

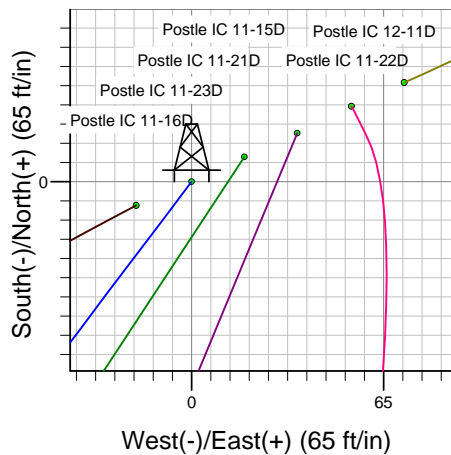
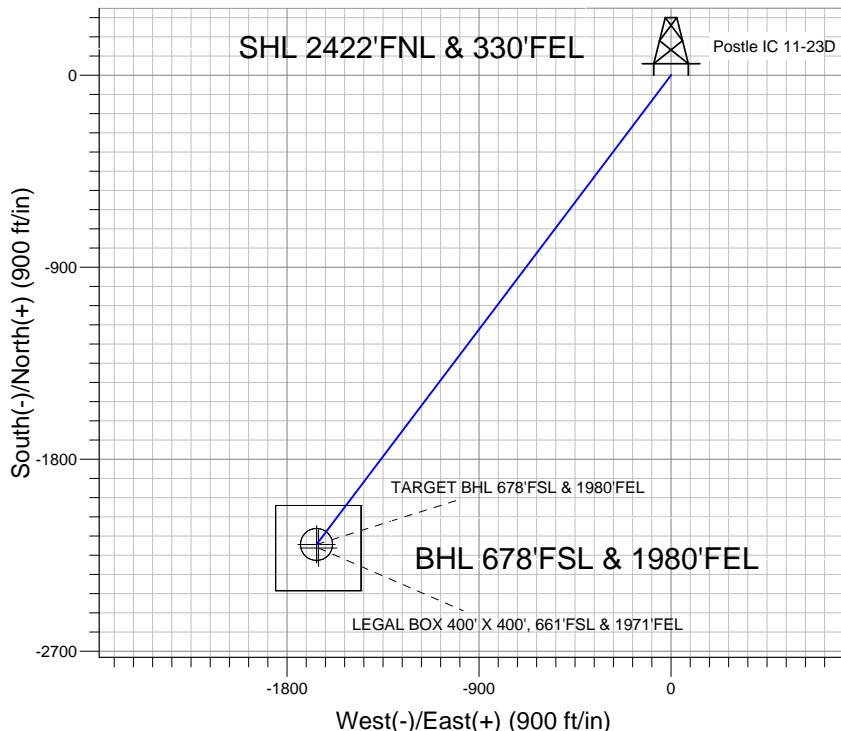
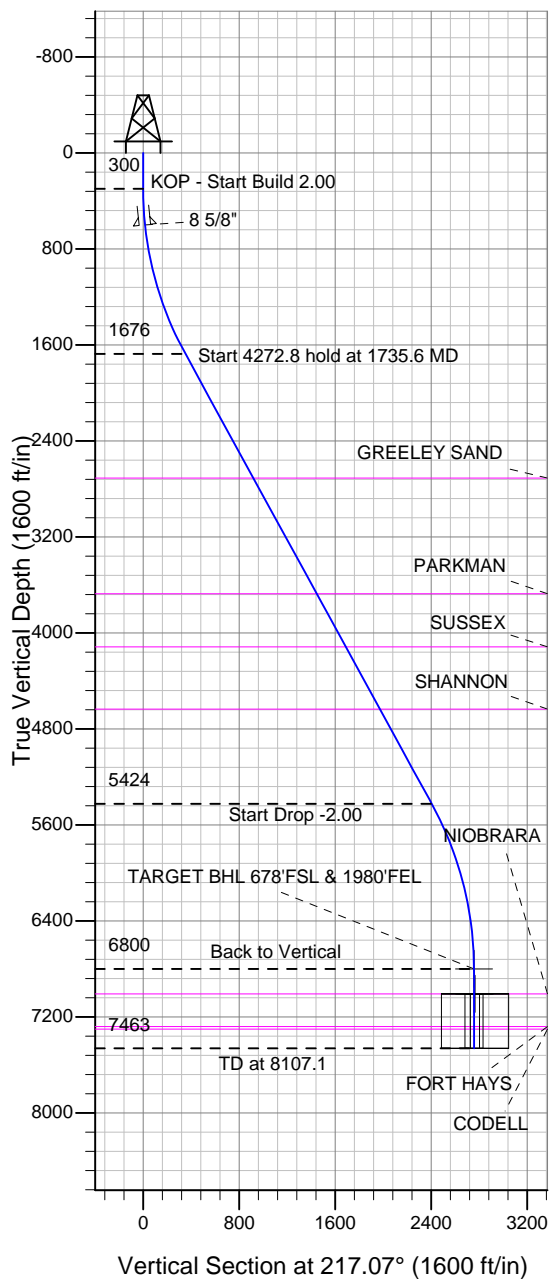
Well Name: Postle IC 11-23D

Surface Location: Postle IC 11-16D Pad Sec.11-T3N-R68W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4950.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1331233.19	3150182.08	40.241383	-104.962022	
Original Well Elev WELL @ 4964.0ft (Original Well Elev)						

Great Western



Postle IC 11-16D Pad Sec.11-T3N-R68W
Postle IC 11-23D
Plan #1 (9-18-12)
11:03, September 20 2012



Azimuths to True North
Magnetic North: 8.79°
Magnetic Field
Strength: 52892.9snT
Dip Angle: 66.85°
Date: 9/18/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 678'FSL & 1980'FEL	6800.0	-2199.9	-1662.1	40.235344	-104.967975	Point
LEGAL BOX 400' X 400', 661'FSL & 1971'FEL	7009.0	-2217.0	-1653.1	40.235297	-104.967943	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 678'FSL & 1980'FEL	7009.0	-2199.9	-1662.1	40.235344	-104.967975	Circle (Radius: 75.0)

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	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1735.6	28.71	217.07	1676.3	-281.1	-212.3	2.00	217.07	352.3	
4	6008.4	28.71	217.07	5423.7	-1918.9	-1449.7	0.00	0.00	2405.0	
5	7444.1	0.00	0.00	6800.0	-2199.9	-1662.1	2.00	180.00	2757.2	TARGET BHL 678'FSL & 1980'FEL
6	8107.1	0.00	0.00	7463.0	-2199.9	-1662.1	0.00	0.00	2757.2	



Great Western

SEC.11-T3N-R68W

Postle IC 11-16D Pad Sec.11-T3N-R68W

Postle IC 11-23D

Wellbore #1

Plan: Plan #1 (9-18-12)

Standard Planning Report

20 September, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

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 IC 11-16D Pad Sec.11-T3N-R68W											
Site Position:						Northing:			1,331,225.08ft			Latitude:			40.241361		
From:			Lat/Long			Easting:			3,150,163.43ft			Longitude:			-104.962089		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.35 °		

Well	Postle IC 11-23D					
Well Position	+N-S	8.0 ft	Northing:	1,331,233.19 ft	Latitude:	40.241383
	+E-W	18.7 ft	Easting:	3,150,182.08 ft	Longitude:	-104.962022
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,950.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/18/2012	8.79	66.85	52,893

Design	Plan #1 (9-18-12)			
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	217.07

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,735.6	28.71	217.07	1,676.3	-281.1	-212.3	2.00	2.00	0.00	217.07	
6,008.4	28.71	217.07	5,423.7	-1,918.9	-1,449.7	0.00	0.00	0.00	0.00	
7,444.1	0.00	0.00	6,800.0	-2,199.9	-1,662.1	2.00	-2.00	0.00	180.00	TARGET BHL 678'I
8,107.1	0.00	0.00	7,463.0	-2,199.9	-1,662.1	0.00	0.00	0.00	0.00	

Database: Landmark
Company: Great Western
Project: SEC.11-T3N-R68W
Site: Postle IC 11-16D Pad Sec.11-T3N-R68W
Well: Postle IC 11-23D
Wellbore: Wellbore #1
Design: Plan #1 (9-18-12)

Local Co-ordinate Reference: Well Postle IC 11-23D
TVD Reference: WELL @ 4964.0ft (Original Well Elev)
MD Reference: WELL @ 4964.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	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
KOP - Start Build 2.00									
320.0	0.40	217.07	320.0	-0.1	0.0	0.1	2.00	2.00	0.00
360.0	1.20	217.07	360.0	-0.5	-0.4	0.6	2.00	2.00	0.00
400.0	2.00	217.07	400.0	-1.4	-1.1	1.7	2.00	2.00	0.00
440.0	2.80	217.07	439.9	-2.7	-2.1	3.4	2.00	2.00	0.00
480.0	3.60	217.07	479.9	-4.5	-3.4	5.7	2.00	2.00	0.00
520.0	4.40	217.07	519.8	-6.7	-5.1	8.4	2.00	2.00	0.00
560.0	5.20	217.07	559.6	-9.4	-7.1	11.8	2.00	2.00	0.00
600.0	6.00	217.07	599.5	-12.5	-9.5	15.7	2.00	2.00	0.00
600.6	6.01	217.07	600.0	-12.6	-9.5	15.8	2.00	2.00	0.00
8 5/8"									
640.0	6.80	217.07	639.2	-16.1	-12.1	20.2	2.00	2.00	0.00
680.0	7.60	217.07	678.9	-20.1	-15.2	25.2	2.00	2.00	0.00
720.0	8.40	217.07	718.5	-24.5	-18.5	30.7	2.00	2.00	0.00
760.0	9.20	217.07	758.0	-29.4	-22.2	36.9	2.00	2.00	0.00
800.0	10.00	217.07	797.5	-34.7	-26.2	43.5	2.00	2.00	0.00
840.0	10.80	217.07	836.8	-40.5	-30.6	50.7	2.00	2.00	0.00
880.0	11.60	217.07	876.0	-46.7	-35.3	58.5	2.00	2.00	0.00
920.0	12.40	217.07	915.2	-53.3	-40.3	66.8	2.00	2.00	0.00
960.0	13.20	217.07	954.2	-60.4	-45.6	75.7	2.00	2.00	0.00
1,000.0	14.00	217.07	993.1	-67.9	-51.3	85.1	2.00	2.00	0.00
1,040.0	14.80	217.07	1,031.8	-75.8	-57.3	95.0	2.00	2.00	0.00
1,080.0	15.60	217.07	1,070.4	-84.2	-63.6	105.5	2.00	2.00	0.00
1,120.0	16.40	217.07	1,108.8	-93.0	-70.3	116.6	2.00	2.00	0.00
1,160.0	17.20	217.07	1,147.1	-102.2	-77.2	128.1	2.00	2.00	0.00
1,200.0	18.00	217.07	1,185.3	-111.9	-84.5	140.2	2.00	2.00	0.00
1,240.0	18.80	217.07	1,223.2	-121.9	-92.1	152.8	2.00	2.00	0.00
1,280.0	19.60	217.07	1,261.0	-132.4	-100.1	166.0	2.00	2.00	0.00
1,320.0	20.40	217.07	1,298.6	-143.4	-108.3	179.7	2.00	2.00	0.00
1,360.0	21.20	217.07	1,336.0	-154.7	-116.9	193.9	2.00	2.00	0.00
1,400.0	22.00	217.07	1,373.2	-166.4	-125.7	208.6	2.00	2.00	0.00
1,440.0	22.80	217.07	1,410.2	-178.6	-134.9	223.8	2.00	2.00	0.00
1,480.0	23.60	217.07	1,446.9	-191.2	-144.4	239.6	2.00	2.00	0.00
1,520.0	24.40	217.07	1,483.5	-204.2	-154.2	255.9	2.00	2.00	0.00
1,560.0	25.20	217.07	1,519.8	-217.5	-164.4	272.6	2.00	2.00	0.00
1,600.0	26.00	217.07	1,555.8	-231.3	-174.8	289.9	2.00	2.00	0.00
1,640.0	26.80	217.07	1,591.7	-245.5	-185.5	307.7	2.00	2.00	0.00
1,680.0	27.60	217.07	1,627.2	-260.1	-196.5	326.0	2.00	2.00	0.00
1,720.0	28.40	217.07	1,662.6	-275.1	-207.8	344.8	2.00	2.00	0.00
1,735.6	28.71	217.07	1,676.3	-281.1	-212.3	352.3	2.00	2.00	0.00
Start 4272.8 hold at 1735.6 MD									
1,760.0	28.71	217.07	1,697.7	-290.4	-219.4	364.0	0.00	0.00	0.00
1,800.0	28.71	217.07	1,732.7	-305.7	-231.0	383.2	0.00	0.00	0.00
1,840.0	28.71	217.07	1,767.8	-321.1	-242.6	402.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

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)
1,880.0	28.71	217.07	1,802.9	-336.4	-254.2	421.6	0.00	0.00	0.00
1,920.0	28.71	217.07	1,838.0	-351.7	-265.7	440.8	0.00	0.00	0.00
1,960.0	28.71	217.07	1,873.1	-367.1	-277.3	460.0	0.00	0.00	0.00
2,000.0	28.71	217.07	1,908.2	-382.4	-288.9	479.3	0.00	0.00	0.00
2,040.0	28.71	217.07	1,943.2	-397.7	-300.5	498.5	0.00	0.00	0.00
2,080.0	28.71	217.07	1,978.3	-413.1	-312.1	517.7	0.00	0.00	0.00
2,120.0	28.71	217.07	2,013.4	-428.4	-323.7	536.9	0.00	0.00	0.00
2,160.0	28.71	217.07	2,048.5	-443.7	-335.2	556.1	0.00	0.00	0.00
2,200.0	28.71	217.07	2,083.6	-459.1	-346.8	575.3	0.00	0.00	0.00
2,240.0	28.71	217.07	2,118.6	-474.4	-358.4	594.6	0.00	0.00	0.00
2,280.0	28.71	217.07	2,153.7	-489.7	-370.0	613.8	0.00	0.00	0.00
2,320.0	28.71	217.07	2,188.8	-505.1	-381.6	633.0	0.00	0.00	0.00
2,360.0	28.71	217.07	2,223.9	-520.4	-393.2	652.2	0.00	0.00	0.00
2,400.0	28.71	217.07	2,259.0	-535.7	-404.7	671.4	0.00	0.00	0.00
2,440.0	28.71	217.07	2,294.1	-551.1	-416.3	690.6	0.00	0.00	0.00
2,480.0	28.71	217.07	2,329.1	-566.4	-427.9	709.9	0.00	0.00	0.00
2,520.0	28.71	217.07	2,364.2	-581.7	-439.5	729.1	0.00	0.00	0.00
2,560.0	28.71	217.07	2,399.3	-597.1	-451.1	748.3	0.00	0.00	0.00
2,600.0	28.71	217.07	2,434.4	-612.4	-462.7	767.5	0.00	0.00	0.00
2,640.0	28.71	217.07	2,469.5	-627.7	-474.2	786.7	0.00	0.00	0.00
2,680.0	28.71	217.07	2,504.5	-643.0	-485.8	805.9	0.00	0.00	0.00
2,720.0	28.71	217.07	2,539.6	-658.4	-497.4	825.2	0.00	0.00	0.00
2,760.0	28.71	217.07	2,574.7	-673.7	-509.0	844.4	0.00	0.00	0.00
2,800.0	28.71	217.07	2,609.8	-689.0	-520.6	863.6	0.00	0.00	0.00
2,840.0	28.71	217.07	2,644.9	-704.4	-532.2	882.8	0.00	0.00	0.00
2,880.0	28.71	217.07	2,680.0	-719.7	-543.7	902.0	0.00	0.00	0.00
2,914.3	28.71	217.07	2,710.0	-732.8	-553.7	918.5	0.00	0.00	0.00
GREELEY SAND									
2,920.0	28.71	217.07	2,715.0	-735.0	-555.3	921.2	0.00	0.00	0.00
2,960.0	28.71	217.07	2,750.1	-750.4	-566.9	940.5	0.00	0.00	0.00
3,000.0	28.71	217.07	2,785.2	-765.7	-578.5	959.7	0.00	0.00	0.00
3,040.0	28.71	217.07	2,820.3	-781.0	-590.1	978.9	0.00	0.00	0.00
3,080.0	28.71	217.07	2,855.4	-796.4	-601.7	998.1	0.00	0.00	0.00
3,120.0	28.71	217.07	2,890.4	-811.7	-613.3	1,017.3	0.00	0.00	0.00
3,160.0	28.71	217.07	2,925.5	-827.0	-624.8	1,036.5	0.00	0.00	0.00
3,200.0	28.71	217.07	2,960.6	-842.4	-636.4	1,055.8	0.00	0.00	0.00
3,240.0	28.71	217.07	2,995.7	-857.7	-648.0	1,075.0	0.00	0.00	0.00
3,280.0	28.71	217.07	3,030.8	-873.0	-659.6	1,094.2	0.00	0.00	0.00
3,320.0	28.71	217.07	3,065.9	-888.4	-671.2	1,113.4	0.00	0.00	0.00
3,360.0	28.71	217.07	3,100.9	-903.7	-682.8	1,132.6	0.00	0.00	0.00
3,400.0	28.71	217.07	3,136.0	-919.0	-694.3	1,151.8	0.00	0.00	0.00
3,440.0	28.71	217.07	3,171.1	-934.4	-705.9	1,171.1	0.00	0.00	0.00
3,480.0	28.71	217.07	3,206.2	-949.7	-717.5	1,190.3	0.00	0.00	0.00
3,520.0	28.71	217.07	3,241.3	-965.0	-729.1	1,209.5	0.00	0.00	0.00
3,560.0	28.71	217.07	3,276.3	-980.4	-740.7	1,228.7	0.00	0.00	0.00
3,600.0	28.71	217.07	3,311.4	-995.7	-752.3	1,247.9	0.00	0.00	0.00
3,640.0	28.71	217.07	3,346.5	-1,011.0	-763.8	1,267.1	0.00	0.00	0.00
3,680.0	28.71	217.07	3,381.6	-1,026.4	-775.4	1,286.4	0.00	0.00	0.00
3,720.0	28.71	217.07	3,416.7	-1,041.7	-787.0	1,305.6	0.00	0.00	0.00
3,760.0	28.71	217.07	3,451.7	-1,057.0	-798.6	1,324.8	0.00	0.00	0.00
3,800.0	28.71	217.07	3,486.8	-1,072.4	-810.2	1,344.0	0.00	0.00	0.00
3,840.0	28.71	217.07	3,521.9	-1,087.7	-821.8	1,363.2	0.00	0.00	0.00
3,880.0	28.71	217.07	3,557.0	-1,103.0	-833.3	1,382.4	0.00	0.00	0.00
3,920.0	28.71	217.07	3,592.1	-1,118.4	-844.9	1,401.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

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)
3,960.0	28.71	217.07	3,627.2	-1,133.7	-856.5	1,420.9	0.00	0.00	0.00
4,000.0	28.71	217.07	3,662.2	-1,149.0	-868.1	1,440.1	0.00	0.00	0.00
4,013.4	28.71	217.07	3,674.0	-1,154.2	-872.0	1,446.5	0.00	0.00	0.00
PARKMAN									
4,040.0	28.71	217.07	3,697.3	-1,164.4	-879.7	1,459.3	0.00	0.00	0.00
4,080.0	28.71	217.07	3,732.4	-1,179.7	-891.3	1,478.5	0.00	0.00	0.00
4,120.0	28.71	217.07	3,767.5	-1,195.0	-902.8	1,497.7	0.00	0.00	0.00
4,160.0	28.71	217.07	3,802.6	-1,210.4	-914.4	1,517.0	0.00	0.00	0.00
4,200.0	28.71	217.07	3,837.6	-1,225.7	-926.0	1,536.2	0.00	0.00	0.00
4,240.0	28.71	217.07	3,872.7	-1,241.0	-937.6	1,555.4	0.00	0.00	0.00
4,280.0	28.71	217.07	3,907.8	-1,256.4	-949.2	1,574.6	0.00	0.00	0.00
4,320.0	28.71	217.07	3,942.9	-1,271.7	-960.8	1,593.8	0.00	0.00	0.00
4,360.0	28.71	217.07	3,978.0	-1,287.0	-972.4	1,613.0	0.00	0.00	0.00
4,400.0	28.71	217.07	4,013.1	-1,302.4	-983.9	1,632.3	0.00	0.00	0.00
4,440.0	28.71	217.07	4,048.1	-1,317.7	-995.5	1,651.5	0.00	0.00	0.00
4,480.0	28.71	217.07	4,083.2	-1,333.0	-1,007.1	1,670.7	0.00	0.00	0.00
4,518.5	28.71	217.07	4,117.0	-1,347.8	-1,018.3	1,689.2	0.00	0.00	0.00
SUSSEX									
4,520.0	28.71	217.07	4,118.3	-1,348.3	-1,018.7	1,689.9	0.00	0.00	0.00
4,560.0	28.71	217.07	4,153.4	-1,363.7	-1,030.3	1,709.1	0.00	0.00	0.00
4,600.0	28.71	217.07	4,188.5	-1,379.0	-1,041.9	1,728.3	0.00	0.00	0.00
4,640.0	28.71	217.07	4,223.5	-1,394.3	-1,053.4	1,747.6	0.00	0.00	0.00
4,680.0	28.71	217.07	4,258.6	-1,409.7	-1,065.0	1,766.8	0.00	0.00	0.00
4,720.0	28.71	217.07	4,293.7	-1,425.0	-1,076.6	1,786.0	0.00	0.00	0.00
4,760.0	28.71	217.07	4,328.8	-1,440.3	-1,088.2	1,805.2	0.00	0.00	0.00
4,800.0	28.71	217.07	4,363.9	-1,455.7	-1,099.8	1,824.4	0.00	0.00	0.00
4,840.0	28.71	217.07	4,399.0	-1,471.0	-1,111.4	1,843.6	0.00	0.00	0.00
4,880.0	28.71	217.07	4,434.0	-1,486.3	-1,122.9	1,862.9	0.00	0.00	0.00
4,920.0	28.71	217.07	4,469.1	-1,501.7	-1,134.5	1,882.1	0.00	0.00	0.00
4,960.0	28.71	217.07	4,504.2	-1,517.0	-1,146.1	1,901.3	0.00	0.00	0.00
5,000.0	28.71	217.07	4,539.3	-1,532.3	-1,157.7	1,920.5	0.00	0.00	0.00
5,040.0	28.71	217.07	4,574.4	-1,547.7	-1,169.3	1,939.7	0.00	0.00	0.00
5,080.0	28.71	217.07	4,609.4	-1,563.0	-1,180.9	1,958.9	0.00	0.00	0.00
5,109.1	28.71	217.07	4,635.0	-1,574.2	-1,189.3	1,972.9	0.00	0.00	0.00
SHANNON									
5,120.0	28.71	217.07	4,644.5	-1,578.3	-1,192.4	1,978.2	0.00	0.00	0.00
5,160.0	28.71	217.07	4,679.6	-1,593.7	-1,204.0	1,997.4	0.00	0.00	0.00
5,200.0	28.71	217.07	4,714.7	-1,609.0	-1,215.6	2,016.6	0.00	0.00	0.00
5,240.0	28.71	217.07	4,749.8	-1,624.3	-1,227.2	2,035.8	0.00	0.00	0.00
5,280.0	28.71	217.07	4,784.9	-1,639.7	-1,238.8	2,055.0	0.00	0.00	0.00
5,320.0	28.71	217.07	4,819.9	-1,655.0	-1,250.4	2,074.2	0.00	0.00	0.00
5,360.0	28.71	217.07	4,855.0	-1,670.3	-1,262.0	2,093.5	0.00	0.00	0.00
5,400.0	28.71	217.07	4,890.1	-1,685.7	-1,273.5	2,112.7	0.00	0.00	0.00
5,440.0	28.71	217.07	4,925.2	-1,701.0	-1,285.1	2,131.9	0.00	0.00	0.00
5,480.0	28.71	217.07	4,960.3	-1,716.3	-1,296.7	2,151.1	0.00	0.00	0.00
5,520.0	28.71	217.07	4,995.3	-1,731.7	-1,308.3	2,170.3	0.00	0.00	0.00
5,560.0	28.71	217.07	5,030.4	-1,747.0	-1,319.9	2,189.5	0.00	0.00	0.00
5,600.0	28.71	217.07	5,065.5	-1,762.3	-1,331.5	2,208.8	0.00	0.00	0.00
5,640.0	28.71	217.07	5,100.6	-1,777.7	-1,343.0	2,228.0	0.00	0.00	0.00
5,680.0	28.71	217.07	5,135.7	-1,793.0	-1,354.6	2,247.2	0.00	0.00	0.00
5,720.0	28.71	217.07	5,170.7	-1,808.3	-1,366.2	2,266.4	0.00	0.00	0.00
5,760.0	28.71	217.07	5,205.8	-1,823.7	-1,377.8	2,285.6	0.00	0.00	0.00
5,800.0	28.71	217.07	5,240.9	-1,839.0	-1,389.4	2,304.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

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)
5,840.0	28.71	217.07	5,276.0	-1,854.3	-1,401.0	2,324.1	0.00	0.00	0.00
5,880.0	28.71	217.07	5,311.1	-1,869.7	-1,412.5	2,343.3	0.00	0.00	0.00
5,920.0	28.71	217.07	5,346.2	-1,885.0	-1,424.1	2,362.5	0.00	0.00	0.00
5,960.0	28.71	217.07	5,381.2	-1,900.3	-1,435.7	2,381.7	0.00	0.00	0.00
6,000.0	28.71	217.07	5,416.3	-1,915.7	-1,447.3	2,400.9	0.00	0.00	0.00
6,008.4	28.71	217.07	5,423.7	-1,918.9	-1,449.7	2,405.0	0.00	0.00	0.00
Start Drop -2.00									
6,040.0	28.08	217.07	5,451.5	-1,930.9	-1,458.8	2,420.0	2.00	-2.00	0.00
6,080.0	27.28	217.07	5,486.9	-1,945.7	-1,470.0	2,438.6	2.00	-2.00	0.00
6,120.0	26.48	217.07	5,522.6	-1,960.1	-1,480.9	2,456.6	2.00	-2.00	0.00
6,160.0	25.68	217.07	5,558.5	-1,974.2	-1,491.5	2,474.2	2.00	-2.00	0.00
6,200.0	24.88	217.07	5,594.7	-1,987.8	-1,501.8	2,491.3	2.00	-2.00	0.00
6,240.0	24.08	217.07	5,631.1	-2,001.0	-1,511.8	2,507.9	2.00	-2.00	0.00
6,280.0	23.28	217.07	5,667.7	-2,013.8	-1,521.5	2,524.0	2.00	-2.00	0.00
6,320.0	22.48	217.07	5,704.6	-2,026.2	-1,530.8	2,539.5	2.00	-2.00	0.00
6,360.0	21.68	217.07	5,741.6	-2,038.2	-1,539.9	2,554.5	2.00	-2.00	0.00
6,400.0	20.88	217.07	5,778.9	-2,049.8	-1,548.7	2,569.1	2.00	-2.00	0.00
6,440.0	20.08	217.07	5,816.4	-2,061.0	-1,557.1	2,583.1	2.00	-2.00	0.00
6,480.0	19.28	217.07	5,854.0	-2,071.7	-1,565.2	2,596.5	2.00	-2.00	0.00
6,520.0	18.48	217.07	5,891.9	-2,082.1	-1,573.0	2,609.5	2.00	-2.00	0.00
6,560.0	17.68	217.07	5,929.9	-2,092.0	-1,580.5	2,621.9	2.00	-2.00	0.00
6,600.0	16.88	217.07	5,968.1	-2,101.4	-1,587.7	2,633.8	2.00	-2.00	0.00
6,640.0	16.08	217.07	6,006.5	-2,110.5	-1,594.5	2,645.1	2.00	-2.00	0.00
6,680.0	15.28	217.07	6,045.0	-2,119.1	-1,601.0	2,655.9	2.00	-2.00	0.00
6,720.0	14.48	217.07	6,083.6	-2,127.3	-1,607.2	2,666.2	2.00	-2.00	0.00
6,760.0	13.68	217.07	6,122.4	-2,135.1	-1,613.1	2,675.9	2.00	-2.00	0.00
6,800.0	12.88	217.07	6,161.4	-2,142.4	-1,618.6	2,685.1	2.00	-2.00	0.00
6,840.0	12.08	217.07	6,200.4	-2,149.3	-1,623.8	2,693.8	2.00	-2.00	0.00
6,880.0	11.28	217.07	6,239.6	-2,155.8	-1,628.7	2,701.9	2.00	-2.00	0.00
6,920.0	10.48	217.07	6,278.9	-2,161.8	-1,633.3	2,709.4	2.00	-2.00	0.00
6,960.0	9.68	217.07	6,318.2	-2,167.4	-1,637.5	2,716.4	2.00	-2.00	0.00
7,000.0	8.88	217.07	6,357.7	-2,172.5	-1,641.4	2,722.9	2.00	-2.00	0.00
7,040.0	8.08	217.07	6,397.3	-2,177.2	-1,644.9	2,728.8	2.00	-2.00	0.00
7,080.0	7.28	217.07	6,436.9	-2,181.5	-1,648.1	2,734.1	2.00	-2.00	0.00
7,120.0	6.48	217.07	6,476.6	-2,185.3	-1,651.0	2,738.9	2.00	-2.00	0.00
7,160.0	5.68	217.07	6,516.4	-2,188.7	-1,653.6	2,743.1	2.00	-2.00	0.00
7,200.0	4.88	217.07	6,556.2	-2,191.7	-1,655.8	2,746.8	2.00	-2.00	0.00
7,240.0	4.08	217.07	6,596.1	-2,194.1	-1,657.7	2,750.0	2.00	-2.00	0.00
7,280.0	3.28	217.07	6,636.0	-2,196.2	-1,659.2	2,752.5	2.00	-2.00	0.00
7,320.0	2.48	217.07	6,676.0	-2,197.8	-1,660.5	2,754.5	2.00	-2.00	0.00
7,360.0	1.68	217.07	6,716.0	-2,199.0	-1,661.3	2,756.0	2.00	-2.00	0.00
7,400.0	0.88	217.07	6,755.9	-2,199.7	-1,661.9	2,756.9	2.00	-2.00	0.00
7,440.0	0.08	217.07	6,795.9	-2,199.9	-1,662.1	2,757.2	2.00	-2.00	0.00
7,444.1	0.00	0.00	6,800.0	-2,199.9	-1,662.1	2,757.2	2.00	-2.00	0.00
Back to Vertical - TARGET BHL 678'FSL & 1980'FEL									
7,480.0	0.00	0.00	6,835.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,520.0	0.00	0.00	6,875.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,560.0	0.00	0.00	6,915.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,600.0	0.00	0.00	6,955.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,640.0	0.00	0.00	6,995.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,653.1	0.00	0.00	7,009.0	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
NIORARA - TARGET CIRCLE 678'FSL & 1980'FEL - LEGAL BOX 400' X 400', 661'FSL & 1971'FEL									
7,680.0	0.00	0.00	7,035.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

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)
7,720.0	0.00	0.00	7,075.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,760.0	0.00	0.00	7,115.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,155.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,840.0	0.00	0.00	7,195.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,880.0	0.00	0.00	7,235.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,920.0	0.00	0.00	7,275.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
7,925.1	0.00	0.00	7,281.0	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
FORT HAYS									
7,947.1	0.00	0.00	7,303.0	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
CODELL									
7,960.0	0.00	0.00	7,315.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,355.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
8,040.0	0.00	0.00	7,395.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
8,080.0	0.00	0.00	7,435.9	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
8,107.1	0.00	0.00	7,463.0	-2,199.9	-1,662.1	2,757.2	0.00	0.00	0.00
TD at 8107.1									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TARGET CIRCLE 678'FS	0.00	0.00	7,009.0	-2,199.9	-1,662.1	1,329,023.30	3,148,533.46	40.235344	-104.967975
- plan hits target center									
- Circle (radius 75.0)									
TARGET BHL 678'FS	0.00	0.00	6,800.0	-2,199.9	-1,662.1	1,329,023.30	3,148,533.46	40.235344	-104.967975
- plan hits target center									
- Point									
LEGAL BOX 400' X 400'	0.00	0.00	7,009.0	-2,217.0	-1,653.1	1,329,006.31	3,148,542.52	40.235297	-104.967943
- plan misses target center by 19.3ft at 7653.1ft MD (7009.0 TVD, -2199.9 N, -1662.1 E)									
- Rectangle (sides W400.0 H400.0 D454.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
600.6	600.0	8 5/8"	8-5/8	12-1/4	

Database:	Landmark	Local Co-ordinate Reference:	Well Postle IC 11-23D
Company:	Great Western	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Project:	SEC.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	North Reference:	True
Well:	Postle IC 11-23D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-18-12)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,914.3	2,710.0	GREELEY SAND		0.00	
4,013.4	3,674.0	PARKMAN		0.00	
4,518.5	4,117.0	SUSSEX		0.00	
5,109.1	4,635.0	SHANNON		0.00	
7,653.1	7,009.0	NIOBRARA		0.00	
7,925.1	7,281.0	FORT HAYS		0.00	
7,947.1	7,303.0	CODELL		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP - Start Build 2.00
1,735.6	1,676.3	-281.1	-212.3	Start 4272.8 hold at 1735.6 MD
6,008.4	5,423.7	-1,918.9	-1,449.7	Start Drop -2.00
7,444.1	6,800.0	-2,199.9	-1,662.1	Back to Vertical
8,107.1	7,463.0	-2,199.9	-1,662.1	TD at 8107.1



Great Western

SEC.11-T3N-R68W

Postle IC 11-16D Pad Sec.11-T3N-R68W

Postle IC 11-23D

Wellbore #1

Plan #1 (9-18-12)

Anticollision Report

20 September, 2012

Company:	Great Western	Local Co-ordinate Reference:	Well Postle IC 11-23D
Project:	SEC.11-T3N-R68W	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Reference Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Postle IC 11-23D	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 (9-18-12)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (9-18-12)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	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 9/20/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,107.1	Plan #1 (9-18-12) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Postle IC 11-16D Pad Sec.11-T3N-R68W						
Postle IC 11-16D - Wellbore #1 - Plan #1 (9-18-12)	200.0	200.0	20.4	19.7	30.184	CC, ES
Postle IC 11-16D - Wellbore #1 - Plan #1 (9-18-12)	1,900.0	1,868.7	189.6	171.4	10.443	SF
Postle IC 11-21D - Wellbore #1 - Plan #1 (9-18-12)	300.0	300.0	19.7	18.6	17.563	CC, ES
Postle IC 11-21D - Wellbore #1 - Plan #1 (9-18-12)	1,600.0	1,613.8	65.4	56.9	7.668	SF

Offset Design Postle IC 11-16D Pad Sec.11-T3N-R68W - Postle IC 11-16D - Wellbore #1 - Plan #1 (9-18-12)												Offset Site Error:	0.0 ft	
Survey Program: 0-MWD												Offset Well Error:	0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-113.22	-8.0	-18.7	20.4					
100.0	100.0	100.0	100.0	0.1	0.1	-113.22	-8.0	-18.7	20.4	20.1	0.22	90.551		
200.0	200.0	200.0	200.0	0.3	0.3	-113.22	-8.0	-18.7	20.4	19.7	0.67	30.184 CC, ES		
300.0	300.0	299.3	299.2	0.6	0.5	-113.59	-8.8	-20.2	22.1	21.0	1.11	19.937		
400.0	400.0	398.4	398.2	0.8	0.8	30.30	-11.3	-24.8	25.7	24.2	1.52	16.960		
500.0	499.8	497.3	496.8	1.0	1.0	33.71	-15.3	-32.3	29.9	28.0	1.93	15.460		
600.0	599.5	596.1	594.8	1.2	1.3	38.52	-20.9	-42.8	34.7	32.3	2.38	14.573		
700.0	698.7	694.6	692.1	1.5	1.6	43.93	-28.1	-56.3	40.4	37.6	2.88	14.035		
800.0	797.5	792.9	788.7	1.8	2.0	49.39	-36.8	-72.7	47.3	43.8	3.46	13.667		
900.0	895.6	890.9	884.2	2.2	2.4	54.56	-47.0	-91.9	55.4	51.3	4.15	13.365		
1,000.0	993.1	988.6	978.7	2.6	2.9	59.24	-58.7	-113.9	64.9	59.9	4.96	13.086		
1,100.0	1,089.6	1,086.0	1,071.9	3.1	3.5	63.37	-71.9	-138.6	75.7	69.8	5.91	12.822		
1,200.0	1,185.3	1,183.0	1,163.8	3.7	4.1	66.95	-86.6	-166.1	88.0	81.0	7.00	12.580		
1,300.0	1,279.8	1,279.8	1,254.4	4.3	4.8	70.04	-102.6	-196.2	101.8	93.5	8.23	12.367		
1,400.0	1,373.2	1,378.6	1,346.3	5.0	5.5	73.47	-119.6	-228.1	115.7	106.1	9.62	12.021		
1,500.0	1,465.2	1,477.2	1,438.1	5.7	6.3	77.61	-136.6	-259.9	129.2	118.1	11.18	11.561		
1,600.0	1,555.8	1,575.6	1,529.6	6.5	7.0	82.27	-153.5	-291.7	142.9	130.0	12.86	11.113		
1,700.0	1,644.9	1,673.5	1,620.8	7.4	7.8	87.28	-170.4	-323.4	157.2	142.6	14.63	10.750		
1,735.6	1,676.3	1,708.3	1,653.2	7.8	8.0	89.11	-176.4	-334.6	162.6	147.3	15.27	10.651		
1,800.0	1,732.7	1,771.1	1,711.7	8.4	8.5	92.46	-187.2	-354.9	172.8	156.4	16.42	10.522		
1,900.0	1,820.5	1,868.7	1,802.5	9.3	9.3	96.92	-204.0	-386.4	189.6	171.4	18.15	10.443 SF		
2,000.0	1,908.2	1,966.3	1,893.3	10.3	10.0	100.66	-220.8	-417.9	207.3	187.5	19.83	10.456		
2,100.0	1,995.9	2,063.9	1,984.1	11.2	10.8	103.80	-237.6	-449.5	225.8	204.4	21.45	10.526		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Postle IC 11-23D
Project:	SEC.11-T3N-R68W	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Reference Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Postle IC 11-23D	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 (9-18-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,200.0	2,083.6	2,161.4	2,074.9	12.2	11.5	106.47	-254.4	-481.0	244.9	221.8	23.04	10.627	
2,300.0	2,171.3	2,259.0	2,165.7	13.1	12.3	108.75	-271.2	-512.5	264.4	239.8	24.60	10.747	
2,400.0	2,259.0	2,356.6	2,256.5	14.1	13.0	110.72	-288.0	-544.0	284.2	258.1	26.13	10.875	
2,500.0	2,346.7	2,454.1	2,347.3	15.1	13.8	112.43	-304.8	-575.5	304.3	276.7	27.65	11.007	
2,600.0	2,434.4	2,551.7	2,438.1	16.0	14.5	113.93	-321.6	-607.1	324.7	295.5	29.15	11.138	
2,700.0	2,522.1	2,649.3	2,528.9	17.0	15.3	115.25	-338.4	-638.6	345.2	314.6	30.64	11.267	
2,800.0	2,609.8	2,746.9	2,619.6	18.0	16.0	116.43	-355.2	-670.1	366.0	333.8	32.12	11.391	
2,900.0	2,697.5	2,844.4	2,710.4	18.9	16.8	117.48	-372.0	-701.6	386.8	353.2	33.60	11.512	
3,000.0	2,785.2	2,942.0	2,801.2	19.9	17.5	118.42	-388.8	-733.1	407.7	372.7	35.07	11.627	
3,100.0	2,872.9	3,039.6	2,892.0	20.9	18.3	119.27	-405.6	-764.7	428.8	392.3	36.53	11.738	
3,200.0	2,960.6	3,137.1	2,982.8	21.8	19.0	120.04	-422.4	-796.2	449.9	411.9	37.99	11.843	
3,300.0	3,048.3	3,234.7	3,073.6	22.8	19.8	120.74	-439.2	-827.7	471.1	431.7	39.44	11.944	
3,400.0	3,136.0	3,332.3	3,164.4	23.8	20.6	121.38	-456.0	-859.2	492.4	451.5	40.90	12.039	
3,500.0	3,223.7	3,429.9	3,255.2	24.8	21.3	121.97	-472.8	-890.7	513.7	471.3	42.35	12.130	
3,600.0	3,311.4	3,527.4	3,346.0	25.7	22.1	122.51	-489.6	-922.3	535.0	491.2	43.80	12.217	
3,700.0	3,399.1	3,625.0	3,436.8	26.7	22.8	123.01	-506.4	-953.8	556.4	511.2	45.24	12.299	
3,800.0	3,486.8	3,722.6	3,527.6	27.7	23.6	123.48	-523.2	-985.3	577.9	531.2	46.69	12.378	
3,900.0	3,574.5	3,820.1	3,618.4	28.6	24.3	123.91	-540.0	-1,016.8	599.4	551.2	48.13	12.453	
4,000.0	3,662.2	3,917.7	3,709.2	29.6	25.1	124.31	-556.8	-1,048.3	620.9	571.3	49.57	12.524	
4,100.0	3,749.9	4,015.3	3,800.0	30.6	25.9	124.68	-573.6	-1,079.9	642.4	591.4	51.01	12.593	
4,200.0	3,837.6	4,112.9	3,890.8	31.6	26.6	125.03	-590.4	-1,111.4	664.0	611.5	52.45	12.658	
4,300.0	3,925.4	4,210.4	3,981.6	32.5	27.4	125.36	-607.2	-1,142.9	685.5	631.6	53.89	12.720	
4,400.0	4,013.1	4,308.0	4,072.4	33.5	28.1	125.66	-624.0	-1,174.4	707.1	651.8	55.33	12.779	
4,500.0	4,100.8	4,405.6	4,163.2	34.5	28.9	125.95	-640.8	-1,206.0	728.7	672.0	56.77	12.836	
4,600.0	4,188.5	4,503.1	4,254.0	35.5	29.6	126.23	-657.6	-1,237.5	750.4	692.2	58.21	12.891	
4,700.0	4,276.2	4,600.7	4,344.8	36.4	30.4	126.48	-674.4	-1,269.0	772.0	712.4	59.65	12.943	
4,800.0	4,363.9	4,698.3	4,435.6	37.4	31.2	126.73	-691.2	-1,300.5	793.7	732.6	61.09	12.993	
4,900.0	4,451.6	4,795.9	4,526.4	38.4	31.9	126.96	-708.0	-1,332.0	815.4	752.8	62.52	13.041	
5,000.0	4,539.3	4,893.4	4,617.2	39.4	32.7	127.18	-724.8	-1,363.6	837.1	773.1	63.96	13.087	
5,100.0	4,627.0	4,991.0	4,708.0	40.3	33.4	127.38	-741.5	-1,395.1	858.7	793.4	65.40	13.132	
5,200.0	4,714.7	5,088.6	4,798.8	41.3	34.2	127.58	-758.3	-1,426.6	880.5	813.6	66.83	13.174	
5,300.0	4,802.4	5,186.2	4,889.6	42.3	34.9	127.77	-775.1	-1,458.1	902.2	833.9	68.27	13.215	
5,400.0	4,890.1	5,281.2	4,978.2	43.3	35.6	127.95	-791.5	-1,488.7	923.9	854.3	69.65	13.265	
5,500.0	4,977.8	5,370.7	5,062.2	44.2	36.2	128.24	-805.8	-1,515.7	946.4	875.6	70.80	13.368	
5,600.0	5,065.5	5,459.4	5,146.5	45.2	36.6	128.69	-818.9	-1,540.2	969.6	897.8	71.80	13.505	
5,700.0	5,153.2	5,547.3	5,230.8	46.2	37.0	129.26	-830.6	-1,562.2	993.9	921.2	72.68	13.675	
5,800.0	5,240.9	5,634.1	5,314.8	47.2	37.4	129.94	-841.0	-1,581.6	1,019.1	945.6	73.44	13.877	
5,900.0	5,328.6	5,719.8	5,398.2	48.1	37.7	130.73	-850.0	-1,598.6	1,045.3	971.2	74.08	14.111	
6,008.4	5,423.7	5,811.3	5,487.9	49.2	38.0	131.68	-858.4	-1,614.3	1,075.1	1,000.5	74.64	14.403	
6,100.0	5,504.7	5,887.6	5,563.3	49.9	38.2	132.88	-864.3	-1,625.5	1,100.5	1,025.6	74.88	14.697	
6,200.0	5,594.7	5,970.7	5,645.5	50.6	38.4	134.14	-869.7	-1,635.6	1,127.2	1,052.2	74.98	15.033	
6,300.0	5,686.1	6,053.4	5,727.7	51.2	38.6	135.33	-874.0	-1,643.6	1,152.9	1,077.8	75.01	15.370	
6,400.0	5,778.9	6,135.6	5,809.7	51.8	38.7	136.46	-877.1	-1,649.4	1,177.4	1,102.5	74.97	15.706	
6,500.0	5,872.9	6,217.5	5,891.5	52.3	38.8	137.54	-879.1	-1,653.2	1,200.9	1,126.1	74.86	16.043	
6,600.0	5,968.1	6,300.0	5,973.9	52.8	38.9	138.58	-880.0	-1,654.9	1,223.3	1,148.6	74.67	16.384	
6,700.0	6,064.3	6,390.4	6,064.3	53.2	39.0	139.62	-880.1	-1,655.0	1,244.2	1,169.9	74.38	16.728	
6,800.0	6,161.4	6,487.4	6,161.4	53.6	39.0	140.56	-880.1	-1,655.0	1,262.9	1,188.8	74.10	17.042	
6,900.0	6,259.2	6,585.3	6,259.2	53.9	39.1	141.35	-880.1	-1,655.0	1,279.0	1,205.1	73.86	17.315	
7,000.0	6,357.7	6,683.8	6,357.7	54.2	39.2	141.99	-880.1	-1,655.0	1,292.5	1,218.9	73.67	17.546	
7,100.0	6,456.8	6,782.9	6,456.8	54.5	39.2	142.49	-880.1	-1,655.0	1,303.4	1,229.9	73.50	17.733	
7,200.0	6,556.2	6,882.3	6,556.2	54.7	39.3	142.86	-880.1	-1,655.0	1,311.6	1,238.2	73.38	17.874	
7,300.0	6,656.0	6,982.1	6,656.0	54.8	39.4	143.11	-880.1	-1,655.0	1,317.0	1,243.7	73.29	17.968	

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

Company:	Great Western	Local Co-ordinate Reference:	Well Postle IC 11-23D
Project:	SEC.11-T3N-R68W	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Reference Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Postle IC 11-23D	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 (9-18-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Postle IC 11-16D Pad Sec.11-T3N-R68W - Postle IC 11-16D - Wellbore #1 - Plan #1 (9-18-12)												Offset Well Error:	0.0 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,400.0	6,755.9	7,082.0	6,755.9	54.9	39.5	143.22	-880.1	-1,655.0	1,319.6	1,246.4	73.25	18.016	
7,444.1	6,800.0	7,126.1	6,800.0	54.9	39.5	0.31	-880.1	-1,655.0	1,319.9	1,246.6	73.24	18.021	
7,500.0	6,855.9	7,182.0	6,855.9	54.9	39.5	0.31	-880.1	-1,655.0	1,319.9	1,246.6	73.33	17.999	
7,600.0	6,955.9	7,282.0	6,955.9	55.0	39.6	0.31	-880.1	-1,655.0	1,319.9	1,246.4	73.49	17.960	
7,700.0	7,055.9	7,382.0	7,055.9	55.0	39.7	0.31	-880.1	-1,655.0	1,319.9	1,246.2	73.65	17.920	
7,800.0	7,155.9	7,482.0	7,155.9	55.1	39.8	0.31	-880.1	-1,655.0	1,319.9	1,246.1	73.82	17.880	
7,900.0	7,255.9	7,582.0	7,255.9	55.1	39.9	0.31	-880.1	-1,655.0	1,319.9	1,245.9	73.99	17.840	
8,000.0	7,355.9	7,682.0	7,355.9	55.2	39.9	0.31	-880.1	-1,655.0	1,319.9	1,245.7	74.16	17.799	
8,070.7	7,426.6	7,752.7	7,426.6	55.2	40.0	0.31	-880.1	-1,655.0	1,319.9	1,245.6	74.28	17.770	
8,107.1	7,463.0	7,787.1	7,461.0	55.2	40.0	0.31	-880.1	-1,655.0	1,319.9	1,245.5	74.34	17.755	

Postle IC 11-16D Pad Sec.11-T3N-R68W - Postle IC 11-21D - Wellbore #1 - Plan #1 (9-18-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	64.85	8.4	17.9	19.7	19.7	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	64.85	8.4	17.9	19.7	19.5	0.22	87.815		
200.0	200.0	200.0	200.0	0.3	0.3	64.85	8.4	17.9	19.7	19.1	0.67	29.272		
300.0	300.0	300.0	300.0	0.6	0.6	64.85	8.4	17.9	19.7	18.6	1.12	17.563 CC, ES		
400.0	400.0	400.0	400.0	0.8	0.8	-154.39	8.4	17.9	21.3	19.7	1.55	13.702		
500.0	499.8	500.6	500.6	1.0	1.0	-157.67	6.9	16.9	24.5	22.6	1.95	12.552		
600.0	599.5	601.4	601.2	1.2	1.2	-159.71	2.5	14.0	27.9	25.5	2.35	11.841		
700.0	698.7	702.3	701.7	1.5	1.4	-160.89	-4.9	9.1	31.3	28.5	2.78	11.258		
800.0	797.5	803.3	802.0	1.8	1.7	-161.47	-15.3	2.3	34.8	31.6	3.24	10.761		
900.0	895.6	904.5	901.8	2.2	2.0	-161.59	-28.6	-6.5	38.4	34.6	3.72	10.317		
1,000.0	993.1	1,005.7	1,001.2	2.6	2.4	-161.37	-44.9	-17.2	41.9	37.7	4.24	9.900		
1,100.0	1,089.6	1,107.1	1,099.9	3.1	2.8	-160.90	-64.2	-29.8	45.6	40.8	4.80	9.496		
1,200.0	1,185.3	1,208.5	1,197.8	3.7	3.3	-160.22	-86.3	-44.4	49.2	43.8	5.41	9.095		
1,300.0	1,279.8	1,310.1	1,294.9	4.3	3.8	-159.39	-111.4	-60.9	52.9	46.8	6.09	8.692		
1,400.0	1,373.2	1,411.8	1,390.9	5.0	4.5	-158.43	-139.4	-79.2	56.7	49.8	6.84	8.283		
1,500.0	1,465.2	1,513.6	1,485.8	5.7	5.2	-157.38	-170.2	-99.5	60.4	52.8	7.66	7.885		
1,600.0	1,555.8	1,613.8	1,578.3	6.5	5.9	-156.77	-202.3	-120.6	65.4	56.9	8.53	7.668 SF		
1,700.0	1,644.9	1,713.4	1,670.3	7.4	6.6	-157.31	-234.3	-141.6	73.6	64.3	9.35	7.876		
1,735.6	1,676.3	1,748.8	1,703.0	7.8	6.9	-157.71	-245.6	-149.0	77.3	67.7	9.62	8.037		
1,800.0	1,732.7	1,812.8	1,762.1	8.4	7.4	-158.48	-266.1	-162.5	84.4	74.2	10.13	8.326		
1,900.0	1,820.5	1,912.2	1,853.9	9.3	8.1	-159.45	-298.0	-183.5	95.3	84.4	10.94	8.716		
2,000.0	1,908.2	2,011.6	1,945.7	10.3	8.9	-160.22	-329.9	-204.4	106.3	94.6	11.75	9.047		
2,100.0	1,995.9	2,111.0	2,037.4	11.2	9.6	-160.84	-361.7	-225.3	117.3	104.8	12.57	9.333		
2,200.0	2,083.6	2,210.4	2,129.2	12.2	10.4	-161.36	-393.6	-246.3	128.4	115.0	13.40	9.580		
2,300.0	2,171.3	2,309.7	2,221.0	13.1	11.2	-161.80	-425.5	-267.2	139.4	125.2	14.23	9.796		
2,400.0	2,259.0	2,409.1	2,312.8	14.1	11.9	-162.17	-457.3	-288.1	150.5	135.4	15.06	9.987		
2,500.0	2,346.7	2,508.5	2,404.6	15.1	12.7	-162.49	-489.2	-309.1	161.5	145.6	15.90	10.156		
2,600.0	2,434.4	2,607.9	2,496.3	16.0	13.5	-162.77	-521.1	-330.0	172.5	155.8	16.74	10.307		
2,700.0	2,522.1	2,707.3	2,588.1	17.0	14.2	-163.02	-552.9	-351.0	183.6	166.0	17.58	10.443		
2,800.0	2,609.8	2,806.7	2,679.9	18.0	15.0	-163.24	-584.8	-371.9	194.7	176.2	18.42	10.565		
2,900.0	2,697.5	2,906.1	2,771.7	18.9	15.8	-163.43	-616.7	-392.8	205.7	186.4	19.27	10.676		
3,000.0	2,785.2	3,005.4	2,863.5	19.9	16.5	-163.61	-648.5	-413.8	216.8	196.7	20.11	10.777		
3,100.0	2,872.9	3,104.8	2,955.2	20.9	17.3	-163.77	-680.4	-434.7	227.8	206.9	20.96	10.870		
3,200.0	2,960.6	3,204.2	3,047.0	21.8	18.1	-163.91	-712.3	-455.6	238.9	217.1	21.81	10.954		
3,300.0	3,048.3	3,303.6	3,138.8	22.8	18.8	-164.04	-744.1	-476.6	250.0	227.3	22.66	11.032		
3,400.0	3,136.0	3,403.0	3,230.6	23.8	19.6	-164.16	-776.0	-497.5	261.0	237.5	23.51	11.104		
3,500.0	3,223.7	3,502.4	3,322.4	24.8	20.4	-164.27	-807.9	-518.5	272.1	247.8	24.36	11.171		
3,600.0	3,311.4	3,601.7	3,414.1	25.7	21.2	-164.37	-839.7	-539.4	283.2	258.0	25.21	11.233		
3,700.0	3,399.1	3,701.1	3,505.9	26.7	21.9	-164.47	-871.6	-560.3	294.3	268.2	26.06	11.291		
3,800.0	3,486.8	3,800.5	3,597.7	27.7	22.7	-164.55	-903.5	-581.3	305.3	278.4	26.91	11.344		
3,900.0	3,574.5	3,899.9	3,689.5	28.6	23.5	-164.63	-935.3	-602.2	316.4	288.6	27.77	11.395		
4,000.0	3,662.2	3,999.3	3,781.3	29.6	24.2	-164.71	-967.2	-623.1	327.5	298.8	28.62	11.442		
4,100.0	3,749.9	4,098.7	3,873.0	30.6	25.0	-164.78	-999.0	-644.1	338.5	309.1	29.47	11.486		
4,200.0	3,837.6	4,198.0	3,964.8	31.6	25.8	-164.85	-1,030.9	-665.0	349.6	319.3	30.33	11.528		
4,300.0	3,925.4	4,297.4	4,056.6	32.5	26.6	-164.91	-1,062.8	-686.0	360.7	329.5	31.18	11.567		
4,400.0	4,013.1	4,396.8	4,148.4	33.5	27.3	-164.97	-1,094.6	-706.9	371.8	339.7	32.04	11.604		
4,500.0	4,100.8	4,496.2	4,240.2	34.5	28.1	-165.02	-1,126.5	-727.8	382.8	349.9	32.89	11.639		
4,600.0	4,188.5	4,595.6	4,331.9	35.5	28.9	-165.07	-1,158.4	-748.8	393.9	360.2	33.75	11.673		
4,700.0	4,276.2	4,695.0	4,423.7	36.4	29.6	-165.12	-1,190.2	-769.7	405.0	370.4	34.60	11.704		
4,800.0	4,363.9	4,794.4	4,515.5	37.4	30.4	-165.17	-1,222.1	-790.6	416.1	380.6	35.46	11.734		
4,900.0	4,451.6	4,893.7	4,607.3	38.4	31.2	-165.21	-1,254.0	-811.6	427.1	390.8	36.31	11.762		
5,000.0	4,539.3	4,993.1	4,699.0	39.4	32.0	-165.25	-1,285.8	-832.5	438.2	401.0	37.17	11.790		

COMPASS 2003.21 Build 46

Company:	Great Western	Local Co-ordinate Reference:	Well Postle IC 11-23D
Project:	SEC.11-T3N-R68W	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Reference Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Postle IC 11-23D	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 (9-18-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Postle IC 11-16D Pad Sec.11-T3N-R68W - Postle IC 11-21D - Wellbore #1 - Plan #1 (9-18-12)												Offset Well Error:	0.0 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,627.0	5,092.5	4,790.8	40.3	32.7	-165.29	-1,317.7	-853.5	449.3	411.3	38.03	11.815	
5,200.0	4,714.7	5,191.9	4,882.6	41.3	33.5	-165.33	-1,349.6	-874.4	460.4	421.5	38.88	11.840	
5,300.0	4,802.4	5,280.5	4,964.7	42.3	34.1	-165.39	-1,377.3	-892.6	472.4	432.7	39.65	11.913	
5,400.0	4,890.1	5,365.8	5,044.7	43.3	34.6	-165.55	-1,402.1	-908.9	487.1	446.8	40.31	12.083	
5,500.0	4,977.8	5,450.3	5,124.8	44.2	35.0	-165.77	-1,424.7	-923.7	504.6	463.7	40.91	12.336	
5,600.0	5,065.5	5,533.8	5,204.7	45.2	35.3	-166.07	-1,445.0	-937.1	524.9	483.5	41.44	12.666	
5,700.0	5,153.2	5,616.3	5,284.3	46.2	35.7	-166.42	-1,463.2	-949.1	548.0	506.0	41.93	13.068	
5,800.0	5,240.9	5,700.0	5,365.6	47.2	36.0	-166.82	-1,479.7	-959.9	573.7	531.3	42.38	13.538	
5,900.0	5,328.6	5,777.6	5,441.5	48.1	36.3	-167.22	-1,493.2	-968.8	602.0	559.2	42.79	14.070	
6,008.4	5,423.7	5,862.8	5,525.3	49.2	36.5	-167.69	-1,506.0	-977.2	635.7	592.5	43.20	14.715	
6,100.0	5,504.7	5,933.8	5,595.5	49.9	36.7	-168.21	-1,515.1	-983.2	665.0	621.5	43.53	15.277	
6,200.0	5,594.7	6,010.9	5,671.9	50.6	36.9	-168.72	-1,523.4	-988.6	696.4	652.6	43.83	15.888	
6,300.0	5,686.1	6,087.5	5,748.1	51.2	37.0	-169.19	-1,529.9	-992.9	727.1	683.0	44.09	16.489	
6,400.0	5,778.9	6,163.7	5,824.1	51.8	37.1	-169.61	-1,534.6	-996.0	756.9	712.6	44.30	17.085	
6,500.0	5,872.9	6,239.4	5,899.7	52.3	37.2	-170.01	-1,537.7	-998.0	786.0	741.5	44.46	17.678	
6,600.0	5,968.1	6,314.7	5,975.0	52.8	37.3	-170.38	-1,539.0	-998.9	814.2	769.7	44.57	18.271	
6,700.0	6,064.3	6,404.0	6,064.3	53.2	37.4	-170.75	-1,539.1	-998.9	841.1	796.5	44.62	18.851	
6,800.0	6,161.4	6,501.1	6,161.4	53.6	37.4	-171.08	-1,539.1	-998.9	864.8	820.2	44.63	19.376	
6,900.0	6,259.2	6,598.9	6,259.2	53.9	37.5	-171.35	-1,539.1	-998.9	885.2	840.6	44.62	19.839	
7,000.0	6,357.7	6,697.4	6,357.7	54.2	37.6	-171.57	-1,539.1	-998.9	902.2	857.6	44.57	20.241	
7,100.0	6,456.8	6,796.5	6,456.8	54.5	37.6	-171.73	-1,539.1	-998.9	915.7	871.3	44.48	20.586	
7,200.0	6,556.2	6,896.0	6,556.2	54.7	37.7	-171.85	-1,539.1	-998.9	925.9	881.5	44.36	20.873	
7,300.0	6,656.0	6,995.7	6,656.0	54.8	37.8	-171.93	-1,539.1	-998.9	932.6	888.4	44.19	21.103	
7,400.0	6,755.9	7,095.7	6,755.9	54.9	37.8	-171.97	-1,539.1	-998.9	935.8	891.8	43.98	21.276	
7,444.1	6,800.0	7,139.7	6,800.0	54.9	37.9	45.10	-1,539.1	-998.9	936.2	892.3	43.89	21.332	
7,500.0	6,855.9	7,195.7	6,855.9	54.9	37.9	45.10	-1,539.1	-998.9	936.2	892.1	44.02	21.265	
7,600.0	6,955.9	7,295.7	6,955.9	55.0	38.0	45.10	-1,539.1	-998.9	936.2	891.9	44.27	21.148	
7,700.0	7,055.9	7,395.7	7,055.9	55.0	38.1	45.10	-1,539.1	-998.9	936.2	891.7	44.51	21.032	
7,800.0	7,155.9	7,495.7	7,155.9	55.1	38.1	45.10	-1,539.1	-998.9	936.2	891.4	44.76	20.915	
7,900.0	7,255.9	7,595.7	7,255.9	55.1	38.2	45.10	-1,539.1	-998.9	936.2	891.2	45.01	20.798	
8,000.0	7,355.9	7,695.7	7,355.9	55.2	38.3	45.10	-1,539.1	-998.9	936.2	890.9	45.27	20.681	
8,070.7	7,426.6	7,766.4	7,426.6	55.2	38.3	45.10	-1,539.1	-998.9	936.2	890.7	45.45	20.598	
8,107.1	7,463.0	7,800.7	7,461.0	55.2	38.4	45.10	-1,539.1	-998.9	936.2	890.6	45.54	20.556	

Company: Great Western
Project: SEC.11-T3N-R68W
Reference Site: Postle IC 11-16D Pad Sec.11-T3N-R68W
Site Error: 0.0ft
Reference Well: Postle IC 11-23D
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1 (9-18-12)

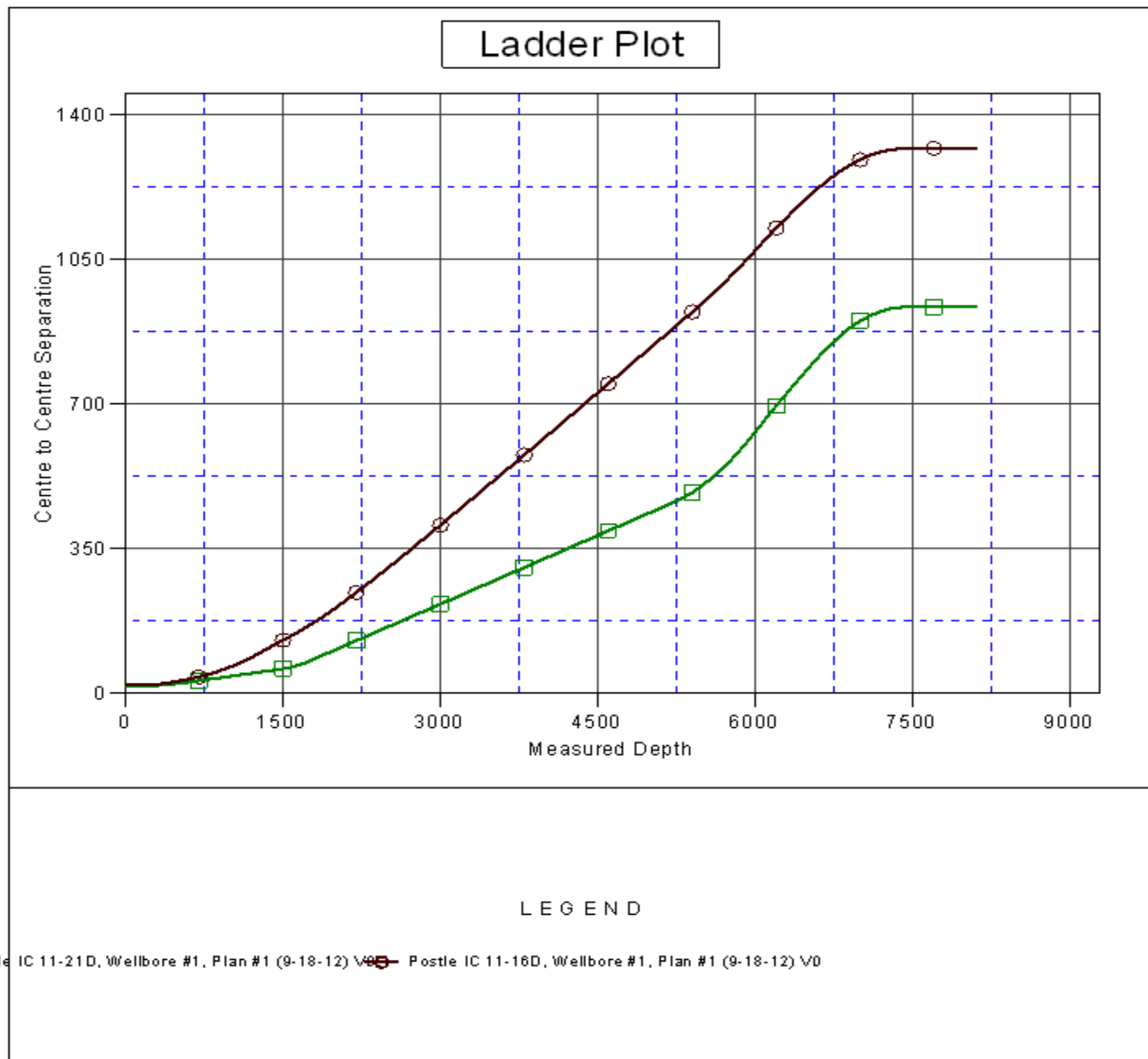
Local Co-ordinate Reference: Well Postle IC 11-23D
TVD Reference: WELL @ 4964.0ft (Original Well Elev)
MD Reference: WELL @ 4964.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Landmark
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4964.0ft (Original Well Elev) Coordinates are relative to: Postle IC 11-23D

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.35°



Company:	Great Western	Local Co-ordinate Reference:	Well Postle IC 11-23D
Project:	SEC.11-T3N-R68W	TVD Reference:	WELL @ 4964.0ft (Original Well Elev)
Reference Site:	Postle IC 11-16D Pad Sec.11-T3N-R68W	MD Reference:	WELL @ 4964.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Postle IC 11-23D	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 (9-18-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4964.0ft (Original Well Elev) Coordinates are relative to: Postle IC 11-23D
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.35°

