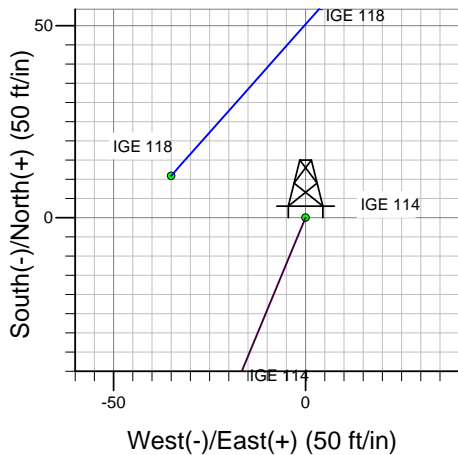
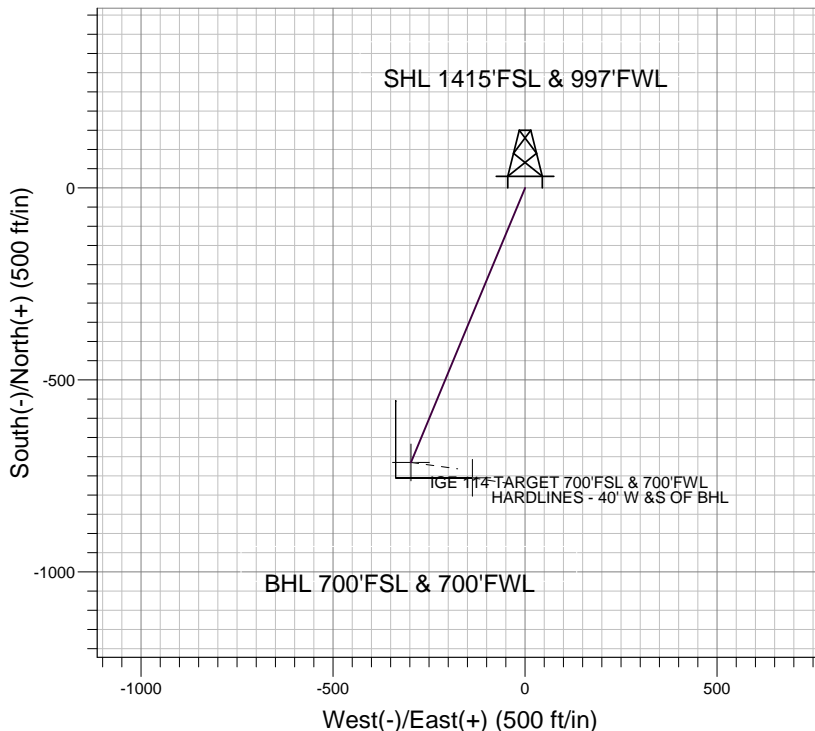
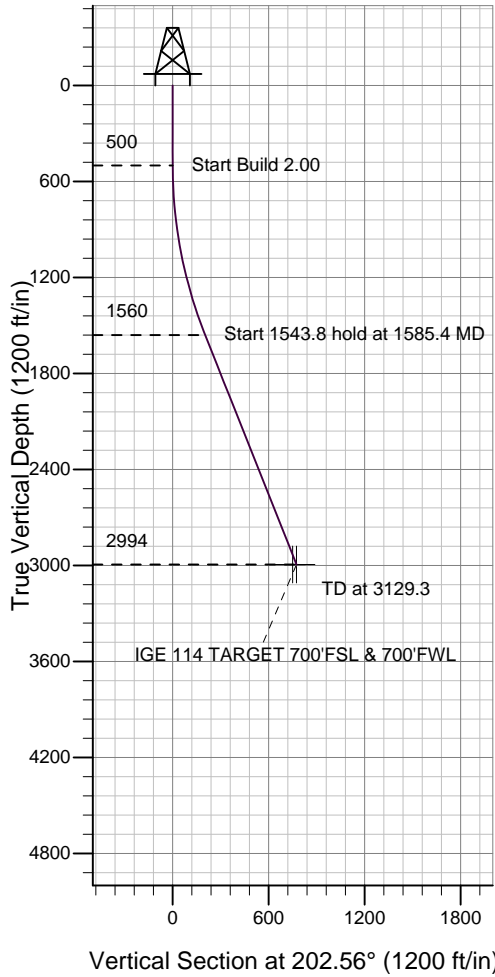


### Elm Ridge Exploration



Azimuths to True North  
 Magnetic North: 10.31°  
 Magnetic Field  
 Strength: 51369.7nT  
 Dip Angle: 63.88°  
 Date: 1/8/2008  
 Model: IGRF2005-10

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HARDLINES - 40' W & S OF BHL	2994.0	-755.0	-137.0	37° 5' 55.271 N	107° 39' 22.895 W	Polygon
IGE 114 TARGET 700'FSL & 700'FWL	2994.0	-715.0	-297.0	37° 5' 55.667 N	107° 39' 24.870 W	Point

#### 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	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	1585.4	21.71	202.56	1559.7	-187.6	-77.9	2.00	202.56	203.2	
4	3129.3	21.71	202.56	2994.0	-715.0	-297.0	0.00	0.00	774.2	IGE 114 TARGET 700'FSL & 700'FWL



## **Elm Ridge Exploration**

**SEC.18-T33N-R7W**

**IGE 114 &118 PAD SEC.18-R33N-T7W**

**IGE 114**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**08 January, 2008**

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well IGE 114
<b>Company:</b>	Elm Ridge Exploration	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T33N-R7W	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	IGE 114 & 118 PAD SEC.18-R33N-T7W	<b>North Reference:</b>	True
<b>Well:</b>	IGE 114	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	SEC.18-T33N-R7W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Southern Zone		Using geodetic scale factor

Site						IGE 114 & 118 PAD SEC.18-R33N-T7W											
<b>Site Position:</b>						<b>Northing:</b>			1,165,318.90ft			<b>Latitude:</b>			37° 6' 2.736 N		
<b>From:</b>			Lat/Long			<b>Easting:</b>			2,371,280.90ft			<b>Longitude:</b>			107° 39' 21.204 W		
<b>Position Uncertainty:</b>			0.0 ft			<b>Slot Radius:</b>			"			<b>Grid Convergence:</b>			-1.32 °		

Well	IGE 114					
Well Position	+N/-S	0.0 ft	Northing:	1,165,318.89 ft	Latitude:	37° 6' 2.736 N
	+E/-W	0.0 ft	Easting:	2,371,280.90 ft	Longitude:	107° 39' 21.204 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	1/8/2008	10.31	63.88	51,370

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	202.56

<b>Plan Sections</b>										
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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,585.4	21.71	202.56	1,559.7	-187.6	-77.9	2.00	2.00	0.00	202.56	
3,129.3	21.71	202.56	2,994.0	-715.0	-297.0	0.00	0.00	0.00	0.00	IGE 114 TARGET 7

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well IGE 114
<b>Company:</b>	Elm Ridge Exploration	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T33N-R7W	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	IGE 114 & 118 PAD SEC.18-R33N-T7W	<b>North Reference:</b>	True
<b>Well:</b>	IGE 114	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,585.4	21.71	202.56	1,559.7	-187.6	-77.9	203.2	2.00	2.00	0.00
2,339.2	21.71	202.56	2,260.0	-445.1	-184.9	482.0	0.00	0.00	0.00
<b>FRUITLAND</b>									
3,120.2	21.71	202.56	2,985.6	-711.9	-295.7	770.9	0.00	0.00	0.00
<b>HARDLINES - 40' W &amp; S OF BHL</b>									
3,129.3	21.71	202.56	2,994.0	-715.0	-297.0	774.2	0.00	0.00	0.00
<b>IGE 114 TARGET 700'FSL &amp; 700'FWL</b>									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,339.2	2,260.0	FRUITLAND		0.00		