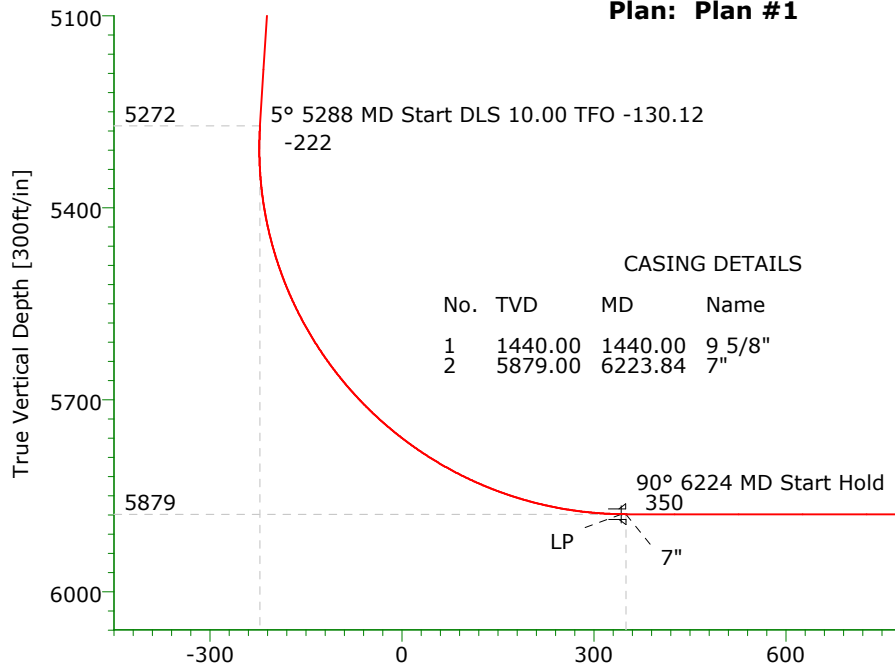




CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Bringelson Pad
Well: 20-11-9-58
Wellpath: Original Hole
Plan: Plan #1



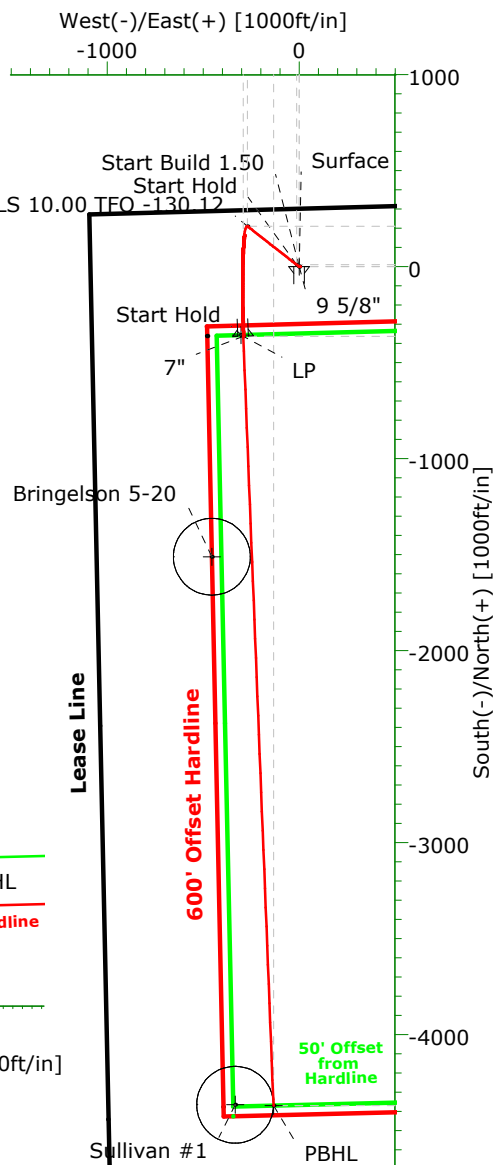
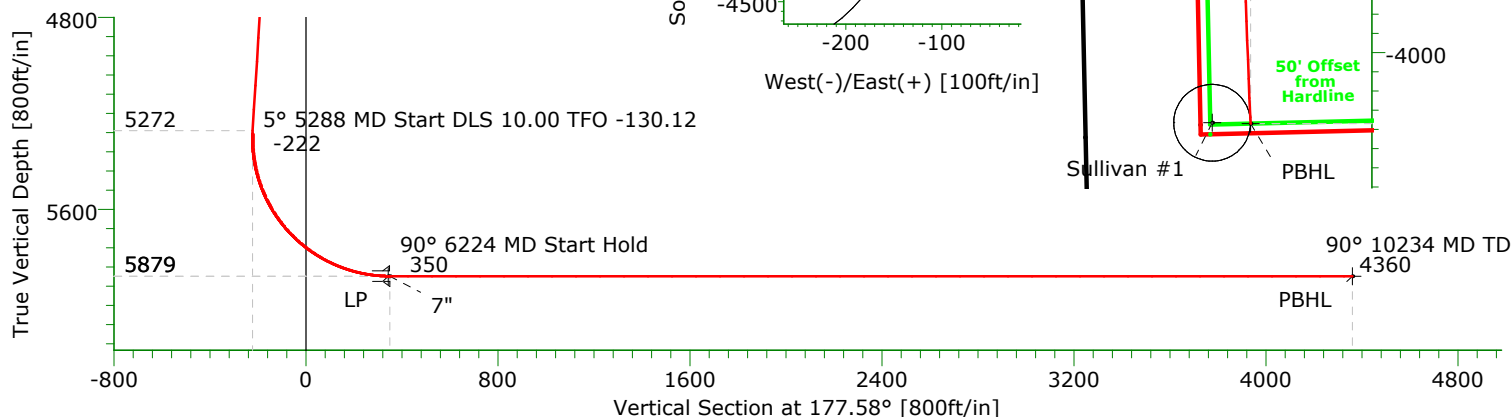
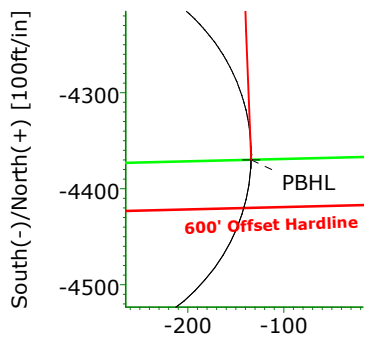
CASING DETAILS

No.	TVD	MD	Name	Size
1	1440.00	1440.00	9 5/8"	9.625
2	5879.00	6223.84	7"	7.000



Azimuths to Grid North
True North: -1.04°
Magnetic North: 7.25°

Magnetic Field
Strength: 53338nT
Dip Angle: 67.43°
Date: 06/04/2012
Model: IGRF2010



Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Bringelson 5-20	0.00	-1510.50	-455.02	1516050.38	3444615.28	40°44'20.030N103°53'43.842W		Circle (Radius: 200)
Surface	0.00	0.00	0.00	1517560.88	3445070.30	40°44'34.871N103°53'37.576W		Point
Sullivan #1	0.00	-4364.68	-334.01	1513196.20	3444736.29	40°43'51.810N103°53'42.941W		Circle (Radius: 200)
LP	5879.00	-356.03	-303.60	1517204.85	3444766.70	40°44'31.408N103°53'41.604W		Point
PBHL	5879.00	-4369.73	-134.07	1513191.15	3444936.23	40°43'51.724N103°53'40.346W		Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1540.00	0.00	0.00	1540.00	0.00	0.00	0.00	0.00	0.00	
3	1906.67	5.50	308.00	1906.10	10.83	-13.86	1.50	308.00	-11.40	
4	5288.33	5.50	308.00	5272.20	210.37	-269.27	0.00	0.00	-221.56	
5	6223.84	90.00	177.75	5879.00	-362.79	-291.39	10.00	-130.12	350.17	
6	10233.86	90.00	177.75	5879.00	-4369.73	-134.07	0.00	0.00	4360.17	PBHL

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.		Date: 05/03/2012	Time: 11:41:34	Page: 1
Field: Niobrara CONZ'83		Co-ordinate(NE) Reference: Well: 20-11-9-58, Grid North		
Site: Bringelson Pad		Vertical (TVD) Reference: 4856'GL+17'KB 4873.0		
Well: 20-11-9-58		Section (VS) Reference: Well (0.00N,0.00E,177.58Azi)		
Wellpath: Original Hole		Plan: Plan #1		

Field: Niobrara CONZ'83 Weld County, CO	
Map System: US State Plane Coordinate System 1983	Map Zone: Colorado, Northern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Bringelson Pad Sec. 20 T9N R58W Weld County, CO	
Site Position:	Northing: 1517560.88 ft
From: Map	Easting: 3445070.30 ft
Position Uncertainty: 0.00 ft	Latitude: 40 44 34.871 N
Ground Level: 4856.00 ft	Longitude: 103 53 37.576 W
	North Reference: Grid
	Grid Convergence: 1.04 deg

Well: 20-11-9-58		Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 1517560.88 ft	Latitude: 40 44 34.871 N	
+E/-W 0.00 ft	Easting : 3445070.30 ft	Longitude: 103 53 37.576 W	
Position Uncertainty: 0.00 ft			

Wellpath: Original Hole		Drilled From: Surface	
Current Datum: 4856'GL+17'KB	Height 4873.00 ft	Tie-on Depth: 0.00 ft	
Magnetic Data: 06/04/2012		Above System Datum: Mean Sea Level	
Field Strength: 53338 nT		Declination: 8.29 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 67.43 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	177.58

Plan: Plan #1	Date Composed: 05/03/2012
Principal: No	Version: 1
	Tied-to: From Surface

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1540.00	0.00	0.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00	
1906.67	5.50	308.00	1906.10	10.83	-13.86	1.50	1.50	0.00	308.00	
5288.33	5.50	308.00	5272.20	210.37	-269.27	0.00	0.00	0.00	0.00	
6223.84	90.00	177.75	5879.00	-362.79	-291.39	10.00	9.03	-13.92	-130.12	
10233.86	90.00	177.75	5879.00	-4369.73	-134.07	0.00	0.00	0.00	0.00	PBHL

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1540.00	0.00	0.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.90	308.00	1600.00	0.29	-0.37	-0.31	1.50	1.50	0.00	
1700.00	2.40	308.00	1699.95	2.06	-2.64	-2.17	1.50	1.50	0.00	
1800.00	3.90	308.00	1799.80	5.45	-6.97	-5.74	1.50	1.50	0.00	
1906.67	5.50	308.00	1906.10	10.83	-13.86	-11.40	1.50	1.50	0.00	
2000.00	5.50	308.00	1999.01	16.33	-20.91	-17.20	0.00	0.00	0.00	
2100.00	5.50	308.00	2098.55	22.23	-28.46	-23.42	0.00	0.00	0.00	
2200.00	5.50	308.00	2198.09	28.14	-36.01	-29.63	0.00	0.00	0.00	
2300.00	5.50	308.00	2297.63	34.04	-43.56	-35.85	0.00	0.00	0.00	
2400.00	5.50	308.00	2397.17	39.94	-51.12	-42.06	0.00	0.00	0.00	
2500.00	5.50	308.00	2496.71	45.84	-58.67	-48.27	0.00	0.00	0.00	
2600.00	5.50	308.00	2596.25	51.74	-66.22	-54.49	0.00	0.00	0.00	
2700.00	5.50	308.00	2695.78	57.64	-73.78	-60.70	0.00	0.00	0.00	
2800.00	5.50	308.00	2795.32	63.54	-81.33	-66.92	0.00	0.00	0.00	
2900.00	5.50	308.00	2894.86	69.44	-88.88	-73.13	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Pad
Well: 20-11-9-58
Wellpath: Original Hole

Date: 05/03/2012
Co-ordinate(NE) Reference: Well: 20-11-9-58, Grid North
Vertical (TVD) Reference: 4856'GL+17"KB 4873.0
Section (VS) Reference: Well (0.00N,0.00E,177.58Azi)
Plan: Plan #1

Page: 2

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3000.00	5.50	308.00	2994.40	75.34	-96.43	-79.35	0.00	0.00	0.00	
3100.00	5.50	308.00	3093.94	81.24	-103.99	-85.56	0.00	0.00	0.00	
3200.00	5.50	308.00	3193.48	87.14	-111.54	-91.78	0.00	0.00	0.00	
3300.00	5.50	308.00	3293.02	93.05	-119.09	-97.99	0.00	0.00	0.00	
3400.00	5.50	308.00	3392.56	98.95	-126.65	-104.21	0.00	0.00	0.00	
3500.00	5.50	308.00	3492.10	104.85	-134.20	-110.42	0.00	0.00	0.00	
3600.00	5.50	308.00	3591.64	110.75	-141.75	-116.63	0.00	0.00	0.00	
3700.00	5.50	308.00	3691.18	116.65	-149.30	-122.85	0.00	0.00	0.00	
3800.00	5.50	308.00	3790.72	122.55	-156.86	-129.06	0.00	0.00	0.00	
3900.00	5.50	308.00	3890.26	128.45	-164.41	-135.28	0.00	0.00	0.00	
4000.00	5.50	308.00	3989.80	134.35	-171.96	-141.49	0.00	0.00	0.00	
4100.00	5.50	308.00	4089.34	140.25	-179.51	-147.71	0.00	0.00	0.00	
4200.00	5.50	308.00	4188.88	146.15	-187.07	-153.92	0.00	0.00	0.00	
4300.00	5.50	308.00	4288.42	152.05	-194.62	-160.14	0.00	0.00	0.00	
4400.00	5.50	308.00	4387.96	157.95	-202.17	-166.35	0.00	0.00	0.00	
4500.00	5.50	308.00	4487.50	163.86	-209.73	-172.56	0.00	0.00	0.00	
4600.00	5.50	308.00	4587.04	169.76	-217.28	-178.78	0.00	0.00	0.00	
4700.00	5.50	308.00	4686.58	175.66	-224.83	-184.99	0.00	0.00	0.00	
4800.00	5.50	308.00	4786.12	181.56	-232.38	-191.21	0.00	0.00	0.00	
4900.00	5.50	308.00	4885.66	187.46	-239.94	-197.42	0.00	0.00	0.00	
5000.00	5.50	308.00	4985.20	193.36	-247.49	-203.64	0.00	0.00	0.00	
5100.00	5.50	308.00	5084.74	199.26	-255.04	-209.85	0.00	0.00	0.00	
5200.00	5.50	308.00	5184.28	205.16	-262.59	-216.07	0.00	0.00	0.00	
5288.33	5.50	308.00	5272.20	210.37	-269.27	-221.56	0.00	0.00	0.00	
5300.00	4.83	297.34	5283.82	210.94	-270.14	-222.16	10.00	-5.73	-91.32	
5350.00	4.95	235.81	5333.67	210.70	-273.80	-222.07	10.00	0.24	-123.07	
5400.00	8.69	206.48	5383.32	206.10	-277.27	-217.62	10.00	7.49	-58.66	
5450.00	13.29	195.88	5432.40	197.19	-280.53	-208.86	10.00	9.19	-21.19	
5500.00	18.10	190.75	5480.52	184.02	-283.55	-195.83	10.00	9.62	-10.27	
5550.00	22.98	187.73	5527.33	166.71	-286.32	-178.65	10.00	9.78	-6.04	
5600.00	27.91	185.73	5572.47	145.38	-288.80	-157.44	10.00	9.85	-4.01	
5650.00	32.86	184.29	5615.59	120.19	-290.98	-132.37	10.00	9.89	-2.88	
5700.00	37.82	183.19	5656.36	91.35	-292.85	-103.63	10.00	9.92	-2.20	
5750.00	42.78	182.31	5694.48	59.05	-294.38	-71.43	10.00	9.94	-1.76	
5800.00	47.76	181.58	5729.66	23.56	-295.58	-36.02	10.00	9.95	-1.46	
5850.00	52.73	180.96	5761.63	-14.85	-296.42	2.32	10.00	9.95	-1.24	
5900.00	57.71	180.41	5790.14	-55.91	-296.91	43.32	10.00	9.96	-1.09	
5950.00	62.70	179.93	5814.97	-99.28	-297.03	86.65	10.00	9.96	-0.97	
6000.00	67.68	179.48	5835.95	-144.65	-296.79	131.99	10.00	9.97	-0.89	
6050.00	72.66	179.07	5852.90	-191.67	-296.19	178.99	10.00	9.97	-0.83	
6100.00	77.65	178.67	5865.71	-239.98	-295.24	227.30	10.00	9.97	-0.79	
6150.00	82.64	178.30	5874.26	-289.21	-293.93	276.54	10.00	9.97	-0.76	
6200.00	87.62	177.93	5878.51	-338.98	-292.29	326.34	10.00	9.97	-0.74	
6223.84	90.00	177.75	5879.00	-362.79	-291.39	350.17	10.00	9.97	-0.73	7"
6300.00	90.00	177.75	5879.00	-438.90	-288.40	426.33	0.00	0.00	0.00	
6400.00	90.00	177.75	5879.00	-538.82	-284.48	526.33	0.00	0.00	0.00	
6500.00	90.00	177.75	5879.00	-638.75	-280.56	626.33	0.00	0.00	0.00	
6600.00	90.00	177.75	5879.00	-738.67	-276.63	726.33	0.00	0.00	0.00	
6700.00	90.00	177.75	5879.00	-838.59	-272.71	826.33	0.00	0.00	0.00	
6800.00	90.00	177.75	5879.00	-938.52	-268.79	926.33	0.00	0.00	0.00	
6900.00	90.00	177.75	5879.00	-1038.44	-264.86	1026.33	0.00	0.00	0.00	
7000.00	90.00	177.75	5879.00	-1138.36	-260.94	1126.33	0.00	0.00	0.00	
7100.00	90.00	177.75	5879.00	-1238.28	-257.02	1226.33	0.00	0.00	0.00	
7200.00	90.00	177.75	5879.00	-1338.21	-253.09	1326.33	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Pad
Well: 20-11-9-58
Wellpath: Original Hole

Date: 05/03/2012
Co-ordinate(NE) Reference: Well: 20-11-9-58, Grid North
Vertical (TVD) Reference: 4856'GL+17"KB 4873.0
Section (VS) Reference: Well (0.00N,0.00E,177.58Azi)
Plan: Plan #1

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
7300.00	90.00	177.75	5879.00	-1438.13	-249.17	1426.33	0.00	0.00	0.00	
7400.00	90.00	177.75	5879.00	-1538.05	-245.25	1526.33	0.00	0.00	0.00	
7500.00	90.00	177.75	5879.00	-1637.98	-241.33	1626.33	0.00	0.00	0.00	
7600.00	90.00	177.75	5879.00	-1737.90	-237.40	1726.33	0.00	0.00	0.00	
7700.00	90.00	177.75	5879.00	-1837.82	-233.48	1826.32	0.00	0.00	0.00	
7800.00	90.00	177.75	5879.00	-1937.75	-229.56	1926.32	0.00	0.00	0.00	
7900.00	90.00	177.75	5879.00	-2037.67	-225.63	2026.32	0.00	0.00	0.00	
8000.00	90.00	177.75	5879.00	-2137.59	-221.71	2126.32	0.00	0.00	0.00	
8100.00	90.00	177.75	5879.00	-2237.51	-217.79	2226.32	0.00	0.00	0.00	
8200.00	90.00	177.75	5879.00	-2337.44	-213.86	2326.32	0.00	0.00	0.00	
8300.00	90.00	177.75	5879.00	-2437.36	-209.94	2426.32	0.00	0.00	0.00	
8400.00	90.00	177.75	5879.00	-2537.28	-206.02	2526.32	0.00	0.00	0.00	
8500.00	90.00	177.75	5879.00	-2637.21	-202.09	2626.32	0.00	0.00	0.00	
8600.00	90.00	177.75	5879.00	-2737.13	-198.17	2726.32	0.00	0.00	0.00	
8700.00	90.00	177.75	5879.00	-2837.05	-194.25	2826.32	0.00	0.00	0.00	
8800.00	90.00	177.75	5879.00	-2936.98	-190.32	2926.32	0.00	0.00	0.00	
8900.00	90.00	177.75	5879.00	-3036.90	-186.40	3026.32	0.00	0.00	0.00	
9000.00	90.00	177.75	5879.00	-3136.82	-182.48	3126.32	0.00	0.00	0.00	
9100.00	90.00	177.75	5879.00	-3236.74	-178.55	3226.32	0.00	0.00	0.00	
9200.00	90.00	177.75	5879.00	-3336.67	-174.63	3326.32	0.00	0.00	0.00	
9300.00	90.00	177.75	5879.00	-3436.59	-170.71	3426.32	0.00	0.00	0.00	
9400.00	90.00	177.75	5879.00	-3536.51	-166.78	3526.32	0.00	0.00	0.00	
9500.00	90.00	177.75	5879.00	-3636.44	-162.86	3626.32	0.00	0.00	0.00	
9600.00	90.00	177.75	5879.00	-3736.36	-158.94	3726.32	0.00	0.00	0.00	
9700.00	90.00	177.75	5879.00	-3836.28	-155.01	3826.32	0.00	0.00	0.00	
9800.00	90.00	177.75	5879.00	-3936.21	-151.09	3926.32	0.00	0.00	0.00	
9900.00	90.00	177.75	5879.00	-4036.13	-147.17	4026.31	0.00	0.00	0.00	
10000.00	90.00	177.75	5879.00	-4136.05	-143.24	4126.31	0.00	0.00	0.00	
10100.00	90.00	177.75	5879.00	-4235.97	-139.32	4226.31	0.00	0.00	0.00	
10200.00	90.00	177.75	5879.00	-4335.90	-135.40	4326.31	0.00	0.00	0.00	
10233.86	90.00	177.75	5879.00	-4369.73	-134.07	4360.17	0.00	0.00	0.00	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ----> Deg Min Sec			<--- Longitude ----> Deg Min Sec		
Bringelson 5-20 -Circle (Radius: 200)			0.00	-1510.50	-455.02	1516050.38	3444615.28	40	44	20.030 N	103	53	43.842 W
Surface			0.00	0.00	0.00	1517560.88	3445070.30	40	44	34.871 N	103	53	37.576 W
Sullivan #1 -Circle (Radius: 200)			0.00	-4364.68	-334.01	1513196.20	3444736.29	40	43	51.810 N	103	53	42.941 W
LP			5879.00	-356.03	-303.60	1517204.85	3444766.70	40	44	31.408 N	103	53	41.604 W
PBHL			5879.00	-4369.73	-134.07	1513191.15	3444936.23	40	43	51.724 N	103	53	40.346 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
1440.00	1440.00	9.625	12.250	9 5/8"
6223.84	5879.00	7.000	8.750	7"