

# Whiting Oil & Gas

Well Name: **Wildhorse #18-1834H**

Surface Location: Wildhorse #18-1834H Pad Sec.18-T9N-R59W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

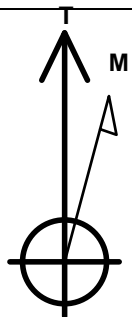
Ground Elevation: 5041.2

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1522035.40	3410335.96	40.756967	-104.018808	

RKB Ensign 14 - 15' WELL @ 5056.2ft (RKB Ensign 14 - 15')

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
HARDLINE 660°FNL	1.0	-340.0	-500.0	1521687.10	3409841.71	40.756034	-104.020613	Polygon
HARDLINE 660°FSL	1.0	-4360.0	-457.1	1517668.40	3409951.75	40.745000	-104.020458	Polygon
BHL 660°FSL & 1980°FEL	6290.0	-4360.0	42.9	1517676.78	3410451.72	40.745000	-104.018653	Point



Azimuths to True North  
Magnetic North: 8.43°

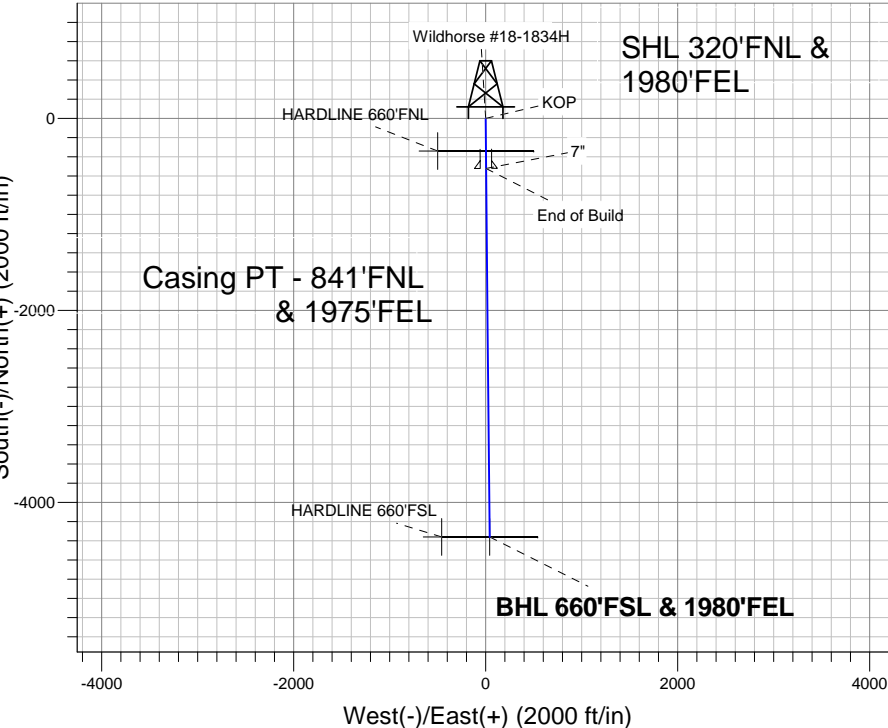
Magnetic Field  
Strength: 53350.8nT  
Dip Angle: 67.45°  
Date: 11/10/2011  
Model: IGRF2010

## ANNOTATIONS

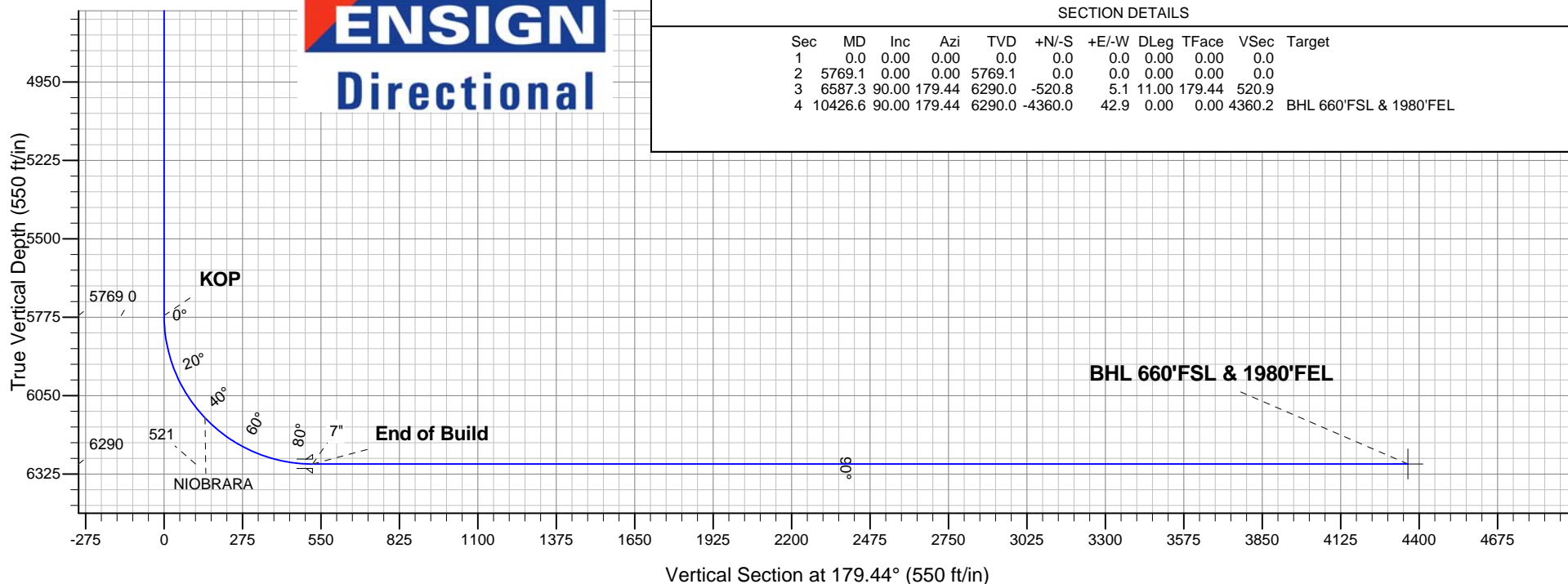
TVD	MD	Annotation
5769.1	5769.1	KOP
6290.0	6587.3	End of Build

Wildhorse #18-1834H Pad Sec.18-T9N-R59W  
Wildhorse #18-1834H  
Plan #1 (11-10-11)  
15:12, November 11 2011

South(-)/North(+) (2000 ft/in)



True Vertical Depth (550 ft/in)



**ENSIGN**  
Directional

## 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	5769.1	0.00	0.00	5769.1	0.0	0.0	0.00	0.00	0.0	
3	6587.3	90.00	179.44	6290.0	-520.8	5.1	11.00	179.44	520.9	
4	10426.6	90.00	179.44	6290.0	-4360.0	42.9	0.00	0.00	4360.2	BHL 660°FSL & 1980°FEL



## **Whiting Oil & Gas**

**SEC.18-T9N-R59W**

**Wildhorse #18-1834H Pad Sec.18-T9N-R59W**

**Wildhorse #18-1834H**

**Wellbore #1**

**Plan: Plan #1 (11-10-11)**

## **Standard Planning Report**

**11 November, 2011**

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	
5,769.1	0.00	0.00	5,769.1	0.0	0.0	0.00	0.00	0.00	0.00	
6,587.3	90.00	179.44	6,290.0	-520.8	5.1	11.00	11.00	0.00	179.44	
10,426.6	90.00	179.44	6,290.0	-4,360.0	42.9	0.00	0.00	0.00	0.00	BHL 660'FSL & 19E

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wildhorse #18-1834H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.18-T9N-R59W	<b>MD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wildhorse #18-1834H Pad Sec.18-T9N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wildhorse #18-1834H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-10-11)		

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
HARDLINE 660'FSL - HARDLINE 660'FNL									
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

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<b>Well:</b>	Wildhorse #18-1834H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-10-11)		

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

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<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
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<b>Site:</b>	Wildhorse #18-1834H Pad Sec.18-T9N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wildhorse #18-1834H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-10-11)		

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
5,360.0	0.00	0.00	5,360.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,440.0	0.00	0.00	5,440.0	0.0	0.0	0.0	0.00	0.00	0.00
5,480.0	0.00	0.00	5,480.0	0.0	0.0	0.0	0.00	0.00	0.00
5,520.0	0.00	0.00	5,520.0	0.0	0.0	0.0	0.00	0.00	0.00
5,560.0	0.00	0.00	5,560.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,640.0	0.00	0.00	5,640.0	0.0	0.0	0.0	0.00	0.00	0.00
5,680.0	0.00	0.00	5,680.0	0.0	0.0	0.0	0.00	0.00	0.00
5,720.0	0.00	0.00	5,720.0	0.0	0.0	0.0	0.00	0.00	0.00
5,760.0	0.00	0.00	5,760.0	0.0	0.0	0.0	0.00	0.00	0.00
5,769.1	0.00	0.00	5,769.1	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP</b>									
5,800.0	3.40	179.44	5,800.0	-0.9	0.0	0.9	10.99	10.99	0.00
5,840.0	7.80	179.44	5,839.8	-4.8	0.0	4.8	11.00	11.00	0.00
5,880.0	12.20	179.44	5,879.2	-11.8	0.1	11.8	11.00	11.00	0.00
5,920.0	16.60	179.44	5,917.9	-21.7	0.2	21.7	11.00	11.00	0.00
5,960.0	21.00	179.44	5,955.8	-34.6	0.3	34.6	11.00	11.00	0.00
6,000.0	25.40	179.44	5,992.5	-50.3	0.5	50.3	11.00	11.00	0.00
6,040.0	29.80	179.44	6,028.0	-68.9	0.7	68.9	11.00	11.00	0.00
6,080.0	34.20	179.44	6,061.9	-90.0	0.9	90.0	11.00	11.00	0.00
6,120.0	38.60	179.44	6,094.1	-113.8	1.1	113.8	11.00	11.00	0.00
6,160.0	43.00	179.44	6,124.3	-139.9	1.4	139.9	11.00	11.00	0.00
6,165.0	43.55	179.44	6,128.0	-143.3	1.4	143.3	11.00	11.00	0.00
<b>NIOBRARA</b>									
6,200.0	47.40	179.44	6,152.5	-168.3	1.7	168.3	11.00	11.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wildhorse #18-1834H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.18-T9N-R59W	<b>MD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wildhorse #18-1834H Pad Sec.18-T9N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wildhorse #18-1834H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-10-11)		

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)	
6,240.0	51.80	179.44	6,178.4	-198.7	2.0	198.7	11.00	11.00	0.00	
6,280.0	56.20	179.44	6,201.9	-231.1	2.3	231.1	11.00	11.00	0.00	
6,320.0	60.60	179.44	6,222.9	-265.1	2.6	265.1	11.00	11.00	0.00	
6,360.0	65.00	179.44	6,241.2	-300.7	3.0	300.7	11.00	11.00	0.00	
6,400.0	69.40	179.44	6,256.7	-337.6	3.3	337.6	11.00	11.00	0.00	
6,440.0	73.80	179.44	6,269.3	-375.5	3.7	375.5	11.00	11.00	0.00	
6,480.0	78.20	179.44	6,279.0	-414.3	4.1	414.3	11.00	11.00	0.00	
6,520.0	82.60	179.44	6,285.7	-453.7	4.5	453.7	11.00	11.00	0.00	
6,560.0	87.00	179.44	6,289.3	-493.5	4.9	493.6	11.00	11.00	0.00	
6,587.3	90.00	179.44	6,290.0	-520.8	5.1	520.9	11.00	11.00	0.00	
End of Build - 7"										
6,600.0	90.00	179.44	6,290.0	-533.5	5.3	533.6	0.01	0.01	0.00	
6,640.0	90.00	179.44	6,290.0	-573.5	5.6	573.6	0.00	0.00	0.00	
6,680.0	90.00	179.44	6,290.0	-613.5	6.0	613.6	0.00	0.00	0.00	
6,720.0	90.00	179.44	6,290.0	-653.5	6.4	653.6	0.00	0.00	0.00	
6,760.0	90.00	179.44	6,290.0	-693.5	6.8	693.6	0.00	0.00	0.00	
6,800.0	90.00	179.44	6,290.0	-733.5	7.2	733.6	0.00	0.00	0.00	
6,840.0	90.00	179.44	6,290.0	-773.5	7.6	773.6	0.00	0.00	0.00	
6,880.0	90.00	179.44	6,290.0	-813.5	8.0	813.6	0.00	0.00	0.00	
6,920.0	90.00	179.44	6,290.0	-853.5	8.4	853.6	0.00	0.00	0.00	
6,960.0	90.00	179.44	6,290.0	-893.5	8.8	893.6	0.00	0.00	0.00	
7,000.0	90.00	179.44	6,290.0	-933.5	9.2	933.6	0.00	0.00	0.00	
7,040.0	90.00	179.44	6,290.0	-973.5	9.6	973.6	0.00	0.00	0.00	
7,080.0	90.00	179.44	6,290.0	-1,013.5	10.0	1,013.6	0.00	0.00	0.00	
7,120.0	90.00	179.44	6,290.0	-1,053.5	10.4	1,053.6	0.00	0.00	0.00	
7,160.0	90.00	179.44	6,290.0	-1,093.5	10.8	1,093.6	0.00	0.00	0.00	
7,200.0	90.00	179.44	6,290.0	-1,133.5	11.2	1,133.6	0.00	0.00	0.00	
7,240.0	90.00	179.44	6,290.0	-1,173.5	11.6	1,173.6	0.00	0.00	0.00	
7,280.0	90.00	179.44	6,290.0	-1,213.5	12.0	1,213.6	0.00	0.00	0.00	
7,320.0	90.00	179.44	6,290.0	-1,253.5	12.3	1,253.6	0.00	0.00	0.00	
7,360.0	90.00	179.44	6,290.0	-1,293.5	12.7	1,293.6	0.00	0.00	0.00	
7,400.0	90.00	179.44	6,290.0	-1,333.5	13.1	1,333.6	0.00	0.00	0.00	
7,440.0	90.00	179.44	6,290.0	-1,373.5	13.5	1,373.6	0.00	0.00	0.00	
7,480.0	90.00	179.44	6,290.0	-1,413.5	13.9	1,413.6	0.00	0.00	0.00	
7,520.0	90.00	179.44	6,290.0	-1,453.5	14.3	1,453.6	0.00	0.00	0.00	
7,560.0	90.00	179.44	6,290.0	-1,493.5	14.7	1,493.6	0.00	0.00	0.00	
7,600.0	90.00	179.44	6,290.0	-1,533.5	15.1	1,533.6	0.00	0.00	0.00	
7,640.0	90.00	179.44	6,290.0	-1,573.5	15.5	1,573.6	0.00	0.00	0.00	
7,680.0	90.00	179.44	6,290.0	-1,613.5	15.9	1,613.6	0.00	0.00	0.00	
7,720.0	90.00	179.44	6,290.0	-1,653.5	16.3	1,653.6	0.00	0.00	0.00	
7,760.0	90.00	179.44	6,290.0	-1,693.5	16.7	1,693.6	0.00	0.00	0.00	
7,800.0	90.00	179.44	6,290.0	-1,733.5	17.1	1,733.6	0.00	0.00	0.00	
7,840.0	90.00	179.44	6,290.0	-1,773.5	17.5	1,773.6	0.00	0.00	0.00	
7,880.0	90.00	179.44	6,290.0	-1,813.5	17.9	1,813.6	0.00	0.00	0.00	
7,920.0	90.00	179.44	6,290.0	-1,853.5	18.3	1,853.6	0.00	0.00	0.00	
7,960.0	90.00	179.44	6,290.0	-1,893.5	18.7	1,893.6	0.00	0.00	0.00	
8,000.0	90.00	179.44	6,290.0	-1,933.5	19.0	1,933.6	0.00	0.00	0.00	
8,040.0	90.00	179.44	6,290.0	-1,973.5	19.4	1,973.6	0.00	0.00	0.00	
8,080.0	90.00	179.44	6,290.0	-2,013.5	19.8	2,013.6	0.00	0.00	0.00	
8,120.0	90.00	179.44	6,290.0	-2,053.5	20.2	2,053.6	0.00	0.00	0.00	
8,160.0	90.00	179.44	6,290.0	-2,093.5	20.6	2,093.6	0.00	0.00	0.00	
8,200.0	90.00	179.44	6,290.0	-2,133.5	21.0	2,133.6	0.00	0.00	0.00	
8,240.0	90.00	179.44	6,290.0	-2,173.5	21.4	2,173.6	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wildhorse #18-1834H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.18-T9N-R59W	<b>MD Reference:</b>	WELL @ 5056.2ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wildhorse #18-1834H Pad Sec.18-T9N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wildhorse #18-1834H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (11-10-11)		

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)
8,280.0	90.00	179.44	6,290.0	-2,213.5	21.8	2,213.6	0.00	0.00	0.00
8,320.0	90.00	179.44	6,290.0	-2,253.5	22.2	2,253.6	0.00	0.00	0.00
8,360.0	90.00	179.44	6,290.0	-2,293.4	22.6	2,293.6	0.00	0.00	0.00
8,400.0	90.00	179.44	6,290.0	-2,333.4	23.0	2,333.6	0.00	0.00	0.00
8,440.0	90.00	179.44	6,290.0	-2,373.4	23.4	2,373.6	0.00	0.00	0.00
8,480.0	90.00	179.44	6,290.0	-2,413.4	23.8	2,413.6	0.00	0.00	0.00
8,520.0	90.00	179.44	6,290.0	-2,453.4	24.2	2,453.6	0.00	0.00	0.00
8,560.0	90.00	179.44	6,290.0	-2,493.4	24.6	2,493.6	0.00	0.00	0.00
8,600.0	90.00	179.44	6,290.0	-2,533.4	25.0	2,533.6	0.00	0.00	0.00
8,640.0	90.00	179.44	6,290.0	-2,573.4	25.4	2,573.6	0.00	0.00	0.00
8,680.0	90.00	179.44	6,290.0	-2,613.4	25.7	2,613.6	0.00	0.00	0.00
8,720.0	90.00	179.44	6,290.0	-2,653.4	26.1	2,653.6	0.00	0.00	0.00
8,760.0	90.00	179.44	6,290.0	-2,693.4	26.5	2,693.6	0.00	0.00	0.00
8,800.0	90.00	179.44	6,290.0	-2,733.4	26.9	2,733.6	0.00	0.00	0.00
8,840.0	90.00	179.44	6,290.0	-2,773.4	27.3	2,773.6	0.00	0.00	0.00
8,880.0	90.00	179.44	6,290.0	-2,813.4	27.7	2,813.6	0.00	0.00	0.00
8,920.0	90.00	179.44	6,290.0	-2,853.4	28.1	2,853.6	0.00	0.00	0.00
8,960.0	90.00	179.44	6,290.0	-2,893.4	28.5	2,893.6	0.00	0.00	0.00
9,000.0	90.00	179.44	6,290.0	-2,933.4	28.9	2,933.6	0.00	0.00	0.00
9,040.0	90.00	179.44	6,290.0	-2,973.4	29.3	2,973.6	0.00	0.00	0.00
9,080.0	90.00	179.44	6,290.0	-3,013.4	29.7	3,013.6	0.00	0.00	0.00
9,120.0	90.00	179.44	6,290.0	-3,053.4	30.1	3,053.6	0.00	0.00	0.00
9,160.0	90.00	179.44	6,290.0	-3,093.4	30.5	3,093.6	0.00	0.00	0.00
9,200.0	90.00	179.44	6,290.0	-3,133.4	30.9	3,133.6	0.00	0.00	0.00
9,240.0	90.00	179.44	6,290.0	-3,173.4	31.3	3,173.6	0.00	0.00	0.00
9,280.0	90.00	179.44	6,290.0	-3,213.4	31.7	3,213.6	0.00	0.00	0.00
9,320.0	90.00	179.44	6,290.0	-3,253.4	32.0	3,253.6	0.00	0.00	0.00
9,360.0	90.00	179.44	6,290.0	-3,293.4	32.4	3,293.6	0.00	0.00	0.00
9,400.0	90.00	179.44	6,290.0	-3,333.4	32.8	3,333.6	0.00	0.00	0.00
9,440.0	90.00	179.44	6,290.0	-3,373.4	33.2	3,373.6	0.00	0.00	0.00
9,480.0	90.00	179.44	6,290.0	-3,413.4	33.6	3,413.6	0.00	0.00	0.00
9,520.0	90.00	179.44	6,290.0	-3,453.4	34.0	3,453.6	0.00	0.00	0.00
9,560.0	90.00	179.44	6,290.0	-3,493.4	34.4	3,493.6	0.00	0.00	0.00
9,600.0	90.00	179.44	6,290.0	-3,533.4	34.8	3,533.6	0.00	0.00	0.00
9,640.0	90.00	179.44	6,290.0	-3,573.4	35.2	3,573.6	0.00	0.00	0.00
9,680.0	90.00	179.44	6,290.0	-3,613.4	35.6	3,613.6	0.00	0.00	0.00
9,720.0	90.00	179.44	6,290.0	-3,653.4	36.0	3,653.6	0.00	0.00	0.00
9,760.0	90.00	179.44	6,290.0	-3,693.4	36.4	3,693.6	0.00	0.00	0.00
9,800.0	90.00	179.44	6,290.0	-3,733.4	36.8	3,733.6	0.00	0.00	0.00
9,840.0	90.00	179.44	6,290.0	-3,773.4	37.2	3,773.6	0.00	0.00	0.00
9,880.0	90.00	179.44	6,290.0	-3,813.4	37.6	3,813.6	0.00	0.00	0.00
9,920.0	90.00	179.44	6,290.0	-3,853.4	38.0	3,853.6	0.00	0.00	0.00
9,960.0	90.00	179.44	6,290.0	-3,893.4	38.4	3,893.6	0.00	0.00	0.00
10,000.0	90.00	179.44	6,290.0	-3,933.4	38.7	3,933.6	0.00	0.00	0.00
10,040.0	90.00	179.44	6,290.0	-3,973.4	39.1	3,973.6	0.00	0.00	0.00
10,080.0	90.00	179.44	6,290.0	-4,013.4	39.5	4,013.6	0.00	0.00	0.00
10,120.0	90.00	179.44	6,290.0	-4,053.4	39.9	4,053.6	0.00	0.00	0.00
10,160.0	90.00	179.44	6,290.0	-4,093.4	40.3	4,093.6	0.00	0.00	0.00
10,200.0	90.00	179.44	6,290.0	-4,133.4	40.7	4,133.6	0.00	0.00	0.00
10,240.0	90.00	179.44	6,290.0	-4,173.4	41.1	4,173.6	0.00	0.00	0.00
10,280.0	90.00	179.44	6,290.0	-4,213.4	41.5	4,213.6	0.00	0.00	0.00
10,320.0	90.00	179.44	6,290.0	-4,253.4	41.9	4,253.6	0.00	0.00	0.00
10,360.0	90.00	179.44	6,290.0	-4,293.4	42.3	4,293.6	0.00	0.00	0.00
10,400.0	90.00	179.44	6,290.0	-4,333.3	42.7	4,333.6	0.00	0.00	0.00



Plan Annotations					
	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	5,769.1	5,769.1	0.0	0.0	KOP
	6,587.3	6,290.0	-520.8	5.1	End of Build