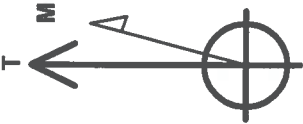


Well Name: Postle IC 11-122HN

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 1332149.54 3145696.06 40.243972
 +E/-W Easting 104.978072
 Slot
 RKB - 16.5' WELL @ 4993.4ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1456'FNL & 478'FWL	1.0	0.0	0.0	Point
BHL 1714'FNL & 470'FEL	7152.4	-235.3	4343.3	Point
Entry Pt. 1709'FNL & 460'FWL	7152.4	-252.8	-16.5	Point

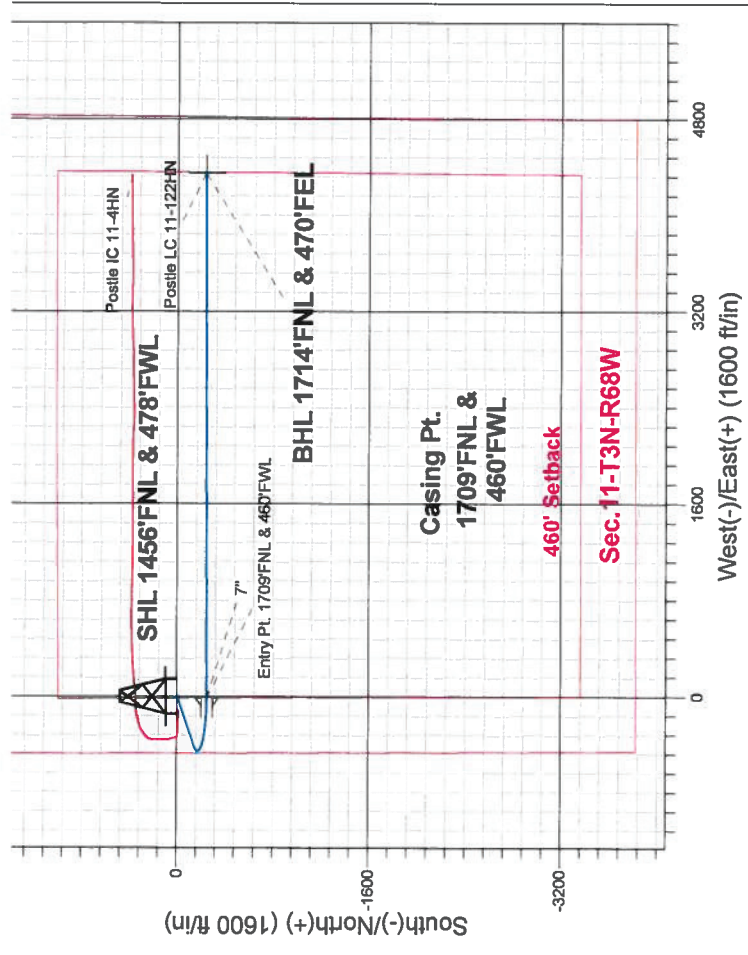


Azimuths to True North
 Magnetic North: 8.63°

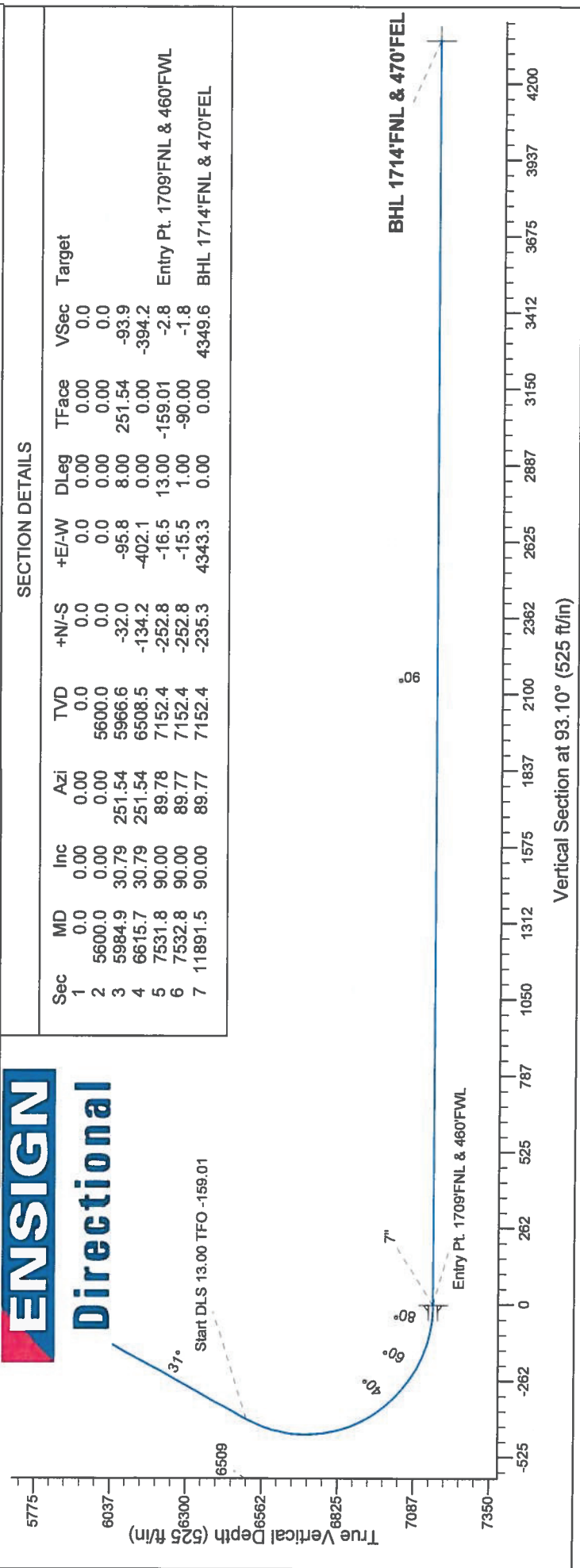
Postle West Pad Sec. 11-T3N-R68W
 Postle IC 11-122HN
 Plan #1 (12-10-13)
 15:27, December 11 2013

ANNOTATIONS

TVD	MD	Annotation
5600.0	6600.0	KOP - Start Build 8.00
6508.5	6615.7	Start DLS 13.00 TFO -159.01
7152.4	11891.5	TD at 11891.5



ENSIGN Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+EAW	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	
3	5984.9	30.79	251.54	5966.6	-32.0	-95.8	8.00	251.54	-93.9	
4	6615.7	30.79	251.54	6508.5	-134.2	-402.1	0.00	0.00	-394.2	
5	7531.8	90.00	89.78	7152.4	-252.8	-16.5	13.00	-159.01	-2.8	Entry Pt. 1709'FNL & 460'FWL
6	7532.8	90.00	89.77	7152.4	-252.8	-15.5	1.00	-90.00	-1.8	
7	11891.5	90.00	89.77	7152.4	-235.3	4343.3	0.00	0.00	4349.6	BHL 1714'FNL & 470'FEL



Directional

Great Western

SEC.11-T3N-R68W

Postle West Pad Sec.11-T3N-R68W

Postle IC 11-122HN

Wellbore #1

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

Standard Planning Report

11 December, 2013

Database:	Landmark	Local Co-ordinate Reference:	Well PostleIC 11-122HN
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 11-122HN	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 11-122HN					
Well Position	+N/-S	5.1 ft	Northing:	1,332,149.54 ft	Latitude:	40.243972
	+E/-W	120.3 ft	Easting:	3,145,696.06 ft	Longitude:	-104.978072
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,976.9 ft

Wellbore	Wellbore #1				
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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)			
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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	93.10

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	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,984.9	30.79	251.54	5,966.6	-32.0	-95.8	8.00	8.00	0.00	251.54	
6,615.7	30.79	251.54	6,508.5	-134.2	-402.1	0.00	0.00	0.00	0.00	
7,531.8	90.00	89.78	7,152.4	-252.8	-16.5	13.00	6.46	-17.66	-159.01	Entry Pt. 1709'FNL
7,532.8	90.00	89.77	7,152.4	-252.8	-15.5	1.00	0.00	-1.00	-90.00	
11,891.5	90.00	89.77	7,152.4	-235.3	4,343.3	0.00	0.00	0.00	0.00	BHL 1714'FNL & 47

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-122HN
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 11-122HN	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 1456'FNL & 478'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

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-122HN
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 11-122HN	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	
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP - Start Build 8.00										
5,700.0	8.00	251.54	5,699.7	-2.2	-6.6	-6.5	8.00	8.00	0.00	
5,800.0	16.00	251.54	5,797.4	-8.8	-26.3	-25.8	8.00	8.00	0.00	
5,900.0	24.00	251.54	5,891.3	-19.6	-58.7	-57.6	8.00	8.00	0.00	
5,984.9	30.79	251.54	5,966.6	-32.0	-95.8	-93.9	8.00	8.00	0.00	
6,000.0	30.79	251.54	5,979.6	-34.4	-103.1	-101.1	0.00	0.00	0.00	
6,100.0	30.79	251.54	6,065.5	-50.6	-151.7	-148.7	0.00	0.00	0.00	
6,200.0	30.79	251.54	6,151.4	-66.8	-200.2	-196.3	0.00	0.00	0.00	
6,300.0	30.79	251.54	6,237.3	-83.0	-248.8	-243.9	0.00	0.00	0.00	
6,400.0	30.79	251.54	6,323.2	-99.2	-297.3	-291.5	0.00	0.00	0.00	
6,500.0	30.79	251.54	6,409.1	-115.5	-345.9	-339.1	0.00	0.00	0.00	
6,600.0	30.79	251.54	6,495.0	-131.7	-394.5	-386.8	0.00	0.00	0.00	
6,615.7	30.79	251.54	6,508.5	-134.2	-402.1	-394.2	0.00	0.00	0.00	
Start DLS 13.00 TFO -159.01										
6,700.0	20.89	240.53	6,584.3	-148.5	-435.7	-427.1	13.01	-11.75	-13.06	
6,800.0	11.73	205.86	6,680.4	-166.5	-455.8	-446.1	13.00	-9.16	-34.67	
6,900.0	13.15	142.76	6,778.5	-184.8	-453.3	-442.7	13.00	1.42	-63.10	
7,000.0	23.29	115.46	6,873.5	-202.4	-428.5	-416.9	13.00	10.14	-27.30	
7,100.0	35.29	105.06	6,960.6	-218.5	-382.5	-370.2	13.00	12.01	-10.40	
7,200.0	47.78	99.52	7,035.3	-232.1	-317.9	-304.8	13.00	12.48	-5.53	
7,300.0	60.43	95.85	7,093.9	-242.8	-237.7	-224.2	13.00	12.66	-3.67	
7,400.0	73.17	93.01	7,133.2	-249.7	-146.3	-132.6	13.00	12.74	-2.84	
7,500.0	85.94	90.54	7,151.3	-252.7	-48.2	-34.5	13.00	12.77	-2.48	
7,531.8	89.99	89.78	7,152.4	-252.8	-16.5	-2.8	12.98	12.76	-2.38	
7" - Entry Pt. 1709'FNL & 460'FWL										
7,532.8	90.00	89.77	7,152.4	-252.8	-15.5	-1.8	1.27	0.61	-1.11	
7,600.0	90.00	89.77	7,152.4	-252.5	51.8	65.4	0.00	0.00	0.00	
7,700.0	90.00	89.77	7,152.4	-252.1	151.8	165.2	0.00	0.00	0.00	
7,800.0	90.00	89.77	7,152.4	-251.7	251.8	265.0	0.00	0.00	0.00	
7,900.0	90.00	89.77	7,152.4	-251.3	351.8	364.9	0.00	0.00	0.00	
8,000.0	90.00	89.77	7,152.4	-250.9	451.8	464.7	0.00	0.00	0.00	
8,100.0	90.00	89.77	7,152.4	-250.5	551.8	564.5	0.00	0.00	0.00	
8,200.0	90.00	89.77	7,152.4	-250.1	651.8	664.3	0.00	0.00	0.00	
8,300.0	90.00	89.77	7,152.4	-249.7	751.8	764.2	0.00	0.00	0.00	
8,400.0	90.00	89.77	7,152.4	-249.3	851.8	864.0	0.00	0.00	0.00	
8,500.0	90.00	89.77	7,152.4	-248.9	951.8	963.8	0.00	0.00	0.00	
8,600.0	90.00	89.77	7,152.4	-248.5	1,051.8	1,063.7	0.00	0.00	0.00	
8,700.0	90.00	89.77	7,152.4	-248.1	1,151.8	1,163.5	0.00	0.00	0.00	
8,800.0	90.00	89.77	7,152.4	-247.7	1,251.8	1,263.3	0.00	0.00	0.00	
8,900.0	90.00	89.77	7,152.4	-247.3	1,351.8	1,363.2	0.00	0.00	0.00	
9,000.0	90.00	89.77	7,152.4	-246.9	1,451.8	1,463.0	0.00	0.00	0.00	
9,100.0	90.00	89.77	7,152.4	-246.5	1,551.8	1,562.8	0.00	0.00	0.00	
9,200.0	90.00	89.77	7,152.4	-246.1	1,651.8	1,662.7	0.00	0.00	0.00	
9,300.0	90.00	89.77	7,152.4	-245.7	1,751.8	1,762.5	0.00	0.00	0.00	
9,400.0	90.00	89.77	7,152.4	-245.3	1,851.8	1,862.3	0.00	0.00	0.00	
9,500.0	90.00	89.77	7,152.4	-244.9	1,951.8	1,962.2	0.00	0.00	0.00	
9,600.0	90.00	89.77	7,152.4	-244.5	2,051.8	2,062.0	0.00	0.00	0.00	
9,700.0	90.00	89.77	7,152.4	-244.1	2,151.8	2,161.8	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-122HN
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 11-122HN	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	89.77	7,152.4	-243.7	2,251.8	2,261.6	0.00	0.00	0.00
9,900.0	90.00	89.77	7,152.4	-243.3	2,351.8	2,361.5	0.00	0.00	0.00
10,000.0	90.00	89.77	7,152.4	-242.9	2,451.8	2,461.3	0.00	0.00	0.00
10,100.0	90.00	89.77	7,152.4	-242.5	2,551.8	2,561.1	0.00	0.00	0.00
10,200.0	90.00	89.77	7,152.4	-242.1	2,651.8	2,661.0	0.00	0.00	0.00
10,300.0	90.00	89.77	7,152.4	-241.7	2,751.8	2,760.8	0.00	0.00	0.00
10,400.0	90.00	89.77	7,152.4	-241.3	2,851.8	2,860.6	0.00	0.00	0.00
10,500.0	90.00	89.77	7,152.4	-240.9	2,951.8	2,960.5	0.00	0.00	0.00
10,600.0	90.00	89.77	7,152.4	-240.5	3,051.8	3,060.3	0.00	0.00	0.00
10,700.0	90.00	89.77	7,152.4	-240.1	3,151.8	3,160.1	0.00	0.00	0.00
10,800.0	90.00	89.77	7,152.4	-239.7	3,251.8	3,260.0	0.00	0.00	0.00
10,900.0	90.00	89.77	7,152.4	-239.3	3,351.8	3,359.8	0.00	0.00	0.00
11,000.0	90.00	89.77	7,152.4	-238.9	3,451.7	3,459.6	0.00	0.00	0.00
11,100.0	90.00	89.77	7,152.4	-238.5	3,551.7	3,559.4	0.00	0.00	0.00
11,200.0	90.00	89.77	7,152.4	-238.1	3,651.7	3,659.3	0.00	0.00	0.00
11,300.0	90.00	89.77	7,152.4	-237.7	3,751.7	3,759.1	0.00	0.00	0.00
11,400.0	90.00	89.77	7,152.4	-237.3	3,851.7	3,858.9	0.00	0.00	0.00
11,500.0	90.00	89.77	7,152.4	-236.9	3,951.7	3,958.8	0.00	0.00	0.00
11,600.0	90.00	89.77	7,152.4	-236.5	4,051.7	4,058.6	0.00	0.00	0.00
11,700.0	90.00	89.77	7,152.4	-236.1	4,151.7	4,158.4	0.00	0.00	0.00
11,800.0	90.00	89.77	7,152.4	-235.7	4,251.7	4,258.3	0.00	0.00	0.00
11,891.5	90.00	89.77	7,152.4	-235.3	4,343.2	4,349.6	0.00	0.00	0.00

TD at 11891.5 - BHL 1714'FNL & 470'FEL

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,531.8	7,152.4	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 8.00
6,615.7	6,508.5	-134.2	-402.1	Start DLS 13.00 TFO -159.01
11,891.5	7,152.4	-235.3	4,343.2	TD at 11891.5