Great Western

Well Name: **Postle LC 11-042HC**

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	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1332148.27	3145665.64	40.243969	-104.978181	

RKB - 16.5' WELL @ 4993.4ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1457'FNL & 447'FWL	1.0	0.0	0.0	Point
BHL 781'FNL & 470'FEL	7321.4	697.7	4379.1	Point
Entry Pt. 780'FNL & 460'FWL	7321.4	677.2	9.5	Point

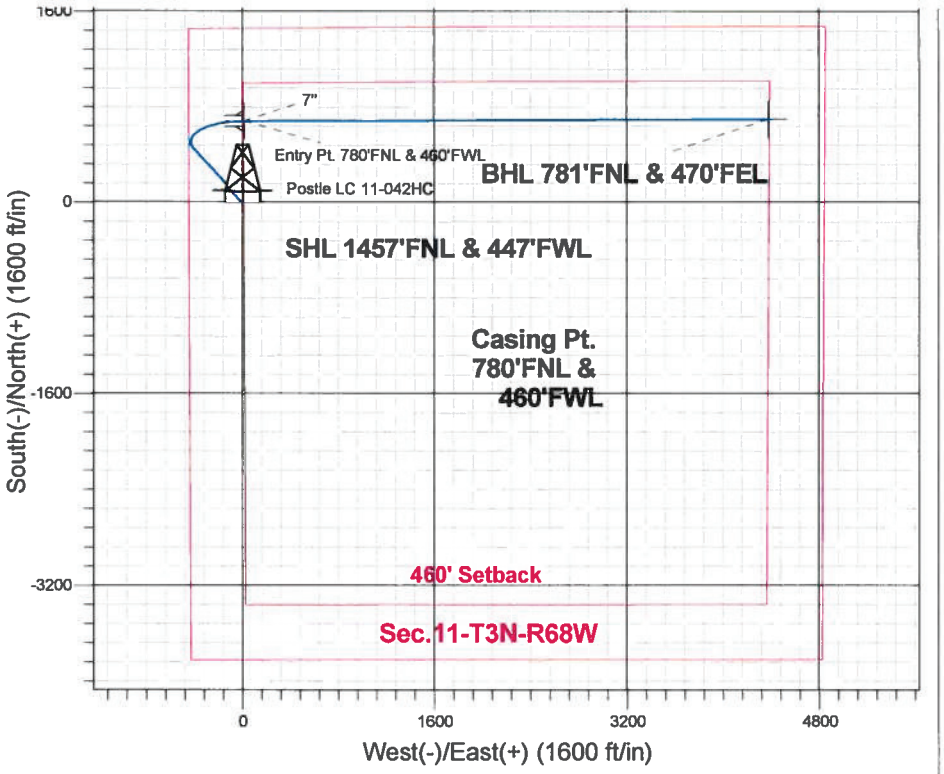
Azimuths to True North
Magnetic North: 8.63°

Magnetic Field
Strength: 52763.4snT
Dip Angle: 66.80°
Date: 12/10/2013
Model: IGRF2010

Postle West Pad Sec.11-T3N-R68W
Postle LC 11-042HC
Plan #1 (12-10-13)
9:10, December 12 2013

ANNOTATIONS

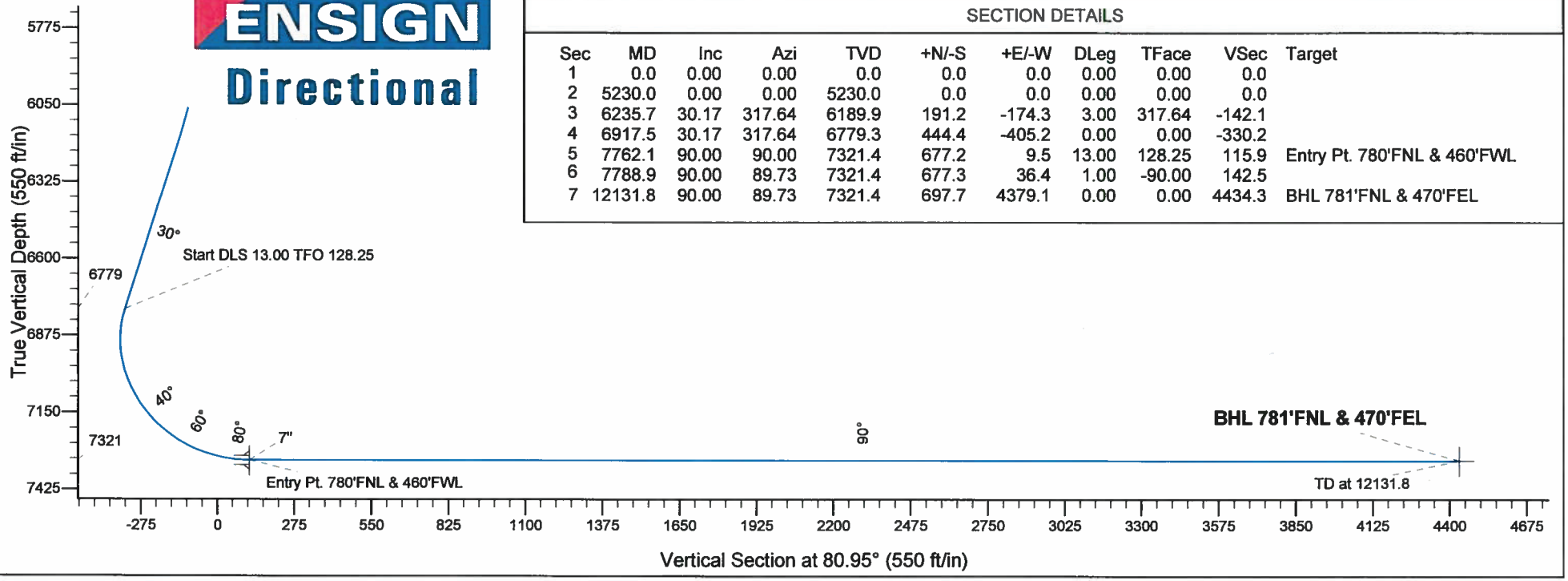
TVD	MD	Annotation
5230.0	5230.0	KOP - Start Build 3.00
6779.3	6917.5	Start DLS 13.00 TFO 128.25
7321.4	12131.8	TD at 12131.8



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	5230.0	0.00	0.00	5230.0	0.0	0.0	0.00	0.00	0.0	
3	6235.7	30.17	317.64	6189.9	191.2	-174.3	3.00	317.64	-142.1	
4	6917.5	30.17	317.64	6779.3	444.4	-405.2	0.00	0.00	-330.2	
5	7762.1	90.00	90.00	7321.4	677.2	9.5	13.00	128.25	115.9	Entry Pt. 780'FNL & 460'FWL
6	7788.9	90.00	89.73	7321.4	677.3	36.4	1.00	-90.00	142.5	
7	12131.8	90.00	89.73	7321.4	697.7	4379.1	0.00	0.00	4434.3	BHL 781'FNL & 470'FEL



ENSIGN
Directional

Great Western

SEC.11-T3N-R68W
Postle West Pad Sec.11-T3N-R68W
Postle 11-042HC

Wellbore #1

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

Standard Planning Report

12 December, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well PostleIC 11-042HC
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:	PostleIC 11-042HC	**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	PostleIC 11-042HC				
Well Position	**+N/-S**	4.0 ft	**Northing:**	1,332,148.27 ft	**Latitude:**	40.243969
	+E/-W	89.9 ft	**Easting:**	3,145,665.64 ft	**Longitude:**	-104.978181
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) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.0	0.0	0.0	80.95

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	
5,230.0	0.00	0.00	5,230.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,235.7	30.17	317.64	6,189.9	191.2	-174.3	3.00	3.00	0.00	317.64	
6,917.5	30.17	317.64	6,779.3	444.4	-405.2	0.00	0.00	0.00	0.00	
7,762.1	90.00	90.00	7,321.4	677.2	9.5	13.00	7.08	15.67	128.25	Entry Pt. 780'FNL &
7,788.9	90.00	89.73	7,321.4	677.3	36.4	1.00	0.00	-1.00	-90.00	
12,131.8	90.00	89.73	7,321.4	697.7	4,379.1	0.00	0.00	0.00	0.00	BHL 781'FNL & 47(

Database:	Landmark	**Local Co-ordinate Reference:**	Well Postle⌶C 11-042HC
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⌶C 11-042HC	**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 1457'FNL & 447'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
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	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
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

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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 1C 11-042HC	**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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,230.0	0.00	0.00	5,230.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 3.00									
5,300.0	2.10	317.64	5,300.0	0.9	-0.9	-0.7	3.00	3.00	0.00
5,400.0	5.10	317.64	5,399.8	5.6	-5.1	-4.2	3.00	3.00	0.00
5,500.0	8.10	317.64	5,499.1	14.1	-12.8	-10.5	3.00	3.00	0.00
5,600.0	11.10	317.64	5,597.7	26.4	-24.1	-19.6	3.00	3.00	0.00
5,700.0	14.10	317.64	5,695.3	42.5	-38.8	-31.6	3.00	3.00	0.00
5,800.0	17.10	317.64	5,791.6	62.4	-56.9	-46.4	3.00	3.00	0.00
5,900.0	20.10	317.64	5,886.3	86.0	-78.4	-63.9	3.00	3.00	0.00
6,000.0	23.10	317.64	5,979.3	113.2	-103.2	-84.1	3.00	3.00	0.00
6,100.0	26.10	317.64	6,070.2	143.9	-131.2	-106.9	3.00	3.00	0.00
6,200.0	29.10	317.64	6,158.8	178.1	-162.4	-132.4	3.00	3.00	0.00
6,235.7	30.17	317.64	6,189.9	191.2	-174.3	-142.1	3.00	3.00	0.00
6,300.0	30.17	317.64	6,245.5	215.1	-196.1	-159.8	0.00	0.00	0.00
6,400.0	30.17	317.64	6,331.9	252.2	-230.0	-187.4	0.00	0.00	0.00
6,500.0	30.17	317.64	6,418.4	289.3	-263.8	-215.0	0.00	0.00	0.00
6,600.0	30.17	317.64	6,504.8	326.5	-297.7	-242.6	0.00	0.00	0.00
6,700.0	30.17	317.64	6,591.3	363.6	-331.6	-270.2	0.00	0.00	0.00
6,800.0	30.17	317.64	6,677.7	400.7	-365.4	-297.8	0.00	0.00	0.00
6,900.0	30.17	317.64	6,764.2	437.9	-399.3	-325.4	0.00	0.00	0.00
6,917.5	30.17	317.64	6,779.3	444.4	-405.2	-330.2	0.00	0.00	0.00
Start DLS 13.00 TFO 128.25									
7,000.0	24.86	337.98	6,852.6	475.9	-425.7	-345.6	13.00	-6.44	24.65
7,100.0	23.56	9.87	6,944.2	515.2	-430.2	-343.8	13.00	-1.30	31.90
7,200.0	28.48	37.64	7,034.4	553.9	-412.1	-319.9	13.00	4.92	27.77
7,300.0	37.22	55.57	7,118.5	590.1	-372.5	-275.0	13.00	8.75	17.93
7,400.0	47.72	67.01	7,192.3	621.8	-313.2	-211.5	13.00	10.50	11.44
7,500.0	59.02	75.05	7,251.9	647.4	-237.4	-132.6	13.00	11.30	8.05
7,600.0	70.71	81.35	7,294.3	665.6	-149.0	-42.4	13.00	11.69	6.30
7,700.0	82.59	86.80	7,317.4	675.5	-52.4	54.6	13.00	11.88	5.44
7,762.1	90.00	90.00	7,321.4	677.2	9.5	115.9	13.00	11.93	5.16
7" - Entry Pt. 780'FNL & 460'FWL									
7,788.9	90.00	89.73	7,321.4	677.3	36.4	142.5	1.00	0.01	-1.00
7,800.0	90.00	89.73	7,321.4	677.4	47.4	153.4	0.00	0.00	0.00
7,900.0	90.00	89.73	7,321.4	677.8	147.4	252.2	0.00	0.00	0.00
8,000.0	90.00	89.73	7,321.4	678.3	247.4	351.0	0.00	0.00	0.00
8,100.0	90.00	89.73	7,321.4	678.8	347.4	449.9	0.00	0.00	0.00
8,200.0	90.00	89.73	7,321.4	679.2	447.4	548.7	0.00	0.00	0.00
8,300.0	90.00	89.73	7,321.4	679.7	547.4	647.5	0.00	0.00	0.00
8,400.0	90.00	89.73	7,321.4	680.2	647.4	746.4	0.00	0.00	0.00
8,500.0	90.00	89.73	7,321.4	680.6	747.4	845.2	0.00	0.00	0.00
8,600.0	90.00	89.73	7,321.4	681.1	847.4	944.0	0.00	0.00	0.00
8,700.0	90.00	89.73	7,321.4	681.6	947.4	1,042.8	0.00	0.00	0.00
8,800.0	90.00	89.73	7,321.4	682.0	1,047.4	1,141.7	0.00	0.00	0.00
8,900.0	90.00	89.73	7,321.4	682.5	1,147.4	1,240.5	0.00	0.00	0.00
9,000.0	90.00	89.73	7,321.4	683.0	1,247.4	1,339.3	0.00	0.00	0.00
9,100.0	90.00	89.73	7,321.4	683.5	1,347.4	1,438.1	0.00	0.00	0.00
9,200.0	90.00	89.73	7,321.4	683.9	1,447.4	1,537.0	0.00	0.00	0.00
9,300.0	90.00	89.73	7,321.4	684.4	1,547.4	1,635.8	0.00	0.00	0.00
9,400.0	90.00	89.73	7,321.4	684.9	1,647.4	1,734.6	0.00	0.00	0.00
9,500.0	90.00	89.73	7,321.4	685.3	1,747.4	1,833.5	0.00	0.00	0.00
9,600.0	90.00	89.73	7,321.4	685.8	1,847.4	1,932.3	0.00	0.00	0.00

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Site:	Postle West Pad Sec.11-T3N-R68W	**North Reference:**	True
Well:	Postle 11-042HC	**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)
9,700.0	90.00	89.73	7,321.4	686.3	1,947.4	2,031.1	0.00	0.00	0.00
9,800.0	90.00	89.73	7,321.4	686.7	2,047.4	2,129.9	0.00	0.00	0.00
9,900.0	90.00	89.73	7,321.4	687.2	2,147.4	2,228.8	0.00	0.00	0.00
10,000.0	90.00	89.73	7,321.4	687.7	2,247.4	2,327.6	0.00	0.00	0.00
10,100.0	90.00	89.73	7,321.4	688.1	2,347.4	2,426.4	0.00	0.00	0.00
10,200.0	90.00	89.73	7,321.4	688.6	2,447.4	2,525.2	0.00	0.00	0.00
10,300.0	90.00	89.73	7,321.4	689.1	2,547.4	2,624.1	0.00	0.00	0.00
10,400.0	90.00	89.73	7,321.4	689.6	2,647.4	2,722.9	0.00	0.00	0.00
10,500.0	90.00	89.73	7,321.4	690.0	2,747.4	2,821.7	0.00	0.00	0.00
10,600.0	90.00	89.73	7,321.4	690.5	2,847.4	2,920.6	0.00	0.00	0.00
10,700.0	90.00	89.73	7,321.4	691.0	2,947.4	3,019.4	0.00	0.00	0.00
10,800.0	90.00	89.73	7,321.4	691.4	3,047.4	3,118.2	0.00	0.00	0.00
10,900.0	90.00	89.73	7,321.4	691.9	3,147.4	3,217.0	0.00	0.00	0.00
11,000.0	90.00	89.73	7,321.4	692.4	3,247.4	3,315.9	0.00	0.00	0.00
11,100.0	90.00	89.73	7,321.4	692.8	3,347.4	3,414.7	0.00	0.00	0.00
11,200.0	90.00	89.73	7,321.4	693.3	3,447.4	3,513.5	0.00	0.00	0.00
11,300.0	90.00	89.73	7,321.4	693.8	3,547.4	3,612.3	0.00	0.00	0.00
11,400.0	90.00	89.73	7,321.4	694.2	3,647.4	3,711.2	0.00	0.00	0.00
11,500.0	90.00	89.73	7,321.4	694.7	3,747.4	3,810.0	0.00	0.00	0.00
11,600.0	90.00	89.73	7,321.4	695.2	3,847.4	3,908.8	0.00	0.00	0.00
11,700.0	90.00	89.73	7,321.4	695.6	3,947.4	4,007.7	0.00	0.00	0.00
11,800.0	90.00	89.73	7,321.4	696.1	4,047.4	4,106.5	0.00	0.00	0.00
11,900.0	90.00	89.73	7,321.4	696.6	4,147.4	4,205.3	0.00	0.00	0.00
12,000.0	90.00	89.73	7,321.4	697.1	4,247.4	4,304.1	0.00	0.00	0.00
12,100.0	90.00	89.73	7,321.4	697.5	4,347.4	4,403.0	0.00	0.00	0.00
12,131.8	90.00	89.73	7,321.4	697.7	4,379.1	4,434.3	0.00	0.00	0.00
BHL 781'FNL & 470'FEL									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,762.1	7,321.4	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,230.0	5,230.0	0.0	0.0	KOP - Start Build 3.00
6,917.5	6,779.3	444.4	-405.2	Start DLS 13.00 TFO 128.25
12,131.8	7,321.4	697.7	4,379.2	TD at 12131.8

ENSIGN
Directional

Great Western

SEC.11-T3N-R68W
Postle West Pad Sec.11-T3N-R68W
PostleIC 11-042HC

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

Anticollision Report

12 December, 2013

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (12-10-13)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program **Date** 12/11/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,131.8	Plan #1 (12-10-13) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Postle West Pad Sec.11-T3N-R68W						
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	0.0	2.6	90.0	90.0	10,000.000	CC
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	500.0	502.3	90.2	88.4	48.774	ES
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	12,131.8	11,715.0	370.0	152.9	1.704	SF
Postle IC 11-002HN - Wellbore #1 - Plan #1 (12-10-13)	4,000.0	4,000.0	59.5	41.8	3.353	CC, ES
Postle IC 11-002HN - Wellbore #1 - Plan #1 (12-10-13)	12,131.8	12,152.0	798.4	539.1	3.078	SF
Postle IC 11-039HN - Wellbore #1 - Plan #1 (12-10-13)	4,700.0	4,700.0	30.2	9.3	1.443	Level 3, CC, ES, SF
Postle IC 11-122HN - Wellbore #1 - Plan #1 (12-10-13)	5,200.0	5,200.0	30.4	7.3	1.315	Level 3, CC, ES, SF

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	2.6	2.6	0.0	0.0	-92.56	-4.0	-89.9	90.0	90.0	0.00	N/A	CC
100.0	100.0	102.5	102.5	0.1	0.1	-92.60	-4.1	-89.9	90.0	89.8	0.23	394.983	
200.0	200.0	202.5	202.5	0.3	0.2	-92.74	-4.3	-90.0	90.1	89.5	0.57	159.457	
300.0	300.0	302.6	302.6	0.6	0.4	-92.94	-4.6	-90.1	90.2	89.2	0.97	92.569	
400.0	400.0	402.7	402.6	0.8	0.6	-93.19	-5.0	-90.0	90.1	88.7	1.41	63.857	
437.5	437.5	440.1	440.1	0.9	0.7	-93.34	-5.3	-89.9	90.1	88.5	1.58	57.176	
500.0	500.0	502.3	502.3	1.0	0.8	-93.62	-5.7	-90.0	90.2	88.4	1.85	48.774	ES
600.0	600.0	601.8	601.8	1.2	1.1	-94.06	-6.4	-90.6	90.8	88.5	2.29	39.711	
700.0	700.0	701.7	701.7	1.5	1.3	-94.46	-7.1	-91.5	91.8	89.1	2.72	33.801	
800.0	800.0	801.7	801.7	1.7	1.5	-94.75	-7.7	-92.5	92.8	89.7	3.14	29.518	
900.0	900.0	901.2	901.2	1.9	1.7	-94.96	-8.1	-93.6	94.0	90.4	3.58	26.288	
1,000.0	1,000.0	1,000.5	1,000.5	2.1	1.9	-95.22	-8.7	-95.5	95.9	91.9	4.02	23.866	
1,100.0	1,100.0	1,100.1	1,100.0	2.4	2.1	-95.43	-9.3	-97.8	98.3	93.9	4.46	22.054	
1,200.0	1,200.0	1,200.3	1,200.2	2.6	2.3	-95.26	-9.2	-100.5	101.0	96.1	4.89	20.637	
1,300.0	1,300.0	1,300.7	1,300.6	2.8	2.5	-94.95	-8.9	-102.7	103.1	97.8	5.32	19.387	
1,400.0	1,400.0	1,400.9	1,400.7	3.0	2.7	-94.63	-8.5	-104.6	105.0	99.2	5.75	18.264	
1,500.0	1,500.0	1,501.8	1,501.7	3.3	2.9	-94.06	-7.5	-106.1	106.4	100.2	6.18	17.217	
1,600.0	1,600.0	1,602.1	1,601.9	3.5	3.1	-93.20	-6.0	-106.9	107.1	100.5	6.61	16.195	
1,700.0	1,700.0	1,702.3	1,702.1	3.7	3.3	-92.68	-5.0	-107.5	107.7	100.6	7.04	15.284	
1,800.0	1,800.0	1,801.8	1,801.6	3.9	3.6	-92.30	-4.4	-108.3	108.4	100.9	7.48	14.490	
1,900.0	1,900.0	1,901.5	1,901.3	4.2	3.8	-91.85	-3.5	-109.4	109.4	101.5	7.91	13.829	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,000.0	2,000.0	2,002.4	2,002.2	4.4	4.0	-91.51	-2.9	-110.2	110.2	101.8	8.35	13.198	
2,100.0	2,100.0	2,102.3	2,102.1	4.6	4.2	-91.03	-2.0	-110.6	110.6	101.8	8.78	12.593	
2,200.0	2,200.0	2,201.8	2,201.6	4.8	4.4	-90.48	-0.9	-111.3	111.3	102.1	9.21	12.079	
2,300.0	2,300.0	2,301.7	2,301.4	5.1	4.6	-90.10	-0.2	-112.2	112.2	102.6	9.65	11.628	
2,400.0	2,400.0	2,400.7	2,400.5	5.3	4.8	-90.21	-0.4	-113.8	113.8	103.7	10.09	11.287	
2,500.0	2,500.0	2,501.5	2,501.2	5.5	5.0	-90.53	-1.1	-115.4	115.4	104.9	10.52	10.967	
2,600.0	2,600.0	2,602.1	2,601.9	5.7	5.2	-90.78	-1.6	-116.3	116.3	105.3	10.95	10.614	
2,700.0	2,700.0	2,702.3	2,702.0	6.0	5.4	-91.04	-2.1	-116.8	116.8	105.4	11.39	10.255	
2,800.0	2,800.0	2,802.2	2,801.9	6.2	5.7	-91.39	-2.8	-117.2	117.3	105.5	11.82	9.919	
2,900.0	2,900.0	2,901.9	2,901.6	6.4	5.9	-91.79	-3.7	-117.9	118.0	105.7	12.26	9.620	
3,000.0	3,000.0	3,001.3	3,001.0	6.6	6.1	-92.22	-4.6	-118.9	119.0	106.3	12.70	9.374	
3,100.0	3,100.0	3,100.7	3,100.4	6.9	6.3	-92.47	-5.2	-120.5	120.7	107.5	13.13	9.189	
3,200.0	3,200.0	3,200.3	3,200.0	7.1	6.5	-92.68	-5.7	-122.5	122.6	109.1	13.57	9.037	
3,300.0	3,300.0	3,299.4	3,299.0	7.3	6.7	-93.03	-6.6	-124.8	125.0	111.0	14.01	8.928	
3,400.0	3,400.0	3,398.7	3,398.3	7.5	6.9	-93.20	-7.2	-127.9	128.2	113.8	14.44	8.876	
3,500.0	3,500.0	3,496.8	3,496.3	7.8	7.1	-93.30	-7.6	-131.8	132.1	117.2	14.88	8.878	
3,600.0	3,600.0	3,596.1	3,595.5	8.0	7.4	-93.06	-7.3	-136.9	137.3	122.0	15.32	8.960	
3,700.0	3,700.0	3,695.4	3,694.6	8.2	7.6	-92.73	-6.8	-142.2	142.6	126.9	15.76	9.050	
3,800.0	3,800.0	3,793.5	3,792.5	8.4	7.8	-92.44	-6.3	-148.3	148.8	132.6	16.20	9.183	
3,900.0	3,900.0	3,891.8	3,890.6	8.7	8.0	-92.13	-5.8	-155.4	156.0	139.4	16.64	9.373	
4,000.0	4,000.0	3,991.4	3,989.8	8.9	8.3	-91.82	-5.2	-163.2	163.8	146.7	17.09	9.585	
4,100.0	4,100.0	4,092.7	4,090.9	9.1	8.5	-91.59	-4.8	-170.7	171.1	153.6	17.53	9.763	
4,200.0	4,200.0	4,191.9	4,189.8	9.3	8.7	-91.54	-4.8	-177.6	178.1	160.1	17.97	9.912	
4,300.0	4,300.0	4,290.0	4,287.7	9.6	8.9	-91.56	-5.0	-185.1	185.7	167.3	18.42	10.084	
4,400.0	4,400.0	4,388.7	4,386.0	9.8	9.2	-91.58	-5.3	-193.3	194.0	175.2	18.87	10.284	
4,500.0	4,500.0	4,488.1	4,485.1	10.0	9.4	-91.60	-5.6	-201.8	202.6	183.3	19.32	10.486	
4,600.0	4,600.0	4,586.1	4,582.6	10.2	9.7	-91.58	-5.8	-210.7	211.7	191.9	19.77	10.708	
4,700.0	4,700.0	4,685.3	4,681.4	10.5	9.9	-91.47	-5.6	-220.1	221.2	201.0	20.22	10.939	
4,800.0	4,800.0	4,785.0	4,780.6	10.7	10.1	-91.31	-5.2	-229.7	230.8	210.1	20.67	11.164	
4,900.0	4,900.0	4,885.0	4,880.2	10.9	10.4	-91.16	-4.8	-239.1	240.2	219.1	21.11	11.376	
5,000.0	5,000.0	4,985.3	4,980.1	11.1	10.6	-91.01	-4.4	-248.4	249.4	227.9	21.56	11.570	
5,100.0	5,100.0	5,086.0	5,080.3	11.4	10.8	-90.86	-3.9	-257.2	258.2	236.2	22.00	11.735	
5,200.0	5,200.0	5,186.3	5,180.3	11.6	11.1	-90.71	-3.3	-265.8	266.7	244.3	22.45	11.881	
5,300.0	5,300.0	5,287.5	5,281.2	11.8	11.3	-48.29	-2.7	-274.0	274.0	251.3	22.71	12.062	
5,400.0	5,399.8	5,389.2	5,382.6	12.0	11.6	-49.05	-2.0	-281.6	277.3	254.2	23.13	11.990	
5,500.0	5,499.1	5,491.6	5,484.7	12.2	11.8	-50.73	-1.3	-288.5	276.6	253.1	23.52	11.757	
5,600.0	5,597.7	5,591.5	5,584.5	12.5	12.0	-53.43	-1.0	-294.3	272.1	248.2	23.92	11.377	
5,700.0	5,695.3	5,689.9	5,682.7	12.7	12.2	-57.10	-0.5	-300.1	265.3	241.0	24.33	10.905	
5,800.0	5,791.6	5,790.7	5,783.3	13.0	12.5	-62.04	0.5	-305.7	256.6	231.8	24.80	10.344	
5,900.0	5,886.3	5,891.1	5,883.7	13.3	12.7	-68.33	2.5	-309.6	245.9	220.5	25.37	9.692	
6,000.0	5,979.3	5,992.6	5,985.1	13.6	12.9	-76.26	6.1	-311.8	234.5	208.4	26.06	9.000	
6,100.0	6,070.2	6,094.7	6,077.0	14.0	13.1	-84.76	11.4	-313.5	225.3	198.5	26.80	8.407	
6,200.0	6,158.8	6,187.3	6,178.8	14.5	13.3	-94.63	22.7	-317.1	220.0	192.4	27.60	7.970	
6,300.0	6,245.5	6,286.1	6,276.0	15.0	13.6	-103.94	39.7	-322.4	217.9	189.6	28.30	7.697	
6,400.0	6,331.9	6,405.3	6,390.9	15.6	13.9	-113.72	70.3	-330.0	215.1	186.2	28.90	7.442	
6,500.0	6,418.4	6,519.2	6,497.0	16.3	14.2	-123.87	111.7	-330.0	204.3	175.1	29.19	6.998	
6,600.0	6,504.8	6,606.7	6,578.1	17.0	14.4	-132.67	144.3	-328.4	197.8	168.6	29.23	6.766	
6,678.3	6,572.5	6,686.2	6,651.8	17.5	14.7	-140.04	174.1	-330.1	197.1	168.0	29.12	6.770	
6,700.0	6,591.3	6,706.4	6,670.4	17.7	14.7	-141.86	181.9	-330.6	197.2	168.1	29.08	6.780	
6,800.0	6,677.7	6,793.8	6,751.5	18.5	15.0	-150.07	214.4	-331.5	202.3	173.4	28.86	7.010	
6,900.0	6,764.2	6,869.4	6,821.2	19.2	15.3	-159.33	241.5	-321.4	218.2	189.7	28.45	7.670	
7,000.0	6,852.6	6,936.2	6,881.1	19.9	15.4	171.29	263.4	-301.5	247.5	218.7	28.81	8.591	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,100.0	6,944.2	7,007.0	6,940.7	20.3	15.5	132.43	286.3	-271.0	279.0	248.9	30.00	9.297	
7,200.0	7,034.4	7,069.9	6,988.8	20.6	15.6	100.69	306.3	-236.0	307.7	276.8	30.90	9.959	
7,300.0	7,118.5	7,126.3	7,028.3	20.8	15.7	81.27	321.0	-198.6	333.6	302.5	31.02	10.754	
7,400.0	7,192.3	7,186.4	7,065.0	20.8	15.8	69.94	333.7	-152.8	354.3	323.8	30.57	11.593	
7,500.0	7,251.9	7,246.0	7,095.2	20.8	16.0	63.56	343.5	-102.4	368.7	338.7	30.00	12.288	
7,600.0	7,294.3	7,293.0	7,114.3	20.7	16.2	60.41	348.3	-59.7	376.8	346.9	29.88	12.609	
7,700.0	7,317.4	7,357.9	7,132.9	20.7	16.7	59.73	352.1	2.3	377.6	346.7	30.85	12.238	
7,800.0	7,321.4	7,429.2	7,141.4	20.9	17.4	60.45	355.4	72.9	371.0	338.3	32.66	11.357	
7,900.0	7,321.4	7,523.3	7,140.9	22.2	18.7	59.91	361.9	166.7	365.6	330.8	34.80	10.505	
8,000.0	7,321.4	7,624.1	7,136.9	23.9	20.3	58.74	370.2	267.1	361.0	323.7	37.26	9.688	
8,100.0	7,321.4	7,722.0	7,133.1	25.8	22.2	57.53	378.8	364.6	356.0	316.1	39.96	8.911	
8,200.0	7,321.4	7,810.7	7,131.2	27.9	24.0	56.89	383.7	453.1	352.9	310.0	42.94	8.219	
8,224.7	7,321.4	7,831.8	7,130.7	28.4	24.4	56.77	384.3	474.1	352.8	309.1	43.72	8.070	
8,300.0	7,321.4	7,906.5	7,128.3	30.0	26.1	56.37	385.5	548.8	353.4	307.1	46.28	7.635	
8,400.0	7,321.4	8,007.3	7,127.4	32.3	28.4	56.08	387.9	649.6	352.3	302.3	49.96	7.052	
8,405.5	7,321.4	8,012.0	7,127.4	32.4	28.5	56.07	387.9	654.3	352.3	302.1	50.15	7.024	
8,500.0	7,321.4	8,101.7	7,126.7	34.6	30.6	56.07	387.3	744.0	353.5	299.7	53.79	6.572	
8,600.0	7,321.4	8,202.0	7,127.8	37.0	33.0	56.40	385.8	844.3	354.6	296.5	58.06	6.107	
8,700.0	7,321.4	8,292.5	7,129.2	39.5	35.2	56.95	382.2	934.7	357.4	295.0	62.39	5.728	
8,800.0	7,321.4	8,401.0	7,128.3	42.0	37.9	57.07	379.8	1,043.1	360.1	293.2	66.92	5.381	
8,900.0	7,321.4	8,498.1	7,127.8	44.5	40.4	57.15	378.6	1,140.3	361.8	290.6	71.26	5.078	
9,000.0	7,321.4	8,596.5	7,127.9	47.1	43.0	57.43	375.9	1,238.6	364.4	288.6	75.83	4.806	
9,100.0	7,321.4	8,700.7	7,126.2	49.6	45.7	57.38	374.4	1,342.8	367.0	286.6	80.33	4.568	
9,200.0	7,321.4	8,803.9	7,123.9	52.2	48.4	57.04	375.4	1,446.0	367.8	283.2	84.59	4.348	
9,300.0	7,321.4	8,902.4	7,122.7	54.9	51.0	56.93	375.2	1,544.4	368.9	280.0	88.96	4.147	
9,400.0	7,321.4	9,013.4	7,123.0	57.5	54.0	56.88	376.8	1,655.4	367.9	274.2	93.68	3.927	
9,500.0	7,321.4	9,109.0	7,123.3	60.2	56.5	56.81	378.5	1,751.0	366.7	268.6	98.05	3.740	
9,600.0	7,321.4	9,209.8	7,123.5	62.8	59.2	56.79	379.5	1,851.7	366.1	263.5	102.60	3.568	
9,640.1	7,321.4	9,247.0	7,124.0	63.9	60.2	56.88	379.5	1,889.0	365.9	261.5	104.46	3.503	
9,700.0	7,321.4	9,300.1	7,124.5	65.5	61.7	57.01	378.9	1,942.1	366.5	259.3	107.20	3.419	
9,800.0	7,321.4	9,399.6	7,123.8	68.2	64.4	57.09	377.4	2,041.5	368.5	256.7	111.88	3.294	
9,900.0	7,321.4	9,496.4	7,123.9	70.9	67.0	57.31	375.3	2,138.3	370.6	254.0	116.69	3.176	
10,000.0	7,321.4	9,589.5	7,122.3	73.6	69.5	57.37	372.6	2,231.4	374.4	253.2	121.24	3.088	
10,100.0	7,321.4	9,698.9	7,119.4	76.3	72.5	57.23	370.2	2,340.7	378.1	252.2	125.93	3.003	
10,200.0	7,321.4	9,805.7	7,119.2	79.0	75.4	57.26	370.1	2,447.5	378.7	247.9	130.78	2.895	
10,300.0	7,321.4	9,901.2	7,117.9	81.8	78.1	57.12	370.2	2,543.0	379.7	244.6	135.15	2.809	
10,400.0	7,321.4	10,011.4	7,117.7	84.5	81.1	57.12	370.5	2,653.1	380.0	239.9	140.05	2.713	
10,500.0	7,321.4	10,109.8	7,119.3	87.2	83.8	57.30	371.2	2,751.6	378.9	234.0	144.95	2.614	
10,600.0	7,321.4	10,218.6	7,119.2	90.0	86.8	57.10	374.0	2,860.3	377.3	227.7	149.53	2.523	
10,700.0	7,321.4	10,317.6	7,118.8	92.7	89.5	56.70	378.6	2,959.2	373.9	220.4	153.54	2.435	
10,800.0	7,321.4	10,414.1	7,119.0	95.5	92.2	56.52	381.4	3,055.6	371.7	213.9	157.83	2.355	
10,900.0	7,321.4	10,510.2	7,118.0	98.2	94.8	56.19	384.2	3,151.7	370.3	208.5	161.84	2.288	
10,962.3	7,321.4	10,569.7	7,117.8	99.9	96.5	56.15	384.8	3,211.2	370.1	205.5	164.59	2.249	
11,000.0	7,321.4	10,604.5	7,118.0	101.0	97.4	56.18	384.8	3,246.0	370.2	203.9	166.34	2.226	
11,100.0	7,321.4	10,702.9	7,117.8	103.7	100.1	56.26	384.1	3,344.4	371.3	200.2	171.10	2.170	
11,200.0	7,321.4	10,806.1	7,118.1	106.5	103.0	56.43	383.0	3,447.6	372.5	196.3	176.16	2.114	
11,300.0	7,321.4	10,908.2	7,118.9	109.2	105.8	56.63	382.3	3,549.7	373.0	191.7	181.27	2.058	
11,400.0	7,321.4	11,011.4	7,120.3	112.0	108.7	56.85	382.4	3,652.8	372.5	186.0	186.45	1.998	
11,500.0	7,321.4	11,108.3	7,120.7	114.8	111.4	56.81	384.0	3,749.7	371.3	180.3	191.00	1.944	
11,507.8	7,321.4	11,115.1	7,120.6	115.0	111.6	56.79	384.1	3,756.6	371.3	180.0	191.30	1.941	
11,600.0	7,321.4	11,209.0	7,118.2	117.5	114.2	56.37	385.7	3,850.5	371.7	176.8	194.81	1.908	
11,683.3	7,321.4	11,290.8	7,116.6	119.8	116.4	56.04	387.6	3,932.1	371.3	173.4	197.98	1.876	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
11,700.0	7,321.4	11,305.9	7,116.3	120.3	116.8	55.99	387.8	3,947.3	371.4	172.8	198.60	1.870	
11,800.0	7,321.4	11,405.5	7,113.8	123.1	119.6	55.63	388.8	4,046.9	372.3	169.8	202.48	1.839	
11,900.0	7,321.4	11,513.5	7,112.9	125.8	122.6	55.43	390.3	4,154.8	372.0	165.2	206.87	1.798	
12,000.0	7,321.4	11,612.5	7,114.7	128.6	125.4	55.57	391.8	4,253.8	370.2	158.4	211.81	1.748	
12,100.0	7,321.4	11,709.7	7,115.1	131.4	128.1	55.55	393.1	4,351.0	369.3	152.9	216.34	1.707	
12,107.5	7,321.4	11,715.0	7,115.1	131.6	128.2	55.54	393.1	4,356.3	369.2	152.6	216.61	1.705	
12,131.8	7,321.4	11,715.0	7,115.1	132.3	128.2	55.54	393.1	4,356.3	370.0	152.9	217.17	1.704 SF	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-002HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-92.81	-2.9	-59.5	59.5				
100.0	100.0	100.0	100.0	0.1	0.1	-92.81	-2.9	-59.5	59.5	59.3	0.22	264.868	
200.0	200.0	200.0	200.0	0.3	0.3	-92.81	-2.9	-59.5	59.5	58.9	0.67	88.289	
300.0	300.0	300.0	300.0	0.6	0.6	-92.81	-2.9	-59.5	59.5	58.4	1.12	52.974	
400.0	400.0	400.0	400.0	0.8	0.8	-92.81	-2.9	-59.5	59.5	58.0	1.57	37.838	
500.0	500.0	500.0	500.0	1.0	1.0	-92.81	-2.9	-59.5	59.5	57.5	2.02	29.430	
600.0	600.0	600.0	600.0	1.2	1.2	-92.81	-2.9	-59.5	59.5	57.1	2.47	24.079	
700.0	700.0	700.0	700.0	1.5	1.5	-92.81	-2.9	-59.5	59.5	56.6	2.92	20.374	
800.0	800.0	800.0	800.0	1.7	1.7	-92.81	-2.9	-59.5	59.5	56.2	3.37	17.658	
900.0	900.0	900.0	900.0	1.9	1.9	-92.81	-2.9	-59.5	59.5	55.7	3.82	15.580	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-92.81	-2.9	-59.5	59.5	55.3	4.27	13.940	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-92.81	-2.9	-59.5	59.5	54.8	4.72	12.613	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-92.81	-2.9	-59.5	59.5	54.4	5.17	11.516	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-92.81	-2.9	-59.5	59.5	53.9	5.62	10.595	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-92.81	-2.9	-59.5	59.5	53.5	6.07	9.810	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-92.81	-2.9	-59.5	59.5	53.0	6.52	9.133	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-92.81	-2.9	-59.5	59.5	52.6	6.97	8.544	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-92.81	-2.9	-59.5	59.5	52.1	7.42	8.026	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-92.81	-2.9	-59.5	59.5	51.7	7.87	7.568	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-92.81	-2.9	-59.5	59.5	51.2	8.32	7.159	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-92.81	-2.9	-59.5	59.5	50.8	8.77	6.791	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-92.81	-2.9	-59.5	59.5	50.3	9.22	6.460	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-92.81	-2.9	-59.5	59.5	49.9	9.66	6.160	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-92.81	-2.9	-59.5	59.5	49.4	10.11	5.886	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-92.81	-2.9	-59.5	59.5	49.0	10.56	5.635	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-92.81	-2.9	-59.5	59.5	48.5	11.01	5.405	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-92.81	-2.9	-59.5	59.5	48.1	11.46	5.193	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-92.81	-2.9	-59.5	59.5	47.6	11.91	4.998	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-92.81	-2.9	-59.5	59.5	47.2	12.36	4.816	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-92.81	-2.9	-59.5	59.5	46.7	12.81	4.647	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-92.81	-2.9	-59.5	59.5	46.3	13.26	4.489	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-92.81	-2.9	-59.5	59.5	45.8	13.71	4.342	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-92.81	-2.9	-59.5	59.5	45.4	14.16	4.204	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-92.81	-2.9	-59.5	59.5	44.9	14.61	4.075	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-92.81	-2.9	-59.5	59.5	44.5	15.06	3.953	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-92.81	-2.9	-59.5	59.5	44.0	15.51	3.839	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-92.81	-2.9	-59.5	59.5	43.6	15.96	3.731	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-92.81	-2.9	-59.5	59.5	43.1	16.41	3.628	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-92.81	-2.9	-59.5	59.5	42.7	16.86	3.532	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-92.81	-2.9	-59.5	59.5	42.2	17.31	3.440	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-92.81	-2.9	-59.5	59.5	41.8	17.76	3.353	CC, ES
4,100.0	4,100.0	4,099.2	4,099.1	9.1	9.1	-90.43	-0.5	-60.2	60.2	42.0	18.20	3.308	
4,200.0	4,200.0	4,197.8	4,197.4	9.3	9.3	-83.72	6.9	-62.4	62.9	44.2	18.65	3.371	
4,300.0	4,300.0	4,295.4	4,294.2	9.6	9.5	-74.05	18.9	-66.1	69.0	49.9	19.09	3.614	
4,400.0	4,400.0	4,391.4	4,388.7	9.8	9.8	-63.58	35.3	-71.1	80.2	60.7	19.53	4.105	
4,500.0	4,500.0	4,485.5	4,480.3	10.0	10.0	-54.18	55.8	-77.3	97.4	77.4	19.97	4.875	
4,600.0	4,600.0	4,577.2	4,568.5	10.2	10.2	-46.65	79.9	-84.7	120.6	100.2	20.41	5.908	
4,700.0	4,700.0	4,666.3	4,652.9	10.5	10.5	-40.93	107.2	-92.9	149.5	128.6	20.85	7.168	
4,800.0	4,800.0	4,752.5	4,733.1	10.7	10.8	-36.66	137.1	-102.0	183.5	162.2	21.30	8.614	
4,900.0	4,900.0	4,835.5	4,809.1	10.9	11.1	-33.46	169.2	-111.8	222.2	200.4	21.76	10.211	
5,000.0	5,000.0	4,915.3	4,880.7	11.1	11.5	-31.03	202.9	-122.1	265.2	243.0	22.23	11.930	
5,100.0	5,100.0	4,991.8	4,947.8	11.4	11.9	-29.15	238.0	-132.7	312.1	289.4	22.71	13.744	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-002HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,077.3	5,021.9	11.6	12.4	-27.50	278.8	-145.1	361.3	338.0	23.24	15.543	
5,300.0	5,300.0	5,164.5	5,097.4	11.8	12.9	15.88	320.5	-157.8	409.6	386.3	23.33	17.557	
5,400.0	5,399.8	5,253.8	5,174.8	12.0	13.5	16.72	363.1	-170.8	453.8	430.1	23.73	19.120	
5,500.0	5,499.1	5,345.0	5,253.8	12.2	14.1	17.57	406.7	-184.0	493.6	469.5	24.11	20.474	
5,600.0	5,597.7	5,437.9	5,334.3	12.5	14.8	18.46	451.1	-197.6	529.0	504.6	24.46	21.628	
5,700.0	5,695.3	5,532.3	5,416.1	12.7	15.5	19.41	496.2	-211.3	560.0	535.2	24.79	22.592	
5,800.0	5,791.6	5,627.9	5,498.9	13.0	16.3	20.45	541.9	-225.2	586.4	561.4	25.09	23.371	
5,900.0	5,886.3	5,724.3	5,582.5	13.3	17.0	21.59	588.0	-239.2	608.5	583.1	25.39	23.966	
6,000.0	5,979.3	5,821.5	5,666.6	13.6	17.8	22.86	634.4	-253.3	626.1	600.4	25.69	24.376	
6,100.0	6,070.2	5,919.0	5,751.1	14.0	18.6	24.27	681.0	-267.5	639.4	613.4	26.00	24.591	
6,200.0	6,158.8	6,016.7	5,835.7	14.5	19.5	25.86	727.7	-281.7	648.6	622.2	26.36	24.600	
6,300.0	6,245.5	6,114.3	5,920.3	15.0	20.3	27.64	774.3	-295.8	654.6	627.6	27.02	24.223	
6,400.0	6,331.9	6,211.8	6,004.8	15.6	21.1	29.43	820.9	-310.0	661.0	633.1	27.87	23.713	
6,500.0	6,418.4	6,309.4	6,089.3	16.3	22.0	31.19	867.6	-324.2	668.0	639.2	28.80	23.199	
6,600.0	6,504.8	6,407.0	6,173.8	17.0	22.9	32.91	914.2	-338.4	675.7	645.9	29.79	22.682	
6,700.0	6,591.3	6,504.5	6,258.4	17.7	23.7	34.59	960.8	-352.6	684.0	653.2	30.86	22.166	
6,800.0	6,677.7	6,602.1	6,342.9	18.5	24.6	36.23	1,007.4	-366.7	692.9	660.9	32.00	21.652	
6,900.0	6,764.2	6,699.6	6,427.4	19.2	25.5	37.83	1,054.0	-380.9	702.4	669.2	33.22	21.144	
7,000.0	6,852.6	6,798.3	6,512.8	19.9	26.4	21.75	1,101.2	-395.2	712.3	677.8	34.46	20.671	
7,100.0	6,944.2	6,897.1	6,598.4	20.3	27.3	-7.05	1,148.4	-409.6	721.7	686.5	35.17	20.521	
7,200.0	7,034.4	6,991.1	6,679.9	20.6	28.2	-33.29	1,193.3	-423.3	731.1	695.7	35.45	20.624	
7,300.0	7,118.5	7,082.8	6,759.6	20.8	29.0	-50.48	1,237.3	-433.1	742.5	706.9	35.62	20.843	
7,400.0	7,192.3	7,188.2	6,851.2	20.8	29.7	-61.28	1,287.9	-422.7	756.4	720.4	35.95	21.037	
7,500.0	7,251.9	7,313.5	6,953.4	20.8	30.3	-68.60	1,344.6	-378.6	771.5	734.9	36.59	21.085	
7,600.0	7,294.3	7,467.2	7,057.5	20.7	30.8	-73.88	1,402.6	-282.8	785.6	747.9	37.70	20.836	
7,700.0	7,317.4	7,653.7	7,135.9	20.7	31.1	-77.14	1,446.7	-121.0	795.2	755.5	39.72	20.023	
7,800.0	7,321.4	7,820.2	7,152.4	20.9	31.1	-77.76	1,456.7	43.6	797.4	754.9	42.51	18.760	
7,900.0	7,321.4	7,920.2	7,152.4	22.2	31.1	-77.76	1,457.2	143.6	797.5	752.3	45.18	17.652	
8,000.0	7,321.4	8,020.2	7,152.4	23.9	31.3	-77.77	1,457.7	243.6	797.5	749.2	48.33	16.502	
8,100.0	7,321.4	8,120.2	7,152.4	25.8	31.7	-77.77	1,458.1	343.6	797.5	745.6	51.87	15.376	
8,200.0	7,321.4	8,220.2	7,152.4	27.9	32.4	-77.77	1,458.6	443.6	797.5	741.8	55.73	14.311	
8,300.0	7,321.4	8,320.2	7,152.4	30.0	33.5	-77.77	1,459.1	543.6	797.5	737.7	59.84	13.328	
8,400.0	7,321.4	8,420.2	7,152.4	32.3	35.0	-77.77	1,459.6	643.6	797.6	733.4	64.16	12.430	
8,500.0	7,321.4	8,520.2	7,152.4	34.6	36.8	-77.77	1,460.1	743.6	797.6	728.9	68.65	11.618	
8,600.0	7,321.4	8,620.2	7,152.4	37.0	38.8	-77.77	1,460.6	843.6	797.6	724.3	73.28	10.885	
8,700.0	7,321.4	8,720.2	7,152.4	39.5	41.0	-77.77	1,461.1	943.6	797.6	719.6	78.02	10.224	
8,800.0	7,321.4	8,820.2	7,152.4	42.0	43.3	-77.77	1,461.6	1,043.6	797.7	714.8	82.85	9.628	
8,900.0	7,321.4	8,920.2	7,152.4	44.5	45.7	-77.77	1,462.1	1,143.6	797.7	709.9	87.76	9.089	
9,000.0	7,321.4	9,020.2	7,152.4	47.1	48.1	-77.77	1,462.6	1,243.6	797.7	705.0	92.73	8.602	
9,100.0	7,321.4	9,120.2	7,152.4	49.6	50.6	-77.77	1,463.1	1,343.6	797.7	700.0	97.77	8.160	
9,200.0	7,321.4	9,220.2	7,152.4	52.2	53.1	-77.77	1,463.6	1,443.6	797.8	694.9	102.84	7.757	
9,300.0	7,321.4	9,320.2	7,152.4	54.9	55.7	-77.77	1,464.1	1,543.6	797.8	689.8	107.96	7.389	
9,400.0	7,321.4	9,420.2	7,152.4	57.5	58.2	-77.77	1,464.5	1,643.6	797.8	684.7	113.12	7.053	
9,500.0	7,321.4	9,520.2	7,152.4	60.2	60.8	-77.77	1,465.0	1,743.6	797.8	679.5	118.30	6.744	
9,600.0	7,321.4	9,620.2	7,152.4	62.8	63.4	-77.77	1,465.5	1,843.6	797.8	674.3	123.51	6.460	
9,700.0	7,321.4	9,720.2	7,152.4	65.5	66.1	-77.77	1,466.0	1,943.6	797.9	669.1	128.75	6.197	
9,800.0	7,321.4	9,820.2	7,152.4	68.2	68.7	-77.77	1,466.5	2,043.6	797.9	663.9	134.00	5.954	
9,900.0	7,321.4	9,920.2	7,152.4	70.9	71.4	-77.77	1,467.0	2,143.6	797.9	658.6	139.28	5.729	
10,000.0	7,321.4	10,020.2	7,152.4	73.6	74.0	-77.77	1,467.5	2,243.6	797.9	653.4	144.57	5.519	
10,100.0	7,321.4	10,120.2	7,152.4	76.3	76.7	-77.77	1,468.0	2,343.5	798.0	648.1	149.87	5.324	
10,200.0	7,321.4	10,220.2	7,152.4	79.0	79.4	-77.77	1,468.5	2,443.5	798.0	642.8	155.19	5.142	
10,300.0	7,321.4	10,320.2	7,152.4	81.8	82.1	-77.77	1,469.0	2,543.5	798.0	637.5	160.52	4.971	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-002HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,321.4	10,420.2	7,152.4	84.5	84.8	-77.77	1,469.5	2,643.5	798.0	632.2	165.86	4.811	
10,500.0	7,321.4	10,520.2	7,152.4	87.2	87.5	-77.77	1,470.0	2,743.5	798.0	626.8	171.21	4.661	
10,600.0	7,321.4	10,620.2	7,152.4	90.0	90.2	-77.77	1,470.4	2,843.5	798.1	621.5	176.57	4.520	
10,700.0	7,321.4	10,720.2	7,152.4	92.7	92.9	-77.77	1,470.9	2,943.5	798.1	616.2	181.94	4.387	
10,800.0	7,321.4	10,820.2	7,152.4	95.5	95.7	-77.78	1,471.4	3,043.5	798.1	610.8	187.31	4.261	
10,900.0	7,321.4	10,920.2	7,152.4	98.2	98.4	-77.78	1,471.9	3,143.5	798.1	605.4	192.69	4.142	
11,000.0	7,321.4	11,020.2	7,152.4	101.0	101.1	-77.78	1,472.4	3,243.5	798.2	600.1	198.08	4.029	
11,100.0	7,321.4	11,120.2	7,152.4	103.7	103.9	-77.78	1,472.9	3,343.5	798.2	594.7	203.47	3.923	
11,200.0	7,321.4	11,220.2	7,152.4	106.5	106.6	-77.78	1,473.4	3,443.5	798.2	589.3	208.87	3.822	
11,300.0	7,321.4	11,320.2	7,152.4	109.2	109.3	-77.78	1,473.9	3,543.5	798.2	584.0	214.27	3.725	
11,400.0	7,321.4	11,420.2	7,152.4	112.0	112.1	-77.78	1,474.4	3,643.5	798.2	578.6	219.68	3.634	
11,500.0	7,321.4	11,520.2	7,152.4	114.8	114.8	-77.78	1,474.9	3,743.5	798.3	573.2	225.09	3.546	
11,600.0	7,321.4	11,620.2	7,152.4	117.5	117.6	-77.78	1,475.4	3,843.5	798.3	567.8	230.51	3.463	
11,700.0	7,321.4	11,720.2	7,152.4	120.3	120.3	-77.78	1,475.9	3,943.5	798.3	562.4	235.93	3.384	
11,800.0	7,321.4	11,820.2	7,152.4	123.1	123.1	-77.78	1,476.3	4,043.5	798.3	557.0	241.35	3.308	
11,900.0	7,321.4	11,920.2	7,152.4	125.8	125.8	-77.78	1,476.8	4,143.5	798.4	551.6	246.78	3.235	
12,000.0	7,321.4	12,020.2	7,152.4	128.6	128.6	-77.78	1,477.3	4,243.5	798.4	546.2	252.20	3.166	
12,100.0	7,321.4	12,120.2	7,152.4	131.4	131.4	-77.78	1,477.8	4,343.5	798.4	540.8	257.64	3.099	
12,131.8	7,321.4	12,152.0	7,152.4	132.3	132.2	-77.78	1,478.0	4,375.3	798.4	539.1	259.36	3.078 SF	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.38	-0.7	-30.1	30.2				
100.0	100.0	100.0	100.0	0.1	0.1	-91.38	-0.7	-30.1	30.2	29.9	0.22	134.177	
200.0	200.0	200.0	200.0	0.3	0.3	-91.38	-0.7	-30.1	30.2	29.5	0.67	44.726	
300.0	300.0	300.0	300.0	0.6	0.6	-91.38	-0.7	-30.1	30.2	29.0	1.12	26.835	
400.0	400.0	400.0	400.0	0.8	0.8	-91.38	-0.7	-30.1	30.2	28.6	1.57	19.168	
500.0	500.0	500.0	500.0	1.0	1.0	-91.38	-0.7	-30.1	30.2	28.1	2.02	14.909	
600.0	600.0	600.0	600.0	1.2	1.2	-91.38	-0.7	-30.1	30.2	27.7	2.47	12.198	
700.0	700.0	700.0	700.0	1.5	1.5	-91.38	-0.7	-30.1	30.2	27.2	2.92	10.321	
800.0	800.0	800.0	800.0	1.7	1.7	-91.38	-0.7	-30.1	30.2	26.8	3.37	8.945	
900.0	900.0	900.0	900.0	1.9	1.9	-91.38	-0.7	-30.1	30.2	26.3	3.82	7.893	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-91.38	-0.7	-30.1	30.2	25.9	4.27	7.062	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-91.38	-0.7	-30.1	30.2	25.4	4.72	6.389	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-91.38	-0.7	-30.1	30.2	25.0	5.17	5.834	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-91.38	-0.7	-30.1	30.2	24.5	5.62	5.367	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-91.38	-0.7	-30.1	30.2	24.1	6.07	4.970	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-91.38	-0.7	-30.1	30.2	23.6	6.52	4.627	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-91.38	-0.7	-30.1	30.2	23.2	6.97	4.328	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-91.38	-0.7	-30.1	30.2	22.7	7.42	4.066	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-91.38	-0.7	-30.1	30.2	22.3	7.87	3.834	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-91.38	-0.7	-30.1	30.2	21.8	8.32	3.626	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-91.38	-0.7	-30.1	30.2	21.4	8.77	3.440	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-91.38	-0.7	-30.1	30.2	20.9	9.22	3.273	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-91.38	-0.7	-30.1	30.2	20.5	9.66	3.120	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-91.38	-0.7	-30.1	30.2	20.0	10.11	2.982	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-91.38	-0.7	-30.1	30.2	19.6	10.56	2.855	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-91.38	-0.7	-30.1	30.2	19.1	11.01	2.738	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-91.38	-0.7	-30.1	30.2	18.7	11.46	2.631	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-91.38	-0.7	-30.1	30.2	18.2	11.91	2.532	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-91.38	-0.7	-30.1	30.2	17.8	12.36	2.440	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-91.38	-0.7	-30.1	30.2	17.3	12.81	2.354	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-91.38	-0.7	-30.1	30.2	16.9	13.26	2.274	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-91.38	-0.7	-30.1	30.2	16.4	13.71	2.200	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-91.38	-0.7	-30.1	30.2	16.0	14.16	2.130	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-91.38	-0.7	-30.1	30.2	15.5	14.61	2.064	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-91.38	-0.7	-30.1	30.2	15.1	15.06	2.003	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-91.38	-0.7	-30.1	30.2	14.6	15.51	1.945	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-91.38	-0.7	-30.1	30.2	14.2	15.96	1.890	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-91.38	-0.7	-30.1	30.2	13.8	16.41	1.838	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-91.38	-0.7	-30.1	30.2	13.3	16.86	1.789	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-91.38	-0.7	-30.1	30.2	12.9	17.31	1.743	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-91.38	-0.7	-30.1	30.2	12.4	17.76	1.698	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-91.38	-0.7	-30.1	30.2	12.0	18.21	1.657	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-91.38	-0.7	-30.1	30.2	11.5	18.66	1.617	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-91.38	-0.7	-30.1	30.2	11.1	19.11	1.579	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-91.38	-0.7	-30.1	30.2	10.6	19.55	1.542	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-91.38	-0.7	-30.1	30.2	10.2	20.00	1.508	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-91.38	-0.7	-30.1	30.2	9.7	20.45	1.474	Level 3
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-91.38	-0.7	-30.1	30.2	9.3	20.90	1.443	Level 3, CC, ES, SF
4,800.0	4,800.0	4,799.3	4,799.3	10.7	10.7	-87.94	1.1	-31.1	31.2	9.8	21.35	1.459	Level 3
4,900.0	4,900.0	4,898.1	4,897.8	10.9	10.9	-77.79	7.5	-34.5	35.3	13.5	21.79	1.621	
5,000.0	5,000.0	4,995.8	4,994.8	11.1	11.1	-65.65	18.2	-40.1	44.3	22.1	22.24	1.994	
5,100.0	5,100.0	5,092.1	5,089.6	11.4	11.3	-55.47	33.0	-47.9	59.1	36.4	22.68	2.606	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,186.4	5,181.5	11.6	11.6	-48.22	51.6	-57.7	79.6	56.5	23.12	3.442	
5,300.0	5,300.0	5,278.8	5,270.4	11.8	11.8	-0.93	73.6	-69.4	104.2	80.7	23.51	4.430	
5,400.0	5,399.8	5,370.0	5,356.9	12.0	12.1	2.57	99.1	-82.8	129.0	105.1	23.87	5.402	
5,500.0	5,499.1	5,460.1	5,440.9	12.2	12.4	5.31	127.9	-98.0	153.6	129.4	24.18	6.351	
5,600.0	5,597.7	5,549.1	5,522.4	12.5	12.7	7.60	159.7	-114.8	178.0	153.5	24.44	7.282	
5,700.0	5,695.3	5,637.2	5,601.2	12.7	13.1	9.59	194.5	-133.1	202.1	177.4	24.66	8.196	
5,800.0	5,791.6	5,725.5	5,678.4	13.0	13.6	11.42	232.5	-153.1	225.9	201.0	24.84	9.093	
5,900.0	5,886.3	5,823.0	5,762.7	13.3	14.1	13.31	275.7	-175.9	246.6	221.6	25.02	9.856	
6,000.0	5,979.3	5,921.3	5,847.8	13.6	14.7	15.19	319.3	-198.9	262.6	237.4	25.19	10.424	
6,100.0	6,070.2	6,020.2	5,933.3	14.0	15.4	17.19	363.2	-222.0	274.0	248.6	25.38	10.793	
6,200.0	6,158.8	6,119.3	6,019.1	14.5	16.1	19.39	407.1	-245.2	280.7	255.1	25.62	10.959	
6,300.0	6,245.5	6,218.5	6,104.9	15.0	16.8	21.84	451.1	-268.4	284.1	257.9	26.21	10.839	
6,400.0	6,331.9	6,317.7	6,190.7	15.6	17.5	24.27	495.1	-291.6	287.6	260.6	27.04	10.639	
6,500.0	6,418.4	6,416.9	6,276.6	16.3	18.3	26.63	539.1	-314.8	291.7	263.7	27.95	10.437	
6,600.0	6,504.8	6,516.1	6,362.4	17.0	19.1	28.93	583.1	-338.0	296.2	267.3	28.95	10.232	
6,700.0	6,591.3	6,615.3	6,448.2	17.7	19.9	31.15	627.1	-361.2	301.3	271.2	30.05	10.026	
6,800.0	6,677.7	6,714.5	6,534.0	18.5	20.8	33.30	671.1	-384.4	306.7	275.5	31.24	9.819	
6,900.0	6,764.2	6,813.7	6,619.9	19.2	21.6	35.37	715.1	-407.6	312.6	280.1	32.52	9.613	
7,000.0	6,852.6	6,913.6	6,706.7	19.9	22.4	18.98	759.6	-428.8	319.0	285.3	33.68	9.472	
7,100.0	6,944.2	7,013.8	6,795.7	20.3	23.0	-8.96	805.2	-431.1	325.8	291.3	34.44	9.460	
7,200.0	7,034.4	7,113.5	6,882.4	20.6	23.5	-32.79	849.6	-411.0	332.4	297.5	34.89	9.529	
7,300.0	7,118.5	7,212.8	6,962.6	20.8	23.8	-46.79	890.7	-369.7	338.7	303.6	35.09	9.650	
7,400.0	7,192.3	7,311.7	7,032.3	20.8	24.0	-54.28	926.4	-309.6	344.1	308.9	35.21	9.772	
7,500.0	7,251.9	7,410.3	7,088.2	20.8	24.0	-58.31	955.1	-233.9	348.6	313.1	35.49	9.820	
7,600.0	7,294.3	7,508.7	7,127.6	20.7	24.0	-60.42	975.3	-146.3	351.7	315.5	36.20	9.715	
7,700.0	7,317.4	7,606.9	7,148.9	20.7	24.0	-61.34	986.2	-51.3	353.4	315.9	37.54	9.416	
7,800.0	7,321.4	7,704.2	7,152.4	20.9	23.8	-61.46	988.1	45.9	353.7	314.2	39.50	8.955	
7,900.0	7,321.4	7,804.2	7,152.4	22.2	23.9	-61.46	988.6	145.9	353.8	311.7	42.02	8.419	
8,000.0	7,321.4	7,904.2	7,152.4	23.9	24.4	-61.47	989.1	245.9	353.8	308.8	44.95	7.871	
8,100.0	7,321.4	8,004.2	7,152.4	25.8	26.0	-61.47	989.6	345.9	353.8	305.6	48.22	7.338	
8,200.0	7,321.4	8,104.2	7,152.4	27.9	28.0	-61.47	990.1	445.9	353.8	302.1	51.76	6.836	
8,300.0	7,321.4	8,204.2	7,152.4	30.0	30.1	-61.47	990.6	545.9	353.8	298.3	55.52	6.373	
8,400.0	7,321.4	8,304.2	7,152.4	32.3	32.3	-61.47	991.1	645.9	353.9	294.4	59.47	5.951	
8,500.0	7,321.4	8,404.2	7,152.4	34.6	34.6	-61.47	991.6	745.9	353.9	290.3	63.56	5.568	
8,600.0	7,321.4	8,504.2	7,152.4	37.0	37.0	-61.48	992.1	845.9	353.9	286.1	67.77	5.223	
8,700.0	7,321.4	8,604.2	7,152.4	39.5	39.4	-61.48	992.6	945.9	353.9	281.9	72.08	4.911	
8,800.0	7,321.4	8,704.2	7,152.4	42.0	41.9	-61.48	993.1	1,045.9	354.0	277.5	76.47	4.629	
8,900.0	7,321.4	8,804.2	7,152.4	44.5	44.4	-61.48	993.5	1,145.9	354.0	273.1	80.93	4.374	
9,000.0	7,321.4	8,904.2	7,152.4	47.1	47.0	-61.48	994.0	1,245.9	354.0	268.6	85.45	4.143	
9,100.0	7,321.4	9,004.2	7,152.4	49.6	49.6	-61.49	994.5	1,345.9	354.0	264.0	90.01	3.933	
9,200.0	7,321.4	9,104.2	7,152.4	52.2	52.2	-61.49	995.0	1,445.9	354.0	259.4	94.62	3.742	
9,300.0	7,321.4	9,204.2	7,152.4	54.9	54.8	-61.49	995.5	1,545.9	354.1	254.8	99.27	3.567	
9,400.0	7,321.4	9,304.2	7,152.4	57.5	57.4	-61.49	996.0	1,645.9	354.1	250.1	103.95	3.406	
9,500.0	7,321.4	9,404.2	7,152.4	60.2	60.1	-61.49	996.5	1,745.9	354.1	245.5	108.65	3.259	
9,600.0	7,321.4	9,504.2	7,152.4	62.8	62.7	-61.50	997.0	1,845.9	354.1	240.8	113.38	3.123	
9,700.0	7,321.4	9,604.2	7,152.4	65.5	65.4	-61.50	997.5	1,945.9	354.2	236.0	118.13	2.998	
9,800.0	7,321.4	9,704.2	7,152.4	68.2	68.1	-61.50	998.0	2,045.9	354.2	231.3	122.90	2.882	
9,900.0	7,321.4	9,804.2	7,152.4	70.9	70.8	-61.50	998.5	2,145.9	354.2	226.5	127.69	2.774	
10,000.0	7,321.4	9,904.2	7,152.4	73.6	73.5	-61.50	999.0	2,245.8	354.2	221.7	132.49	2.674	
10,100.0	7,321.4	10,004.2	7,152.4	76.3	76.2	-61.51	999.5	2,345.8	354.2	216.9	137.30	2.580	
10,200.0	7,321.4	10,104.2	7,152.4	79.0	78.9	-61.51	1,000.0	2,445.8	354.3	212.1	142.13	2.493	
10,300.0	7,321.4	10,204.2	7,152.4	81.8	81.6	-61.51	1,000.5	2,545.8	354.3	207.3	146.97	2.411	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,321.4	10,304.2	7,152.4	84.5	84.3	-61.51	1,001.0	2,645.8	354.3	202.5	151.81	2.334	
10,500.0	7,321.4	10,404.2	7,152.4	87.2	87.1	-61.51	1,001.4	2,745.8	354.3	197.7	156.67	2.262	
10,600.0	7,321.4	10,504.2	7,152.4	90.0	89.8	-61.52	1,001.9	2,845.8	354.4	192.8	161.53	2.194	
10,700.0	7,321.4	10,604.2	7,152.4	92.7	92.5	-61.52	1,002.4	2,945.8	354.4	188.0	166.41	2.130	
10,800.0	7,321.4	10,704.2	7,152.4	95.5	95.3	-61.52	1,002.9	3,045.8	354.4	183.1	171.28	2.069	
10,900.0	7,321.4	10,804.2	7,152.4	98.2	98.0	-61.52	1,003.4	3,145.8	354.4	178.2	176.17	2.012	
11,000.0	7,321.4	10,904.2	7,152.4	101.0	100.8	-61.52	1,003.9	3,245.8	354.4	173.4	181.06	1.958	
11,100.0	7,321.4	11,004.2	7,152.4	103.7	103.5	-61.52	1,004.4	3,345.8	354.5	168.5	185.96	1.906	
11,200.0	7,321.4	11,104.2	7,152.4	106.5	106.3	-61.53	1,004.9	3,445.8	354.5	163.6	190.86	1.857	
11,300.0	7,321.4	11,204.2	7,152.4	109.2	109.0	-61.53	1,005.4	3,545.8	354.5	158.7	195.76	1.811	
11,400.0	7,321.4	11,304.2	7,152.4	112.0	111.8	-61.53	1,005.9	3,645.8	354.5	153.9	200.67	1.767	
11,500.0	7,321.4	11,404.2	7,152.4	114.8	114.6	-61.53	1,006.4	3,745.8	354.5	149.0	205.58	1.725	
11,600.0	7,321.4	11,504.2	7,152.4	117.5	117.3	-61.53	1,006.9	3,845.8	354.6	144.1	210.50	1.684	
11,700.0	7,321.4	11,604.2	7,152.4	120.3	120.1	-61.54	1,007.4	3,945.8	354.6	139.2	215.42	1.646	
11,800.0	7,321.4	11,704.2	7,152.4	123.1	122.9	-61.54	1,007.9	4,045.8	354.6	134.3	220.35	1.609	
11,900.0	7,321.4	11,804.2	7,152.4	125.8	125.6	-61.54	1,008.4	4,145.8	354.6	129.4	225.27	1.574	
12,000.0	7,321.4	11,904.2	7,152.4	128.6	128.4	-61.54	1,008.9	4,245.8	354.7	124.5	230.20	1.541	
12,100.0	7,321.4	12,004.2	7,152.4	131.4	131.2	-61.54	1,009.3	4,345.8	354.7	119.5	235.14	1.508	
12,131.8	7,321.4	12,036.0	7,152.4	132.3	132.0	-61.54	1,009.5	4,377.6	354.7	118.0	236.70	1.498	Level 3

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 11-122HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	87.94	1.1	30.4	30.4				
100.0	100.0	100.0	100.0	0.1	0.1	87.94	1.1	30.4	30.4	30.2	0.22	135.468	
200.0	200.0	200.0	200.0	0.3	0.3	87.94	1.1	30.4	30.4	29.8	0.67	45.156	
300.0	300.0	300.0	300.0	0.6	0.6	87.94	1.1	30.4	30.4	29.3	1.12	27.094	
400.0	400.0	400.0	400.0	0.8	0.8	87.94	1.1	30.4	30.4	28.9	1.57	19.353	
500.0	500.0	500.0	500.0	1.0	1.0	87.94	1.1	30.4	30.4	28.4	2.02	15.052	
600.0	600.0	600.0	600.0	1.2	1.2	87.94	1.1	30.4	30.4	28.0	2.47	12.315	
700.0	700.0	700.0	700.0	1.5	1.5	87.94	1.1	30.4	30.4	27.5	2.92	10.421	
800.0	800.0	800.0	800.0	1.7	1.7	87.94	1.1	30.4	30.4	27.1	3.37	9.031	
900.0	900.0	900.0	900.0	1.9	1.9	87.94	1.1	30.4	30.4	26.6	3.82	7.969	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	87.94	1.1	30.4	30.4	26.2	4.27	7.130	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	87.94	1.1	30.4	30.4	25.7	4.72	6.451	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	87.94	1.1	30.4	30.4	25.3	5.17	5.890	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	87.94	1.1	30.4	30.4	24.8	5.62	5.419	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	87.94	1.1	30.4	30.4	24.4	6.07	5.017	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	87.94	1.1	30.4	30.4	23.9	6.52	4.671	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	87.94	1.1	30.4	30.4	23.5	6.97	4.370	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	87.94	1.1	30.4	30.4	23.0	7.42	4.105	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	87.94	1.1	30.4	30.4	22.6	7.87	3.871	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	87.94	1.1	30.4	30.4	22.1	8.32	3.661	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	87.94	1.1	30.4	30.4	21.7	8.77	3.474	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	87.94	1.1	30.4	30.4	21.2	9.22	3.304	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	87.94	1.1	30.4	30.4	20.8	9.66	3.150	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	87.94	1.1	30.4	30.4	20.3	10.11	3.010	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	87.94	1.1	30.4	30.4	19.9	10.56	2.882	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	87.94	1.1	30.4	30.4	19.4	11.01	2.765	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	87.94	1.1	30.4	30.4	19.0	11.46	2.656	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	87.94	1.1	30.4	30.4	18.5	11.91	2.556	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	87.94	1.1	30.4	30.4	18.1	12.36	2.463	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	87.94	1.1	30.4	30.4	17.6	12.81	2.377	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	87.94	1.1	30.4	30.4	17.2	13.26	2.296	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	87.94	1.1	30.4	30.4	16.7	13.71	2.221	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	87.94	1.1	30.4	30.4	16.3	14.16	2.150	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	87.94	1.1	30.4	30.4	15.8	14.61	2.084	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	87.94	1.1	30.4	30.4	15.4	15.06	2.022	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	87.94	1.1	30.4	30.4	14.9	15.51	1.963	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	87.94	1.1	30.4	30.4	14.5	15.96	1.908	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	87.94	1.1	30.4	30.4	14.0	16.41	1.856	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	87.94	1.1	30.4	30.4	13.6	16.86	1.806	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	87.94	1.1	30.4	30.4	13.1	17.31	1.759	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	87.94	1.1	30.4	30.4	12.7	17.76	1.715	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	87.94	1.1	30.4	30.4	12.2	18.21	1.672	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	87.94	1.1	30.4	30.4	11.8	18.66	1.632	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	87.94	1.1	30.4	30.4	11.3	19.11	1.594	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	87.94	1.1	30.4	30.4	10.9	19.55	1.557	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	87.94	1.1	30.4	30.4	10.4	20.00	1.522	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	87.94	1.1	30.4	30.4	10.0	20.45	1.489	Level 3
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	87.94	1.1	30.4	30.4	9.5	20.90	1.457	Level 3
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	87.94	1.1	30.4	30.4	9.1	21.35	1.426	Level 3
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	87.94	1.1	30.4	30.4	8.6	21.80	1.397	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	87.94	1.1	30.4	30.4	8.2	22.25	1.368	Level 3
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	87.94	1.1	30.4	30.4	7.7	22.70	1.341	Level 3

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-122HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	87.94	1.1	30.4	30.4	7.3	23.15	1.315	Level 3, CC, ES, SF
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	132.07	1.1	30.4	31.3	7.7	23.59	1.326	Level 3
5,400.0	5,399.8	5,399.8	5,399.8	12.0	12.0	139.46	1.1	30.4	35.8	11.8	23.99	1.492	Level 3
5,500.0	5,499.1	5,499.1	5,499.1	12.2	12.2	148.81	1.1	30.4	45.2	20.8	24.33	1.857	
5,600.0	5,597.7	5,597.7	5,597.7	12.5	12.5	156.88	1.1	30.4	60.1	35.5	24.59	2.443	
5,700.0	5,695.3	5,702.1	5,701.8	12.7	12.7	167.31	-1.2	23.5	76.4	51.6	24.75	3.087	
5,800.0	5,791.6	5,804.4	5,801.7	13.0	12.9	-177.94	-8.1	2.9	93.0	68.1	24.86	3.740	
5,900.0	5,886.3	5,901.4	5,892.5	13.3	13.1	-162.28	-18.7	-28.8	115.9	90.8	25.13	4.614	
6,000.0	5,979.3	5,990.8	5,971.7	13.6	13.4	-148.50	-31.8	-68.2	149.3	123.7	25.66	5.820	
6,100.0	6,070.2	6,077.5	6,046.2	14.0	13.7	-138.71	-45.9	-110.3	192.4	166.1	26.36	7.301	
6,200.0	6,158.8	6,163.3	6,119.9	14.5	14.1	-132.71	-59.8	-152.0	241.3	214.2	27.09	8.906	
6,300.0	6,245.5	6,248.0	6,192.7	15.0	14.6	-129.69	-73.5	-193.1	293.4	265.4	27.96	10.492	
6,400.0	6,331.9	6,332.7	6,265.4	15.6	15.1	-127.97	-87.2	-234.2	345.9	317.0	28.93	11.958	
6,500.0	6,418.4	6,417.4	6,338.2	16.3	15.6	-126.69	-101.0	-275.4	398.6	368.7	29.93	13.316	
6,600.0	6,504.8	6,502.1	6,410.9	17.0	16.2	-125.71	-114.7	-316.5	451.4	420.5	30.99	14.567	
6,700.0	6,591.3	6,586.8	6,483.7	17.7	16.8	-124.94	-128.4	-357.6	504.3	472.2	32.10	15.713	
6,800.0	6,677.7	6,676.8	6,562.8	18.5	17.4	-124.79	-143.3	-397.5	557.0	523.9	33.15	16.803	
6,900.0	6,764.2	6,767.5	6,648.7	19.2	17.7	-126.58	-159.5	-421.3	608.8	574.8	33.96	17.925	
7,000.0	6,852.6	6,851.9	6,731.3	19.9	17.9	-153.70	-174.9	-426.9	662.0	628.2	33.72	19.630	
7,100.0	6,944.2	6,933.0	6,810.5	20.3	18.0	167.04	-189.6	-417.1	717.5	683.9	33.58	21.366	
7,200.0	7,034.4	7,013.8	6,886.1	20.6	18.1	133.04	-203.6	-392.9	772.2	738.2	34.00	22.714	
7,300.0	7,118.5	7,096.5	6,957.7	20.8	18.1	110.59	-216.8	-354.1	823.0	788.3	34.65	23.753	
7,400.0	7,192.3	7,182.7	7,023.5	20.8	18.1	96.54	-228.9	-299.8	867.3	832.1	35.23	24.618	
7,500.0	7,251.9	7,273.5	7,080.1	20.8	18.3	87.78	-239.2	-229.8	903.1	867.3	35.83	25.208	
7,600.0	7,294.3	7,369.0	7,123.2	20.7	18.8	82.59	-246.9	-145.1	928.4	891.6	36.81	25.224	
7,700.0	7,317.4	7,468.3	7,147.9	20.7	19.7	80.08	-251.1	-49.3	942.0	903.5	38.51	24.462	
7,800.0	7,321.4	7,568.9	7,152.4	20.9	20.9	79.69	-251.6	51.1	944.2	903.3	40.88	23.098	
7,900.0	7,321.4	7,668.9	7,152.4	22.2	22.4	79.69	-251.2	151.1	944.3	900.5	43.73	21.591	
8,000.0	7,321.4	7,768.9	7,152.4	23.9	24.1	79.69	-250.8	251.1	944.3	897.3	47.06	20.067	
8,100.0	7,321.4	7,868.9	7,152.4	25.8	26.0	79.69	-250.4	351.1	944.4	893.6	50.77	18.602	
8,200.0	7,321.4	7,968.9	7,152.4	27.9	28.1	79.69	-250.0	451.1	944.5	889.7	54.79	17.239	
8,300.0	7,321.4	8,068.9	7,152.4	30.0	30.3	79.69	-249.6	551.1	944.5	885.5	59.05	15.996	
8,400.0	7,321.4	8,168.9	7,152.4	32.3	32.6	79.69	-249.2	651.1	944.6	881.1	63.50	14.875	
8,500.0	7,321.4	8,268.9	7,152.4	34.6	34.9	79.69	-248.8	751.1	944.7	876.5	68.12	13.868	
8,600.0	7,321.4	8,368.9	7,152.4	37.0	37.3	79.69	-248.4	851.1	944.7	871.9	72.86	12.967	
8,700.0	7,321.4	8,468.9	7,152.4	39.5	39.8	79.70	-248.0	951.1	944.8	867.1	77.70	12.159	
8,800.0	7,321.4	8,568.9	7,152.4	42.0	42.3	79.70	-247.6	1,051.1	944.9	862.2	82.63	11.435	
8,900.0	7,321.4	8,668.9	7,152.4	44.5	44.9	79.70	-247.2	1,151.1	944.9	857.3	87.63	10.783	
9,000.0	7,321.4	8,768.9	7,152.4	47.1	47.5	79.70	-246.8	1,251.1	945.0	852.3	92.69	10.195	
9,100.0	7,321.4	8,868.9	7,152.4	49.6	50.1	79.70	-246.4	1,351.1	945.1	847.3	97.80	9.663	
9,200.0	7,321.4	8,968.9	7,152.4	52.2	52.7	79.70	-246.0	1,451.1	945.1	842.2	102.95	9.180	
9,300.0	7,321.4	9,068.9	7,152.4	54.9	55.3	79.70	-245.6	1,551.1	945.2	837.0	108.14	8.740	
9,400.0	7,321.4	9,168.9	7,152.4	57.5	58.0	79.70	-245.2	1,651.1	945.3	831.9	113.36	8.338	
9,500.0	7,321.4	9,268.9	7,152.4	60.2	60.6	79.70	-244.8	1,751.1	945.3	826.7	118.61	7.970	
9,600.0	7,321.4	9,368.9	7,152.4	62.8	63.3	79.70	-244.3	1,851.1	945.4	821.5	123.88	7.631	
9,700.0	7,321.4	9,468.9	7,152.4	65.5	66.0	79.70	-243.9	1,951.1	945.5	816.3	129.18	7.319	
9,800.0	7,321.4	9,568.9	7,152.4	68.2	68.7	79.70	-243.5	2,051.1	945.5	811.0	134.49	7.030	
9,900.0	7,321.4	9,668.9	7,152.4	70.9	71.4	79.70	-243.1	2,151.1	945.6	805.8	139.82	6.763	
10,000.0	7,321.4	9,768.9	7,152.4	73.6	74.1	79.71	-242.7	2,251.1	945.6	800.5	145.16	6.514	
10,100.0	7,321.4	9,868.9	7,152.4	76.3	76.9	79.71	-242.3	2,351.1	945.7	795.2	150.52	6.283	
10,200.0	7,321.4	9,968.9	7,152.4	79.0	79.6	79.71	-241.9	2,451.1	945.8	789.9	155.89	6.067	
10,300.0	7,321.4	10,068.9	7,152.4	81.8	82.3	79.71	-241.5	2,551.1	945.8	784.6	161.26	5.865	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-122HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,321.4	10,168.9	7,152.4	84.5	85.0	79.71	-241.1	2,651.1	945.9	779.3	166.65	5.676	
10,500.0	7,321.4	10,268.9	7,152.4	87.2	87.8	79.71	-240.7	2,751.1	946.0	773.9	172.05	5.498	
10,600.0	7,321.4	10,368.9	7,152.4	90.0	90.5	79.71	-240.3	2,851.1	946.0	768.6	177.45	5.331	
10,700.0	7,321.4	10,468.9	7,152.4	92.7	93.3	79.71	-239.9	2,951.1	946.1	763.2	182.87	5.174	
10,800.0	7,321.4	10,568.9	7,152.4	95.5	96.0	79.71	-239.5	3,051.1	946.2	757.9	188.28	5.025	
10,900.0	7,321.4	10,668.9	7,152.4	98.2	98.8	79.71	-239.1	3,151.1	946.2	752.5	193.71	4.885	
11,000.0	7,321.4	10,768.9	7,152.4	101.0	101.5	79.71	-238.7	3,251.1	946.3	747.2	199.14	4.752	
11,100.0	7,321.4	10,868.9	7,152.4	103.7	104.3	79.71	-238.3	3,351.1	946.4	741.8	204.57	4.626	
11,200.0	7,321.4	10,968.9	7,152.4	106.5	107.1	79.71	-237.9	3,451.1	946.4	736.4	210.01	4.507	
11,300.0	7,321.4	11,068.9	7,152.4	109.2	109.8	79.71	-237.5	3,551.1	946.5	731.1	215.46	4.393	
11,400.0	7,321.4	11,168.9	7,152.4	112.0	112.6	79.72	-237.1	3,651.1	946.6	725.7	220.90	4.285	
11,500.0	7,321.4	11,268.9	7,152.4	114.8	115.4	79.72	-236.7	3,751.1	946.6	720.3	226.36	4.182	
11,600.0	7,321.4	11,368.9	7,152.4	117.5	118.1	79.72	-236.3	3,851.1	946.7	714.9	231.81	4.084	
11,700.0	7,321.4	11,468.9	7,152.4	120.3	120.9	79.72	-235.9	3,951.1	946.8	709.5	237.27	3.990	
11,800.0	7,321.4	11,568.9	7,152.4	123.1	123.7	79.72	-235.5	4,051.1	946.8	704.1	242.73	3.901	
11,900.0	7,321.4	11,668.9	7,152.4	125.8	126.5	79.72	-235.1	4,151.1	946.9	698.7	248.19	3.815	
12,000.0	7,321.4	11,768.9	7,152.4	128.6	129.2	79.72	-234.7	4,251.1	947.0	693.3	253.66	3.733	
12,100.0	7,321.4	11,868.9	7,152.4	131.4	131.3	79.72	-234.3	4,351.1	947.0	688.6	258.45	3.664	
12,109.1	7,321.4	11,878.1	7,152.4	131.6	131.5	79.72	-234.3	4,360.2	947.0	688.2	258.85	3.659	
12,131.8	7,321.4	11,891.5	7,152.4	132.3	131.7	79.72	-234.2	4,373.7	947.1	687.4	259.71	3.647	

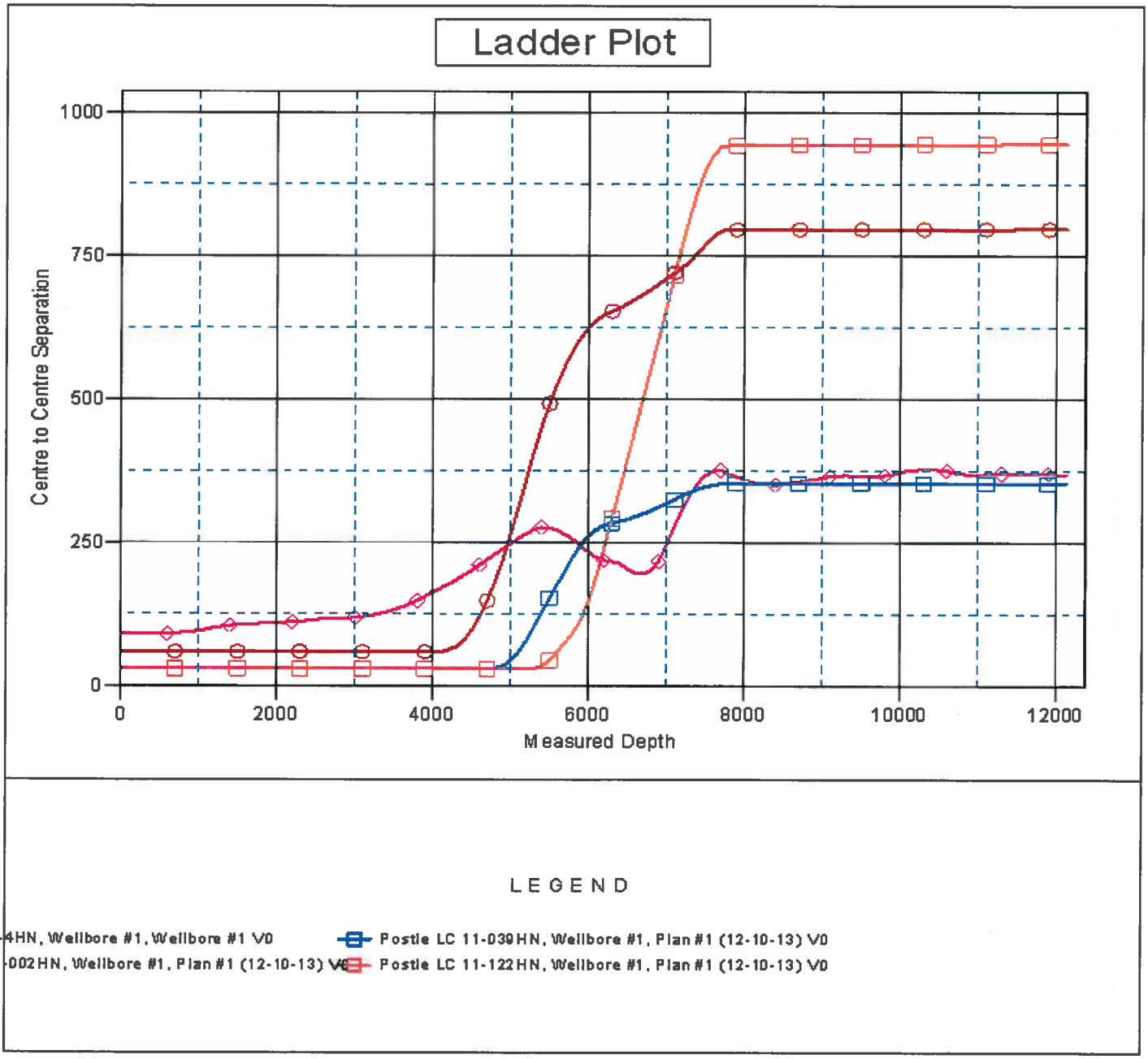
ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4993.4ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Postle LC 11-042HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.34°



Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-042HC
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-042HC	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4993.4ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Postle LC 11-042HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.34°