

# Whiting Oil & Gas

Well Name: **Razor 14-1143H**

Surface Location: Razor 14-1143H Pad Sec.14-T10N-R58W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

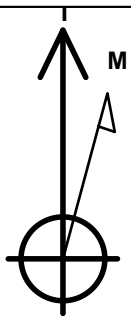
Ground Elevation: 4936.6

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1550484.21	3463398.39	40.832447	-103.825372	

RKB - 16.5' WELL @ 4953.1ft (RKB - 16.5')

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE BHL 660'	1.0	6960.9	-457.8	Polygon
HARDLINE SHL 660'FSL	1.0	328.0	-400.0	Polygon
BHL 1980'FSL, 660'FEL, SEC.11	5813.0	6950.9	-57.8	Point



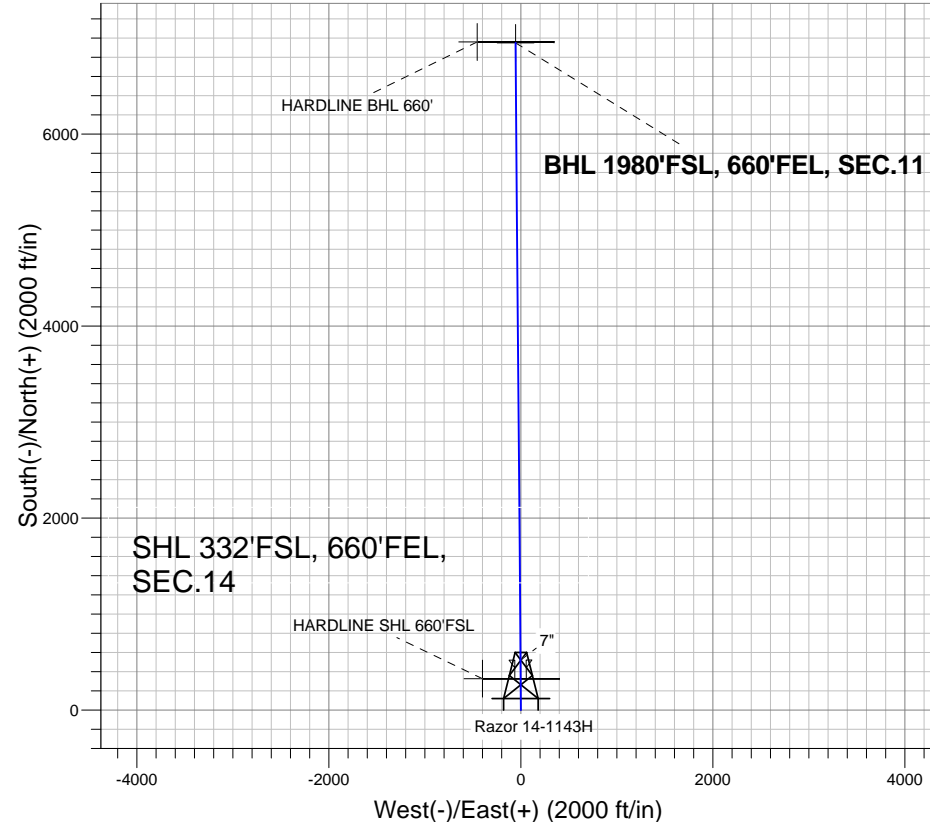
Azimuths to True North  
Magnetic North: 8.24°

Magnetic Field  
Strength: 53345.0srT  
Dip Angle: 67.51°  
Date: 6/20/2012  
Model: IGRF2010

## ANNOTATIONS

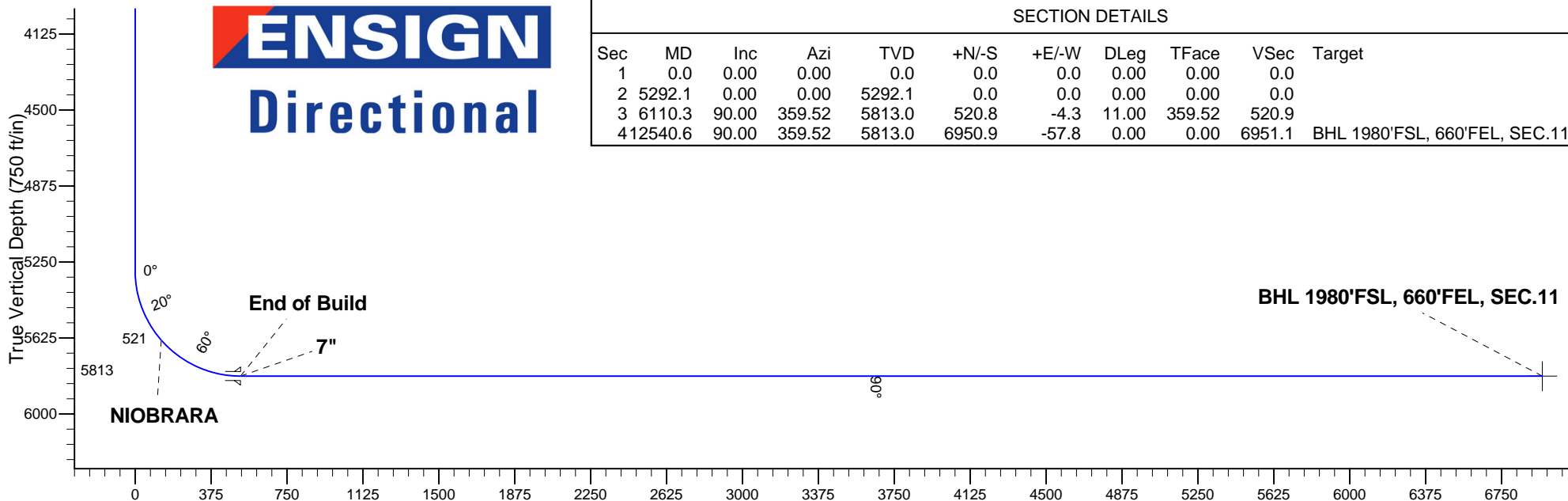
TVD	MD	Annotation
5813.0	6110.3	End of Build

Razor 14-1143H Pad Sec.14-T10N-R58W  
Razor 14-1143H  
Plan #1 (6-20-12)  
13:38, June 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	5292.1	0.00	0.00	5292.1	0.0	0.0	0.00	0.00	0.0	
3	6110.3	90.00	359.52	5813.0	520.8	-4.3	11.00	359.52	520.9	
4	12540.6	90.00	359.52	5813.0	6950.9	-57.8	0.00	0.00	6951.1	BHL 1980'FSL, 660'FEL, SEC.11



Vertical Section at 359.52° (750 ft/in)



## **Directional**

### **Whiting Oil & Gas**

**SEC.14-T10N-R58W**

**Razor 14-1143H Pad Sec.14-T10N-R58W**

**Razor 14-1143H**

**Wellbore #1**

**Plan: Plan #1 (6-20-12)**

### **Standard Planning Report**

**20 June, 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	
5,292.1	0.00	0.00	5,292.1	0.0	0.0	0.00	0.00	0.00	0.00	
6,110.3	90.00	359.52	5,813.0	520.8	-4.3	11.00	11.00	0.00	359.52	
12,540.6	90.00	359.52	5,813.0	6,950.9	-57.8	0.00	0.00	0.00	0.00	BHL 1980'FSL, 660

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 14-1143H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Project:</b>	SEC.14-T10N-R58W	<b>MD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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
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
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

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<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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)
2,160.0	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
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

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<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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)
4,320.0	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
5,292.1	0.00	0.00	5,292.1	0.0	0.0	0.0	0.00	0.00	0.00
5,320.0	3.07	359.52	5,320.0	0.7	0.0	0.7	11.00	11.00	0.00
5,360.0	7.47	359.52	5,359.8	4.4	0.0	4.4	11.00	11.00	0.00
5,400.0	11.87	359.52	5,399.2	11.1	-0.1	11.1	11.00	11.00	0.00
5,440.0	16.27	359.52	5,438.0	20.8	-0.2	20.8	11.00	11.00	0.00
5,480.0	20.67	359.52	5,476.0	33.5	-0.3	33.5	11.00	11.00	0.00
5,520.0	25.07	359.52	5,512.8	49.0	-0.4	49.1	11.00	11.00	0.00
5,560.0	29.47	359.52	5,548.3	67.4	-0.6	67.4	11.00	11.00	0.00
5,600.0	33.87	359.52	5,582.4	88.4	-0.7	88.4	11.00	11.00	0.00
5,640.0	38.27	359.52	5,614.7	111.9	-0.9	111.9	11.00	11.00	0.00
5,667.0	41.24	359.52	5,635.5	129.2	-1.1	129.2	11.00	11.00	0.00
<b>NIORARA</b>									
5,680.0	42.67	359.52	5,645.1	137.9	-1.1	137.9	11.00	11.00	0.00
5,720.0	47.07	359.52	5,673.5	166.1	-1.4	166.1	11.00	11.00	0.00
5,760.0	51.47	359.52	5,699.6	196.4	-1.6	196.4	11.00	11.00	0.00
5,800.0	55.87	359.52	5,723.3	228.6	-1.9	228.6	11.00	11.00	0.00
5,840.0	60.27	359.52	5,744.4	262.5	-2.2	262.5	11.00	11.00	0.00
5,880.0	64.67	359.52	5,762.9	298.0	-2.5	298.0	11.00	11.00	0.00
5,920.0	69.07	359.52	5,778.6	334.8	-2.8	334.8	11.00	11.00	0.00
5,960.0	73.47	359.52	5,791.5	372.6	-3.1	372.6	11.00	11.00	0.00
6,000.0	77.87	359.52	5,801.4	411.4	-3.4	411.4	11.00	11.00	0.00
6,040.0	82.27	359.52	5,808.3	450.8	-3.7	450.8	11.00	11.00	0.00
6,080.0	86.67	359.52	5,812.1	490.6	-4.1	490.6	11.00	11.00	0.00
6,110.3	90.00	359.52	5,813.0	520.8	-4.3	520.9	11.00	11.00	0.00
<b>End of Build - 7"</b>									
6,120.0	90.00	359.52	5,813.0	530.5	-4.4	530.6	0.01	0.01	0.00
6,160.0	90.00	359.52	5,813.0	570.5	-4.7	570.6	0.00	0.00	0.00
6,200.0	90.00	359.52	5,813.0	610.5	-5.1	610.6	0.00	0.00	0.00
6,240.0	90.00	359.52	5,813.0	650.5	-5.4	650.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 14-1143H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Project:</b>	SEC.14-T10N-R58W	<b>MD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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	359.52	5,813.0	690.5	-5.7	690.6	0.00	0.00	0.00
6,320.0	90.00	359.52	5,813.0	730.5	-6.1	730.6	0.00	0.00	0.00
6,360.0	90.00	359.52	5,813.0	770.5	-6.4	770.6	0.00	0.00	0.00
6,400.0	90.00	359.52	5,813.0	810.5	-6.7	810.6	0.00	0.00	0.00
6,440.0	90.00	359.52	5,813.0	850.5	-7.1	850.6	0.00	0.00	0.00
6,480.0	90.00	359.52	5,813.0	890.5	-7.4	890.6	0.00	0.00	0.00
6,520.0	90.00	359.52	5,813.0	930.5	-7.7	930.6	0.00	0.00	0.00
6,560.0	90.00	359.52	5,813.0	970.5	-8.1	970.6	0.00	0.00	0.00
6,600.0	90.00	359.52	5,813.0	1,010.5	-8.4	1,010.6	0.00	0.00	0.00
6,640.0	90.00	359.52	5,813.0	1,050.5	-8.7	1,050.6	0.00	0.00	0.00
6,680.0	90.00	359.52	5,813.0	1,090.5	-9.1	1,090.6	0.00	0.00	0.00
6,720.0	90.00	359.52	5,813.0	1,130.5	-9.4	1,130.6	0.00	0.00	0.00
6,760.0	90.00	359.52	5,813.0	1,170.5	-9.7	1,170.6	0.00	0.00	0.00
6,800.0	90.00	359.52	5,813.0	1,210.5	-10.1	1,210.6	0.00	0.00	0.00
6,840.0	90.00	359.52	5,813.0	1,250.5	-10.4	1,250.6	0.00	0.00	0.00
6,880.0	90.00	359.52	5,813.0	1,290.5	-10.7	1,290.6	0.00	0.00	0.00
6,920.0	90.00	359.52	5,813.0	1,330.5	-11.1	1,330.6	0.00	0.00	0.00
6,960.0	90.00	359.52	5,813.0	1,370.5	-11.4	1,370.6	0.00	0.00	0.00
7,000.0	90.00	359.52	5,813.0	1,410.5	-11.7	1,410.6	0.00	0.00	0.00
7,040.0	90.00	359.52	5,813.0	1,450.5	-12.1	1,450.6	0.00	0.00	0.00
7,080.0	90.00	359.52	5,813.0	1,490.5	-12.4	1,490.6	0.00	0.00	0.00
7,120.0	90.00	359.52	5,813.0	1,530.5	-12.7	1,530.6	0.00	0.00	0.00
7,160.0	90.00	359.52	5,813.0	1,570.5	-13.1	1,570.6	0.00	0.00	0.00
7,200.0	90.00	359.52	5,813.0	1,610.5	-13.4	1,610.6	0.00	0.00	0.00
7,240.0	90.00	359.52	5,813.0	1,650.5	-13.7	1,650.6	0.00	0.00	0.00
7,280.0	90.00	359.52	5,813.0	1,690.5	-14.1	1,690.6	0.00	0.00	0.00
7,320.0	90.00	359.52	5,813.0	1,730.5	-14.4	1,730.6	0.00	0.00	0.00
7,360.0	90.00	359.52	5,813.0	1,770.5	-14.7	1,770.6	0.00	0.00	0.00
7,400.0	90.00	359.52	5,813.0	1,810.5	-15.1	1,810.6	0.00	0.00	0.00
7,440.0	90.00	359.52	5,813.0	1,850.5	-15.4	1,850.6	0.00	0.00	0.00
7,480.0	90.00	359.52	5,813.0	1,890.5	-15.7	1,890.6	0.00	0.00	0.00
7,520.0	90.00	359.52	5,813.0	1,930.5	-16.1	1,930.6	0.00	0.00	0.00
7,560.0	90.00	359.52	5,813.0	1,970.5	-16.4	1,970.6	0.00	0.00	0.00
7,600.0	90.00	359.52	5,813.0	2,010.5	-16.7	2,010.6	0.00	0.00	0.00
7,640.0	90.00	359.52	5,813.0	2,050.5	-17.1	2,050.6	0.00	0.00	0.00
7,680.0	90.00	359.52	5,813.0	2,090.5	-17.4	2,090.6	0.00	0.00	0.00
7,720.0	90.00	359.52	5,813.0	2,130.5	-17.7	2,130.6	0.00	0.00	0.00
7,760.0	90.00	359.52	5,813.0	2,170.5	-18.1	2,170.6	0.00	0.00	0.00
7,800.0	90.00	359.52	5,813.0	2,210.5	-18.4	2,210.6	0.00	0.00	0.00
7,840.0	90.00	359.52	5,813.0	2,250.5	-18.7	2,250.6	0.00	0.00	0.00
7,880.0	90.00	359.52	5,813.0	2,290.5	-19.1	2,290.6	0.00	0.00	0.00
7,920.0	90.00	359.52	5,813.0	2,330.5	-19.4	2,330.6	0.00	0.00	0.00
7,960.0	90.00	359.52	5,813.0	2,370.5	-19.7	2,370.6	0.00	0.00	0.00
8,000.0	90.00	359.52	5,813.0	2,410.5	-20.1	2,410.6	0.00	0.00	0.00
8,040.0	90.00	359.52	5,813.0	2,450.5	-20.4	2,450.6	0.00	0.00	0.00
8,080.0	90.00	359.52	5,813.0	2,490.5	-20.7	2,490.6	0.00	0.00	0.00
8,120.0	90.00	359.52	5,813.0	2,530.5	-21.0	2,530.6	0.00	0.00	0.00
8,160.0	90.00	359.52	5,813.0	2,570.5	-21.4	2,570.6	0.00	0.00	0.00
8,200.0	90.00	359.52	5,813.0	2,610.5	-21.7	2,610.6	0.00	0.00	0.00
8,240.0	90.00	359.52	5,813.0	2,650.5	-22.0	2,650.6	0.00	0.00	0.00
8,280.0	90.00	359.52	5,813.0	2,690.5	-22.4	2,690.6	0.00	0.00	0.00
8,320.0	90.00	359.52	5,813.0	2,730.5	-22.7	2,730.6	0.00	0.00	0.00
8,360.0	90.00	359.52	5,813.0	2,770.5	-23.0	2,770.6	0.00	0.00	0.00
8,400.0	90.00	359.52	5,813.0	2,810.5	-23.4	2,810.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 14-1143H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Project:</b>	SEC.14-T10N-R58W	<b>MD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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	359.52	5,813.0	2,850.5	-23.7	2,850.6	0.00	0.00	0.00
8,480.0	90.00	359.52	5,813.0	2,890.5	-24.0	2,890.6	0.00	0.00	0.00
8,520.0	90.00	359.52	5,813.0	2,930.5	-24.4	2,930.6	0.00	0.00	0.00
8,560.0	90.00	359.52	5,813.0	2,970.5	-24.7	2,970.6	0.00	0.00	0.00
8,600.0	90.00	359.52	5,813.0	3,010.5	-25.0	3,010.6	0.00	0.00	0.00
8,640.0	90.00	359.52	5,813.0	3,050.5	-25.4	3,050.6	0.00	0.00	0.00
8,680.0	90.00	359.52	5,813.0	3,090.4	-25.7	3,090.6	0.00	0.00	0.00
8,720.0	90.00	359.52	5,813.0	3,130.4	-26.0	3,130.6	0.00	0.00	0.00
8,760.0	90.00	359.52	5,813.0	3,170.4	-26.4	3,170.6	0.00	0.00	0.00
8,800.0	90.00	359.52	5,813.0	3,210.4	-26.7	3,210.6	0.00	0.00	0.00
8,840.0	90.00	359.52	5,813.0	3,250.4	-27.0	3,250.6	0.00	0.00	0.00
8,880.0	90.00	359.52	5,813.0	3,290.4	-27.4	3,290.6	0.00	0.00	0.00
8,920.0	90.00	359.52	5,813.0	3,330.4	-27.7	3,330.6	0.00	0.00	0.00
8,960.0	90.00	359.52	5,813.0	3,370.4	-28.0	3,370.6	0.00	0.00	0.00
9,000.0	90.00	359.52	5,813.0	3,410.4	-28.4	3,410.6	0.00	0.00	0.00
9,040.0	90.00	359.52	5,813.0	3,450.4	-28.7	3,450.6	0.00	0.00	0.00
9,080.0	90.00	359.52	5,813.0	3,490.4	-29.0	3,490.6	0.00	0.00	0.00
9,120.0	90.00	359.52	5,813.0	3,530.4	-29.4	3,530.6	0.00	0.00	0.00
9,160.0	90.00	359.52	5,813.0	3,570.4	-29.7	3,570.6	0.00	0.00	0.00
9,200.0	90.00	359.52	5,813.0	3,610.4	-30.0	3,610.6	0.00	0.00	0.00
9,240.0	90.00	359.52	5,813.0	3,650.4	-30.4	3,650.6	0.00	0.00	0.00
9,280.0	90.00	359.52	5,813.0	3,690.4	-30.7	3,690.6	0.00	0.00	0.00
9,320.0	90.00	359.52	5,813.0	3,730.4	-31.0	3,730.6	0.00	0.00	0.00
9,360.0	90.00	359.52	5,813.0	3,770.4	-31.4	3,770.6	0.00	0.00	0.00
9,400.0	90.00	359.52	5,813.0	3,810.4	-31.7	3,810.6	0.00	0.00	0.00
9,440.0	90.00	359.52	5,813.0	3,850.4	-32.0	3,850.6	0.00	0.00	0.00
9,480.0	90.00	359.52	5,813.0	3,890.4	-32.4	3,890.6	0.00	0.00	0.00
9,520.0	90.00	359.52	5,813.0	3,930.4	-32.7	3,930.6	0.00	0.00	0.00
9,560.0	90.00	359.52	5,813.0	3,970.4	-33.0	3,970.6	0.00	0.00	0.00
9,600.0	90.00	359.52	5,813.0	4,010.4	-33.4	4,010.6	0.00	0.00	0.00
9,640.0	90.00	359.52	5,813.0	4,050.4	-33.7	4,050.6	0.00	0.00	0.00
9,680.0	90.00	359.52	5,813.0	4,090.4	-34.0	4,090.6	0.00	0.00	0.00
9,720.0	90.00	359.52	5,813.0	4,130.4	-34.4	4,130.6	0.00	0.00	0.00
9,760.0	90.00	359.52	5,813.0	4,170.4	-34.7	4,170.6	0.00	0.00	0.00
9,800.0	90.00	359.52	5,813.0	4,210.4	-35.0	4,210.6	0.00	0.00	0.00
9,840.0	90.00	359.52	5,813.0	4,250.4	-35.4	4,250.6	0.00	0.00	0.00
9,880.0	90.00	359.52	5,813.0	4,290.4	-35.7	4,290.6	0.00	0.00	0.00
9,920.0	90.00	359.52	5,813.0	4,330.4	-36.0	4,330.6	0.00	0.00	0.00
9,960.0	90.00	359.52	5,813.0	4,370.4	-36.4	4,370.6	0.00	0.00	0.00
10,000.0	90.00	359.52	5,813.0	4,410.4	-36.7	4,410.6	0.00	0.00	0.00
10,040.0	90.00	359.52	5,813.0	4,450.4	-37.0	4,450.6	0.00	0.00	0.00
10,080.0	90.00	359.52	5,813.0	4,490.4	-37.4	4,490.6	0.00	0.00	0.00
10,120.0	90.00	359.52	5,813.0	4,530.4	-37.7	4,530.6	0.00	0.00	0.00
10,160.0	90.00	359.52	5,813.0	4,570.4	-38.0	4,570.6	0.00	0.00	0.00
10,200.0	90.00	359.52	5,813.0	4,610.4	-38.4	4,610.6	0.00	0.00	0.00
10,240.0	90.00	359.52	5,813.0	4,650.4	-38.7	4,650.6	0.00	0.00	0.00
10,280.0	90.00	359.52	5,813.0	4,690.4	-39.0	4,690.6	0.00	0.00	0.00
10,320.0	90.00	359.52	5,813.0	4,730.4	-39.3	4,730.6	0.00	0.00	0.00
10,360.0	90.00	359.52	5,813.0	4,770.4	-39.7	4,770.6	0.00	0.00	0.00
10,400.0	90.00	359.52	5,813.0	4,810.4	-40.0	4,810.6	0.00	0.00	0.00
10,440.0	90.00	359.52	5,813.0	4,850.4	-40.3	4,850.6	0.00	0.00	0.00
10,480.0	90.00	359.52	5,813.0	4,890.4	-40.7	4,890.6	0.00	0.00	0.00
10,520.0	90.00	359.52	5,813.0	4,930.4	-41.0	4,930.6	0.00	0.00	0.00
10,560.0	90.00	359.52	5,813.0	4,970.4	-41.3	4,970.6	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 14-1143H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Project:</b>	SEC.14-T10N-R58W	<b>MD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

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	359.52	5,813.0	5,010.4	-41.7	5,010.6	0.00	0.00	0.00
10,640.0	90.00	359.52	5,813.0	5,050.4	-42.0	5,050.6	0.00	0.00	0.00
10,680.0	90.00	359.52	5,813.0	5,090.4	-42.3	5,090.6	0.00	0.00	0.00
10,720.0	90.00	359.52	5,813.0	5,130.4	-42.7	5,130.6	0.00	0.00	0.00
10,760.0	90.00	359.52	5,813.0	5,170.4	-43.0	5,170.6	0.00	0.00	0.00
10,800.0	90.00	359.52	5,813.0	5,210.4	-43.3	5,210.6	0.00	0.00	0.00
10,840.0	90.00	359.52	5,813.0	5,250.4	-43.7	5,250.6	0.00	0.00	0.00
10,880.0	90.00	359.52	5,813.0	5,290.4	-44.0	5,290.6	0.00	0.00	0.00
10,920.0	90.00	359.52	5,813.0	5,330.4	-44.3	5,330.6	0.00	0.00	0.00
10,960.0	90.00	359.52	5,813.0	5,370.4	-44.7	5,370.6	0.00	0.00	0.00
11,000.0	90.00	359.52	5,813.0	5,410.4	-45.0	5,410.6	0.00	0.00	0.00
11,040.0	90.00	359.52	5,813.0	5,450.4	-45.3	5,450.6	0.00	0.00	0.00
11,080.0	90.00	359.52	5,813.0	5,490.4	-45.7	5,490.6	0.00	0.00	0.00
11,120.0	90.00	359.52	5,813.0	5,530.4	-46.0	5,530.6	0.00	0.00	0.00
11,160.0	90.00	359.52	5,813.0	5,570.4	-46.3	5,570.6	0.00	0.00	0.00
11,200.0	90.00	359.52	5,813.0	5,610.4	-46.7	5,610.6	0.00	0.00	0.00
11,240.0	90.00	359.52	5,813.0	5,650.4	-47.0	5,650.6	0.00	0.00	0.00
11,280.0	90.00	359.52	5,813.0	5,690.4	-47.3	5,690.6	0.00	0.00	0.00
11,320.0	90.00	359.52	5,813.0	5,730.4	-47.7	5,730.6	0.00	0.00	0.00
11,360.0	90.00	359.52	5,813.0	5,770.4	-48.0	5,770.6	0.00	0.00	0.00
11,400.0	90.00	359.52	5,813.0	5,810.4	-48.3	5,810.6	0.00	0.00	0.00
11,440.0	90.00	359.52	5,813.0	5,850.4	-48.7	5,850.6	0.00	0.00	0.00
11,480.0	90.00	359.52	5,813.0	5,890.4	-49.0	5,890.6	0.00	0.00	0.00
11,520.0	90.00	359.52	5,813.0	5,930.4	-49.3	5,930.6	0.00	0.00	0.00
11,560.0	90.00	359.52	5,813.0	5,970.3	-49.7	5,970.6	0.00	0.00	0.00
11,600.0	90.00	359.52	5,813.0	6,010.3	-50.0	6,010.6	0.00	0.00	0.00
11,640.0	90.00	359.52	5,813.0	6,050.3	-50.3	6,050.6	0.00	0.00	0.00
11,680.0	90.00	359.52	5,813.0	6,090.3	-50.7	6,090.6	0.00	0.00	0.00
11,720.0	90.00	359.52	5,813.0	6,130.3	-51.0	6,130.6	0.00	0.00	0.00
11,760.0	90.00	359.52	5,813.0	6,170.3	-51.3	6,170.6	0.00	0.00	0.00
11,800.0	90.00	359.52	5,813.0	6,210.3	-51.7	6,210.6	0.00	0.00	0.00
11,840.0	90.00	359.52	5,813.0	6,250.3	-52.0	6,250.6	0.00	0.00	0.00
11,880.0	90.00	359.52	5,813.0	6,290.3	-52.3	6,290.6	0.00	0.00	0.00
11,920.0	90.00	359.52	5,813.0	6,330.3	-52.7	6,330.6	0.00	0.00	0.00
11,960.0	90.00	359.52	5,813.0	6,370.3	-53.0	6,370.6	0.00	0.00	0.00
12,000.0	90.00	359.52	5,813.0	6,410.3	-53.3	6,410.6	0.00	0.00	0.00
12,040.0	90.00	359.52	5,813.0	6,450.3	-53.7	6,450.6	0.00	0.00	0.00
12,080.0	90.00	359.52	5,813.0	6,490.3	-54.0	6,490.6	0.00	0.00	0.00
12,120.0	90.00	359.52	5,813.0	6,530.3	-54.3	6,530.6	0.00	0.00	0.00
12,160.0	90.00	359.52	5,813.0	6,570.3	-54.7	6,570.6	0.00	0.00	0.00
12,200.0	90.00	359.52	5,813.0	6,610.3	-55.0	6,610.6	0.00	0.00	0.00
12,240.0	90.00	359.52	5,813.0	6,650.3	-55.3	6,650.6	0.00	0.00	0.00
12,280.0	90.00	359.52	5,813.0	6,690.3	-55.7	6,690.6	0.00	0.00	0.00
12,320.0	90.00	359.52	5,813.0	6,730.3	-56.0	6,730.6	0.00	0.00	0.00
12,360.0	90.00	359.52	5,813.0	6,770.3	-56.3	6,770.6	0.00	0.00	0.00
12,400.0	90.00	359.52	5,813.0	6,810.3	-56.7	6,810.6	0.00	0.00	0.00
12,440.0	90.00	359.52	5,813.0	6,850.3	-57.0	6,850.6	0.00	0.00	0.00
12,480.0	90.00	359.52	5,813.0	6,890.3	-57.3	6,890.6	0.00	0.00	0.00
12,520.0	90.00	359.52	5,813.0	6,930.3	-57.6	6,930.6	0.00	0.00	0.00
12,540.6	90.00	359.52	5,813.0	6,950.9	-57.8	6,951.1	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Razor 14-1143H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Project:</b>	SEC.14-T10N-R58W	<b>MD Reference:</b>	WELL @ 4953.1ft (RKB - 16.5')
<b>Site:</b>	Razor 14-1143H Pad Sec.14-T10N-R58W	<b>North Reference:</b>	True
<b>Well:</b>	Razor 14-1143H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-20-12)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,110.3	5,813.0	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,667.0	5,635.5	NIOBRARA		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
6,110.3	5,813.0	520.8	-4.3	End of Build	