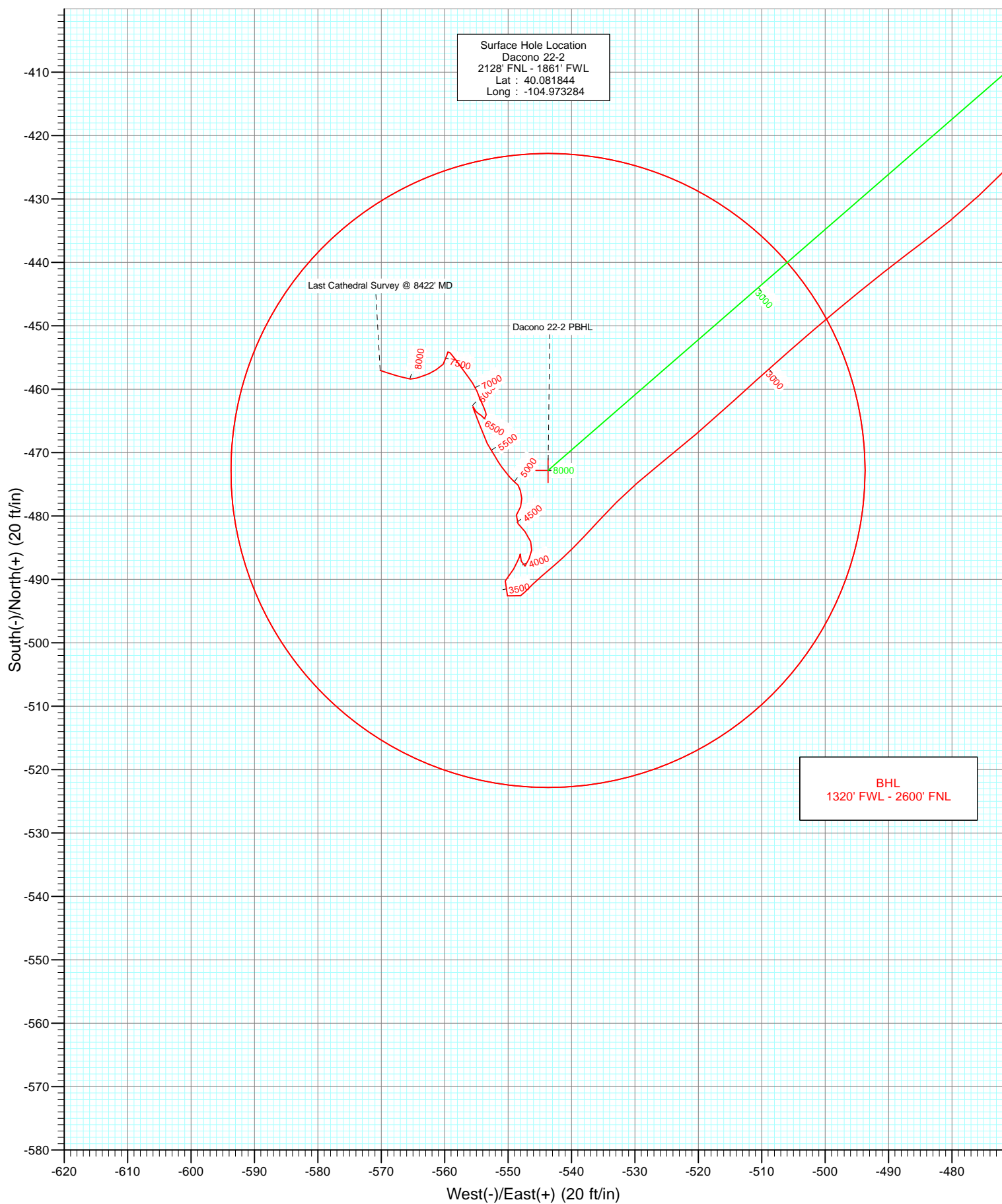


Azimuths to True North  
Magnetic North: 8.84°

Magnetic Field  
Strength: 52859.2snT  
Dip Angle: 66.73°  
Date: 3/20/2012  
Model: IGRF2010

Type Target		Target Dacono 22-2 PBHL		Azimuth 228.99	Origin Type Slot	N/S 0.0	E/W 0.0	From TVD 0.0
Name Dacono 22-2 PBHL		TVD 8312.0	+N/-S -472.8	+E/-W -543.7	Latitude 40.080546	Longitude -104.975227		

DD  
Dacono 22-2  
125233 151655; LR  
KB=15' @ 5031.0ft (Xtreme 15)  
North American Datum 1983  
Well Dacono 22-2, True North





Job Number: 125233  
 Company: Anadarko  
 Lease/Well: Dacono 22-2  
 Location: DJ Wattenberg  
 Rig Name: Xtreme 15  
 RKB: 5031  
 G.L. or M.S.L.: 5016

State/Country: Colorado/USA  
 Declination: 8.84  
 Grid: True North  
 File name: C:\WINSERVE\125233.SVY  
 Date/Time: 25-Mar-12 / 06:47  
 Curve Name: Dacono 22-2 As Drilled

## Cathedral Energy

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane 228.99  
 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
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
95.00	.70	355.40	95.00	.58	-.05	-.34	.58	355.40	.74
188.00	.20	138.40	188.00	1.02	.02	-.68	1.02	.88	.93
281.00	1.50	182.00	280.98	-.31	.08	.15	.32	165.57	1.46
374.00	2.80	209.90	373.92	-3.50	-1.09	3.12	3.67	197.35	1.76
462.00	4.60	216.00	461.73	-8.22	-4.24	8.59	9.25	207.29	2.09
547.00	7.50	220.70	546.25	-15.18	-9.86	17.41	18.11	213.00	3.46
633.00	10.00	224.80	631.24	-24.74	-18.78	30.41	31.06	217.21	2.99
718.00	11.50	227.30	714.75	-35.72	-30.21	46.24	46.79	220.22	1.85
804.00	12.90	232.80	798.81	-47.34	-44.16	64.39	64.74	223.01	2.11
889.00	14.30	234.00	881.42	-59.25	-60.21	84.31	84.47	225.46	1.68
916.00	14.70	232.30	907.56	-63.30	-65.62	91.06	91.18	226.03	2.16
991.00	14.10	234.50	980.21	-74.43	-80.59	109.65	109.70	227.28	1.08
1077.00	15.30	231.50	1063.39	-87.57	-98.00	131.41	131.43	228.21	1.65
1162.00	14.50	229.30	1145.53	-101.50	-114.84	153.26	153.26	228.53	1.15
1248.00	16.40	221.90	1228.43	-117.56	-131.11	176.08	176.10	228.12	3.18
1333.00	17.20	226.40	1309.81	-135.15	-148.23	200.54	200.60	227.64	1.80
1419.00	17.20	222.50	1391.96	-153.30	-166.03	225.88	225.98	227.28	1.34
1504.00	16.80	227.90	1473.25	-170.80	-183.63	250.65	250.79	227.07	1.92
1590.00	16.60	225.20	1555.63	-187.79	-201.57	275.33	275.49	227.03	.93
1675.00	16.70	232.00	1637.07	-203.87	-219.81	299.65	299.80	227.16	2.29
1761.00	15.60	230.00	1719.68	-218.91	-238.41	323.55	323.67	227.44	1.43
1846.00	15.70	234.20	1801.53	-232.98	-256.49	346.43	346.51	227.75	1.34
1932.00	15.90	236.40	1884.28	-246.31	-275.74	369.70	369.73	228.23	.73
2017.00	16.20	238.00	1965.97	-259.03	-295.50	392.96	392.96	228.76	.63

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	
2103.00	16.90	238.80	2048.40	-271.87	-316.36	417.12	417.13	229.33	.86
2188.00	16.70	231.20	2129.79	-285.92	-336.45	441.50	441.53	229.64	2.59
2274.00	16.40	224.50	2212.23	-302.32	-354.59	465.96	465.98	229.55	2.25
2359.00	15.50	225.90	2293.96	-318.79	-371.16	489.26	489.27	229.34	1.15
2445.00	16.00	225.80	2376.73	-335.05	-387.91	512.57	512.57	229.18	.58
2530.00	16.70	222.20	2458.29	-352.26	-404.51	536.39	536.39	228.95	1.45
2616.00	16.70	223.10	2540.66	-370.44	-421.25	560.96	560.96	228.67	.30
2701.00	17.00	223.40	2622.02	-388.38	-438.14	585.47	585.50	228.44	.37
2787.00	14.70	221.50	2704.74	-405.69	-454.01	608.80	608.86	228.22	2.74
2868.00	14.80	221.30	2783.07	-421.16	-467.65	629.25	629.34	227.99	.14
2958.00	15.80	233.00	2869.90	-437.18	-485.02	652.87	652.97	227.97	3.60
3043.00	12.40	229.20	2952.33	-450.11	-501.18	673.54	673.63	228.07	4.14
3129.00	11.20	227.60	3036.51	-461.77	-514.34	691.13	691.21	228.08	1.45
3214.00	9.70	231.50	3120.10	-471.80	-526.04	706.53	706.62	228.11	1.95
3300.00	8.30	221.90	3205.04	-480.93	-535.85	719.93	720.02	228.09	2.38
3385.00	5.10	230.30	3289.45	-487.91	-542.86	729.80	729.90	228.05	3.93
3471.00	2.90	222.90	3375.24	-491.95	-547.28	735.79	735.89	228.05	2.62
3556.00	2.20	304.90	3460.18	-492.59	-550.08	738.32	738.40	228.16	3.98
3642.00	2.30	35.60	3546.14	-490.24	-550.43	737.05	737.10	228.31	3.72
3727.00	.80	33.70	3631.10	-488.36	-549.11	734.81	734.86	228.35	1.77
3813.00	.70	18.20	3717.09	-487.36	-548.61	733.78	733.83	228.38	.26
3899.00	.60	31.70	3803.09	-486.48	-548.21	732.90	732.94	228.41	.21
3984.00	.20	324.90	3888.09	-485.98	-548.06	732.46	732.50	228.44	.65
4070.00	1.70	169.30	3974.08	-487.11	-547.91	733.09	733.14	228.36	2.19
4155.00	.80	39.30	4059.06	-487.89	-547.30	733.14	733.20	228.28	2.70
4241.00	1.00	19.00	4145.05	-486.72	-546.68	731.90	731.95	228.32	.43
4326.00	.90	13.70	4230.04	-485.37	-546.28	730.71	730.75	228.38	.16
4412.00	1.00	336.20	4316.03	-484.02	-546.42	729.94	729.97	228.47	.72
4497.00	1.20	325.00	4401.02	-482.62	-547.23	729.63	729.65	228.59	.34
4583.00	1.30	312.90	4487.00	-481.21	-548.46	729.64	729.64	228.74	.33
4668.00	1.10	31.80	4571.98	-479.86	-548.74	728.96	728.96	228.83	1.80
4753.00	.90	22.60	4656.97	-478.55	-548.05	727.58	727.58	228.87	.30
4839.00	.90	353.20	4742.96	-477.26	-547.87	726.60	726.60	228.94	.53
4924.00	.80	346.40	4827.95	-476.02	-548.09	725.95	725.95	229.03	.17
5010.00	.50	322.10	4913.94	-475.14	-548.46	725.65	725.65	229.10	.47
5096.00	.60	304.90	4999.94	-474.59	-549.06	725.74	725.74	229.16	.22
5181.00	.70	323.70	5084.93	-473.91	-549.74	725.81	725.81	229.24	.28
5267.00	.80	318.20	5170.93	-473.04	-550.45	725.77	725.78	229.32	.14
5352.00	.60	328.60	5255.92	-472.22	-551.08	725.71	725.73	229.41	.28
5438.00	.70	324.80	5341.92	-471.41	-551.61	725.58	725.60	229.48	.13
5523.00	.80	334.10	5426.91	-470.45	-552.17	725.37	725.41	229.57	.18
5609.00	.70	322.00	5512.90	-469.50	-552.76	725.19	725.24	229.66	.22
5694.00	.80	334.90	5597.89	-468.55	-553.33	725.00	725.06	229.74	.23
5780.00	1.10	341.20	5683.88	-467.22	-553.85	724.52	724.60	229.85	.37
5865.00	.80	331.90	5768.87	-465.93	-554.39	724.08	724.18	229.96	.40

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	
5951.00	1.10	342.70	5854.86	-464.61	-554.92	723.61	723.74	230.06	.40
6036.00	1.10	335.50	5939.84	-463.09	-555.50	723.05	723.21	230.18	.16
6122.00	.70	146.70	6025.84	-462.78	-555.55	722.89	723.05	230.21	2.09
6207.00	.40	153.10	6110.83	-463.48	-555.14	723.03	723.18	230.14	.36
6292.00	.40	111.60	6195.83	-463.85	-554.73	722.97	723.10	230.10	.33
6378.00	.30	141.10	6281.83	-464.13	-554.30	722.84	722.96	230.06	.24
6463.00	.30	126.60	6366.83	-464.44	-553.99	722.80	722.91	230.02	.09
6549.00	.10	171.90	6452.83	-464.65	-553.79	722.79	722.90	230.00	.28
6634.00	.40	25.00	6537.83	-464.45	-553.66	722.56	722.67	230.01	.57
6720.00	.20	12.10	6623.83	-464.04	-553.50	722.16	722.28	230.02	.24
6805.00	.40	338.90	6708.83	-463.61	-553.58	721.94	722.07	230.05	.30
6891.00	.90	337.10	6794.82	-462.71	-553.95	721.63	721.77	230.13	.58
6976.00	.90	335.20	6879.81	-461.49	-554.49	721.24	721.41	230.23	.04
7062.00	.90	341.50	6965.80	-460.24	-554.98	720.79	720.99	230.33	.12
7148.00	1.00	323.00	7051.79	-459.00	-555.65	720.48	720.71	230.44	.37
7233.00	.90	325.20	7136.78	-457.86	-556.48	720.36	720.62	230.55	.13
7319.00	1.00	321.80	7222.76	-456.71	-557.33	720.25	720.55	230.67	.13
7404.00	1.10	326.20	7307.75	-455.45	-558.24	720.11	720.46	230.79	.15
7490.00	.90	315.90	7393.74	-454.28	-559.17	720.04	720.44	230.91	.31
7575.00	1.20	185.70	7478.73	-454.69	-559.72	720.72	721.13	230.91	2.25
7661.00	.90	223.60	7564.72	-456.07	-560.28	722.05	722.43	230.85	.86
7746.00	1.00	238.80	7649.70	-456.94	-561.37	723.45	723.83	230.86	.32
7832.00	.70	244.60	7735.70	-457.55	-562.49	724.69	725.09	230.87	.36
7919.00	.70	256.10	7822.69	-457.91	-563.48	725.68	726.08	230.90	.16
8003.00	.70	245.20	7906.68	-458.25	-564.45	726.63	727.04	230.93	.16
8088.00	.70	278.00	7991.68	-458.39	-565.43	727.47	727.90	230.97	.47
8174.00	.70	285.50	8077.67	-458.18	-566.46	728.10	728.56	231.03	.11
8259.00	.80	284.80	8162.66	-457.89	-567.53	728.72	729.22	231.10	.12
8377.00	1.10	288.80	8280.65	-457.31	-569.40	729.75	730.31	231.23	.26
Straightline Projection									
8422.00	1.10	288.80	8325.64	-457.03	-570.22	730.19	730.78	231.29	.00