



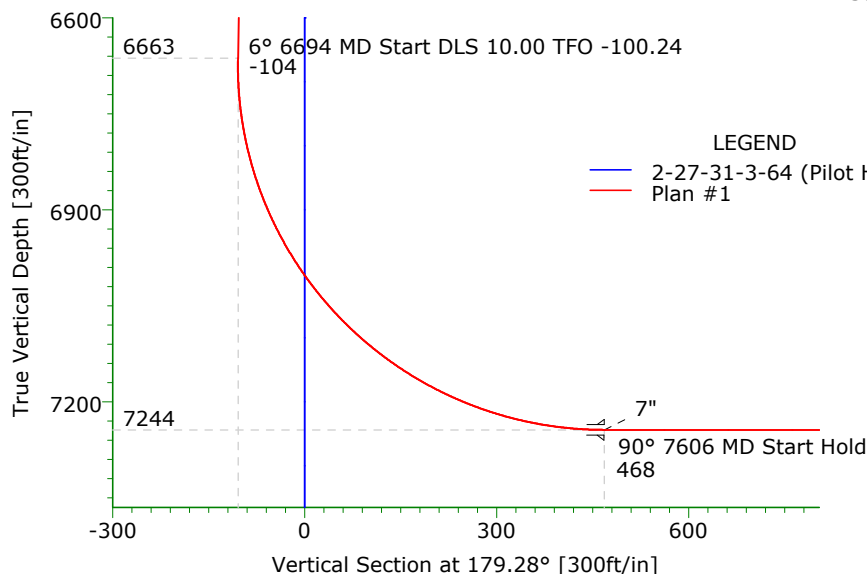
CARRIZO OIL & GAS, INC.

Field: Niobrara COCZ'83
Site: WEP 27 PAD
Well: 2-27-31-3-64
Wellpath: Original Hole
Plan: Plan #1



CASING DETAILS

No.	TVD	MD	Name	Size
1	7244.00	7605.96	7"	7.000

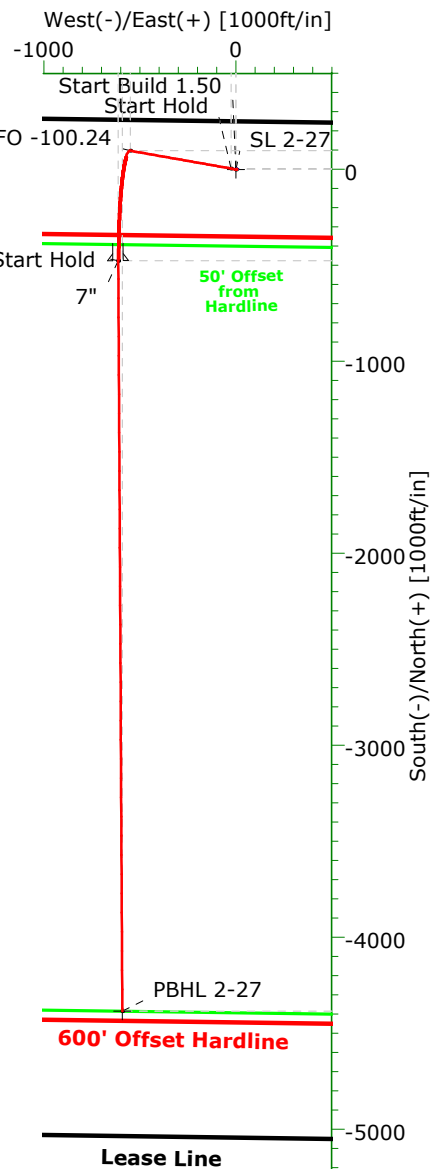
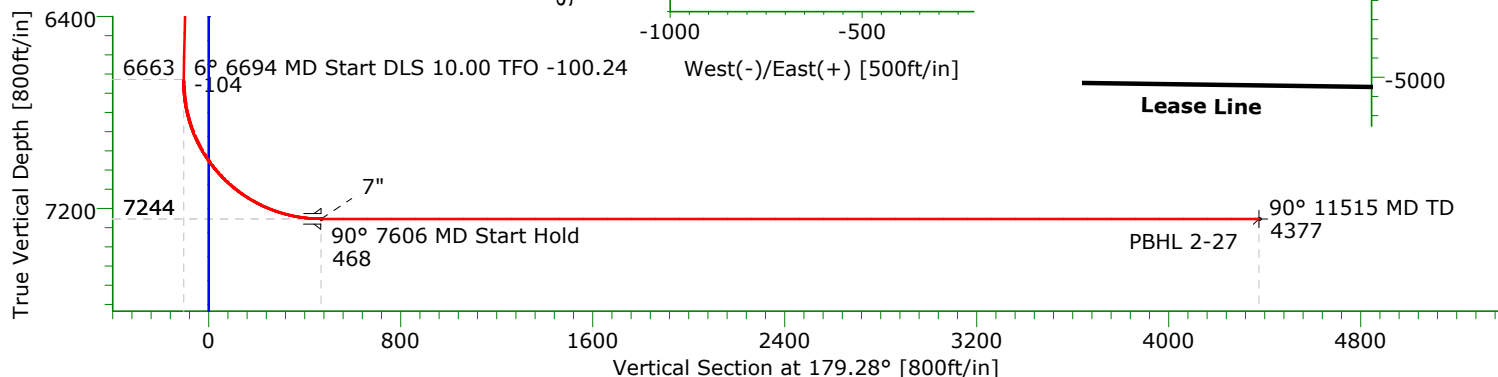


Sidetrack off cement plug after drilling Pilot Hole to 8086' TVD



Azimuths to Grid North
True North: -0.61°
Magnetic North: 7.94°

Magnetic Field
Strength: 52752nT
Dip Angle: 66.54°
Date: 06/30/2012
Model: IGRF2010



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 2-27	0.00	0.00	0.00	1705701.14	3272168.84	39°46'01.075N	104°31'54.571W	Point
PBHL 2-27	7244.00	-4384.69	-591.64	1701316.45	3271577.20	39°45'17.807N	104°32'02.745W	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	1973.33	6.50	280.00	1972.40	4.26	-24.18	1.50	280.00	-4.57	
4	6694.36	6.50	280.00	6663.08	97.07	-550.50	0.00	0.00	-103.98	
5	7605.96	90.00	179.69	7244.00	-476.11	-612.55	10.00	-100.24	468.38	
6	11514.59	90.00	179.69	7244.00	-4384.69	-591.64	0.00	0.00	4376.91	PBHL 2-27

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara COCZ'83
Site: WEP 27 PAD
Well: 2-27-31-3-64
Wellpath: Original Hole

Date: 05/25/2012
Co-ordinate(NE) Reference: Well: 2-27-31-3-64, Grid North
Vertical (TVD) Reference: 5509'GL+17"KB 5526.0
Section (VS) Reference: Well (0.00N,0.00E,179.28Azi)
Plan: Plan #1

Page: 1

Field: Niobrara COCZ'83

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: Colorado, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: WEP 27 PAD

Site Position:
From: Map
Position Uncertainty: 0.00 ft
Ground Level: 5509.00 ft

Northing: 1705711.42 ft
Easting: 3272211.78 ft

Latitude: 39 46 1.172 N
Longitude: 104 31 54.020 W
North Reference: Grid
Grid Convergence: 0.61 deg

Well: 2-27-31-3-64

Slot Name: 2-27

Well Position: +N/-S -10.28 ft
+E/-W -42.94 ft
Position Uncertainty: 0.00 ft

Northing: 1705701.14 ft
Easting: 3272168.84 ft

Latitude: 39 46 1.075 N
Longitude: 104 31 54.571 W

Wellpath: Original Hole

Current Datum: 5509'GL+17"KB
Magnetic Data: 06/30/2012
Field Strength: 52752 nT
Vertical Section: Depth From (TVD)
ft

Height 5526.00 ft

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 8.55 deg
Mag Dip Angle: 66.54 deg
+E/-W ft
Direction deg

0.00

0.00

0.00

179.28

Plan: Plan #1

Date Composed: 05/25/2012
Version: 1
Tied-to: From Surface

Principal: No

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	
1973.33	6.50	280.00	1972.40	4.26	-24.18	1.50	1.50	0.00	280.00	
6694.36	6.50	280.00	6663.08	97.07	-550.50	0.00	0.00	0.00	0.00	
7605.96	90.00	179.69	7244.00	-476.11	-612.55	10.00	9.16	-11.00	-100.24	
11514.59	90.00	179.69	7244.00	-4384.69	-591.64	0.00	0.00	0.00	0.00	PBHL 2-27

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	280.00	1600.00	0.08	-0.46	-0.09	1.50	1.50	0.00	
1700.00	2.40	280.00	1699.95	0.58	-3.30	-0.62	1.50	1.50	0.00	
1800.00	3.90	280.00	1799.80	1.54	-8.71	-1.65	1.50	1.50	0.00	
1900.00	5.40	280.00	1899.47	2.94	-16.69	-3.15	1.50	1.50	0.00	
1973.33	6.50	280.00	1972.40	4.26	-24.18	-4.57	1.50	1.50	0.00	
2000.00	6.50	280.00	1998.90	4.79	-27.15	-5.13	0.00	0.00	0.00	
2100.00	6.50	280.00	2098.26	6.75	-38.30	-7.23	0.00	0.00	0.00	
2200.00	6.50	280.00	2197.61	8.72	-49.45	-9.34	0.00	0.00	0.00	
2300.00	6.50	280.00	2296.97	10.69	-60.60	-11.45	0.00	0.00	0.00	
2400.00	6.50	280.00	2396.33	12.65	-71.75	-13.55	0.00	0.00	0.00	
2500.00	6.50	280.00	2495.69	14.62	-82.90	-15.66	0.00	0.00	0.00	
2600.00	6.50	280.00	2595.04	16.58	-94.04	-17.76	0.00	0.00	0.00	
2700.00	6.50	280.00	2694.40	18.55	-105.19	-19.87	0.00	0.00	0.00	
2800.00	6.50	280.00	2793.76	20.51	-116.34	-21.97	0.00	0.00	0.00	

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara COCZ'83
Site: WEP 27 PAD
Well: 2-27-31-3-64
Wellpath: Original Hole

Date: 05/25/2012
Co-ordinate(NE) Reference: Well: 2-27-31-3-64, Grid North
Vertical (TVD) Reference: 5509'GL+17'KB 5526.0
Section (VS) Reference: Well (0.00N,0.00E,179.28Azi)
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
2900.00	6.50	280.00	2893.11	22.48	-127.49	-24.08	0.00	0.00	0.00	
3000.00	6.50	280.00	2992.47	24.45	-138.64	-26.19	0.00	0.00	0.00	
3100.00	6.50	280.00	3091.83	26.41	-149.79	-28.29	0.00	0.00	0.00	
3200.00	6.50	280.00	3191.19	28.38	-160.93	-30.40	0.00	0.00	0.00	
3300.00	6.50	280.00	3290.54	30.34	-172.08	-32.50	0.00	0.00	0.00	
3400.00	6.50	280.00	3389.90	32.31	-183.23	-34.61	0.00	0.00	0.00	
3500.00	6.50	280.00	3489.26	34.27	-194.38	-36.71	0.00	0.00	0.00	
3600.00	6.50	280.00	3588.61	36.24	-205.53	-38.82	0.00	0.00	0.00	
3700.00	6.50	280.00	3687.97	38.21	-216.68	-40.93	0.00	0.00	0.00	
3800.00	6.50	280.00	3787.33	40.17	-227.82	-43.03	0.00	0.00	0.00	
3900.00	6.50	280.00	3886.69	42.14	-238.97	-45.14	0.00	0.00	0.00	
4000.00	6.50	280.00	3986.04	44.10	-250.12	-47.24	0.00	0.00	0.00	
4100.00	6.50	280.00	4085.40	46.07	-261.27	-49.35	0.00	0.00	0.00	
4200.00	6.50	280.00	4184.76	48.03	-272.42	-51.45	0.00	0.00	0.00	
4300.00	6.50	280.00	4284.11	50.00	-283.57	-53.56	0.00	0.00	0.00	
4400.00	6.50	280.00	4383.47	51.97	-294.71	-55.67	0.00	0.00	0.00	
4500.00	6.50	280.00	4482.83	53.93	-305.86	-57.77	0.00	0.00	0.00	
4600.00	6.50	280.00	4582.19	55.90	-317.01	-59.88	0.00	0.00	0.00	
4700.00	6.50	280.00	4681.54	57.86	-328.16	-61.98	0.00	0.00	0.00	
4800.00	6.50	280.00	4780.90	59.83	-339.31	-64.09	0.00	0.00	0.00	
4900.00	6.50	280.00	4880.26	61.79	-350.46	-66.19	0.00	0.00	0.00	
5000.00	6.50	280.00	4979.62	63.76	-361.60	-68.30	0.00	0.00	0.00	
5100.00	6.50	280.00	5078.97	65.73	-372.75	-70.41	0.00	0.00	0.00	
5200.00	6.50	280.00	5178.33	67.69	-383.90	-72.51	0.00	0.00	0.00	
5300.00	6.50	280.00	5277.69	69.66	-395.05	-74.62	0.00	0.00	0.00	
5400.00	6.50	280.00	5377.04	71.62	-406.20	-76.72	0.00	0.00	0.00	
5500.00	6.50	280.00	5476.40	73.59	-417.35	-78.83	0.00	0.00	0.00	
5600.00	6.50	280.00	5575.76	75.56	-428.49	-80.93	0.00	0.00	0.00	
5700.00	6.50	280.00	5675.12	77.52	-439.64	-83.04	0.00	0.00	0.00	
5800.00	6.50	280.00	5774.47	79.49	-450.79	-85.14	0.00	0.00	0.00	
5900.00	6.50	280.00	5873.83	81.45	-461.94	-87.25	0.00	0.00	0.00	
6000.00	6.50	280.00	5973.19	83.42	-473.09	-89.36	0.00	0.00	0.00	
6100.00	6.50	280.00	6072.54	85.38	-484.24	-91.46	0.00	0.00	0.00	
6200.00	6.50	280.00	6171.90	87.35	-495.38	-93.57	0.00	0.00	0.00	
6300.00	6.50	280.00	6271.26	89.32	-506.53	-95.67	0.00	0.00	0.00	
6400.00	6.50	280.00	6370.62	91.28	-517.68	-97.78	0.00	0.00	0.00	
6500.00	6.50	280.00	6469.97	93.25	-528.83	-99.88	0.00	0.00	0.00	
6600.00	6.50	280.00	6569.33	95.21	-539.98	-101.99	0.00	0.00	0.00	
6694.36	6.50	280.00	6663.08	97.07	-550.50	-103.98	0.00	0.00	0.00	
6700.00	6.42	275.03	6668.69	97.15	-551.13	-104.07	10.00	-1.35	-88.07	
6750.00	7.76	235.04	6718.33	95.46	-556.68	-102.45	10.00	2.67	-79.99	
6800.00	11.36	213.62	6767.65	89.42	-562.18	-96.48	10.00	7.19	-42.83	
6850.00	15.73	203.14	6816.25	79.08	-567.57	-86.21	10.00	8.75	-20.95	
6900.00	20.39	197.24	6863.78	64.52	-572.82	-71.71	10.00	9.32	-11.80	
6950.00	25.18	193.49	6909.87	45.85	-577.89	-53.11	10.00	9.57	-7.51	
7000.00	30.03	190.88	6954.16	23.20	-582.73	-30.52	10.00	9.70	-5.23	
7050.00	34.92	188.93	6996.33	-3.24	-587.32	-4.14	10.00	9.78	-3.88	
7100.00	39.84	187.42	7036.05	-33.28	-591.61	25.84	10.00	9.83	-3.03	
7150.00	44.77	186.18	7073.02	-66.68	-595.57	59.19	10.00	9.86	-2.47	
7200.00	49.71	185.15	7106.96	-103.20	-599.18	95.66	10.00	9.88	-2.07	
7250.00	54.66	184.25	7137.61	-142.55	-602.41	134.97	10.00	9.90	-1.79	
7300.00	59.61	183.46	7164.73	-184.44	-605.22	176.82	10.00	9.91	-1.58	
7350.00	64.57	182.75	7188.12	-228.55	-607.61	220.90	10.00	9.92	-1.43	
7400.00	69.54	182.09	7207.61	-274.54	-609.55	266.86	10.00	9.93	-1.31	

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara COCZ83
Site: WEP 27 PAD
Well: 2-27-31-3-64
Wellpath: Original Hole

Date: 05/25/2012 **Time:** 10:07:01
Co-ordinate(NE) Reference: Well: 2-27-31-3-64, Grid North
Vertical (TVD) Reference: 5509'GL+17'KB 5526.0
Section (VS) Reference: Well (0.00N,0.00E,179.28Azi)
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
7450.00	74.50	181.47	7223.04	-322.06	-611.02	314.36	10.00	9.93	-1.23	
7500.00	79.47	180.89	7234.29	-370.75	-612.03	363.03	10.00	9.93	-1.17	
7550.00	84.44	180.32	7241.29	-420.24	-612.55	412.51	10.00	9.94	-1.14	
7600.00	89.41	179.76	7243.97	-470.15	-612.58	462.42	10.00	9.94	-1.12	
7605.96	90.00	179.69	7244.00	-476.11	-612.55	468.38	10.00	9.94	-1.11	7"
7700.00	90.00	179.69	7244.00	-570.15	-612.05	562.41	0.00	0.00	0.00	
7800.00	90.00	179.69	7244.00	-670.15	-611.51	662.41	0.00	0.00	0.00	
7900.00	90.00	179.69	7244.00	-770.15	-610.98	762.41	0.00	0.00	0.00	
8000.00	90.00	179.69	7244.00	-870.15	-610.44	862.41	0.00	0.00	0.00	
8100.00	90.00	179.69	7244.00	-970.14	-609.91	962.40	0.00	0.00	0.00	
8200.00	90.00	179.69	7244.00	-1070.14	-609.37	1062.40	0.00	0.00	0.00	
8300.00	90.00	179.69	7244.00	-1170.14	-608.84	1162.40	0.00	0.00	0.00	
8400.00	90.00	179.69	7244.00	-1270.14	-608.30	1262.40	0.00	0.00	0.00	
8500.00	90.00	179.69	7244.00	-1370.14	-607.77	1362.39	0.00	0.00	0.00	
8600.00	90.00	179.69	7244.00	-1470.14	-607.23	1462.39	0.00	0.00	0.00	
8700.00	90.00	179.69	7244.00	-1570.14	-606.70	1562.39	0.00	0.00	0.00	
8800.00	90.00	179.69	7244.00	-1670.13	-606.16	1662.39	0.00	0.00	0.00	
8900.00	90.00	179.69	7244.00	-1770.13	-605.63	1762.38	0.00	0.00	0.00	
9000.00	90.00	179.69	7244.00	-1870.13	-605.09	1862.38	0.00	0.00	0.00	
9100.00	90.00	179.69	7244.00	-1970.13	-604.56	1962.38	0.00	0.00	0.00	
9200.00	90.00	179.69	7244.00	-2070.13	-604.02	2062.38	0.00	0.00	0.00	
9300.00	90.00	179.69	7244.00	-2170.13	-603.49	2162.37	0.00	0.00	0.00	
9400.00	90.00	179.69	7244.00	-2270.13	-602.95	2262.37	0.00	0.00	0.00	
9500.00	90.00	179.69	7244.00	-2370.12	-602.42	2362.37	0.00	0.00	0.00	
9600.00	90.00	179.69	7244.00	-2470.12	-601.88	2462.36	0.00	0.00	0.00	
9700.00	90.00	179.69	7244.00	-2570.12	-601.35	2562.36	0.00	0.00	0.00	
9800.00	90.00	179.69	7244.00	-2670.12	-600.81	2662.36	0.00	0.00	0.00	
9900.00	90.00	179.69	7244.00	-2770.12	-600.28	2762.36	0.00	0.00	0.00	
10000.00	90.00	179.69	7244.00	-2870.12	-599.74	2862.35	0.00	0.00	0.00	
10100.00	90.00	179.69	7244.00	-2970.12	-599.21	2962.35	0.00	0.00	0.00	
10200.00	90.00	179.69	7244.00	-3070.11	-598.67	3062.35	0.00	0.00	0.00	
10300.00	90.00	179.69	7244.00	-3170.11	-598.14	3162.35	0.00	0.00	0.00	
10400.00	90.00	179.69	7244.00	-3270.11	-597.60	3262.34	0.00	0.00	0.00	
10500.00	90.00	179.69	7244.00	-3370.11	-597.07	3362.34	0.00	0.00	0.00	
10600.00	90.00	179.69	7244.00	-3470.11	-596.53	3462.34	0.00	0.00	0.00	
10700.00	90.00	179.69	7244.00	-3570.11	-596.00	3562.34	0.00	0.00	0.00	
10800.00	90.00	179.69	7244.00	-3670.11	-595.46	3662.33	0.00	0.00	0.00	
10900.00	90.00	179.69	7244.00	-3770.10	-594.93	3762.33	0.00	0.00	0.00	
11000.00	90.00	179.69	7244.00	-3870.10	-594.39	3862.33	0.00	0.00	0.00	
11100.00	90.00	179.69	7244.00	-3970.10	-593.86	3962.33	0.00	0.00	0.00	
11200.00	90.00	179.69	7244.00	-4070.10	-593.32	4062.32	0.00	0.00	0.00	
11300.00	90.00	179.69	7244.00	-4170.10	-592.79	4162.32	0.00	0.00	0.00	
11400.00	90.00	179.69	7244.00	-4270.10	-592.25	4262.32	0.00	0.00	0.00	
11500.00	90.00	179.69	7244.00	-4370.10	-591.72	4362.32	0.00	0.00	0.00	
11514.59	90.00	179.69	7244.00	-4384.69	-591.64	4376.91	0.00	0.00	0.00	PBHL 2-27

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
	Dip.							Deg	Min	Sec	Deg	Min	Sec
SL 2-27			0.00	0.00	0.00	1705701.14	3272168.84	39	46	1.075 N	104	31	54.571 W
PBHL 2-27			7244.00	-4384.69	-591.64	1701316.45	3271577.20	39	45	17.807 N	104	32	2.745 W

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara COCZ'83
Site: WEP 27 PAD
Well: 2-27-31-3-64
Wellpath: Original Hole

Date: 05/25/2012
Co-ordinate(NE) Reference: Well: 2-27-31-3-64, Grid North
Vertical (TVD) Reference: 5509'GL+17'KB 5526.0
Section (VS) Reference: Well (0.00N,0.00E,179.28Azi)
Plan: Plan #1

Time: 10:07:01
Page: 4

Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
	Dip.	Dir.						Deg	Min	Sec	Deg	Min	Sec

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
7605.96	7244.00	7.000	8.750	7"