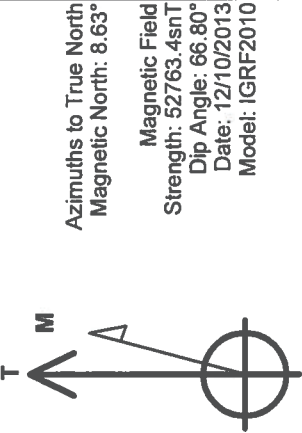


Great Western

Well Name: **Postle IC 11-039HN**
Surface Location: Postle West Pad Sec.11-T3N-R68W
North American Datum 1983, US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4976.9
+N/-S Northing Easting Longitude Slot
0.0 0.0 1332147.37 3145635.50 40.243967 -104.978289
RKB - 16.5' WELL @ 4993.4ft (RKB - 16.5')

WELLBORE TARGET DETAILS

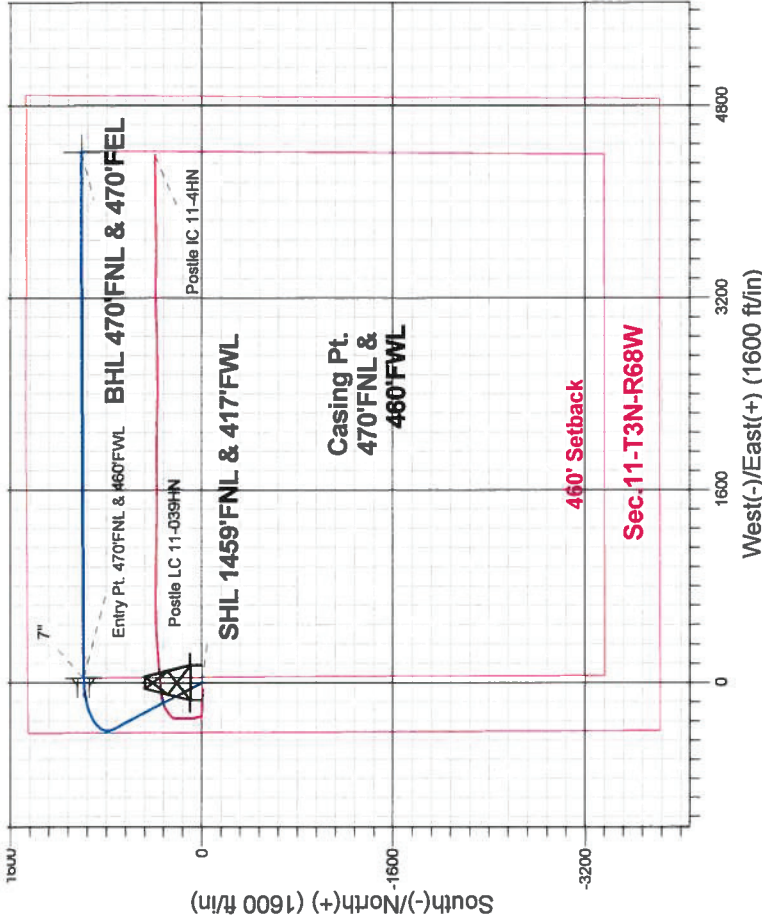
Name	TVD	+N/-S	+E/-W	Shape
SHL 1459'FNL & 417'FWL	1.0	0.0	0.0	Point
BHL 470'FNL & 470'FEL	7152.4	1010.2	4410.6	Point
Entry Pt. 470'FNL & 460'FWL	7152.4	988.7	38.0	Point



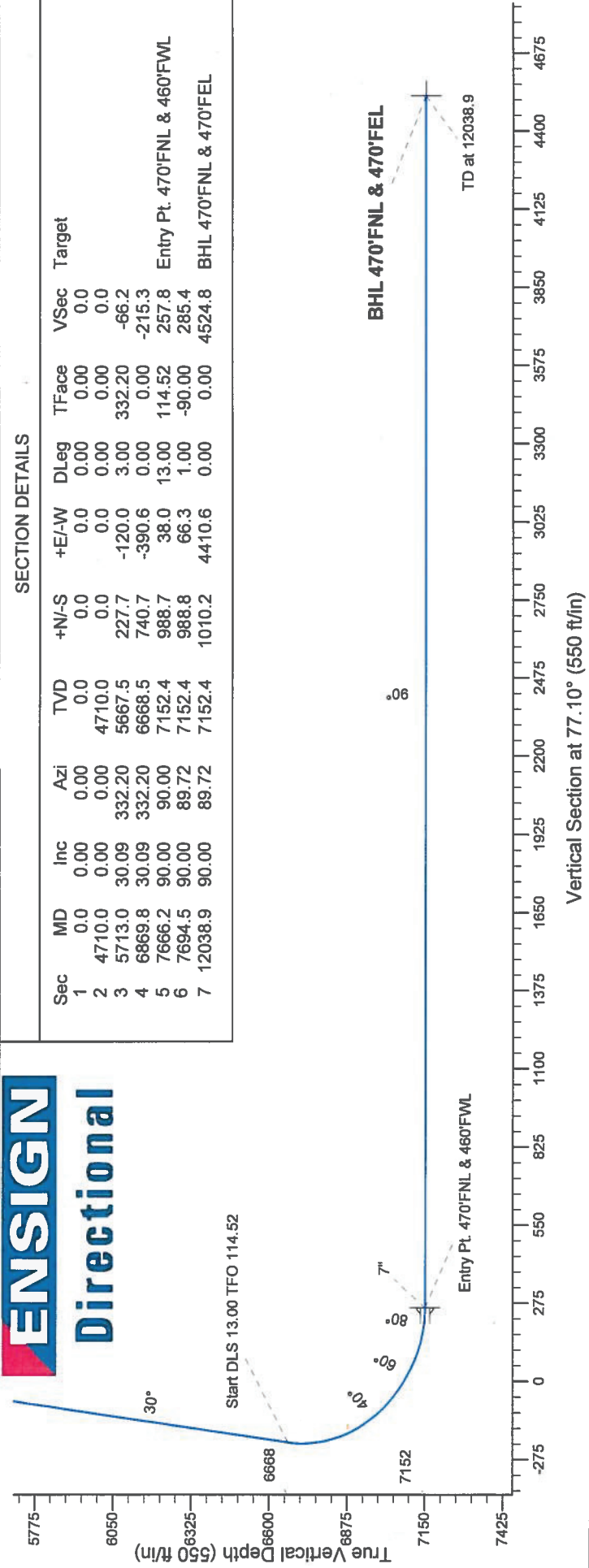
Postle West Pad Sec.11-T3N-R68W
Postle IC 11-039HN
Plan #1 (12-10-13)
8:36, December 12 2013

ANNOTATIONS

TVD MD Annotation
4710.0 4710.0 KOP - Start Build 3.00
6668.4 6869.8 Start DLS 13.00 TFO 114.52
7152.4 12038.9 TD at 12038.9



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	4710.0	0.00	0.00	4710.0	0.0	0.0	0.00	0.00	0.0	
3	5713.0	30.09	332.20	5667.5	227.7	-120.0	3.00	332.20	-66.2	
4	6869.8	30.09	332.20	6668.5	740.7	-390.6	0.00	0.00	-215.3	
5	7666.2	90.00	90.00	7152.4	988.7	38.0	13.00	114.52	257.8	Entry Pt. 470'FNL & 460'FWL
6	7694.5	90.00	89.72	7152.4	988.8	66.3	1.00	-90.00	285.4	
7	12038.9	90.00	89.72	7152.4	1010.2	4410.6	0.00	0.00	4524.8	BHL 470'FNL & 470'FEL



Directional

Great Western

SEC.11-T3N-R68W

Postle West Pad Sec.11-T3N-R68W

Postle LC 11-039HN

Wellbore #1

Plan: Plan #1 (12-10-13)

Standard Planning Report

12 December, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-039HN
Company:	Great Western	TVD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-039HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

Project	SEC.11-T3N-R68W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Postle West Pad Sec.11-T3N-R68W			
Site Position:		Northing:	1,332,143.74 ft	Latitude:	40.243958
From:	Lat/Long	Easting:	3,145,575.78 ft	Longitude:	-104.978503
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.34 °

Well	Postle IC 11-039HN					
Well Position	+N/-S	3.3 ft	Northing:	1,332,147.37 ft	Latitude:	40.243967
	+E/-W	59.7 ft	Easting:	3,145,635.50 ft	Longitude:	-104.978289
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,976.9 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/10/2013	8.63	66.80	52,763

Design	Plan #1 (12-10-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	77.10

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	
4,710.0	0.00	0.00	4,710.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,713.0	30.09	332.20	5,667.5	227.7	-120.0	3.00	3.00	0.00	332.20	
6,869.8	30.09	332.20	6,668.5	740.7	-390.6	0.00	0.00	0.00	0.00	
7,666.2	90.00	90.00	7,152.4	988.7	38.0	13.00	7.52	14.79	114.52	Entry Pt. 470'FNL &
7,694.5	90.00	89.72	7,152.4	988.8	66.3	1.00	0.00	-1.00	-90.00	
12,038.9	90.00	89.72	7,152.4	1,010.2	4,410.6	0.00	0.00	0.00	0.00	BHL 470'FNL & 470'

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-039HN
Company:	Great Western	TVD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-039HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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
SHL 1459'FNL & 417'FWL									
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	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
1,500.0	0.00	0.00	1,500.0	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
1,700.0	0.00	0.00	1,700.0	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
1,900.0	0.00	0.00	1,900.0	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
2,100.0	0.00	0.00	2,100.0	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
2,300.0	0.00	0.00	2,300.0	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
2,500.0	0.00	0.00	2,500.0	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
2,700.0	0.00	0.00	2,700.0	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
2,900.0	0.00	0.00	2,900.0	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
3,100.0	0.00	0.00	3,100.0	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
3,300.0	0.00	0.00	3,300.0	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
3,500.0	0.00	0.00	3,500.0	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
3,700.0	0.00	0.00	3,700.0	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
3,900.0	0.00	0.00	3,900.0	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
4,100.0	0.00	0.00	4,100.0	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
4,300.0	0.00	0.00	4,300.0	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
4,500.0	0.00	0.00	4,500.0	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
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,710.0	0.00	0.00	4,710.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 3.00									
4,800.0	2.70	332.20	4,800.0	1.9	-1.0	-0.5	3.00	3.00	0.00
4,900.0	5.70	332.20	4,899.7	8.4	-4.4	-2.4	3.00	3.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-039HN
Company:	Great Western	TVD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-039HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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)
5,000.0	8.70	332.20	4,998.9	19.4	-10.2	-5.7	3.00	3.00	0.00
5,100.0	11.70	332.20	5,097.3	35.1	-18.5	-10.2	3.00	3.00	0.00
5,200.0	14.70	332.20	5,194.6	55.3	-29.2	-16.1	3.00	3.00	0.00
5,300.0	17.70	332.20	5,290.7	80.0	-42.2	-23.2	3.00	3.00	0.00
5,400.0	20.70	332.20	5,385.1	109.1	-57.5	-31.7	3.00	3.00	0.00
5,500.0	23.70	332.20	5,477.7	142.5	-75.1	-41.4	3.00	3.00	0.00
5,600.0	26.70	332.20	5,568.1	180.1	-95.0	-52.4	3.00	3.00	0.00
5,700.0	29.70	332.20	5,656.3	221.9	-117.0	-64.5	3.00	3.00	0.00
5,713.0	30.09	332.20	5,667.5	227.7	-120.0	-66.2	3.00	3.00	0.00
5,800.0	30.09	332.20	5,742.8	266.2	-140.4	-77.4	0.00	0.00	0.00
5,900.0	30.09	332.20	5,829.3	310.6	-163.8	-90.3	0.00	0.00	0.00
6,000.0	30.09	332.20	5,915.9	354.9	-187.2	-103.2	0.00	0.00	0.00
6,100.0	30.09	332.20	6,002.4	399.3	-210.5	-116.1	0.00	0.00	0.00
6,200.0	30.09	332.20	6,088.9	443.6	-233.9	-129.0	0.00	0.00	0.00
6,300.0	30.09	332.20	6,175.4	488.0	-257.3	-141.9	0.00	0.00	0.00
6,400.0	30.09	332.20	6,262.0	532.3	-280.7	-154.8	0.00	0.00	0.00
6,500.0	30.09	332.20	6,348.5	576.7	-304.1	-167.6	0.00	0.00	0.00
6,600.0	30.09	332.20	6,435.0	621.0	-327.5	-180.5	0.00	0.00	0.00
6,700.0	30.09	332.20	6,521.5	665.4	-350.8	-193.4	0.00	0.00	0.00
6,800.0	30.09	332.20	6,608.0	709.7	-374.2	-206.3	0.00	0.00	0.00
6,869.8	30.09	332.20	6,668.4	740.7	-390.5	-215.3	0.00	0.00	0.00
Start DLS 13.00 TFO 114.52									
6,900.0	28.66	339.65	6,694.8	754.2	-396.6	-218.2	12.99	-4.72	24.69
7,000.0	27.33	7.42	6,783.4	799.6	-402.0	-213.3	13.00	-1.33	27.77
7,100.0	31.38	32.83	6,870.9	844.5	-384.8	-186.6	13.00	4.05	25.41
7,200.0	39.17	51.01	6,952.7	886.4	-346.0	-139.4	13.00	7.78	18.18
7,300.0	48.92	63.46	7,024.7	923.2	-287.5	-74.1	13.00	9.75	12.45
7,400.0	59.65	72.53	7,083.0	953.2	-212.3	5.9	13.00	10.73	9.08
7,500.0	70.88	79.76	7,124.9	974.6	-124.3	96.5	13.00	11.23	7.23
7,600.0	82.35	86.05	7,148.0	986.5	-27.9	193.0	13.00	11.48	6.29
7,666.2	90.00	90.00	7,152.4	988.7	38.0	257.8	12.99	11.55	5.96
7" - Entry Pt. 470'FNL & 460'FWL									
7,694.5	90.00	89.72	7,152.4	988.8	66.3	285.4	0.99	0.02	-0.99
7,700.0	90.00	89.72	7,152.4	988.8	71.8	290.8	0.00	0.00	0.00
7,800.0	90.00	89.72	7,152.4	989.3	171.8	388.4	0.00	0.00	0.00
7,900.0	90.00	89.72	7,152.4	989.8	271.8	485.9	0.00	0.00	0.00
8,000.0	90.00	89.72	7,152.4	990.3	371.8	583.5	0.00	0.00	0.00
8,100.0	90.00	89.72	7,152.4	990.8	471.8	681.1	0.00	0.00	0.00
8,200.0	90.00	89.72	7,152.4	991.3	571.8	778.7	0.00	0.00	0.00
8,300.0	90.00	89.72	7,152.4	991.8	671.8	876.3	0.00	0.00	0.00
8,400.0	90.00	89.72	7,152.4	992.3	771.8	973.9	0.00	0.00	0.00
8,500.0	90.00	89.72	7,152.4	992.8	871.8	1,071.4	0.00	0.00	0.00
8,600.0	90.00	89.72	7,152.4	993.3	971.8	1,169.0	0.00	0.00	0.00
8,700.0	90.00	89.72	7,152.4	993.8	1,071.8	1,266.6	0.00	0.00	0.00
8,800.0	90.00	89.72	7,152.4	994.3	1,171.8	1,364.2	0.00	0.00	0.00
8,900.0	90.00	89.72	7,152.4	994.7	1,271.8	1,461.8	0.00	0.00	0.00
9,000.0	90.00	89.72	7,152.4	995.2	1,371.8	1,559.4	0.00	0.00	0.00
9,100.0	90.00	89.72	7,152.4	995.7	1,471.8	1,657.0	0.00	0.00	0.00
9,200.0	90.00	89.72	7,152.4	996.2	1,571.8	1,754.5	0.00	0.00	0.00
9,300.0	90.00	89.72	7,152.4	996.7	1,671.8	1,852.1	0.00	0.00	0.00
9,400.0	90.00	89.72	7,152.4	997.2	1,771.8	1,949.7	0.00	0.00	0.00
9,500.0	90.00	89.72	7,152.4	997.7	1,871.8	2,047.3	0.00	0.00	0.00
9,600.0	90.00	89.72	7,152.4	998.2	1,971.8	2,144.9	0.00	0.00	0.00
9,700.0	90.00	89.72	7,152.4	998.7	2,071.8	2,242.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-039HN
Company:	Great Western	TVD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-039HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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)
9,800.0	90.00	89.72	7,152.4	999.2	2,171.8	2,340.0	0.00	0.00	0.00
9,900.0	90.00	89.72	7,152.4	999.7	2,271.8	2,437.6	0.00	0.00	0.00
10,000.0	90.00	89.72	7,152.4	1,000.2	2,371.8	2,535.2	0.00	0.00	0.00
10,100.0	90.00	89.72	7,152.4	1,000.7	2,471.8	2,632.8	0.00	0.00	0.00
10,200.0	90.00	89.72	7,152.4	1,001.2	2,571.8	2,730.4	0.00	0.00	0.00
10,300.0	90.00	89.72	7,152.4	1,001.7	2,671.8	2,828.0	0.00	0.00	0.00
10,400.0	90.00	89.72	7,152.4	1,002.2	2,771.8	2,925.6	0.00	0.00	0.00
10,500.0	90.00	89.72	7,152.4	1,002.6	2,871.8	3,023.1	0.00	0.00	0.00
10,600.0	90.00	89.72	7,152.4	1,003.1	2,971.8	3,120.7	0.00	0.00	0.00
10,700.0	90.00	89.72	7,152.4	1,003.6	3,071.8	3,218.3	0.00	0.00	0.00
10,800.0	90.00	89.72	7,152.4	1,004.1	3,171.8	3,315.9	0.00	0.00	0.00
10,900.0	90.00	89.72	7,152.4	1,004.6	3,271.8	3,413.5	0.00	0.00	0.00
11,000.0	90.00	89.72	7,152.4	1,005.1	3,371.8	3,511.1	0.00	0.00	0.00
11,100.0	90.00	89.72	7,152.4	1,005.6	3,471.8	3,608.6	0.00	0.00	0.00
11,200.0	90.00	89.72	7,152.4	1,006.1	3,571.8	3,706.2	0.00	0.00	0.00
11,300.0	90.00	89.72	7,152.4	1,006.6	3,671.8	3,803.8	0.00	0.00	0.00
11,400.0	90.00	89.72	7,152.4	1,007.1	3,771.8	3,901.4	0.00	0.00	0.00
11,500.0	90.00	89.72	7,152.4	1,007.6	3,871.8	3,999.0	0.00	0.00	0.00
11,600.0	90.00	89.72	7,152.4	1,008.1	3,971.8	4,096.6	0.00	0.00	0.00
11,700.0	90.00	89.72	7,152.4	1,008.6	4,071.8	4,194.2	0.00	0.00	0.00
11,800.0	90.00	89.72	7,152.4	1,009.1	4,171.8	4,291.7	0.00	0.00	0.00
11,900.0	90.00	89.72	7,152.4	1,009.6	4,271.8	4,389.3	0.00	0.00	0.00
12,000.0	90.00	89.72	7,152.4	1,010.1	4,371.8	4,486.9	0.00	0.00	0.00
12,038.9	90.00	89.72	7,152.4	1,010.2	4,410.6	4,524.8	0.00	0.00	0.00

BHL 470'FNL & 470'FEL

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,666.2	7,152.4	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
4,710.0	4,710.0	0.0	0.0	KOP - Start Build 3.00
6,869.8	6,668.4	740.7	-390.5	Start DLS 13.00 TFO 114.52
12,038.9	7,152.4	1,010.2	4,410.7	TD at 12038.9