83	15.64	15.61	15.75	83.33	.00
5751.00	15.48	90.05	5748.77	1.29	22.20	22.18	22.24	86.68	31.70
5782.00	20.05	88.45	5778.29	1.43	31.66	31.63	31.69	87.42	14.82
5814.00	24.62	88.12	5807.88	1.80	43.81	43.77	43.84	87.65	14.29
5846.00	27.96	89.14	5836.56	2.13	57.97	57.93	58.01	87.90	10.53
5878.00	31.57	89.08	5864.34	2.37	73.86	73.81	73.89	88.16	11.28
5909.00	32.27	88.47	5890.65	2.73	90.24	90.19	90.28	88.27	2.49
5941.00	33.94	89.48	5917.46	3.03	107.72	107.65	107.76	88.39	5.50
5972.00	37.37	89.97	5942.64	3.12	125.78	125.72	125.82	88.58	11.10
6003.00	41.15	91.53	5966.64	2.85	145.40	145.33	145.42	88.88	12.60
6034.00	41.50	91.01	5989.92	2.40	165.86	165.80	165.88	89.17	1.58
6065.00	43.53	90.25	6012.77	2.17	186.81	186.75	186.82	89.33	6.75
6096.00	47.31	89.45	6034.52	2.23	208.88	208.82	208.89	89.39	12.33

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6127.00	50.56	89.12	6054.89	2.53	232.25	232.18	232.26	89.38	10.51
6159.00	53.73	89.74	6074.52	2.77	257.51	257.43	257.53	89.38	10.02
6190.00	56.37	90.69	6092.28	2.68	282.92	282.84	282.93	89.46	8.88
6221.00	58.92	91.17	6108.87	2.25	309.10	309.02	309.11	89.58	8.33
6253.00	61.47	91.36	6124.77	1.64	336.86	336.79	336.86	89.72	7.99
6284.00	65.16	91.87	6138.69	.85	364.54	364.48	364.54	89.87	11.99
6315.00	68.41	92.37	6150.91	-20	393.01	392.96	393.01	90.03	10.59
6347.00	71.49	92.83	6161.88	-1.57	423.03	423.00	423.04	90.21	9.72
6378.00	74.13	92.94	6171.04	-3.06	452.61	452.60	452.62	90.39	8.52
6393.00	74.66	93.54	6175.07	-3.87	467.03	467.03	467.05	90.48	5.23
6424.00	77.73	94.22	6182.47	-5.91	497.06	497.09	497.10	90.68	10.13
6455.00	81.16	95.00	6188.15	-8.36	527.43	527.50	527.50	90.91	11.34
6487.00	84.33	94.97	6192.19	-11.12	559.05	559.16	559.17	91.14	9.91
6519.00	87.49	94.26	6194.47	-13.69	590.87	591.01	591.02	91.33	10.12
6550.00	90.04	93.35	6195.14	-15.74	621.79	621.96	621.99	91.45	8.73
6582.00	89.96	93.34	6195.14	-17.61	653.73	653.93	653.97	91.54	.25
6643.00	89.69	92.30	6195.33	-20.61	714.66	714.90	714.95	91.65	1.76
6706.00	90.31	92.39	6195.33	-23.19	777.60	777.88	777.95	91.71	.99
6770.00	90.57	92.23	6194.83	-25.77	841.55	841.86	841.94	91.75	.48
6833.00	90.40	91.82	6194.30	-28.00	904.51	904.85	904.94	91.77	.70
6896.00	90.66	92.07	6193.72	-30.13	967.47	967.83	967.94	91.78	.57
6960.00	90.22	90.51	6193.23	-31.57	1031.45	1031.83	1031.93	91.75	2.53
7024.00	89.34	90.34	6193.47	-32.05	1095.45	1095.82	1095.92	91.68	1.40
7087.00	88.90	89.98	6194.44	-32.23	1158.44	1158.81	1158.89	91.59	.90
7151.00	88.20	88.92	6196.06	-31.61	1222.41	1222.77	1222.82	91.48	1.98
7214.00	88.11	88.70	6198.09	-30.30	1285.37	1285.69	1285.72	91.35	.38
7277.00	88.64	87.20	6199.87	-28.05	1348.30	1348.58	1348.59	91.19	2.52
7340.00	89.08	87.96	6201.13	-25.39	1411.23	1411.46	1411.46	91.03	1.39
7403.00	89.34	89.30	6202.00	-23.89	1474.21	1474.40	1474.40	90.93	2.17
7467.00	88.90	90.78	6202.98	-23.93	1538.20	1538.38	1538.38	90.89	2.41
7562.00	89.16	91.10	6204.59	-25.49	1633.17	1633.37	1633.37	90.89	.43
7657.00	88.46	90.42	6206.56	-26.75	1728.14	1728.35	1728.35	90.89	1.03
7752.00	87.85	88.92	6209.62	-26.20	1823.08	1823.27	1823.27	90.82	1.70
7846.00	88.11	89.51	6212.93	-24.91	1917.02	1917.17	1917.18	90.74	.69

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
7941.00	89.25	90.71	6215.12	-25.10	2011.99	2012.13	2012.15	90.71	1.74
8037.00	89.34	91.40	6216.30	-26.86	2107.96	2108.12	2108.14	90.73	.72
8132.00	88.46	90.35	6218.13	-28.32	2202.93	2203.10	2203.12	90.74	1.44
8227.00	88.99	91.44	6220.24	-29.80	2297.90	2298.08	2298.09	90.74	1.28
8323.00	89.52	92.72	6221.49	-33.28	2393.82	2394.05	2394.05	90.80	1.44
8418.00	89.78	92.60	6222.07	-37.69	2488.72	2489.00	2489.00	90.87	.30
8513.00	89.87	91.44	6222.36	-41.04	2583.66	2583.98	2583.98	90.91	1.22
8608.00	90.57	91.81	6221.99	-43.73	2678.62	2678.97	2678.97	90.94	.83
8704.00	89.87	91.48	6221.63	-46.49	2774.58	2774.97	2774.97	90.96	.81
8799.00	89.60	91.03	6222.06	-48.57	2869.55	2869.96	2869.96	90.97	.55
8893.00	89.08	90.30	6223.15	-49.66	2963.54	2963.96	2963.96	90.96	.95
8988.00	89.96	90.95	6223.94	-50.70	3058.53	3058.95	3058.95	90.95	1.15
9082.00	88.46	91.36	6225.24	-52.59	3152.50	3152.94	3152.94	90.96	1.65
9177.00	89.16	91.71	6227.21	-55.14	3247.44	3247.91	3247.91	90.97	.82
9273.00	90.04	91.88	6227.88	-58.14	3343.39	3343.90	3343.90	91.00	.93
9368.00	89.96	91.24	6227.88	-60.73	3438.36	3438.89	3438.89	91.01	.68
9463.00	89.65	91.04	6228.17	-62.62	3533.34	3533.89	3533.89	91.02	.35
9557.00	90.48	90.70	6228.03	-64.05	3627.33	3627.89	3627.89	91.01	.91
9652.00	89.69	91.55	6227.89	-65.91	3722.31	3722.89	3722.89	91.01	1.22
9747.00	87.49	90.80	6230.23	-67.86	3817.25	3817.85	3817.85	91.02	2.45
9843.00	87.58	91.27	6234.36	-69.59	3913.15	3913.76	3913.76	91.02	.50
9938.00	88.11	91.01	6237.93	-71.48	4008.06	4008.69	4008.70	91.02	.62
10033.00	89.08	90.98	6240.26	-73.13	4103.01	4103.66	4103.67	91.02	1.02
10129.00	89.69	91.53	6241.29	-75.23	4198.99	4199.65	4199.66	91.03	.86
10224.00	90.66	90.79	6241.00	-77.16	4293.96	4294.65	4294.66	91.03	1.28
10319.00	90.75	90.13	6239.83	-77.92	4388.95	4389.64	4389.64	91.02	.70
10415.00	89.87	90.41	6239.31	-78.37	4484.95	4485.63	4485.63	91.00	.96
10507.00	89.69	90.50	6239.67	-79.10	4576.95	4577.63	4577.63	90.99	.22
Projection to TD									
10570.00	89.69	90.50	6240.01	-79.65	4639.94	4640.62	4640.63	90.98	.00

Surface: 380' FHL, 330' FHL
EOL: 460' FHL, 310' FEL