



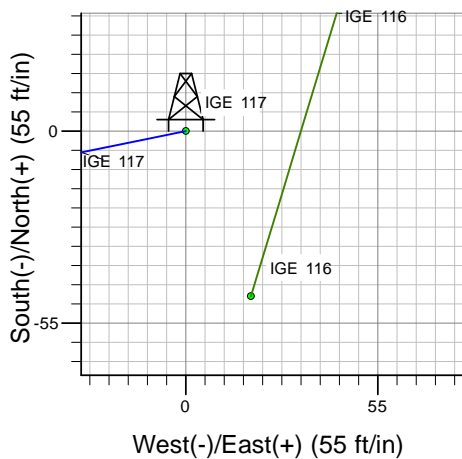
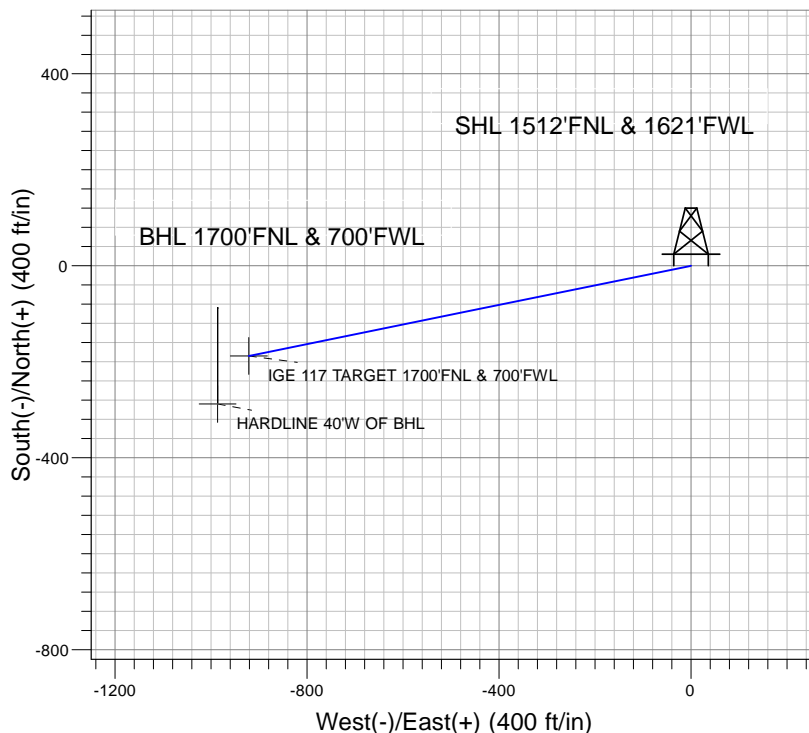
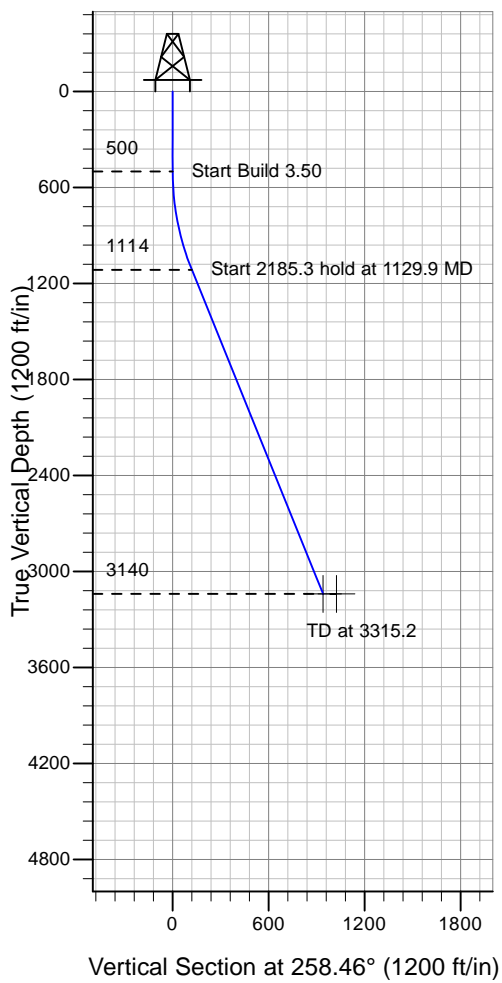
Well Name: IGE 117

Surface Location: IGE 116 & 117 PAD SEC.18-T33N-R7W
North American Datum 1983 , US State Plane 1983 , Colorado Southern Zone

Ground Elevation: 0.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1167674.25 2371959.53 37° 6' 26.172 N 107° 39' 13.500 W
Original Well Elev WELL @ 0.0ft (Original Well Elev)

Elm Ridge Exploration



Azimuths to True North
Magnetic North: 10.31°
Magnetic Field
Strength: 51373.7nT
Dip Angle: 63.89°
Date: 1/8/2008
Model: IGRF2005-10

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HARDLINE 40'W OF BHL	3140.0	-288.0	-986.0	37° 6' 23.324 N	107° 39' 25.672 W	Polygon
IGE 117 TARGET 1700'FNL & 700'FWL	3140.0	-188.0	-921.0	37° 6' 24.313 N	107° 39' 24.869 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	1129.9	22.05	258.46	1114.5	-23.9	-117.3	3.50	258.46	119.7	
4	3315.2	22.05	258.46	3140.0	-188.0	-921.0	0.00	0.00	940.0	IGE 117 TARGET 1700'FNL & 700'FWL



Elm Ridge Exploration

SEC.18-T33N-R7W

IGE 116 & 117 PAD SEC.18-T33N-R7W

IGE 117

Wellbore #1

Plan: Design #1

Standard Planning Report

11 February, 2008



ENSGN DIRECTIONAL

Planning Report

Database: EDM den0-adp01 Server Data
Company: Elm Ridge Exploration
Project: SEC.18-T33N-R7W
Site: IGE 116 &117 PAD SEC.18-T33N-R7W
Well: IGE 117
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well IGE 117
TVD Reference: WELL @ 0.0ft (Original Well Elev)
MD Reference: WELL @ 0.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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

Site		IGE 116 &117 PAD SEC.18-T33N-R7W			
Site Position:		Northing:	1,167,626.51 ft	Latitude:	37° 6' 25.704 N
From:	Lat/Long	Easting:	2,371,977.10 ft	Longitude:	107° 39' 13.270 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.32 °

Well	IGE 117					
Well Position	+N/-S	47.3 ft	Northing:	1,167,674.25 ft	Latitude:	37° 6' 26.172 N
	+E/-W	-18.7 ft	Easting:	2,371,959.53 ft	Longitude:	107° 39' 13.500 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	1/8/2008	10.31	63.89	51,374

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	258.46

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,129.9	22.05	258.46	1,114.5	-23.9	-117.3	3.50	3.50	0.00	258.46	
3,315.2	22.05	258.46	3,140.0	-188.0	-921.0	0.00	0.00	0.00	0.00	IGE 117 TARGET 1



ENSGN DIRECTIONAL

Planning Report

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well IGE 117
Company:	Elm Ridge Exploration	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	SEC.18-T33N-R7W	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	IGE 116 & 117 PAD SEC.18-T33N-R7W	North Reference:	True
Well:	IGE 117	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	3.50	258.46	599.9	-0.6	-3.0	3.1	3.50	3.50	0.00
700.0	7.00	258.46	699.5	-2.4	-12.0	12.2	3.50	3.50	0.00
800.0	10.50	258.46	798.3	-5.5	-26.9	27.4	3.50	3.50	0.00
900.0	14.00	258.46	896.0	-9.7	-47.6	48.6	3.50	3.50	0.00
1,000.0	17.50	258.46	992.3	-15.2	-74.2	75.8	3.50	3.50	0.00
1,100.0	21.00	258.46	1,086.7	-21.7	-106.5	108.7	3.50	3.50	0.00
1,129.9	22.05	258.46	1,114.5	-23.9	-117.3	119.7	3.50	3.50	0.00
1,200.0	22.05	258.46	1,179.4	-29.2	-143.1	146.0	0.00	0.00	0.00
1,300.0	22.05	258.46	1,272.1	-36.7	-179.8	183.5	0.00	0.00	0.00
1,400.0	22.05	258.46	1,364.8	-44.2	-216.6	221.1	0.00	0.00	0.00
1,500.0	22.05	258.46	1,457.5	-51.7	-253.4	258.6	0.00	0.00	0.00
1,600.0	22.05	258.46	1,550.2	-59.2	-290.2	296.2	0.00	0.00	0.00
1,700.0	22.05	258.46	1,642.9	-66.7	-327.0	333.7	0.00	0.00	0.00
1,800.0	22.05	258.46	1,735.6	-74.2	-363.7	371.2	0.00	0.00	0.00
1,900.0	22.05	258.46	1,828.3	-81.8	-400.5	408.8	0.00	0.00	0.00
2,000.0	22.05	258.46	1,920.9	-89.3	-437.3	446.3	0.00	0.00	0.00
2,100.0	22.05	258.46	2,013.6	-96.8	-474.1	483.8	0.00	0.00	0.00
2,200.0	22.05	258.46	2,106.3	-104.3	-510.8	521.4	0.00	0.00	0.00
2,300.0	22.05	258.46	2,199.0	-111.8	-547.6	558.9	0.00	0.00	0.00
2,400.0	22.05	258.46	2,291.7	-119.3	-584.4	596.4	0.00	0.00	0.00
2,500.0	22.05	258.46	2,384.4	-126.8	-621.2	634.0	0.00	0.00	0.00
2,527.6	22.05	258.46	2,410.0	-128.9	-631.3	644.4	0.00	0.00	0.00
FRUITLAND									
2,600.0	22.05	258.46	2,477.1	-134.3	-658.0	671.5	0.00	0.00	0.00
2,700.0	22.05	258.46	2,569.8	-141.8	-694.7	709.1	0.00	0.00	0.00
2,800.0	22.05	258.46	2,662.4	-149.3	-731.5	746.6	0.00	0.00	0.00
2,900.0	22.05	258.46	2,755.1	-156.8	-768.3	784.1	0.00	0.00	0.00
3,000.0	22.05	258.46	2,847.8	-164.3	-805.1	821.7	0.00	0.00	0.00
3,100.0	22.05	258.46	2,940.5	-171.8	-841.8	859.2	0.00	0.00	0.00
3,200.0	22.05	258.46	3,033.2	-179.3	-878.6	896.7	0.00	0.00	0.00
3,300.0	22.05	258.46	3,125.9	-186.9	-915.4	934.3	0.00	0.00	0.00
3,315.2	22.05	258.46	3,140.0	-188.0	-921.0	940.0	0.00	0.00	0.00
HARDLINE 40°W OF BHL - IGE 117 TARGET 1700'FNL & 700'FWL									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,527.6	2,410.0	FRUITLAND		0.00	