

# Whiting Oil & Gas

Well Name: **Razor 22-2712H**

Surface Location: Razor 22-2712H Pad Sec.22-T10N-R58W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

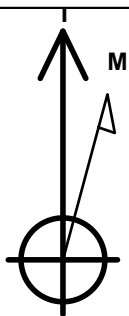
Ground Elevation: 4833.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1549545.83	3454198.12	40.830344	-103.858675	

Original Well Elev WELL @ 4849.5ft (Original Well Elev)

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE BHL 660'	1.0	-6956.6	-671.4	Polygon
HARDLINE SHL 660'FNL	1.0	-330.0	-600.0	Polygon
TARGET BHL 1980'FNL, 660'FWL, SEC.27	5869.0	-6943.5	71.4	Point



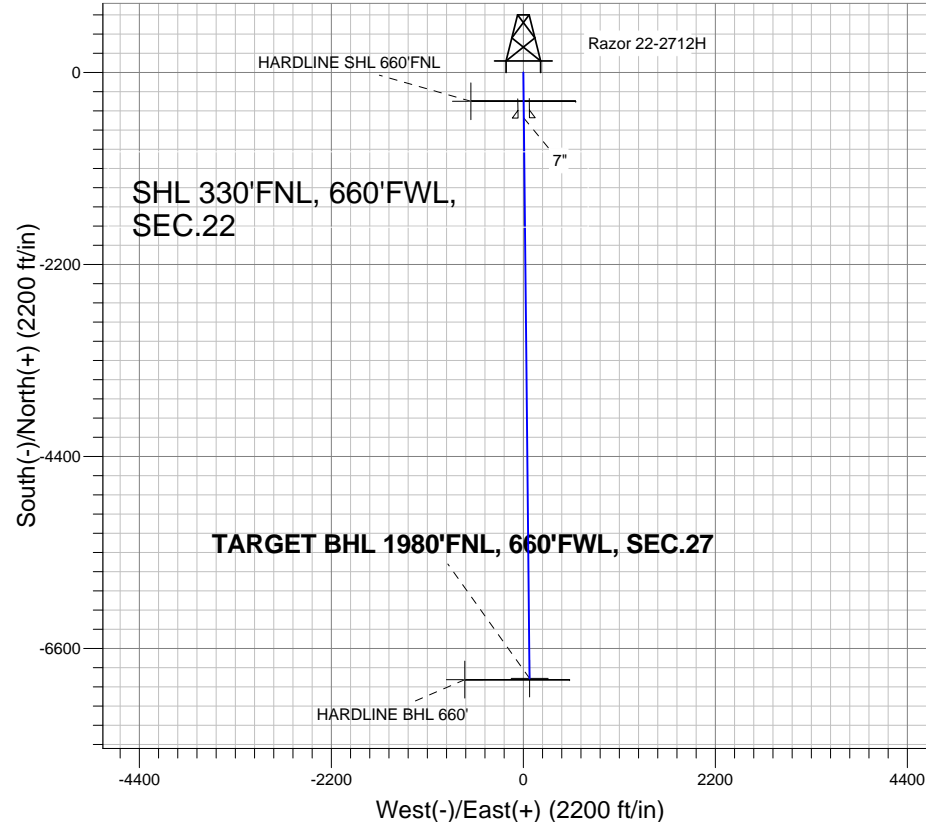
Azimuths to True North  
Magnetic North: 8.25°

Magnetic Field  
Strength: 53332.7nT  
Dip Angle: 67.50°  
Date: 7/20/2012  
Model: IGRF2010

## ANNOTATIONS

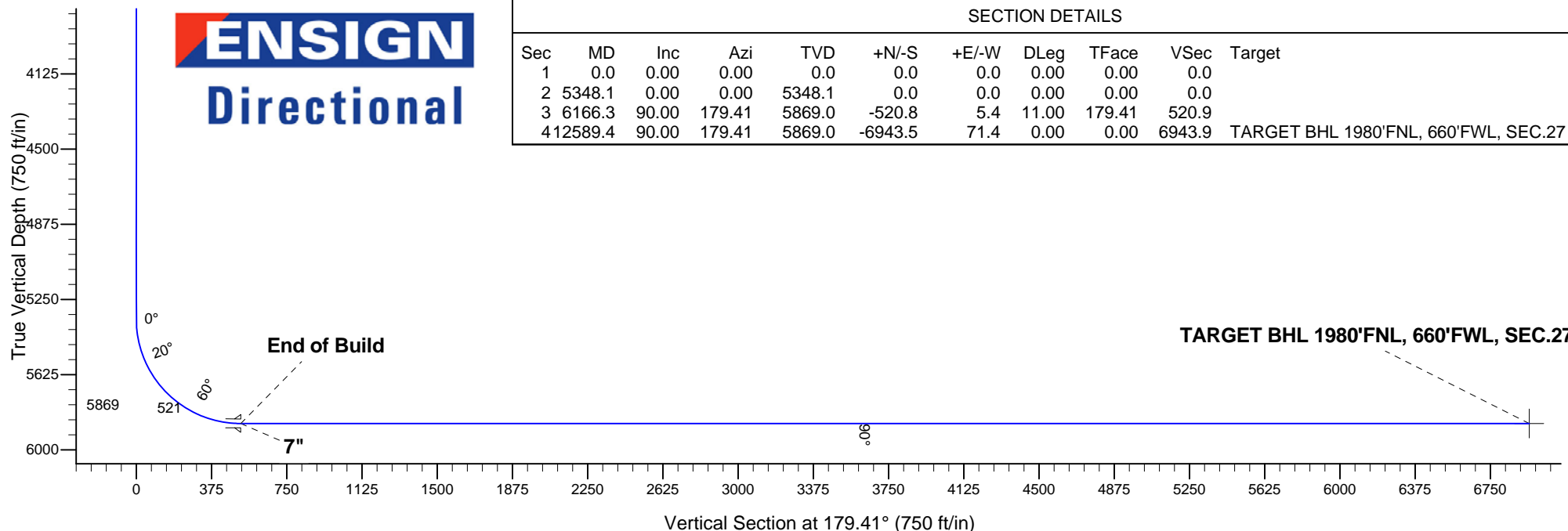
TVD	MD	Annotation
5869.0	6166.3	End of Build

Razor 22-2712H Pad Sec.22-T10N-R58W  
Razor 22-2712H  
Plan #1 (7-20-12)  
10:38, July 20 2012



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5348.1	0.00	0.00	5348.1	0.0	0.0	0.00	0.00	0.0	
3	6166.3	90.00	179.41	5869.0	-520.8	5.4	11.00	179.41	520.9	
4	12589.4	90.00	179.41	5869.0	-6943.5	71.4	0.00	0.00	6943.9	TARGET BHL 1980'FNL, 660'FWL, SEC.27





## **Whiting Oil & Gas**

**SEC.22-T10N-R58W**

**Razor 22-2712H Pad Sec.22-T10N-R58W**

**Razor 22-2712H**

**Wellbore #1**

**Plan: Plan #1 (7-20-12)**

## **Standard Planning Report**

**06 September, 2012**

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,348.1	0.00	0.00	5,348.1	0.0	0.0	0.00	0.00	0.00	0.00	
6,166.3	90.00	179.41	5,869.0	-520.8	5.4	11.00	11.00	0.00	179.41	
12,589.4	90.00	179.41	5,869.0	-6,943.5	71.4	0.00	0.00	0.00	0.00	TARGET BHL 1980

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Project:</b>	SEC.22-T10N-R58W	<b>MD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>HARDLINE SHL 660'FNL</b>									
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	0.0	0.0	0.0	0.00	0.00	0.00
1,720.0	0.00	0.00	1,720.0	0.0	0.0	0.0	0.00	0.00	0.00
1,760.0	0.00	0.00	1,760.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,840.0	0.00	0.00	1,840.0	0.0	0.0	0.0	0.00	0.00	0.00
1,880.0	0.00	0.00	1,880.0	0.0	0.0	0.0	0.00	0.00	0.00
1,920.0	0.00	0.00	1,920.0	0.0	0.0	0.0	0.00	0.00	0.00
1,960.0	0.00	0.00	1,960.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,040.0	0.00	0.00	2,040.0	0.0	0.0	0.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
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<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
2,120.0	0.00	0.00	2,120.0	0.0	0.0	0.0	0.00	0.00	0.00
2,160.0	0.00	0.00	2,160.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,240.0	0.00	0.00	2,240.0	0.0	0.0	0.0	0.00	0.00	0.00
2,280.0	0.00	0.00	2,280.0	0.0	0.0	0.0	0.00	0.00	0.00
2,320.0	0.00	0.00	2,320.0	0.0	0.0	0.0	0.00	0.00	0.00
2,360.0	0.00	0.00	2,360.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,440.0	0.00	0.00	2,440.0	0.0	0.0	0.0	0.00	0.00	0.00
2,480.0	0.00	0.00	2,480.0	0.0	0.0	0.0	0.00	0.00	0.00
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,560.0	0.00	0.00	2,560.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,640.0	0.00	0.00	2,640.0	0.0	0.0	0.0	0.00	0.00	0.00
2,680.0	0.00	0.00	2,680.0	0.0	0.0	0.0	0.00	0.00	0.00
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	0.00
2,760.0	0.00	0.00	2,760.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,840.0	0.00	0.00	2,840.0	0.0	0.0	0.0	0.00	0.00	0.00
2,880.0	0.00	0.00	2,880.0	0.0	0.0	0.0	0.00	0.00	0.00
2,920.0	0.00	0.00	2,920.0	0.0	0.0	0.0	0.00	0.00	0.00
2,960.0	0.00	0.00	2,960.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,040.0	0.00	0.00	3,040.0	0.0	0.0	0.0	0.00	0.00	0.00
3,080.0	0.00	0.00	3,080.0	0.0	0.0	0.0	0.00	0.00	0.00
3,120.0	0.00	0.00	3,120.0	0.0	0.0	0.0	0.00	0.00	0.00
3,160.0	0.00	0.00	3,160.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,240.0	0.00	0.00	3,240.0	0.0	0.0	0.0	0.00	0.00	0.00
3,280.0	0.00	0.00	3,280.0	0.0	0.0	0.0	0.00	0.00	0.00
3,320.0	0.00	0.00	3,320.0	0.0	0.0	0.0	0.00	0.00	0.00
3,360.0	0.00	0.00	3,360.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,440.0	0.00	0.00	3,440.0	0.0	0.0	0.0	0.00	0.00	0.00
3,480.0	0.00	0.00	3,480.0	0.0	0.0	0.0	0.00	0.00	0.00
3,520.0	0.00	0.00	3,520.0	0.0	0.0	0.0	0.00	0.00	0.00
3,560.0	0.00	0.00	3,560.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,640.0	0.00	0.00	3,640.0	0.0	0.0	0.0	0.00	0.00	0.00
3,680.0	0.00	0.00	3,680.0	0.0	0.0	0.0	0.00	0.00	0.00
3,720.0	0.00	0.00	3,720.0	0.0	0.0	0.0	0.00	0.00	0.00
3,760.0	0.00	0.00	3,760.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,840.0	0.00	0.00	3,840.0	0.0	0.0	0.0	0.00	0.00	0.00
3,880.0	0.00	0.00	3,880.0	0.0	0.0	0.0	0.00	0.00	0.00
3,920.0	0.00	0.00	3,920.0	0.0	0.0	0.0	0.00	0.00	0.00
3,960.0	0.00	0.00	3,960.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,040.0	0.00	0.00	4,040.0	0.0	0.0	0.0	0.00	0.00	0.00
4,080.0	0.00	0.00	4,080.0	0.0	0.0	0.0	0.00	0.00	0.00
4,120.0	0.00	0.00	4,120.0	0.0	0.0	0.0	0.00	0.00	0.00
4,160.0	0.00	0.00	4,160.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
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<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,240.0	0.00	0.00	4,240.0	0.0	0.0	0.0	0.00	0.00	0.00
4,280.0	0.00	0.00	4,280.0	0.0	0.0	0.0	0.00	0.00	0.00
4,320.0	0.00	0.00	4,320.0	0.0	0.0	0.0	0.00	0.00	0.00
4,360.0	0.00	0.00	4,360.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,440.0	0.00	0.00	4,440.0	0.0	0.0	0.0	0.00	0.00	0.00
4,480.0	0.00	0.00	4,480.0	0.0	0.0	0.0	0.00	0.00	0.00
4,520.0	0.00	0.00	4,520.0	0.0	0.0	0.0	0.00	0.00	0.00
4,560.0	0.00	0.00	4,560.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,640.0	0.00	0.00	4,640.0	0.0	0.0	0.0	0.00	0.00	0.00
4,680.0	0.00	0.00	4,680.0	0.0	0.0	0.0	0.00	0.00	0.00
4,720.0	0.00	0.00	4,720.0	0.0	0.0	0.0	0.00	0.00	0.00
4,760.0	0.00	0.00	4,760.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,840.0	0.00	0.00	4,840.0	0.0	0.0	0.0	0.00	0.00	0.00
4,880.0	0.00	0.00	4,880.0	0.0	0.0	0.0	0.00	0.00	0.00
4,920.0	0.00	0.00	4,920.0	0.0	0.0	0.0	0.00	0.00	0.00
4,960.0	0.00	0.00	4,960.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,040.0	0.00	0.00	5,040.0	0.0	0.0	0.0	0.00	0.00	0.00
5,080.0	0.00	0.00	5,080.0	0.0	0.0	0.0	0.00	0.00	0.00
5,120.0	0.00	0.00	5,120.0	0.0	0.0	0.0	0.00	0.00	0.00
5,160.0	0.00	0.00	5,160.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,240.0	0.00	0.00	5,240.0	0.0	0.0	0.0	0.00	0.00	0.00
5,280.0	0.00	0.00	5,280.0	0.0	0.0	0.0	0.00	0.00	0.00
5,320.0	0.00	0.00	5,320.0	0.0	0.0	0.0	0.00	0.00	0.00
5,348.1	0.00	0.00	5,348.1	0.0	0.0	0.0	0.00	0.00	0.00
5,360.0	1.31	179.41	5,360.0	-0.1	0.0	0.1	11.00	11.00	0.00
5,400.0	5.71	179.41	5,399.9	-2.6	0.0	2.6	11.00	11.00	0.00
5,440.0	10.11	179.41	5,439.5	-8.1	0.1	8.1	11.00	11.00	0.00
5,480.0	14.51	179.41	5,478.6	-16.6	0.2	16.6	11.00	11.00	0.00
5,520.0	18.91	179.41	5,516.9	-28.1	0.3	28.1	11.00	11.00	0.00
5,560.0	23.31	179.41	5,554.2	-42.5	0.4	42.5	11.00	11.00	0.00
5,600.0	27.71	179.41	5,590.3	-59.7	0.6	59.7	11.00	11.00	0.00
5,640.0	32.11	179.41	5,625.0	-79.7	0.8	79.7	11.00	11.00	0.00
5,680.0	36.51	179.41	5,658.0	-102.2	1.1	102.2	11.00	11.00	0.00
5,720.0	40.91	179.41	5,689.2	-127.2	1.3	127.2	11.00	11.00	0.00
5,760.0	45.31	179.41	5,718.4	-154.5	1.6	154.5	11.00	11.00	0.00
5,800.0	49.71	179.41	5,745.4	-184.0	1.9	184.0	11.00	11.00	0.00
5,840.0	54.11	179.41	5,770.1	-215.5	2.2	215.5	11.00	11.00	0.00
5,880.0	58.51	179.41	5,792.3	-248.7	2.6	248.8	11.00	11.00	0.00
5,920.0	62.91	179.41	5,811.8	-283.6	2.9	283.6	11.00	11.00	0.00
5,960.0	67.31	179.41	5,828.7	-319.9	3.3	319.9	11.00	11.00	0.00
6,000.0	71.71	179.41	5,842.7	-357.4	3.7	357.4	11.00	11.00	0.00
6,040.0	76.11	179.41	5,853.8	-395.8	4.1	395.8	11.00	11.00	0.00
6,080.0	80.51	179.41	5,861.9	-434.9	4.5	435.0	11.00	11.00	0.00
6,120.0	84.91	179.41	5,866.9	-474.6	4.9	474.6	11.00	11.00	0.00
6,160.0	89.31	179.41	5,869.0	-514.5	5.3	514.6	11.00	11.00	0.00
6,166.3	90.00	179.41	5,869.0	-520.8	5.4	520.9	11.00	11.00	0.00
End of Build - 7"									
6,200.0	90.00	179.41	5,869.0	-554.5	5.7	554.6	0.00	0.00	0.00
6,240.0	90.00	179.41	5,869.0	-594.5	6.1	594.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Project:</b>	SEC.22-T10N-R58W	<b>MD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,280.0	90.00	179.41	5,869.0	-634.5	6.5	634.6	0.00	0.00	0.00
6,320.0	90.00	179.41	5,869.0	-674.5	6.9	674.6	0.00	0.00	0.00
6,360.0	90.00	179.41	5,869.0	-714.5	7.3	714.6	0.00	0.00	0.00
6,400.0	90.00	179.41	5,869.0	-754.5	7.8	754.6	0.00	0.00	0.00
6,440.0	90.00	179.41	5,869.0	-794.5	8.2	794.6	0.00	0.00	0.00
6,480.0	90.00	179.41	5,869.0	-834.5	8.6	834.6	0.00	0.00	0.00
6,520.0	90.00	179.41	5,869.0	-874.5	9.0	874.6	0.00	0.00	0.00
6,560.0	90.00	179.41	5,869.0	-914.5	9.4	914.6	0.00	0.00	0.00
6,600.0	90.00	179.41	5,869.0	-954.5	9.8	954.6	0.00	0.00	0.00
6,640.0	90.00	179.41	5,869.0	-994.5	10.2	994.6	0.00	0.00	0.00
6,680.0	90.00	179.41	5,869.0	-1,034.5	10.6	1,034.6	0.00	0.00	0.00
6,720.0	90.00	179.41	5,869.0	-1,074.5	11.1	1,074.6	0.00	0.00	0.00
6,760.0	90.00	179.41	5,869.0	-1,114.5	11.5	1,114.6	0.00	0.00	0.00
6,800.0	90.00	179.41	5,869.0	-1,154.5	11.9	1,154.6	0.00	0.00	0.00
6,840.0	90.00	179.41	5,869.0	-1,194.5	12.3	1,194.6	0.00	0.00	0.00
6,880.0	90.00	179.41	5,869.0	-1,234.5	12.7	1,234.6	0.00	0.00	0.00
6,920.0	90.00	179.41	5,869.0	-1,274.5	13.1	1,274.6	0.00	0.00	0.00
6,960.0	90.00	179.41	5,869.0	-1,314.5	13.5	1,314.6	0.00	0.00	0.00
7,000.0	90.00	179.41	5,869.0	-1,354.5	13.9	1,354.6	0.00	0.00	0.00
7,040.0	90.00	179.41	5,869.0	-1,394.5	14.3	1,394.6	0.00	0.00	0.00
7,080.0	90.00	179.41	5,869.0	-1,434.5	14.8	1,434.6	0.00	0.00	0.00
7,120.0	90.00	179.41	5,869.0	-1,474.5	15.2	1,474.6	0.00	0.00	0.00
7,160.0	90.00	179.41	5,869.0	-1,514.5	15.6	1,514.6	0.00	0.00	0.00
7,200.0	90.00	179.41	5,869.0	-1,554.5	16.0	1,554.6	0.00	0.00	0.00
7,240.0	90.00	179.41	5,869.0	-1,594.5	16.4	1,594.6	0.00	0.00	0.00
7,280.0	90.00	179.41	5,869.0	-1,634.5	16.8	1,634.6	0.00	0.00	0.00
7,320.0	90.00	179.41	5,869.0	-1,674.5	17.2	1,674.6	0.00	0.00	0.00
7,360.0	90.00	179.41	5,869.0	-1,714.5	17.6	1,714.6	0.00	0.00	0.00
7,400.0	90.00	179.41	5,869.0	-1,754.5	18.0	1,754.6	0.00	0.00	0.00
7,440.0	90.00	179.41	5,869.0	-1,794.5	18.5	1,794.6	0.00	0.00	0.00
7,480.0	90.00	179.41	5,869.0	-1,834.5	18.9	1,834.6	0.00	0.00	0.00
7,520.0	90.00	179.41	5,869.0	-1,874.5	19.3	1,874.6	0.00	0.00	0.00
7,560.0	90.00	179.41	5,869.0	-1,914.5	19.7	1,914.6	0.00	0.00	0.00
7,600.0	90.00	179.41	5,869.0	-1,954.5	20.1	1,954.6	0.00	0.00	0.00
7,640.0	90.00	179.41	5,869.0	-1,994.5	20.5	1,994.6	0.00	0.00	0.00
7,680.0	90.00	179.41	5,869.0	-2,034.5	20.9	2,034.6	0.00	0.00	0.00
7,720.0	90.00	179.41	5,869.0	-2,074.5	21.3	2,074.6	0.00	0.00	0.00
7,760.0	90.00	179.41	5,869.0	-2,114.4	21.7	2,114.6	0.00	0.00	0.00
7,800.0	90.00	179.41	5,869.0	-2,154.4	22.2	2,154.6	0.00	0.00	0.00
7,840.0	90.00	179.41	5,869.0	-2,194.4	22.6	2,194.6	0.00	0.00	0.00
7,880.0	90.00	179.41	5,869.0	-2,234.4	23.0	2,234.6	0.00	0.00	0.00
7,920.0	90.00	179.41	5,869.0	-2,274.4	23.4	2,274.6	0.00	0.00	0.00
7,960.0	90.00	179.41	5,869.0	-2,314.4	23.8	2,314.6	0.00	0.00	0.00
8,000.0	90.00	179.41	5,869.0	-2,354.4	24.2	2,354.6	0.00	0.00	0.00
8,040.0	90.00	179.41	5,869.0	-2,394.4	24.6	2,394.6	0.00	0.00	0.00
8,080.0	90.00	179.41	5,869.0	-2,434.4	25.0	2,434.6	0.00	0.00	0.00
8,120.0	90.00	179.41	5,869.0	-2,474.4	25.5	2,474.6	0.00	0.00	0.00
8,160.0	90.00	179.41	5,869.0	-2,514.4	25.9	2,514.6	0.00	0.00	0.00
8,200.0	90.00	179.41	5,869.0	-2,554.4	26.3	2,554.6	0.00	0.00	0.00
8,240.0	90.00	179.41	5,869.0	-2,594.4	26.7	2,594.6	0.00	0.00	0.00
8,280.0	90.00	179.41	5,869.0	-2,634.4	27.1	2,634.6	0.00	0.00	0.00
8,320.0	90.00	179.41	5,869.0	-2,674.4	27.5	2,674.6	0.00	0.00	0.00
8,360.0	90.00	179.41	5,869.0	-2,714.4	27.9	2,714.6	0.00	0.00	0.00
8,400.0	90.00	179.41	5,869.0	-2,754.4	28.3	2,754.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Project:</b>	SEC.22-T10N-R58W	<b>MD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,440.0	90.00	179.41	5,869.0	-2,794.4	28.7	2,794.6	0.00	0.00	0.00
8,480.0	90.00	179.41	5,869.0	-2,834.4	29.2	2,834.6	0.00	0.00	0.00
8,520.0	90.00	179.41	5,869.0	-2,874.4	29.6	2,874.6	0.00	0.00	0.00
8,560.0	90.00	179.41	5,869.0	-2,914.4	30.0	2,914.6	0.00	0.00	0.00
8,600.0	90.00	179.41	5,869.0	-2,954.4	30.4	2,954.6	0.00	0.00	0.00
8,640.0	90.00	179.41	5,869.0	-2,994.4	30.8	2,994.6	0.00	0.00	0.00
8,680.0	90.00	179.41	5,869.0	-3,034.4	31.2	3,034.6	0.00	0.00	0.00
8,720.0	90.00	179.41	5,869.0	-3,074.4	31.6	3,074.6	0.00	0.00	0.00
8,760.0	90.00	179.41	5,869.0	-3,114.4	32.0	3,114.6	0.00	0.00	0.00
8,800.0	90.00	179.41	5,869.0	-3,154.4	32.4	3,154.6	0.00	0.00	0.00
8,840.0	90.00	179.41	5,869.0	-3,194.4	32.9	3,194.6	0.00	0.00	0.00
8,880.0	90.00	179.41	5,869.0	-3,234.4	33.3	3,234.6	0.00	0.00	0.00
8,920.0	90.00	179.41	5,869.0	-3,274.4	33.7	3,274.6	0.00	0.00	0.00
8,960.0	90.00	179.41	5,869.0	-3,314.4	34.1	3,314.6	0.00	0.00	0.00
9,000.0	90.00	179.41	5,869.0	-3,354.4	34.5	3,354.6	0.00	0.00	0.00
9,040.0	90.00	179.41	5,869.0	-3,394.4	34.9	3,394.6	0.00	0.00	0.00
9,080.0	90.00	179.41	5,869.0	-3,434.4	35.3	3,434.6	0.00	0.00	0.00
9,120.0	90.00	179.41	5,869.0	-3,474.4	35.7	3,474.6	0.00	0.00	0.00
9,160.0	90.00	179.41	5,869.0	-3,514.4	36.1	3,514.6	0.00	0.00	0.00
9,200.0	90.00	179.41	5,869.0	-3,554.4	36.6	3,554.6	0.00	0.00	0.00
9,240.0	90.00	179.41	5,869.0	-3,594.4	37.0	3,594.6	0.00	0.00	0.00
9,280.0	90.00	179.41	5,869.0	-3,634.4	37.4	3,634.6	0.00	0.00	0.00
9,320.0	90.00	179.41	5,869.0	-3,674.4	37.8	3,674.6	0.00	0.00	0.00
9,360.0	90.00	179.41	5,869.0	-3,714.4	38.2	3,714.6	0.00	0.00	0.00
9,400.0	90.00	179.41	5,869.0	-3,754.4	38.6	3,754.6	0.00	0.00	0.00
9,440.0	90.00	179.41	5,869.0	-3,794.4	39.0	3,794.6	0.00	0.00	0.00
9,480.0	90.00	179.41	5,869.0	-3,834.4	39.4	3,834.6	0.00	0.00	0.00
9,520.0	90.00	179.41	5,869.0	-3,874.4	39.9	3,874.6	0.00	0.00	0.00
9,560.0	90.00	179.41	5,869.0	-3,914.4	40.3	3,914.6	0.00	0.00	0.00
9,600.0	90.00	179.41	5,869.0	-3,954.4	40.7	3,954.6	0.00	0.00	0.00
9,640.0	90.00	179.41	5,869.0	-3,994.3	41.1	3,994.6	0.00	0.00	0.00
9,680.0	90.00	179.41	5,869.0	-4,034.3	41.5	4,034.6	0.00	0.00	0.00
9,720.0	90.00	179.41	5,869.0	-4,074.3	41.9	4,074.6	0.00	0.00	0.00
9,760.0	90.00	179.41	5,869.0	-4,114.3	42.3	4,114.6	0.00	0.00	0.00
9,800.0	90.00	179.41	5,869.0	-4,154.3	42.7	4,154.6	0.00	0.00	0.00
9,840.0	90.00	179.41	5,869.0	-4,194.3	43.1	4,194.6	0.00	0.00	0.00
9,880.0	90.00	179.41	5,869.0	-4,234.3	43.6	4,234.6	0.00	0.00	0.00
9,920.0	90.00	179.41	5,869.0	-4,274.3	44.0	4,274.6	0.00	0.00	0.00
9,960.0	90.00	179.41	5,869.0	-4,314.3	44.4	4,314.6	0.00	0.00	0.00
10,000.0	90.00	179.41	5,869.0	-4,354.3	44.8	4,354.6	0.00	0.00	0.00
10,040.0	90.00	179.41	5,869.0	-4,394.3	45.2	4,394.6	0.00	0.00	0.00
10,080.0	90.00	179.41	5,869.0	-4,434.3	45.6	4,434.6	0.00	0.00	0.00
10,120.0	90.00	179.41	5,869.0	-4,474.3	46.0	4,474.6	0.00	0.00	0.00
10,160.0	90.00	179.41	5,869.0	-4,514.3	46.4	4,514.6	0.00	0.00	0.00
10,200.0	90.00	179.41	5,869.0	-4,554.3	46.8	4,554.6	0.00	0.00	0.00
10,240.0	90.00	179.41	5,869.0	-4,594.3	47.3	4,594.6	0.00	0.00	0.00
10,280.0	90.00	179.41	5,869.0	-4,634.3	47.7	4,634.6	0.00	0.00	0.00
10,320.0	90.00	179.41	5,869.0	-4,674.3	48.1	4,674.6	0.00	0.00	0.00
10,360.0	90.00	179.41	5,869.0	-4,714.3	48.5	4,714.6	0.00	0.00	0.00
10,400.0	90.00	179.41	5,869.0	-4,754.3	48.9	4,754.6	0.00	0.00	0.00
10,440.0	90.00	179.41	5,869.0	-4,794.3	49.3	4,794.6	0.00	0.00	0.00
10,480.0	90.00	179.41	5,869.0	-4,834.3	49.7	4,834.6	0.00	0.00	0.00
10,520.0	90.00	179.41	5,869.0	-4,874.3	50.1	4,874.6	0.00	0.00	0.00
10,560.0	90.00	179.41	5,869.0	-4,914.3	50.5	4,914.6	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 22-2712H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Project:</b>	SEC.22-T10N-R58W	<b>MD Reference:</b>	WELL @ 4849.5ft (Original Well Elev)
<b>Site:</b>	Razor 22-2712H Pad Sec.22-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 22-2712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-20-12)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.0	90.00	179.41	5,869.0	-4,954.3	51.0	4,954.6	0.00	0.00	0.00
10,640.0	90.00	179.41	5,869.0	-4,994.3	51.4	4,994.6	0.00	0.00	0.00
10,680.0	90.00	179.41	5,869.0	-5,034.3	51.8	5,034.6	0.00	0.00	0.00
10,720.0	90.00	179.41	5,869.0	-5,074.3	52.2	5,074.6	0.00	0.00	0.00
10,760.0	90.00	179.41	5,869.0	-5,114.3	52.6	5,114.6	0.00	0.00	0.00
10,800.0	90.00	179.41	5,869.0	-5,154.3	53.0	5,154.6	0.00	0.00	0.00
10,840.0	90.00	179.41	5,869.0	-5,194.3	53.4	5,194.6	0.00	0.00	0.00
10,880.0	90.00	179.41	5,869.0	-5,234.3	53.8	5,234.6	0.00	0.00	0.00
10,920.0	90.00	179.41	5,869.0	-5,274.3	54.2	5,274.6	0.00	0.00	0.00
10,960.0	90.00	179.41	5,869.0	-5,314.3	54.7	5,314.6	0.00	0.00	0.00
11,000.0	90.00	179.41	5,869.0	-5,354.3	55.1	5,354.6	0.00	0.00	0.00
11,040.0	90.00	179.41	5,869.0	-5,394.3	55.5	5,394.6	0.00	0.00	0.00
11,080.0	90.00	179.41	5,869.0	-5,434.3	55.9	5,434.6	0.00	0.00	0.00
11,120.0	90.00	179.41	5,869.0	-5,474.3	56.3	5,474.6	0.00	0.00	0.00
11,160.0	90.00	179.41	5,869.0	-5,514.3	56.7	5,514.6	0.00	0.00	0.00
11,200.0	90.00	179.41	5,869.0	-5,554.3	57.1	5,554.6	0.00	0.00	0.00
11,240.0	90.00	179.41	5,869.0	-5,594.3	57.5	5,594.6	0.00	0.00	0.00
11,280.0	90.00	179.41	5,869.0	-5,634.3	58.0	5,634.6	0.00	0.00	0.00
11,320.0	90.00	179.41	5,869.0	-5,674.3	58.4	5,674.6	0.00	0.00	0.00
11,360.0	90.00	179.41	5,869.0	-5,714.3	58.8	5,714.6	0.00	0.00	0.00
11,400.0	90.00	179.41	5,869.0	-5,754.3	59.2	5,754.6	0.00	0.00	0.00
11,440.0	90.00	179.41	5,869.0	-5,794.3	59.6	5,794.6	0.00	0.00	0.00
11,480.0	90.00	179.41	5,869.0	-5,834.3	60.0	5,834.6	0.00	0.00	0.00
11,520.0	90.00	179.41	5,869.0	-5,874.2	60.4	5,874.6	0.00	0.00	0.00
11,560.0	90.00	179.41	5,869.0	-5,914.2	60.8	5,914.6	0.00	0.00	0.00
11,600.0	90.00	179.41	5,869.0	-5,954.2	61.2	5,954.6	0.00	0.00	0.00
11,640.0	90.00	179.41	5,869.0	-5,994.2	61.7	5,994.6	0.00	0.00	0.00
11,680.0	90.00	179.41	5,869.0	-6,034.2	62.1	6,034.6	0.00	0.00	0.00
11,720.0	90.00	179.41	5,869.0	-6,074.2	62.5	6,074.6	0.00	0.00	0.00
11,760.0	90.00	179.41	5,869.0	-6,114.2	62.9	6,114.6	0.00	0.00	0.00
11,800.0	90.00	179.41	5,869.0	-6,154.2	63.3	6,154.6	0.00	0.00	0.00
11,840.0	90.00	179.41	5,869.0	-6,194.2	63.7	6,194.6	0.00	0.00	0.00
11,880.0	90.00	179.41	5,869.0	-6,234.2	64.1	6,234.6	0.00	0.00	0.00
11,920.0	90.00	179.41	5,869.0	-6,274.2	64.5	6,274.6	0.00	0.00	0.00
11,960.0	90.00	179.41	5,869.0	-6,314.2	64.9	6,314.6	0.00	0.00	0.00
12,000.0	90.00	179.41	5,869.0	-6,354.2	65.4	6,354.6	0.00	0.00	0.00
12,040.0	90.00	179.41	5,869.0	-6,394.2	65.8	6,394.6	0.00	0.00	0.00
12,080.0	90.00	179.41	5,869.0	-6,434.2	66.2	6,434.6	0.00	0.00	0.00
12,120.0	90.00	179.41	5,869.0	-6,474.2	66.6	6,474.6	0.00	0.00	0.00
12,160.0	90.00	179.41	5,869.0	-6,514.2	67.0	6,514.6	0.00	0.00	0.00
12,200.0	90.00	179.41	5,869.0	-6,554.2	67.4	6,554.6	0.00	0.00	0.00
12,240.0	90.00	179.41	5,869.0	-6,594.2	67.8	6,594.6	0.00	0.00	0.00
12,280.0	90.00	179.41	5,869.0	-6,634.2	68.2	6,634.6	0.00	0.00	0.00
12,320.0	90.00	179.41	5,869.0	-6,674.2	68.6	6,674.6	0.00	0.00	0.00
12,360.0	90.00	179.41	5,869.0	-6,714.2	69.1	6,714.6	0.00	0.00	0.00
12,400.0	90.00	179.41	5,869.0	-6,754.2	69.5	6,754.6	0.00	0.00	0.00
12,440.0	90.00	179.41	5,869.0	-6,794.2	69.9	6,794.6	0.00	0.00	0.00
12,480.0	90.00	179.41	5,869.0	-6,834.2	70.3	6,834.6	0.00	0.00	0.00
12,520.0	90.00	179.41	5,869.0	-6,874.2	70.7	6,874.6	0.00	0.00	0.00
12,560.0	90.00	179.41	5,869.0	-6,914.2	71.1	6,914.6	0.00	0.00	0.00
12,589.4	90.00	179.41	5,869.0	-6,943.5	71.4	6,943.9	0.00	0.00	0.00
TARGET BHL 1980'FNL, 660'FWL, SEC.27 - HARDLINE BHL 660'									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,166.3	5,869.0	-520.8	5.4	End of Build