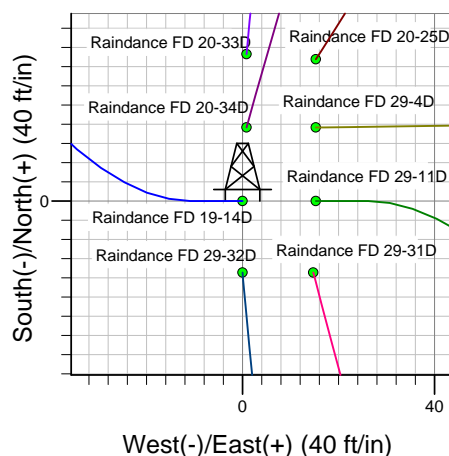
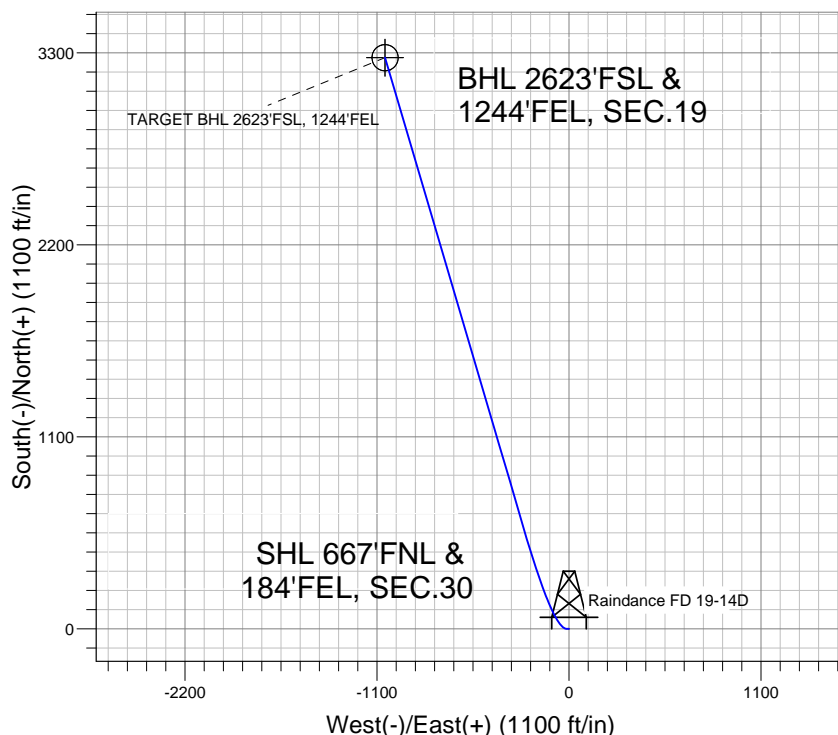
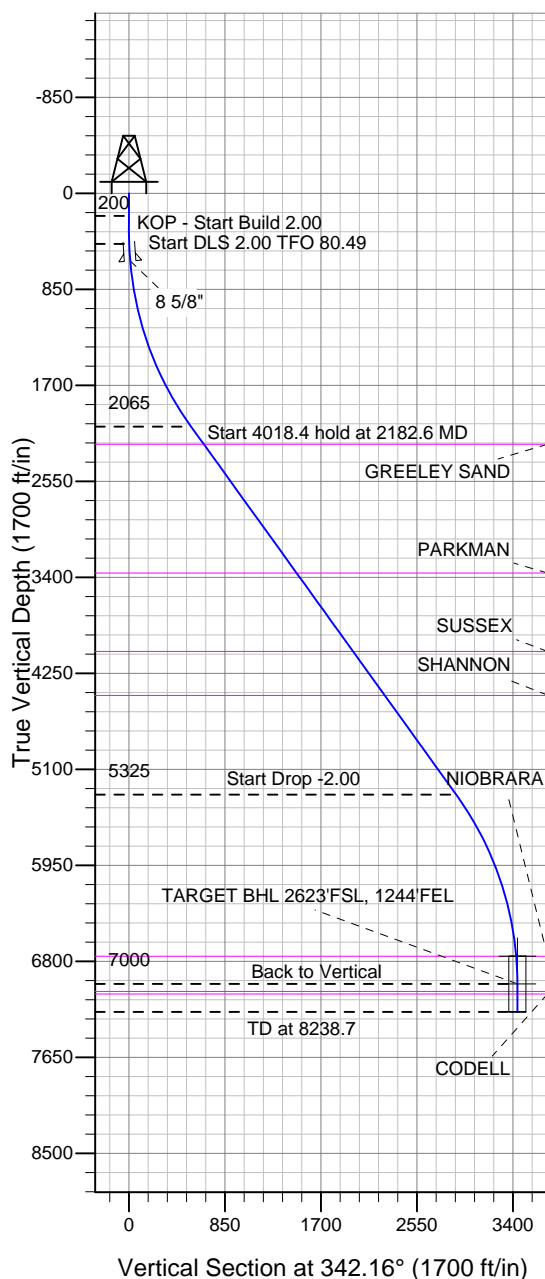


### Well Name: Raindance FD 19-14D

Surface Location: Raindance FD West Row Pad Sec.30-T6N-R67W  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 4782.1

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1412083.72	3159402.70	40.463158	-104.927122	
Original Well Elev WELL @ 4796.1ft (Original Well Elev)						

## Great Western



Raindance FD West Row Pad Sec.30-T6N-R67W  
 Raindance FD 19-14D  
 Plan #1 (10-18-12)  
 11:26, October 22 2012



Azimuths to True North  
 Magnetic North: 8.78°

Magnetic Field  
 Strength: 53005.8nT  
 Dip Angle: 67.03°  
 Date: 10/18/2012  
 Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET CIRCLE 2623'FSL & 1244'FEL	6756.0	3273.0	-1053.4	40.472142	-104.930908	Circle (Radius: 75.0)
TARGET BHL 2623'FSL, 1244'FEL	7000.0	3273.0	-1053.4	40.472142	-104.930908	Point

### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	450.0	5.00	270.00	449.7	0.0	-10.9	2.00	270.00	3.3	
4	2182.6	35.78	343.58	2065.0	501.2	-236.5	2.00	80.49	549.5	
5	6201.0	35.78	343.58	5325.2	2754.5	-900.6	0.00	0.00	2898.0	
6	7989.7	0.00	0.00	7000.0	3273.0	-1053.4	2.00	180.00	3438.4	TARGET BHL 2623'FSL, 1244'FEL
7	8238.7	0.00	0.00	7249.0	3273.0	-1053.4	0.00	0.00	3438.4	



## **Great Western**

**SEC.30-T6N-R67W**

**Raindance FD West Row Pad Sec.30-T6N-R67W**

**Raindance FD 19-14D**

**Wellbore #1**

**Plan: Plan #1 (10-18-12)**

## **Standard Planning Report**

**22 October, 2012**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

<b>Project</b>	SEC.30-T6N-R67W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site						Raindance FD West Row Pad Sec.30-T6N-R67W											
Site Position:						Northing:			1,412,129.27 ft			Latitude:			40.463283		
From:			Lat/Long			Easting:			3,159,403.24 ft			Longitude:			-104.927119		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.37 °		

Well	Raindance FD 19-14D					
Well Position	+N/-S	-45.5 ft	Northing:	1,412,083.72 ft	Latitude:	40.463158
	+E/-W	-0.8 ft	Easting:	3,159,402.70 ft	Longitude:	-104.927122
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,782.1 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/18/2012	8.78	67.03	53,006

<b>Design</b>	Plan #1 (10-18-12)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	342.16

<b>Plan Sections</b>										
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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	5.00	270.00	449.7	0.0	-10.9	2.00	2.00	0.00	270.00	
2,182.6	35.78	343.58	2,065.0	501.2	-236.5	2.00	1.78	4.25	80.49	
6,201.0	35.78	343.58	5,325.2	2,754.5	-900.6	0.00	0.00	0.00	0.00	
7,989.7	0.00	0.00	7,000.0	3,273.0	-1,053.4	2.00	-2.00	0.00	180.00	TARGET BHL 2623
8,238.7	0.00	0.00	7,249.0	3,273.0	-1,053.4	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

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)
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
<b>KOP - Start Build 2.00</b>									
240.0	0.80	270.00	240.0	0.0	-0.3	0.1	2.00	2.00	0.00
280.0	1.60	270.00	280.0	0.0	-1.1	0.3	2.00	2.00	0.00
320.0	2.40	270.00	320.0	0.0	-2.5	0.8	2.00	2.00	0.00
360.0	3.20	270.00	359.9	0.0	-4.5	1.4	2.00	2.00	0.00
400.0	4.00	270.00	399.8	0.0	-7.0	2.1	2.00	2.00	0.00
440.0	4.80	270.00	439.7	0.0	-10.0	3.1	2.00	2.00	0.00
450.0	5.00	270.00	449.7	0.0	-10.9	3.3	2.00	2.00	0.00
<b>Start DLS 2.00 TFO 80.49</b>									
480.0	5.13	276.63	479.6	0.2	-13.5	4.3	2.00	0.44	22.10
520.0	5.41	284.81	519.4	0.8	-17.1	6.1	2.00	0.69	20.45
560.0	5.78	292.06	559.2	2.1	-20.8	8.4	2.00	0.94	18.14
600.0	6.24	298.35	599.0	3.9	-24.6	11.2	2.00	1.14	15.72
601.0	6.25	298.50	600.0	3.9	-24.7	11.3	2.00	1.23	14.52
<b>8 5/8"</b>									
640.0	6.76	303.74	638.7	6.2	-28.5	14.6	2.00	1.30	13.43
680.0	7.33	308.32	678.4	9.1	-32.4	18.6	2.00	1.42	11.46
720.0	7.94	312.23	718.1	12.5	-36.5	23.1	2.00	1.52	9.77
760.0	8.58	315.57	757.7	16.5	-40.6	28.2	2.00	1.60	8.35
800.0	9.24	318.44	797.2	21.1	-44.8	33.8	2.00	1.66	7.18
840.0	9.93	320.92	836.6	26.1	-49.1	39.9	2.00	1.71	6.21
880.0	10.63	323.09	876.0	31.8	-53.5	46.6	2.00	1.75	5.41
920.0	11.34	324.98	915.2	37.9	-58.0	53.9	2.00	1.78	4.74
960.0	12.07	326.66	954.4	44.7	-62.6	61.7	2.00	1.81	4.18
1,000.0	12.80	328.14	993.5	51.9	-67.2	70.0	2.00	1.83	3.71
1,040.0	13.54	329.47	1,032.4	59.7	-71.9	78.9	2.00	1.85	3.31
1,080.0	14.29	330.66	1,071.2	68.0	-76.7	88.3	2.00	1.87	2.97
1,120.0	15.04	331.73	1,109.9	76.9	-81.6	98.2	2.00	1.88	2.68
1,160.0	15.80	332.70	1,148.5	86.3	-86.6	108.7	2.00	1.89	2.43
1,200.0	16.56	333.59	1,186.9	96.3	-91.6	119.7	2.00	1.90	2.22
1,240.0	17.32	334.40	1,225.2	106.8	-96.7	131.2	2.00	1.91	2.03
1,280.0	18.09	335.14	1,263.3	117.8	-101.9	143.3	2.00	1.92	1.86
1,320.0	18.86	335.83	1,301.2	129.3	-107.1	155.9	2.00	1.92	1.71
1,360.0	19.63	336.46	1,339.0	141.4	-112.5	169.0	2.00	1.93	1.58
1,400.0	20.41	337.05	1,376.6	153.9	-117.9	182.6	2.00	1.94	1.47
1,440.0	21.18	337.59	1,414.0	167.0	-123.3	196.8	2.00	1.94	1.36
1,480.0	21.96	338.10	1,451.2	180.7	-128.9	211.5	2.00	1.94	1.27
1,520.0	22.74	338.58	1,488.2	194.8	-134.5	226.6	2.00	1.95	1.19
1,560.0	23.52	339.02	1,524.9	209.4	-140.2	242.3	2.00	1.95	1.11
1,600.0	24.30	339.44	1,561.5	224.6	-145.9	258.5	2.00	1.95	1.05
1,640.0	25.09	339.84	1,597.8	240.3	-151.7	275.2	2.00	1.96	0.99
1,680.0	25.87	340.21	1,634.0	256.4	-157.6	292.4	2.00	1.96	0.93
1,720.0	26.66	340.56	1,669.8	273.1	-163.6	310.1	2.00	1.96	0.88
1,760.0	27.44	340.89	1,705.5	290.3	-169.6	328.3	2.00	1.96	0.83
1,800.0	28.23	341.21	1,740.8	308.0	-175.6	347.0	2.00	1.97	0.79
1,840.0	29.01	341.51	1,775.9	326.1	-181.8	366.1	2.00	1.97	0.75
1,880.0	29.80	341.79	1,810.8	344.8	-187.9	385.8	2.00	1.97	0.71

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

### 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)
1,920.0	30.59	342.06	1,845.4	363.9	-194.2	405.9	2.00	1.97	0.68
1,960.0	31.38	342.32	1,879.6	383.5	-200.5	426.5	2.00	1.97	0.65
2,000.0	32.17	342.57	1,913.7	403.6	-206.8	447.5	2.00	1.97	0.62
2,040.0	32.96	342.81	1,947.4	424.1	-213.2	469.1	2.00	1.97	0.59
2,080.0	33.75	343.04	1,980.8	445.1	-219.7	491.0	2.00	1.98	0.57
2,120.0	34.54	343.26	2,013.9	466.6	-226.2	513.5	2.00	1.98	0.55
2,160.0	35.33	343.47	2,046.7	488.6	-232.8	536.4	2.00	1.98	0.52
2,182.6	35.78	343.58	2,065.0	501.2	-236.5	549.5	2.00	1.98	0.51
<b>Start 4018.4 hold at 2182.6 MD</b>									
2,200.0	35.78	343.58	2,079.2	510.9	-239.4	559.7	0.00	0.00	0.00
2,240.0	35.78	343.58	2,111.6	533.4	-246.0	583.1	0.00	0.00	0.00
2,280.0	35.78	343.58	2,144.1	555.8	-252.6	606.4	0.00	0.00	0.00
2,320.0	35.78	343.58	2,176.5	578.2	-259.2	629.8	0.00	0.00	0.00
2,360.0	35.78	343.58	2,209.0	600.7	-265.8	653.2	0.00	0.00	0.00
2,376.0	35.78	343.58	2,222.0	609.6	-268.5	662.6	0.00	0.00	0.00
<b>GREELEY SAND</b>									
2,400.0	35.78	343.58	2,241.4	623.1	-272.4	676.6	0.00	0.00	0.00
2,440.0	35.78	343.58	2,273.9	645.5	-279.0	700.0	0.00	0.00	0.00
2,480.0	35.78	343.58	2,306.3	667.9	-285.6	723.3	0.00	0.00	0.00
2,520.0	35.78	343.58	2,338.8	690.4	-292.2	746.7	0.00	0.00	0.00
2,560.0	35.78	343.58	2,371.3	712.8	-298.9	770.1	0.00	0.00	0.00
2,600.0	35.78	343.58	2,403.7	735.2	-305.5	793.5	0.00	0.00	0.00
2,640.0	35.78	343.58	2,436.2	757.7	-312.1	816.8	0.00	0.00	0.00
2,680.0	35.78	343.58	2,468.6	780.1	-318.7	840.2	0.00	0.00	0.00
2,720.0	35.78	343.58	2,501.1	802.5	-325.3	863.6	0.00	0.00	0.00
2,760.0	35.78	343.58	2,533.5	825.0	-331.9	887.0	0.00	0.00	0.00
2,800.0	35.78	343.58	2,566.0	847.4	-338.5	910.4	0.00	0.00	0.00
2,840.0	35.78	343.58	2,598.4	869.8	-345.1	933.7	0.00	0.00	0.00
2,880.0	35.78	343.58	2,630.9	892.3	-351.7	957.1	0.00	0.00	0.00
2,920.0	35.78	343.58	2,663.3	914.7	-358.3	980.5	0.00	0.00	0.00
2,960.0	35.78	343.58	2,695.8	937.1	-365.0	1,003.9	0.00	0.00	0.00
3,000.0	35.78	343.58	2,728.2	959.5	-371.6	1,027.2	0.00	0.00	0.00
3,040.0	35.78	343.58	2,760.7	982.0	-378.2	1,050.6	0.00	0.00	0.00
3,080.0	35.78	343.58	2,793.1	1,004.4	-384.8	1,074.0	0.00	0.00	0.00
3,120.0	35.78	343.58	2,825.6	1,026.8	-391.4	1,097.4	0.00	0.00	0.00
3,160.0	35.78	343.58	2,858.0	1,049.3	-398.0	1,120.7	0.00	0.00	0.00
3,200.0	35.78	343.58	2,890.5	1,071.7	-404.6	1,144.1	0.00	0.00	0.00
3,240.0	35.78	343.58	2,922.9	1,094.1	-411.2	1,167.5	0.00	0.00	0.00
3,280.0	35.78	343.58	2,955.4	1,116.6	-417.8	1,190.9	0.00	0.00	0.00
3,320.0	35.78	343.58	2,987.8	1,139.0	-424.5	1,214.3	0.00	0.00	0.00
3,360.0	35.78	343.58	3,020.3	1,161.4	-431.1	1,237.6	0.00	0.00	0.00
3,400.0	35.78	343.58	3,052.8	1,183.9	-437.7	1,261.0	0.00	0.00	0.00
3,440.0	35.78	343.58	3,085.2	1,206.3	-444.3	1,284.4	0.00	0.00	0.00
3,480.0	35.78	343.58	3,117.7	1,228.7	-450.9	1,307.8	0.00	0.00	0.00
3,520.0	35.78	343.58	3,150.1	1,251.1	-457.5	1,331.1	0.00	0.00	0.00
3,560.0	35.78	343.58	3,182.6	1,273.6	-464.1	1,354.5	0.00	0.00	0.00
3,600.0	35.78	343.58	3,215.0	1,296.0	-470.7	1,377.9	0.00	0.00	0.00
3,640.0	35.78	343.58	3,247.5	1,318.4	-477.3	1,401.3	0.00	0.00	0.00
3,680.0	35.78	343.58	3,279.9	1,340.9	-483.9	1,424.7	0.00	0.00	0.00
3,720.0	35.78	343.58	3,312.4	1,363.3	-490.6	1,448.0	0.00	0.00	0.00
3,760.0	35.78	343.58	3,344.8	1,385.7	-497.2	1,471.4	0.00	0.00	0.00
3,782.4	35.78	343.58	3,363.0	1,398.3	-500.9	1,484.5	0.00	0.00	0.00
<b>PARKMAN</b>									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

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)
3,800.0	35.78	343.58	3,377.3	1,408.2	-503.8	1,494.8	0.00	0.00	0.00
3,840.0	35.78	343.58	3,409.7	1,430.6	-510.4	1,518.2	0.00	0.00	0.00
3,880.0	35.78	343.58	3,442.2	1,453.0	-517.0	1,541.5	0.00	0.00	0.00
3,920.0	35.78	343.58	3,474.6	1,475.5	-523.6	1,564.9	0.00	0.00	0.00
3,960.0	35.78	343.58	3,507.1	1,497.9	-530.2	1,588.3	0.00	0.00	0.00
4,000.0	35.78	343.58	3,539.5	1,520.3	-536.8	1,611.7	0.00	0.00	0.00
4,040.0	35.78	343.58	3,572.0	1,542.7	-543.4	1,635.1	0.00	0.00	0.00
4,080.0	35.78	343.58	3,604.4	1,565.2	-550.0	1,658.4	0.00	0.00	0.00
4,120.0	35.78	343.58	3,636.9	1,587.6	-556.7	1,681.8	0.00	0.00	0.00
4,160.0	35.78	343.58	3,669.3	1,610.0	-563.3	1,705.2	0.00	0.00	0.00
4,200.0	35.78	343.58	3,701.8	1,632.5	-569.9	1,728.6	0.00	0.00	0.00
4,240.0	35.78	343.58	3,734.3	1,654.9	-576.5	1,751.9	0.00	0.00	0.00
4,280.0	35.78	343.58	3,766.7	1,677.3	-583.1	1,775.3	0.00	0.00	0.00
4,320.0	35.78	343.58	3,799.2	1,699.8	-589.7	1,798.7	0.00	0.00	0.00
4,360.0	35.78	343.58	3,831.6	1,722.2	-596.3	1,822.1	0.00	0.00	0.00
4,400.0	35.78	343.58	3,864.1	1,744.6	-602.9	1,845.4	0.00	0.00	0.00
4,440.0	35.78	343.58	3,896.5	1,767.1	-609.5	1,868.8	0.00	0.00	0.00
4,480.0	35.78	343.58	3,929.0	1,789.5	-616.2	1,892.2	0.00	0.00	0.00
4,520.0	35.78	343.58	3,961.4	1,811.9	-622.8	1,915.6	0.00	0.00	0.00
4,560.0	35.78	343.58	3,993.9	1,834.3	-629.4	1,939.0	0.00	0.00	0.00
4,600.0	35.78	343.58	4,026.3	1,856.8	-636.0	1,962.3	0.00	0.00	0.00
4,636.6	35.78	343.58	4,056.0	1,877.3	-642.0	1,983.7	0.00	0.00	0.00
<b>SUSSEX</b>									
4,640.0	35.78	343.58	4,058.8	1,879.2	-642.6	1,985.7	0.00	0.00	0.00
4,680.0	35.78	343.58	4,091.2	1,901.6	-649.2	2,009.1	0.00	0.00	0.00
4,720.0	35.78	343.58	4,123.7	1,924.1	-655.8	2,032.5	0.00	0.00	0.00
4,760.0	35.78	343.58	4,156.1	1,946.5	-662.4	2,055.8	0.00	0.00	0.00
4,800.0	35.78	343.58	4,188.6	1,968.9	-669.0	2,079.2	0.00	0.00	0.00
4,840.0	35.78	343.58	4,221.0	1,991.4	-675.6	2,102.6	0.00	0.00	0.00
4,880.0	35.78	343.58	4,253.5	2,013.8	-682.3	2,126.0	0.00	0.00	0.00
4,920.0	35.78	343.58	4,285.9	2,036.2	-688.9	2,149.4	0.00	0.00	0.00
4,960.0	35.78	343.58	4,318.4	2,058.7	-695.5	2,172.7	0.00	0.00	0.00
5,000.0	35.78	343.58	4,350.9	2,081.1	-702.1	2,196.1	0.00	0.00	0.00
5,040.0	35.78	343.58	4,383.3	2,103.5	-708.7	2,219.5	0.00	0.00	0.00
5,080.0	35.78	343.58	4,415.8	2,125.9	-715.3	2,242.9	0.00	0.00	0.00
5,117.3	35.78	343.58	4,446.0	2,146.8	-721.5	2,264.6	0.00	0.00	0.00
<b>SHANNON</b>									
5,120.0	35.78	343.58	4,448.2	2,148.4	-721.9	2,266.2	0.00	0.00	0.00
5,160.0	35.78	343.58	4,480.7	2,170.8	-728.5	2,289.6	0.00	0.00	0.00
5,200.0	35.78	343.58	4,513.1	2,193.2	-735.1	2,313.0	0.00	0.00	0.00
5,240.0	35.78	343.58	4,545.6	2,215.7	-741.7	2,336.4	0.00	0.00	0.00
5,280.0	35.78	343.58	4,578.0	2,238.1	-748.4	2,359.7	0.00	0.00	0.00
5,320.0	35.78	343.58	4,610.5	2,260.5	-755.0	2,383.1	0.00	0.00	0.00
5,360.0	35.78	343.58	4,642.9	2,283.0	-761.6	2,406.5	0.00	0.00	0.00
5,400.0	35.78	343.58	4,675.4	2,305.4	-768.2	2,429.9	0.00	0.00	0.00
5,440.0	35.78	343.58	4,707.8	2,327.8	-774.8	2,453.3	0.00	0.00	0.00
5,480.0	35.78	343.58	4,740.3	2,350.3	-781.4	2,476.6	0.00	0.00	0.00
5,520.0	35.78	343.58	4,772.7	2,372.7	-788.0	2,500.0	0.00	0.00	0.00
5,560.0	35.78	343.58	4,805.2	2,395.1	-794.6	2,523.4	0.00	0.00	0.00
5,600.0	35.78	343.58	4,837.6	2,417.5	-801.2	2,546.8	0.00	0.00	0.00
5,640.0	35.78	343.58	4,870.1	2,440.0	-807.9	2,570.1	0.00	0.00	0.00
5,680.0	35.78	343.58	4,902.5	2,462.4	-814.5	2,593.5	0.00	0.00	0.00
5,720.0	35.78	343.58	4,935.0	2,484.8	-821.1	2,616.9	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

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)
5,760.0	35.78	343.58	4,967.4	2,507.3	-827.7	2,640.3	0.00	0.00	0.00
5,800.0	35.78	343.58	4,999.9	2,529.7	-834.3	2,663.7	0.00	0.00	0.00
5,840.0	35.78	343.58	5,032.4	2,552.1	-840.9	2,687.0	0.00	0.00	0.00
5,880.0	35.78	343.58	5,064.8	2,574.6	-847.5	2,710.4	0.00	0.00	0.00
5,920.0	35.78	343.58	5,097.3	2,597.0	-854.1	2,733.8	0.00	0.00	0.00
5,960.0	35.78	343.58	5,129.7	2,619.4	-860.7	2,757.2	0.00	0.00	0.00
6,000.0	35.78	343.58	5,162.2	2,641.9	-867.3	2,780.5	0.00	0.00	0.00
6,040.0	35.78	343.58	5,194.6	2,664.3	-874.0	2,803.9	0.00	0.00	0.00
6,080.0	35.78	343.58	5,227.1	2,686.7	-880.6	2,827.3	0.00	0.00	0.00
6,120.0	35.78	343.58	5,259.5	2,709.1	-887.2	2,850.7	0.00	0.00	0.00
6,160.0	35.78	343.58	5,292.0	2,731.6	-893.8	2,874.1	0.00	0.00	0.00
6,200.0	35.78	343.58	5,324.4	2,754.0	-900.4	2,897.4	0.00	0.00	0.00
6,201.0	35.78	343.58	5,325.2	2,754.5	-900.6	2,898.0	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,240.0	34.99	343.58	5,357.0	2,776.2	-906.9	2,920.6	2.00	-2.00	0.00
6,280.0	34.19	343.58	5,390.0	2,798.0	-913.4	2,943.3	2.00	-2.00	0.00
6,320.0	33.39	343.58	5,423.2	2,819.4	-919.7	2,965.5	2.00	-2.00	0.00
6,360.0	32.59	343.58	5,456.8	2,840.3	-925.8	2,987.3	2.00	-2.00	0.00
6,400.0	31.79	343.58	5,490.6	2,860.7	-931.8	3,008.6	2.00	-2.00	0.00
6,440.0	30.99	343.58	5,524.7	2,880.7	-937.7	3,029.4	2.00	-2.00	0.00
6,480.0	30.19	343.58	5,559.2	2,900.2	-943.5	3,049.8	2.00	-2.00	0.00
6,520.0	29.39	343.58	5,593.9	2,919.3	-949.1	3,069.7	2.00	-2.00	0.00
6,560.0	28.59	343.58	5,628.9	2,937.9	-954.6	3,089.1	2.00	-2.00	0.00
6,600.0	27.79	343.58	5,664.1	2,956.0	-959.9	3,107.9	2.00	-2.00	0.00
6,640.0	26.99	343.58	5,699.6	2,973.7	-965.1	3,126.3	2.00	-2.00	0.00
6,680.0	26.19	343.58	5,735.4	2,990.8	-970.2	3,144.2	2.00	-2.00	0.00
6,720.0	25.39	343.58	5,771.4	3,007.5	-975.1	3,161.6	2.00	-2.00	0.00
6,760.0	24.59	343.58	5,807.7	3,023.7	-979.9	3,178.5	2.00	-2.00	0.00
6,800.0	23.79	343.58	5,844.2	3,039.5	-984.5	3,194.9	2.00	-2.00	0.00
6,840.0	22.99	343.58	5,880.9	3,054.7	-989.0	3,210.8	2.00	-2.00	0.00
6,880.0	22.19	343.58	5,917.8	3,069.4	-993.4	3,226.2	2.00	-2.00	0.00
6,920.0	21.39	343.58	5,954.9	3,083.7	-997.6	3,241.0	2.00	-2.00	0.00
6,960.0	20.59	343.58	5,992.3	3,097.4	-1,001.6	3,255.3	2.00	-2.00	0.00
7,000.0	19.79	343.58	6,029.8	3,110.7	-1,005.5	3,269.1	2.00	-2.00	0.00
7,040.0	18.99	343.58	6,067.6	3,123.4	-1,009.3	3,282.4	2.00	-2.00	0.00
7,080.0	18.19	343.58	6,105.5	3,135.7	-1,012.9	3,295.2	2.00	-2.00	0.00
7,120.0	17.39	343.58	6,143.6	3,147.4	-1,016.3	3,307.4	2.00	-2.00	0.00
7,160.0	16.59	343.58	6,181.8	3,158.6	-1,019.6	3,319.1	2.00	-2.00	0.00
7,200.0	15.79	343.58	6,220.2	3,169.3	-1,022.8	3,330.2	2.00	-2.00	0.00
7,240.0	14.99	343.58	6,258.8	3,179.5	-1,025.8	3,340.9	2.00	-2.00	0.00
7,280.0	14.19	343.58	6,297.5	3,189.1	-1,028.6	3,350.9	2.00	-2.00	0.00
7,320.0	13.39	343.58	6,336.3	3,198.3	-1,031.3	3,360.5	2.00	-2.00	0.00
7,360.0	12.59	343.58	6,375.3	3,206.9	-1,033.9	3,369.5	2.00	-2.00	0.00
7,400.0	11.79	343.58	6,414.4	3,215.0	-1,036.3	3,377.9	2.00	-2.00	0.00
7,440.0	10.99	343.58	6,453.6	3,222.6	-1,038.5	3,385.8	2.00	-2.00	0.00
7,480.0	10.19	343.58	6,492.9	3,229.7	-1,040.6	3,393.2	2.00	-2.00	0.00
7,520.0	9.39	343.58	6,532.4	3,236.2	-1,042.5	3,400.0	2.00	-2.00	0.00
7,560.0	8.59	343.58	6,571.9	3,242.2	-1,044.3	3,406.2	2.00	-2.00	0.00
7,600.0	7.79	343.58	6,611.5	3,247.7	-1,045.9	3,411.9	2.00	-2.00	0.00
7,640.0	6.99	343.58	6,651.1	3,252.6	-1,047.3	3,417.1	2.00	-2.00	0.00
7,680.0	6.19	343.58	6,690.9	3,257.0	-1,048.6	3,421.7	2.00	-2.00	0.00
7,720.0	5.39	343.58	6,730.7	3,260.9	-1,049.8	3,425.7	2.00	-2.00	0.00
7,745.4	4.89	343.58	6,756.0	3,263.1	-1,050.4	3,428.0	2.00	-2.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")
601.0	600.0	8 5/8"		8-5/8	12-1/4

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Project:</b>	SEC.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-18-12)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,376.0	2,222.0	GREELEY SAND		0.00	
3,782.4	3,363.0	PARKMAN		0.00	
4,636.6	4,056.0	SUSSEX		0.00	
5,117.3	4,446.0	SHANNON		0.00	
7,745.4	6,756.0	NIOBRARA		0.00	
8,056.7	7,067.0	FORT HAYS		0.00	
8,078.7	7,089.0	CODELL		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP - Start Build 2.00
450.0	449.7	0.0	-10.9	Start DLS 2.00 TFO 80.49
2,182.6	2,065.0	501.2	-236.5	Start 4018.4 hold at 2182.6 MD
6,201.0	5,325.2	2,754.5	-900.6	Start Drop -2.00
7,989.7	7,000.0	3,273.0	-1,053.4	Back to Vertical
8,238.7	7,249.0	3,273.0	-1,053.4	TD at 8238.7



## **Great Western**

**SEC.30-T6N-R67W**

**Raindance FD West Row Pad Sec.30-T6N-R67W**

**Raindance FD 19-14D**

**Wellbore #1**

**Plan #1 (10-18-12)**

## **Anticollision Report**

**22 October, 2012**

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (10-18-12)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	10/19/2012		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	8,238.7	Plan #1 (10-18-12) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Raindance FD East Row Pad Sec.30-T6N-R67W						
Raindance FD 29-11D - Wellbore #1 - Plan #1 (10-18-12)	200.0	201.1	15.3	14.6	22.614	CC, ES
Raindance FD 29-11D - Wellbore #1 - Plan #1 (10-18-12)	400.0	400.9	22.3	20.7	14.189	SF
Raindance FD 29-31D - Wellbore #1 - Plan #1 (10-18-12)	200.0	200.3	21.0	20.3	31.099	CC, ES
Raindance FD 29-31D - Wellbore #1 - Plan #1 (10-18-12)	450.0	450.0	29.7	27.9	16.519	SF
Raindance FD 29-4D - Wellbore #1 - Plan #1 (10-18-12)	200.0	200.5	21.6	21.0	32.046	CC, ES
Raindance FD 29-4D - Wellbore #1 - Plan #1 (10-18-12)	600.0	599.5	41.5	39.1	16.830	SF
Raindance FD West Row Pad Sec.30-T6N-R67W						
Raindance FD 20-34D - Wellbore #1 - Plan #1 (10-18-12)	200.0	200.6	15.3	14.6	22.674	CC
Raindance FD 20-34D - Wellbore #1 - Plan #1 (10-18-12)	300.0	300.6	15.5	14.4	13.910	ES
Raindance FD 20-34D - Wellbore #1 - Plan #1 (10-18-12)	450.0	450.3	19.3	17.5	10.743	SF
Raindance FD 29-32D - Wellbore #1 - Plan #1 (10-18-12)	200.0	200.5	14.9	14.3	22.121	CC
Raindance FD 29-32D - Wellbore #1 - Plan #1 (10-18-12)	300.0	300.5	15.0	13.9	13.491	ES
Raindance FD 29-32D - Wellbore #1 - Plan #1 (10-18-12)	400.0	400.3	16.5	14.9	10.542	SF

Offset Design		Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-11D - Wellbore #1 - Plan #1 (10-1										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	1.1	1.1	0.0	0.0	90.00	0.0	15.3	15.3	15.3	0.00	N/A			
100.0	100.0	101.1	101.1	0.1	0.1	90.00	0.0	15.3	15.3	15.1	0.23	67.349			
200.0	200.0	201.1	201.1	0.3	0.3	90.00	0.0	15.3	15.3	14.6	0.68	22.614	CC, ES		
300.0	300.0	301.1	301.1	0.6	0.6	180.00	0.0	15.3	17.0	15.9	1.12	15.191			
400.0	399.8	400.9	400.9	0.8	0.8	180.00	0.0	15.3	22.3	20.7	1.57	14.189	SF		
450.0	449.7	450.3	450.3	0.9	0.9	180.00	0.0	15.7	26.7	24.9	1.79	14.872			
500.0	499.5	500.0	500.0	1.0	1.0	169.88	0.0	17.0	32.4	30.4	2.01	16.092			
600.0	599.0	597.0	596.9	1.3	1.2	156.09	0.0	22.1	47.0	44.5	2.46	19.127			
700.0	698.3	693.7	693.2	1.6	1.4	148.78	-0.3	30.1	65.8	62.9	2.91	22.627			
800.0	797.2	789.5	788.5	1.9	1.7	146.75	-3.2	39.4	88.2	84.9	3.34	26.399			
900.0	895.6	883.2	881.5	2.2	1.9	147.30	-9.1	49.3	114.9	111.1	3.79	30.326			
1,000.0	993.5	974.2	971.5	2.6	2.2	148.81	-17.5	59.9	146.6	142.4	4.25	34.535			
1,100.0	1,090.6	1,062.1	1,058.0	3.0	2.5	150.51	-28.2	70.8	183.7	179.0	4.71	39.035			

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-11D - Wellbore #1 - Plan #1 (10-1										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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
1,200.0	1,186.9	1,146.3	1,140.5	3.5	2.8	152.07	-40.9	82.0	226.3	221.2	5.17	43.775		
1,300.0	1,282.3	1,226.6	1,218.7	4.1	3.1	153.39	-55.2	93.4	274.3	268.7	5.63	48.691		
1,400.0	1,376.6	1,300.0	1,289.8	4.7	3.4	154.32	-70.1	104.3	327.5	321.4	6.09	53.750		
1,500.0	1,469.7	1,374.4	1,361.3	5.4	3.8	155.22	-86.9	115.9	385.6	379.0	6.57	58.730		
1,600.0	1,561.5	1,441.6	1,425.4	6.1	4.2	155.75	-103.7	126.8	448.3	441.2	7.04	63.646		
1,700.0	1,651.9	1,504.2	1,484.8	6.9	4.5	156.06	-120.6	137.3	515.3	507.8	7.52	68.545		
1,800.0	1,740.8	1,568.0	1,544.9	7.7	4.9	156.35	-138.9	148.3	586.1	578.1	8.01	73.126		
1,900.0	1,828.1	1,634.1	1,607.1	8.7	5.3	156.59	-158.1	159.8	659.4	650.9	8.52	77.423		
2,000.0	1,913.7	1,697.7	1,666.9	9.6	5.8	156.65	-176.4	170.8	735.1	726.1	9.04	81.313		
2,100.0	1,997.4	1,758.6	1,724.3	10.7	6.2	156.56	-194.0	181.4	813.0	803.4	9.59	84.763		
2,182.6	2,065.0	1,806.8	1,769.7	11.6	6.5	156.37	-208.0	189.8	878.9	868.8	10.06	87.325		
2,200.0	2,079.2	1,816.8	1,779.1	11.8	6.5	156.64	-210.9	191.5	893.0	882.8	10.16	87.914		
2,300.0	2,160.3	1,874.1	1,833.0	12.9	6.9	158.05	-227.5	201.4	973.7	963.0	10.69	91.116		
2,400.0	2,241.4	1,931.4	1,887.0	14.0	7.3	159.25	-244.0	211.4	1,054.7	1,043.5	11.22	93.994		
2,500.0	2,322.6	1,988.7	1,940.9	15.2	7.7	160.29	-260.6	221.3	1,135.8	1,124.0	11.76	96.587		
2,600.0	2,403.7	2,046.0	1,994.8	16.3	8.1	161.19	-277.2	231.3	1,217.0	1,204.7	12.30	98.914		
2,700.0	2,484.8	2,103.2	2,048.8	17.4	8.5	161.98	-293.7	241.2	1,298.3	1,285.5	12.85	101.035		
2,800.0	2,566.0	2,160.5	2,102.7	18.6	8.9	162.69	-310.3	251.1	1,379.7	1,366.3	13.40	102.944		
2,900.0	2,647.1	2,217.8	2,156.6	19.7	9.3	163.31	-326.9	261.1	1,461.2	1,447.2	13.96	104.692		
3,000.0	2,728.2	2,275.1	2,210.6	20.9	9.7	163.88	-343.4	271.0	1,542.7	1,528.2	14.51	106.284		
3,100.0	2,809.4	2,332.4	2,264.5	22.0	10.1	164.38	-360.0	281.0	1,624.2	1,609.1	15.08	107.742		
3,200.0	2,890.5	2,389.7	2,318.4	23.2	10.4	164.84	-376.6	290.9	1,705.8	1,690.2	15.64	109.083		
3,300.0	2,971.6	2,447.0	2,372.4	24.4	10.8	165.26	-393.2	300.9	1,787.4	1,771.2	16.20	110.312		
3,400.0	3,052.8	2,504.3	2,426.3	25.5	11.2	165.64	-409.7	310.8	1,869.1	1,852.3	16.77	111.452		
3,500.0	3,133.9	2,561.6	2,480.2	26.7	11.6	165.99	-426.3	320.7	1,950.8	1,933.4	17.34	112.499		
3,600.0	3,215.0	2,618.9	2,534.2	27.8	12.0	166.32	-442.9	330.7	2,032.5	2,014.6	17.91	113.474		
3,700.0	3,296.1	2,676.1	2,588.1	29.0	12.4	166.61	-459.4	340.6	2,114.2	2,095.7	18.48	114.377		
3,800.0	3,377.3	2,733.4	2,642.0	30.1	12.8	166.89	-476.0	350.6	2,195.9	2,176.9	19.06	115.217		
3,900.0	3,458.4	2,790.7	2,696.0	31.3	13.2	167.15	-492.6	360.5	2,277.7	2,258.1	19.64	116.002		
4,000.0	3,539.5	2,848.0	2,749.9	32.5	13.6	167.38	-509.1	370.4	2,359.5	2,339.3	20.21	116.731		
4,100.0	3,620.7	2,905.3	2,803.8	33.6	14.0	167.61	-525.7	380.4	2,441.3	2,420.5	20.79	117.417		
4,200.0	3,701.8	2,962.6	2,857.8	34.8	14.4	167.82	-542.3	390.3	2,523.1	2,501.7	21.37	118.056		
4,300.0	3,782.9	3,019.9	2,911.7	35.9	14.8	168.01	-558.8	400.3	2,604.9	2,582.9	21.95	118.657		
4,400.0	3,864.1	3,077.2	2,965.6	37.1	15.2	168.20	-575.4	410.2	2,686.7	2,664.1	22.54	119.221		
4,500.0	3,945.2	3,134.5	3,019.6	38.3	15.6	168.37	-592.0	420.2	2,768.5	2,745.4	23.12	119.752		
4,600.0	4,026.3	3,191.8	3,073.5	39.4	16.0	168.53	-608.6	430.1	2,850.3	2,826.6	23.70	120.252		
4,700.0	4,107.5	3,249.0	3,127.4	40.6	16.4	168.69	-625.1	440.0	2,932.2	2,907.9	24.29	120.723		
4,800.0	4,188.6	3,306.3	3,181.4	41.8	16.8	168.83	-641.7	450.0	3,014.0	2,989.1	24.87	121.169		
4,900.0	4,269.7	3,363.6	3,235.3	42.9	17.2	168.97	-658.3	459.9	3,095.9	3,070.4	25.46	121.589		
5,000.0	4,350.9	3,420.9	3,289.2	44.1	17.6	169.10	-674.8	469.9	3,177.7	3,151.7	26.05	121.988		
5,100.0	4,432.0	3,478.2	3,343.2	45.2	18.0	169.22	-691.4	479.8	3,259.6	3,233.0	26.64	122.365		
5,200.0	4,513.1	3,535.5	3,397.1	46.4	18.4	169.34	-708.0	489.8	3,341.5	3,314.2	27.23	122.723		
5,300.0	4,594.2	3,592.8	3,451.0	47.6	18.8	169.46	-724.5	499.7	3,423.3	3,395.5	27.82	123.063		
5,400.0	4,675.4	3,650.1	3,505.0	48.7	19.2	169.56	-741.1	509.6	3,505.2	3,476.8	28.41	123.385		
5,500.0	4,756.5	3,707.4	3,558.9	49.9	19.7	169.67	-757.7	519.6	3,587.1	3,558.1	29.00	123.692		
5,600.0	4,837.6	3,764.7	3,612.8	51.1	20.1	169.76	-774.3	529.5	3,669.0	3,639.4	29.59	123.984		
5,700.0	4,918.8	3,822.0	3,666.8	52.2	20.5	169.86	-790.8	539.5	3,750.9	3,720.7	30.19	124.262		
5,800.0	4,999.9	3,879.2	3,720.7	53.4	20.9	169.95	-807.4	549.4	3,832.8	3,802.0	30.78	124.527		
5,900.0	5,081.0	3,936.5	3,774.6	54.6	21.3	170.03	-824.0	559.3	3,914.6	3,883.3	31.37	124.779		
6,000.0	5,162.2	3,993.8	3,828.6	55.7	21.7	170.12	-840.5	569.3	3,996.5	3,964.6	31.97	125.020		
6,100.0	5,243.3	4,051.1	3,882.5	56.9	22.1	170.20	-857.1	579.2	4,078.4	4,045.9	32.56	125.250		

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-11D - Wellbore #1 - Plan #1 (10-1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
6,201.0	5,325.2	4,109.0	3,936.9	58.1	22.5	170.27	-873.8	589.3	4,161.1	4,128.0	33.16	125.472		
6,300.0	5,406.5	4,167.1	3,991.7	59.1	22.9	170.79	-890.6	599.4	4,241.3	4,207.3	33.93	125.002		
6,400.0	5,490.6	4,228.5	4,049.5	59.9	23.3	171.24	-908.4	610.0	4,320.1	4,285.4	34.68	124.571		
6,500.0	5,576.5	4,292.7	4,109.9	60.7	23.8	171.63	-927.0	621.1	4,396.8	4,361.4	35.41	124.151		
6,600.0	5,664.1	4,359.4	4,172.8	61.5	24.2	171.98	-946.3	632.7	4,471.2	4,435.1	36.13	123.761		
6,700.0	5,753.4	4,428.8	4,238.0	62.2	24.7	172.28	-966.3	644.8	4,543.3	4,506.5	36.81	123.414		
6,800.0	5,844.2	4,500.5	4,305.6	62.9	25.2	172.55	-987.1	657.2	4,612.9	4,575.5	37.47	123.119		
6,900.0	5,936.3	4,574.7	4,375.4	63.5	25.8	172.78	-1,008.5	670.1	4,680.0	4,641.9	38.09	122.881		
7,000.0	6,029.8	4,651.1	4,447.3	64.1	26.3	172.98	-1,030.6	683.3	4,744.5	4,705.9	38.67	122.706		
7,100.0	6,124.5	4,729.7	4,521.3	64.6	26.8	173.16	-1,053.4	697.0	4,806.3	4,767.1	39.21	122.595		
7,200.0	6,220.2	4,808.5	4,595.3	65.1	27.3	173.31	-1,076.1	710.9	4,868.1	4,828.9	39.75	122.484		
7,300.0	6,316.9	4,892.2	4,669.0	65.5	27.8	173.43	-1,098.8	724.8	4,929.9	4,889.7	40.28	122.373		
7,400.0	6,414.4	4,976.7	4,743.5	65.9	28.3	173.53	-1,121.5	738.7	4,991.7	4,951.5	40.81	122.262		
7,500.0	6,512.6	5,061.9	4,818.7	66.2	28.7	173.61	-1,144.2	752.6	5,053.5	5,012.3	41.34	122.151		
7,600.0	6,611.5	5,148.0	4,894.8	66.5	29.1	173.68	-1,166.9	766.5	5,115.3	5,073.1	41.87	122.040		
7,700.0	6,710.7	5,234.1	4,970.9	66.7	29.5	173.74	-1,189.6	780.4	5,177.1	5,135.9	42.40	121.929		
7,800.0	6,810.4	5,320.2	5,047.0	66.8	29.9	173.79	-1,212.3	794.3	5,238.9	5,196.7	42.93	121.818		
7,900.0	6,910.3	5,406.3	5,123.1	67.0	30.3	173.83	-1,235.0	808.2	5,300.7	5,258.5	43.46	121.707		
7,989.7	7,000.0	5,492.4	5,209.6	67.0	33.1	157.47	-1,293.3	840.9	4,943.7	4,899.3	44.39	111.373		
8,000.0	7,010.3	5,508.7	5,225.9	67.0	33.1	157.47	-1,293.3	840.9	4,943.7	4,899.3	44.42	111.306		
8,100.0	7,110.3	5,608.7	5,325.9	67.1	33.2	157.47	-1,293.3	840.9	4,943.7	4,899.0	44.68	110.636		
8,200.0	7,210.3	5,708.7	5,425.9	67.1	33.3	157.47	-1,293.3	840.9	4,943.7	4,898.7	44.96	109.967		
8,238.7	7,249.0	5,747.3	5,464.6	67.1	33.3	157.47	-1,293.3	840.9	4,943.7	4,898.6	45.06	109.709		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.3	0.3	0.0	0.0	135.36		-14.9	14.7	21.0	21.0	0.00	N/A	
100.0	100.0	100.3	100.3	0.1	0.1	135.36		-14.9	14.7	21.0	20.8	0.23	93.110	
200.0	200.0	200.3	200.3	0.3	0.3	135.36		-14.9	14.7	21.0	20.3	0.67	31.099 CC, ES	
300.0	300.0	300.3	300.3	0.6	0.6	-137.82		-14.9	14.7	22.3	21.1	1.12	19.905	
400.0	399.8	400.1	400.1	0.8	0.8	-145.43		-14.9	14.7	26.4	24.8	1.57	16.820	
450.0	449.7	450.0	450.0	0.9	0.9	-149.69		-14.9	14.7	29.7	27.9	1.80	16.519 SF	
500.0	499.5	499.8	499.8	1.0	1.0	-163.70		-14.9	14.7	33.8	31.8	2.02	16.690	
600.0	599.0	599.3	599.3	1.3	1.2	177.17		-14.9	14.7	43.6	41.2	2.47	17.633	
700.0	698.3	698.6	698.6	1.6	1.5	167.10		-14.9	14.7	55.5	52.6	2.92	18.979	
800.0	797.2	797.5	797.5	1.9	1.7	162.48		-14.9	14.7	69.6	66.2	3.38	20.614	
900.0	895.6	895.9	895.9	2.2	1.9	160.80		-14.9	14.7	86.3	82.4	3.83	22.513	
1,000.0	993.5	993.8	993.8	2.6	2.1	160.62		-14.9	14.7	105.8	101.5	4.29	24.652	
1,100.0	1,090.6	1,090.9	1,090.9	3.0	2.3	161.15		-14.9	14.7	128.2	123.5	4.75	27.003	
1,200.0	1,186.9	1,187.2	1,187.2	3.5	2.6	161.99		-14.9	14.7	153.9	148.7	5.21	29.532	
1,300.0	1,282.3	1,282.6	1,282.6	4.1	2.8	162.93		-14.9	14.7	182.7	177.0	5.67	32.205	
1,400.0	1,376.6	1,376.9	1,376.9	4.7	3.0	163.84		-14.9	14.7	214.7	208.6	6.14	34.992	
1,500.0	1,469.7	1,470.0	1,470.0	5.4	3.2	164.70		-14.9	14.7	250.0	243.4	6.60	37.867	
1,600.0	1,561.5	1,566.4	1,566.4	6.1	3.4	165.38		-15.5	14.9	289.0	282.0	7.05	41.013	
1,700.0	1,651.9	1,637.0	1,637.0	6.9	3.5	166.02		-18.1	15.6	333.6	326.1	7.48	44.581	
1,800.0	1,740.8	1,713.8	1,713.6	7.7	3.7	166.59		-22.6	16.8	383.5	375.6	7.91	48.468	
1,900.0	1,828.1	1,786.4	1,785.9	8.7	3.8	167.06		-28.8	18.4	438.6	430.3	8.35	52.559	
2,000.0	1,913.7	1,854.7	1,853.8	9.6	3.9	167.40		-36.1	20.4	498.6	489.8	8.78	56.781	
2,100.0	1,997.4	1,918.7	1,917.2	10.7	4.1	167.63		-44.5	22.6	563.1	553.8	9.22	61.076	
2,182.6	2,065.0	1,968.2	1,966.2	11.6	4.2	167.73		-51.8	24.5	619.5	609.9	9.58	64.636	
2,200.0	2,079.2	1,978.3	1,976.1	11.8	4.2	167.93		-53.5	24.9	631.7	622.0	9.67	65.306	
2,300.0	2,160.3	2,035.0	2,031.9	12.9	4.3	168.95		-63.1	27.5	702.8	692.6	10.19	68.947	
2,400.0	2,241.4	2,103.8	2,099.5	14.0	4.5	170.01		-75.4	30.8	774.6	763.9	10.71	72.307	
2,500.0	2,322.6	2,172.7	2,167.2	15.2	4.7	170.89		-87.8	34.0	846.6	835.4	11.24	75.336	
2,600.0	2,403.7	2,241.6	2,234.9	16.3	4.9	171.63		-100.2	37.3	918.7	906.9	11.77	78.067	
2,700.0	2,484.8	2,310.5	2,302.6	17.4	5.1	172.27		-112.5	40.6	990.8	978.5	12.31	80.503	
2,800.0	2,566.0	2,379.3	2,370.2	18.6	5.3	172.82		-124.9	43.9	1,063.0	1,050.1	12.86	82.683	
2,900.0	2,647.1	2,448.2	2,437.9	19.7	5.6	173.30		-137.2	47.1	1,135.2	1,121.8	13.40	84.712	
3,000.0	2,728.2	2,517.1	2,505.6	20.9	5.8	173.72		-149.6	50.4	1,207.4	1,193.5	13.95	86.548	
3,100.0	2,809.4	2,586.0	2,573.3	22.0	6.0	174.10		-161.9	53.7	1,279.7	1,265.2	14.51	88.219	
3,200.0	2,890.5	2,654.8	2,640.9	23.2	6.3	174.44		-174.3	57.0	1,352.0	1,337.0	15.07	89.745	
3,300.0	2,971.6	2,723.7	2,708.6	24.4	6.5	174.74		-186.7	60.2	1,424.4	1,408.7	15.63	91.151	
3,400.0	3,052.8	2,792.6	2,776.3	25.5	6.8	175.01		-199.0	63.5	1,496.7	1,480.5	16.19	92.446	
3,500.0	3,133.9	2,861.4	2,844.0	26.7	7.0	175.26		-211.4	66.8	1,569.0	1,552.3	16.76	93.636	
3,600.0	3,215.0	2,930.3	2,911.7	27.8	7.3	175.49		-223.7	70.1	1,641.4	1,624.1	17.33	94.740	
3,700.0	3,296.1	2,999.2	2,979.3	29.0	7.5	175.69		-236.1	73.3	1,713.8	1,695.9	17.90	95.766	
3,800.0	3,377.3	3,068.1	3,047.0	30.1	7.8	175.89		-248.4	76.6	1,786.2	1,767.7	18.47	96.714	
3,900.0	3,458.4	3,136.9	3,114.7	31.3	8.1	176.06		-260.8	79.9	1,858.6	1,839.5	19.04	97.599	
4,000.0	3,539.5	3,205.8	3,182.4	32.5	8.3	176.22		-273.2	83.1	1,931.0	1,911.4	19.62	98.425	
4,100.0	3,620.7	3,274.7	3,250.0	33.6	8.6	176.38		-285.5	86.4	2,003.4	1,983.2	20.20	99.195	
4,200.0	3,701.8	3,343.6	3,317.7	34.8	8.9	176.52		-297.9	89.7	2,075.8	2,055.0	20.78	99.915	
4,300.0	3,782.9	3,412.4	3,385.4	35.9	9.1	176.65		-310.2	93.0	2,148.2	2,126.9	21.36	100.592	
4,400.0	3,864.1	3,481.3	3,453.1	37.1	9.4	176.77		-322.6	96.2	2,220.7	2,198.7	21.94	101.226	
4,500.0	3,945.2	3,550.2	3,520.8	38.3	9.7	176.88		-334.9	99.5	2,293.1	2,270.6	22.52	101.822	
4,600.0	4,026.3	3,619.1	3,588.4	39.4	10.0	176.99		-347.3	102.8	2,365.5	2,342.4	23.10	102.383	
4,700.0	4,107.5	3,687.9	3,656.1	40.6	10.2	177.09		-359.7	106.1	2,438.0	2,414.3	23.69	102.912	
4,800.0	4,188.6	3,756.8	3,723.8	41.8	10.5	177.19		-372.0	109.3	2,510.4	2,486.1	24.28	103.410	

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-31D - Wellbore #1 - Plan #1 (10-1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.0	4,269.7	3,825.7	3,791.5	42.9	10.8	177.28		-384.4	112.6	2,582.9	2,558.0	24.86	103.881	
5,000.0	4,350.9	3,894.6	3,859.1	44.1	11.1	177.36		-396.7	115.9	2,655.3	2,629.9	25.45	104.327	
5,100.0	4,432.0	3,963.4	3,926.8	45.2	11.3	177.44		-409.1	119.2	2,727.8	2,701.7	26.04	104.748	
5,200.0	4,513.1	4,032.3	3,994.5	46.4	11.6	177.52		-421.5	122.4	2,800.2	2,773.6	26.63	105.148	
5,300.0	4,594.2	4,101.2	4,062.2	47.6	11.9	177.59		-433.8	125.7	2,872.7	2,845.5	27.22	105.527	
5,400.0	4,675.4	4,170.1	4,129.9	48.7	12.2	177.66		-446.2	129.0	2,945.1	2,917.3	27.81	105.886	
5,500.0	4,756.5	4,238.9	4,197.5	49.9	12.5	177.73		-458.5	132.2	3,017.6	2,989.2	28.41	106.228	
5,600.0	4,837.6	4,307.8	4,265.2	51.1	12.7	177.79		-470.9	135.5	3,090.1	3,061.1	29.00	106.553	
5,700.0	4,918.8	4,376.7	4,332.9	52.2	13.0	177.85		-483.2	138.8	3,162.5	3,132.9	29.59	106.862	
5,800.0	4,999.9	4,445.6	4,400.6	53.4	13.3	177.91		-495.6	142.1	3,235.0	3,204.8	30.19	107.156	
5,900.0	5,081.0	4,514.4	4,468.2	54.6	13.6	177.96		-508.0	145.3	3,307.5	3,276.7	30.79	107.436	
6,000.0	5,162.2	4,583.3	4,535.9	55.7	13.9	178.02		-520.3	148.6	3,379.9	3,348.6	31.38	107.703	
6,100.0	5,243.3	4,652.2	4,603.6	56.9	14.2	178.07		-532.7	151.9	3,452.4	3,420.4	31.98	107.958	
6,201.0	5,325.2	4,721.7	4,671.9	58.1	14.4	178.11		-545.1	155.2	3,525.6	3,493.0	32.58	108.204	
6,300.0	5,406.5	4,791.2	4,740.2	59.1	14.7	178.22		-557.6	158.5	3,596.2	3,562.8	33.38	107.722	
6,400.0	5,490.6	4,863.7	4,811.4	59.9	15.0	178.32		-570.6	161.9	3,665.0	3,630.8	34.14	107.340	
6,500.0	5,576.5	4,938.6	4,885.1	60.7	15.3	178.41		-584.1	165.5	3,731.2	3,696.3	34.86	107.026	
6,600.0	5,664.1	5,022.6	4,964.4	61.5	17.1	178.68		-647.4	182.3	3,780.1	3,743.3	36.82	102.676	
6,700.0	5,753.4	5,111.8	5,053.7	62.2	17.3	178.72		-647.4	182.3	3,825.1	3,787.7	37.46	102.123	
6,800.0	5,844.2	5,202.6	5,144.5	62.9	17.4	178.75		-647.4	182.3	3,867.1	3,829.0	38.05	101.644	
6,900.0	5,936.3	5,294.8	5,236.6	63.5	17.5	178.78		-647.4	182.3	3,905.8	3,867.2	38.58	101.238	
7,000.0	6,029.8	5,388.3	5,330.1	64.1	17.6	178.81		-647.4	182.3	3,941.3	3,902.2	39.06	100.901	
7,100.0	6,124.5	5,482.9	5,424.8	64.6	17.8	178.83		-647.4	182.3	3,973.5	3,934.0	39.49	100.631	
7,200.0	6,220.2	5,578.7	5,520.5	65.1	17.9	178.85		-647.4	182.3	4,002.4	3,962.5	39.85	100.428	
7,300.0	6,316.9	5,675.3	5,617.2	65.5	18.1	178.87		-647.4	182.3	4,027.9	3,987.8	40.16	100.290	
7,400.0	6,414.4	5,772.8	5,714.7	65.9	18.2	178.89		-647.4	182.3	4,050.1	4,009.6	40.41	100.215	
7,500.0	6,512.6	5,871.1	5,812.9	66.2	18.3	178.90		-647.4	182.3	4,068.8	4,028.2	40.60	100.205	
7,600.0	6,611.5	5,969.9	5,911.8	66.5	18.5	178.91		-647.4	182.3	4,084.1	4,043.3	40.74	100.257	
7,700.0	6,710.7	6,069.2	6,011.0	66.7	18.6	178.92		-647.4	182.3	4,095.9	4,055.1	40.81	100.371	
7,800.0	6,810.4	6,168.8	6,110.7	66.8	18.8	178.92		-647.4	182.3	4,104.3	4,063.4	40.82	100.549	
7,900.0	6,910.3	6,268.7	6,210.6	67.0	19.0	178.93		-647.4	182.3	4,109.1	4,068.4	40.77	100.789	
7,989.7	7,000.0	7,058.4	7,000.3	67.0	19.1	162.51		-647.4	182.3	4,110.5	4,069.9	40.68	101.058	
8,000.0	7,010.3	7,068.7	7,010.6	67.0	19.1	162.51		-647.4	182.3	4,110.5	4,069.8	40.71	100.980	
8,100.0	7,110.3	7,168.7	7,110.6	67.1	19.3	162.51		-647.4	182.3	4,110.5	4,069.5	41.02	100.210	
8,200.0	7,210.3	7,268.7	7,210.6	67.1	19.4	162.51		-647.4	182.3	4,110.5	4,069.2	41.33	99.446	
8,238.7	7,249.0	7,307.4	7,249.3	67.1	19.5	162.51		-647.4	182.3	4,110.5	4,069.1	41.46	99.152	

Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-4D - Wellbore #1 - Plan #1 (10-18)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance		Between		Minimum	Separation	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)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor		
0.0	0.0	0.5	0.5	0.0	0.0	45.00	15.3	15.3	21.6	21.6	0.00	N/A		
100.0	100.0	100.5	100.5	0.1	0.1	45.00	15.3	15.3	21.6	21.4	0.23	95.818		
200.0	200.0	200.5	200.5	0.3	0.3	45.00	15.3	15.3	21.6	21.0	0.68	32.046 CC, ES		
300.0	300.0	300.5	300.5	0.6	0.6	138.07	15.3	15.3	22.9	21.8	1.12	20.489		
400.0	399.8	400.3	400.3	0.8	0.8	145.45	15.3	15.3	27.0	25.5	1.57	17.259		
450.0	449.7	450.2	450.2	0.9	0.9	149.62	15.3	15.3	30.3	28.6	1.79	16.914		
500.0	499.5	500.0	500.0	1.0	1.0	143.16	15.3	15.3	34.1	32.0	2.02	16.891		
600.0	599.0	599.5	599.5	1.3	1.2	135.49	15.3	15.3	41.5	39.1	2.47	16.830 SF		
700.0	698.3	698.8	698.8	1.6	1.5	134.16	15.3	15.3	50.0	47.0	2.93	17.083		
800.0	797.2	797.7	797.7	1.9	1.7	136.65	15.3	15.3	60.4	57.0	3.39	17.839		
900.0	895.6	896.1	896.1	2.2	1.9	140.74	15.3	15.3	73.7	69.8	3.85	19.133		
1,000.0	993.5	994.0	994.0	2.6	2.1	145.11	15.3	15.3	90.3	85.9	4.32	20.912		
1,100.0	1,090.6	1,088.2	1,088.2	3.0	2.3	148.54	15.3	16.7	111.6	106.8	4.77	23.380		
1,200.0	1,186.9	1,180.5	1,180.4	3.5	2.5	150.68	15.4	21.0	138.8	133.6	5.23	26.525		
1,300.0	1,282.3	1,270.8	1,270.3	4.1	2.7	151.79	15.5	28.1	171.4	165.7	5.71	30.036		
1,400.0	1,376.6	1,358.7	1,357.7	4.7	2.9	152.21	15.6	37.7	209.1	202.9	6.20	33.706		
1,500.0	1,469.7	1,444.0	1,442.2	5.4	3.1	152.16	15.8	49.6	251.4	244.7	6.72	37.385		
1,600.0	1,561.5	1,526.6	1,523.6	6.1	3.4	151.81	16.0	63.6	298.2	290.9	7.28	40.960		
1,700.0	1,651.9	1,608.1	1,603.6	6.9	3.6	151.29	16.2	79.5	349.0	341.1	7.88	44.301		
1,800.0	1,740.8	1,692.2	1,686.0	7.7	3.9	150.91	16.4	96.5	402.6	394.1	8.50	47.373		
1,900.0	1,828.1	1,774.7	1,766.8	8.7	4.2	150.63	16.6	113.2	458.7	449.5	9.15	50.132		
2,000.0	1,913.7	1,855.5	1,845.8	9.6	4.5	150.42	16.9	129.5	517.0	507.2	9.82	52.635		
2,100.0	1,997.4	1,934.3	1,923.1	10.7	4.8	150.23	17.1	145.4	577.7	567.2	10.53	54.858		
2,182.6	2,065.0	1,998.0	1,985.4	11.6	5.1	150.08	17.3	158.3	629.6	618.5	11.13	56.571		
2,200.0	2,079.2	2,011.3	1,998.4	11.8	5.1	150.29	17.3	161.0	640.7	629.5	11.25	56.934		
2,300.0	2,160.3	2,087.6	2,073.1	12.9	5.4	151.39	17.5	176.4	704.6	692.7	11.97	58.855		
2,400.0	2,241.4	2,163.8	2,147.8	14.0	5.7	152.31	17.7	191.8	768.7	756.0	12.70	60.517		
2,500.0	2,322.6	2,240.1	2,222.5	15.2	6.1	153.10	17.9	207.2	832.8	819.4	13.44	61.968		
2,600.0	2,403.7	2,316.4	2,297.2	16.3	6.4	153.77	18.1	222.7	897.0	882.8	14.18	63.241		
2,700.0	2,484.8	2,392.6	2,371.9	17.4	6.7	154.35	18.3	238.1	961.3	946.3	14.94	64.363		
2,800.0	2,566.0	2,468.9	2,446.6	18.6	7.0	154.86	18.6	253.5	1,025.6	1,009.9	15.69	65.356		
2,900.0	2,647.1	2,545.2	2,521.3	19.7	7.3	155.31	18.8	268.9	1,089.9	1,073.5	16.45	66.241		
3,000.0	2,728.2	2,621.5	2,596.0	20.9	7.7	155.71	19.0	284.3	1,154.3	1,137.1	17.22	67.035		
3,100.0	2,809.4	2,697.7	2,670.7	22.0	8.0	156.06	19.2	299.7	1,218.8	1,200.8	17.99	67.748		
3,200.0	2,890.5	2,774.0	2,745.4	23.2	8.3	156.39	19.4	315.2	1,283.2	1,264.4	18.76	68.391		
3,300.0	2,971.6	2,850.3	2,820.1	24.4	8.6	156.68	19.6	330.6	1,347.7	1,328.1	19.54	68.975		
3,400.0	3,052.8	2,926.5	2,894.8	25.5	9.0	156.94	19.8	346.0	1,412.2	1,391.9	20.32	69.506		
3,500.0	3,133.9	3,002.8	2,969.5	26.7	9.3	157.18	20.0	361.4	1,476.7	1,455.6	21.10	69.992		
3,600.0	3,215.0	3,079.1	3,044.2	27.8	9.6	157.41	20.2	376.8	1,541.2	1,519.3	21.88	70.436		
3,700.0	3,296.1	3,155.3	3,118.9	29.0	10.0	157.61	20.5	392.2	1,605.7	1,583.1	22.67	70.843		
3,800.0	3,377.3	3,231.6	3,193.6	30.1	10.3	157.80	20.7	407.7	1,670.3	1,646.8	23.45	71.219		
3,900.0	3,458.4	3,307.9	3,268.3	31.3	10.6	157.97	20.9	423.1	1,734.8	1,710.6	24.24	71.567		
4,000.0	3,539.5	3,384.2	3,343.0	32.5	11.0	158.13	21.1	438.5	1,799.4	1,774.4	25.03	71.888		
4,100.0	3,620.7	3,460.4	3,417.7	33.6	11.3	158.28	21.3	453.9	1,864.0	1,838.1	25.82	72.186		
4,200.0	3,701.8	3,536.7	3,492.3	34.8	11.6	158.43	21.5	469.3	1,928.5	1,901.9	26.61	72.463		
4,300.0	3,782.9	3,613.0	3,567.0	35.9	12.0	158.56	21.7	484.8	1,993.1	1,965.7	27.41	72.722		
4,400.0	3,864.1	3,689.2	3,641.7	37.1	12.3	158.68	21.9	500.2	2,057.7	2,029.5	28.20	72.963		
4,500.0	3,945.2	3,765.5	3,716.4	38.3	12.7	158.80	22.1	515.6	2,122.3	2,093.3	29.00	73.188		
4,600.0	4,026.3	3,841.8	3,791.1	39.4	13.0	158.90	22.3	531.0	2,186.9	2,157.1	29.79	73.400		
4,700.0	4,107.5	3,918.1	3,865.8	40.6	13.3	159.01	22.6	546.4	2,251.5	2,220.9	30.59	73.598		
4,800.0	4,188.6	3,994.3	3,940.5	41.8	13.7	159.10	22.8	561.8	2,316.1	2,284.7	31.39	73.785		

COMPASS 2003.21 Build 46

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Raindance FD East Row Pad Sec.30-T6N-R67W - Raindance FD 29-4D - Wellbore #1 - Plan #1 (10-18)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	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	Warning
4,900.0	4,269.7	4,070.6	4,015.2	42.9	14.0	159.20	159.20	23.0	577.3	2,380.7	2,348.5	32.19	73.960	
5,000.0	4,350.9	4,146.9	4,089.9	44.1	14.3	159.28	159.28	23.2	592.7	2,445.3	2,412.4	32.99	74.125	
5,100.0	4,432.0	4,223.1	4,164.6	45.2	14.7	159.36	159.36	23.4	608.1	2,510.0	2,476.2	33.79	74.281	
5,200.0	4,513.1	4,299.4	4,239.3	46.4	15.0	159.44	159.44	23.6	623.5	2,574.6	2,540.0	34.59	74.429	
5,300.0	4,594.2	4,375.7	4,314.0	47.6	15.4	159.52	159.52	23.8	638.9	2,639.2	2,603.8	35.39	74.568	
5,400.0	4,675.4	4,451.9	4,388.7	48.7	15.7	159.59	159.59	24.0	654.3	2,703.8	2,667.6	36.20	74.700	
5,500.0	4,756.5	4,528.2	4,463.4	49.9	16.0	159.66	159.66	24.2	669.8	2,768.5	2,731.5	37.00	74.825	
5,600.0	4,837.6	4,604.5	4,538.1	51.1	16.4	159.72	159.72	24.4	685.2	2,833.1	2,795.3	37.80	74.944	
5,700.0	4,918.8	4,680.8	4,612.8	52.2	16.7	159.78	159.78	24.7	700.6	2,897.7	2,859.1	38.61	75.057	
5,800.0	4,999.9	4,757.0	4,687.5	53.4	17.1	159.84	159.84	24.9	716.0	2,962.4	2,922.9	39.41	75.164	
5,900.0	5,081.0	4,833.3	4,762.2	54.6	17.4	159.90	159.90	25.1	731.4	3,027.0	2,986.8	40.22	75.266	
6,000.0	5,162.2	4,909.6	4,836.9	55.7	17.7	159.95	159.95	25.3	746.8	3,091.6	3,050.6	41.02	75.363	
6,100.0	5,243.3	4,985.8	4,911.6	56.9	18.1	160.00	160.00	25.5	762.3	3,156.3	3,114.4	41.83	75.456	
6,201.0	5,325.2	5,062.8	4,987.0	58.1	18.4	160.05	160.05	25.7	777.8	3,221.5	3,178.9	42.64	75.545	
6,300.0	5,406.5	5,201.3	5,122.9	59.1	18.9	160.68	160.68	26.1	804.0	3,283.9	3,240.3	43.60	75.311	
6,400.0	5,490.6	5,404.8	5,324.7	59.9	19.4	161.42	161.42	26.4	830.7	3,341.7	3,297.2	44.52	75.061	
6,500.0	5,576.5	5,621.4	5,540.9	60.7	19.8	162.28	162.28	26.6	843.4	3,393.7	3,348.4	45.26	74.974	
6,600.0	5,664.1	5,745.2	5,664.6	61.5	20.0	162.92	162.92	26.6	844.0	3,440.2	3,394.4	45.85	75.031	
6,700.0	5,753.4	5,834.5	5,753.9	62.2	20.1	163.42	163.42	26.6	844.0	3,483.8	3,437.4	46.40	75.084	
6,800.0	5,844.2	5,925.3	5,844.7	62.9	20.2	163.86	163.86	26.6	844.0	3,524.3	3,477.4	46.91	75.134	
6,900.0	5,936.3	6,017.4	5,936.8	63.5	20.3	164.25	164.25	26.6	844.0	3,561.8	3,514.4	47.37	75.186	
7,000.0	6,029.8	6,110.9	6,030.3	64.1	20.5	164.60	164.60	26.6	844.0	3,596.1	3,548.3	47.79	75.244	
7,100.0	6,124.5	6,205.6	6,125.0	64.6	20.6	164.91	164.91	26.6	844.0	3,627.3	3,579.1	48.16	75.310	
7,200.0	6,220.2	6,301.3	6,220.7	65.1	20.7	165.17	165.17	26.6	844.0	3,655.3	3,606.8	48.49	75.388	
7,300.0	6,316.9	6,398.0	6,317.4	65.5	20.9	165.40	165.40	26.6	844.0	3,680.0	3,631.3	48.76	75.478	
7,400.0	6,414.4	6,495.5	6,414.9	65.9	21.0	165.60	165.60	26.6	844.0	3,701.5	3,652.5	48.97	75.583	
7,500.0	6,512.6	6,593.7	6,513.1	66.2	21.2	165.76	165.76	26.6	844.0	3,719.7	3,670.5	49.14	75.703	
7,600.0	6,611.5	6,692.6	6,612.0	66.5	21.3	165.89	165.89	26.6	844.0	3,734.5	3,685.3	49.24	75.839	
7,700.0	6,710.7	6,791.8	6,711.2	66.7	21.4	165.99	165.99	26.6	844.0	3,746.0	3,696.7	49.30	75.990	
7,800.0	6,810.4	6,891.5	6,810.9	66.8	21.6	166.06	166.06	26.6	844.0	3,754.1	3,704.8	49.29	76.156	
7,900.0	6,910.3	6,991.4	6,910.8	67.0	21.7	166.11	166.11	26.6	844.0	3,758.8	3,709.6	49.24	76.336	
7,989.7	7,000.0	7,081.1	7,000.5	67.0	21.9	149.70	149.70	26.6	844.0	3,760.2	3,711.1	49.15	76.507	
8,000.0	7,010.3	7,091.4	7,010.8	67.0	21.9	149.70	149.70	26.6	844.0	3,760.2	3,711.0	49.17	76.467	
8,100.0	7,110.3	7,191.4	7,110.8	67.1	22.0	149.70	149.70	26.6	844.0	3,760.2	3,710.8	49.43	76.064	
8,200.0	7,210.3	7,291.4	7,210.8	67.1	22.2	149.70	149.70	26.6	844.0	3,760.2	3,710.5	49.70	75.662	
8,238.7	7,249.0	7,330.1	7,249.5	67.1	22.3	149.70	149.70	26.6	844.0	3,760.2	3,710.4	49.80	75.506	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Raindance FD West Row Pad Sec.30-T6N-R67W - Raindance FD 20-34D - Wellbore #1 - Plan #1 (10-1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.6	0.6	0.0	0.0	3.12	15.3	0.8	15.3	15.3	0.00	N/A		
100.0	100.0	100.6	100.6	0.1	0.1	3.12	15.3	0.8	15.3	15.1	0.23	67.753		
200.0	200.0	200.6	200.6	0.3	0.3	3.12	15.3	0.8	15.3	14.6	0.68	22.675		
200.0	200.0	200.6	200.6	0.3	0.3	3.12	15.3	0.8	15.3	14.6	0.68	22.674 CC		
300.0	300.0	300.6	300.6	0.6	0.6	99.57	15.3	0.8	15.5	14.4	1.12	13.910 ES		
400.0	399.8	400.4	400.4	0.8	0.8	117.00	15.3	0.8	17.2	15.6	1.56	10.987		
450.0	449.7	450.3	450.3	0.9	0.9	127.39	15.3	0.8	19.3	17.5	1.79	10.743 SF		
500.0	499.5	500.1	500.1	1.0	1.0	126.46	15.3	0.8	22.0	19.9	2.02	10.869		
600.0	599.0	599.6	599.6	1.3	1.2	127.31	15.3	0.8	27.9	25.4	2.47	11.279		
700.0	698.3	698.9	698.9	1.6	1.5	132.05	15.3	0.8	35.6	32.7	2.93	12.153		
800.0	797.2	797.8	797.8	1.9	1.7	138.38	15.3	0.8	46.0	42.7	3.38	13.604		
900.0	895.6	896.2	896.2	2.2	1.9	144.43	15.3	0.8	59.9	56.0	3.84	15.577		
1,000.0	993.5	994.1	994.1	2.6	2.1	149.52	15.3	0.8	77.3	73.0	4.30	17.958		
1,100.0	1,090.6	1,091.2	1,091.2	3.0	2.3	153.58	15.3	0.8	98.3	93.5	4.76	20.636		
1,200.0	1,186.9	1,187.5	1,187.5	3.5	2.6	156.77	15.3	0.8	122.9	117.7	5.22	23.521		
1,300.0	1,282.3	1,282.9	1,282.9	4.1	2.8	159.28	15.3	0.8	151.0	145.3	5.69	26.551		
1,400.0	1,376.6	1,377.2	1,377.2	4.7	3.0	161.28	15.3	0.8	182.5	176.4	6.15	29.679		
1,500.0	1,469.7	1,470.3	1,470.3	5.4	3.2	162.88	15.3	0.8	217.4	210.8	6.61	32.873		
1,600.0	1,561.5	1,565.8	1,565.8	6.1	3.4	164.14	16.0	1.0	255.2	248.1	7.09	36.018		
1,700.0	1,651.9	1,663.5	1,663.5	6.9	3.6	164.76	19.8	2.1	294.2	286.7	7.56	38.907		
1,800.0	1,740.8	1,762.1	1,761.8	7.7	3.9	164.91	26.8	4.1	334.3	326.2	8.06	41.498		
1,900.0	1,828.1	1,861.5	1,860.6	8.7	4.1	164.73	37.2	7.0	375.2	366.6	8.57	43.772		
2,000.0	1,913.7	1,961.8	1,959.8	9.6	4.3	164.32	51.0	10.9	416.9	407.7	9.12	45.704		
2,100.0	1,997.4	2,060.5	2,056.9	10.7	4.6	163.75	67.8	15.7	459.3	449.6	9.70	47.336		
2,182.6	2,065.0	2,134.5	2,129.6	11.6	4.8	163.31	81.2	19.5	496.0	485.8	10.20	48.606		
2,200.0	2,079.2	2,150.0	2,144.8	11.8	4.9	163.37	84.0	20.3	503.9	493.6	10.32	48.814		
2,300.0	2,160.3	2,239.0	2,232.2	12.9	5.1	163.70	100.1	24.8	549.5	538.4	11.01	49.891		
2,400.0	2,241.4	2,327.9	2,319.6	14.0	5.4	163.98	116.2	29.4	595.0	583.3	11.72	50.783		
2,500.0	2,322.6	2,416.9	2,407.0	15.2	5.7	164.21	132.3	33.9	640.6	628.2	12.43	51.524		
2,600.0	2,403.7	2,505.9	2,494.4	16.3	6.0	164.42	148.3	38.5	686.2	673.0	13.16	52.150		
2,700.0	2,484.8	2,594.9	2,581.8	17.4	6.3	164.60	164.4	43.0	731.8	717.9	13.89	52.681		
2,800.0	2,566.0	2,683.9	2,669.2	18.6	6.6	164.76	180.5	47.6	777.4	762.8	14.63	53.136		
2,900.0	2,647.1	2,772.8	2,756.6	19.7	6.9	164.90	196.6	52.2	823.0	807.6	15.38	53.528		
3,000.0	2,728.2	2,861.8	2,844.0	20.9	7.3	165.03	212.7	56.7	868.6	852.5	16.12	53.867		
3,100.0	2,809.4	2,950.8	2,931.4	22.0	7.6	165.14	228.8	61.3	914.2	897.3	16.88	54.163		
3,200.0	2,890.5	3,039.8	3,018.8	23.2	7.9	165.25	244.9	65.8	959.8	942.2	17.64	54.423		
3,300.0	2,971.6	3,128.7	3,106.2	24.4	8.3	165.34	260.9	70.4	1,005.4	987.0	18.40	54.651		
3,400.0	3,052.8	3,217.7	3,193.6	25.5	8.6	165.43	277.0	74.9	1,051.1	1,031.9	19.16	54.853		
3,500.0	3,133.9	3,306.7	3,281.0	26.7	8.9	165.51	293.1	79.5	1,096.7	1,076.8	19.93	55.033		
3,600.0	3,215.0	3,395.7	3,368.3	27.8	9.3	165.58	309.2	84.0	1,142.3	1,121.6	20.70	55.193		
3,700.0	3,296.1	3,484.7	3,455.7	29.0	9.6	165.64	325.3	88.6	1,187.9	1,166.5	21.47	55.337		
3,800.0	3,377.3	3,573.6	3,543.1	30.1	10.0	165.71	341.4	93.1	1,233.5	1,211.3	22.24	55.466		
3,900.0	3,458.4	3,662.6	3,630.5	31.3	10.3	165.76	357.5	97.7	1,279.2	1,256.2	23.01	55.582		
4,000.0	3,539.5	3,751.6	3,717.9	32.5	10.7	165.82	373.5	102.2	1,324.8	1,301.0	23.79	55.687		
4,100.0	3,620.7	3,840.6	3,805.3	33.6	11.0	165.87	389.6	106.8	1,370.4	1,345.9	24.57	55.782		
4,200.0	3,701.8	3,929.5	3,892.7	34.8	11.4	165.91	405.7	111.3	1,416.1	1,390.7	25.35	55.868		
4,300.0	3,782.9	4,018.5	3,980.1	35.9	11.7	165.96	421.8	115.9	1,461.7	1,435.6	26.13	55.947		
4,400.0	3,864.1	4,107.5	4,067.5	37.1	12.1	166.00	437.9	120.5	1,507.3	1,480.4	26.91	56.019		
4,500.0	3,945.2	4,196.5	4,154.9	38.3	12.4	166.04	454.0	125.0	1,552.9	1,525.2	27.69	56.085		
4,600.0	4,026.3	4,285.5	4,242.3	39.4	12.8	166.07	470.1	129.6	1,598.6	1,570.1	28.47	56.145		
4,700.0	4,107.5	4,374.4	4,329.7	40.6	13.1	166.11	486.1	134.1	1,644.2	1,614.9	29.26	56.201		

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

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Raindance FD West Row Pad Sec.30-T6N-R67W - Raindance FD 20-34D - Wellbore #1 - Plan #1 (10-1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis	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	Warning
4,800.0	4,188.6	4,463.4	4,417.1	41.8	13.5	166.14	166.14	502.2	138.7	1,689.8	1,659.8	30.04	56.252	
4,900.0	4,269.7	4,552.4	4,504.5	42.9	13.8	166.17	166.17	518.3	143.2	1,735.5	1,704.6	30.83	56.299	
5,000.0	4,350.9	4,641.4	4,591.9	44.1	14.2	166.20	166.20	534.4	147.8	1,781.1	1,749.5	31.61	56.342	
5,100.0	4,432.0	4,730.4	4,679.3	45.2	14.5	166.23	166.23	550.5	152.3	1,826.7	1,794.3	32.40	56.382	
5,200.0	4,513.1	4,819.3	4,766.6	46.4	14.9	166.26	166.26	566.6	156.9	1,872.3	1,839.2	33.19	56.419	
5,300.0	4,594.2	4,908.3	4,854.0	47.6	15.3	166.28	166.28	582.7	161.4	1,918.0	1,884.0	33.97	56.453	
5,400.0	4,675.4	4,997.3	4,941.4	48.7	15.6	166.31	166.31	598.8	166.0	1,963.6	1,928.9	34.76	56.485	
5,500.0	4,756.5	5,086.3	5,028.8	49.9	16.0	166.33	166.33	614.8	170.5	2,009.2	1,973.7	35.55	56.514	
5,600.0	4,837.6	5,156.4	5,097.7	51.1	16.2	166.35	166.35	627.3	174.1	2,055.1	2,018.9	36.27	56.661	
5,700.0	4,918.8	5,200.0	5,140.7	52.2	16.4	166.38	166.38	634.3	176.1	2,102.3	2,065.4	36.90	56.969	
5,800.0	4,999.9	5,271.2	5,211.2	53.4	16.6	166.46	166.46	644.5	178.9	2,150.6	2,113.0	37.55	57.267	
5,900.0	5,081.0	5,327.2	5,266.7	54.6	16.7	166.54	166.54	651.3	180.9	2,200.2	2,162.0	38.16	57.654	
6,000.0	5,162.2	5,400.0	5,339.1	55.7	16.9	166.68	166.68	658.5	182.9	2,251.2	2,212.4	38.77	58.059	
6,100.0	5,243.3	5,436.3	5,375.2	56.9	17.0	166.76	166.76	661.5	183.7	2,303.1	2,263.7	39.33	58.561	
6,201.0	5,325.2	5,500.0	5,438.8	58.1	17.1	166.93	166.93	665.6	184.9	2,356.8	2,316.9	39.90	59.069	
6,300.0	5,406.5	5,541.8	5,480.6	59.1	17.2	167.31	167.31	667.6	185.5	2,409.2	2,368.7	40.51	59.477	
6,400.0	5,490.6	5,600.0	5,538.7	59.9	17.3	167.72	167.72	669.4	186.0	2,460.4	2,419.4	41.06	59.916	
6,500.0	5,576.5	5,647.3	5,586.1	60.7	17.3	168.08	168.08	670.0	186.1	2,509.9	2,468.3	41.56	60.384	
6,600.0	5,664.1	5,726.0	5,664.7	61.5	17.5	168.50	168.50	670.0	186.2	2,557.2	2,515.2	42.04	60.826	
6,700.0	5,753.4	5,815.2	5,754.0	62.2	17.6	168.89	168.89	670.0	186.2	2,601.6	2,559.1	42.50	61.214	
6,800.0	5,844.2	5,906.0	5,844.8	62.9	17.7	169.23	169.23	670.0	186.2	2,642.9	2,600.0	42.92	61.573	
6,900.0	5,936.3	5,998.2	5,936.9	63.5	17.9	169.54	169.54	670.0	186.2	2,681.1	2,637.8	43.31	61.907	
7,000.0	6,029.8	6,091.7	6,030.4	64.1	18.0	169.81	169.81	670.0	186.2	2,716.1	2,672.4	43.65	62.223	
7,100.0	6,124.5	6,186.3	6,125.1	64.6	18.2	170.04	170.04	670.0	186.2	2,747.8	2,703.9	43.95	62.524	
7,200.0	6,220.2	6,282.1	6,220.8	65.1	18.3	170.25	170.25	670.0	186.2	2,776.3	2,732.1	44.20	62.815	
7,300.0	6,316.9	6,378.8	6,317.5	65.5	18.5	170.42	170.42	670.0	186.2	2,801.5	2,757.1	44.40	63.098	
7,400.0	6,414.4	6,476.3	6,415.0	65.9	18.6	170.57	170.57	670.0	186.2	2,823.4	2,778.8	44.55	63.376	
7,500.0	6,512.6	6,574.5	6,513.2	66.2	18.8	170.69	170.69	670.0	186.2	2,841.9	2,797.2	44.65	63.650	
7,600.0	6,611.5	6,673.3	6,612.1	66.5	19.0	170.79	170.79	670.0	186.2	2,857.0	2,812.3	44.69	63.922	
7,700.0	6,710.7	6,772.6	6,711.3	66.7	19.1	170.87	170.87	670.0	186.2	2,868.7	2,824.0	44.69	64.193	
7,800.0	6,810.4	6,872.3	6,811.0	66.8	19.3	170.92	170.92	670.0	186.2	2,876.9	2,832.3	44.63	64.464	
7,900.0	6,910.3	6,972.1	6,910.9	67.0	19.5	170.95	170.95	670.0	186.2	2,881.7	2,837.2	44.52	64.734	
7,989.7	7,000.0	7,061.9	7,000.6	67.0	19.6	154.54	154.54	670.0	186.2	2,883.1	2,838.7	44.37	64.976	
8,000.0	7,010.3	7,072.1	7,010.9	67.0	19.6	154.54	154.54	670.0	186.2	2,883.1	2,838.7	44.40	64.932	
8,100.0	7,110.3	7,172.1	7,110.9	67.1	19.8	154.54	154.54	670.0	186.2	2,883.1	2,838.4	44.70	64.496	
8,200.0	7,210.3	7,272.1	7,210.9	67.1	20.0	154.54	154.54	670.0	186.2	2,883.1	2,838.1	45.00	64.063	
8,238.7	7,249.0	7,310.9	7,249.6	67.1	20.1	154.54	154.54	670.0	186.2	2,883.1	2,838.0	45.12	63.896	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

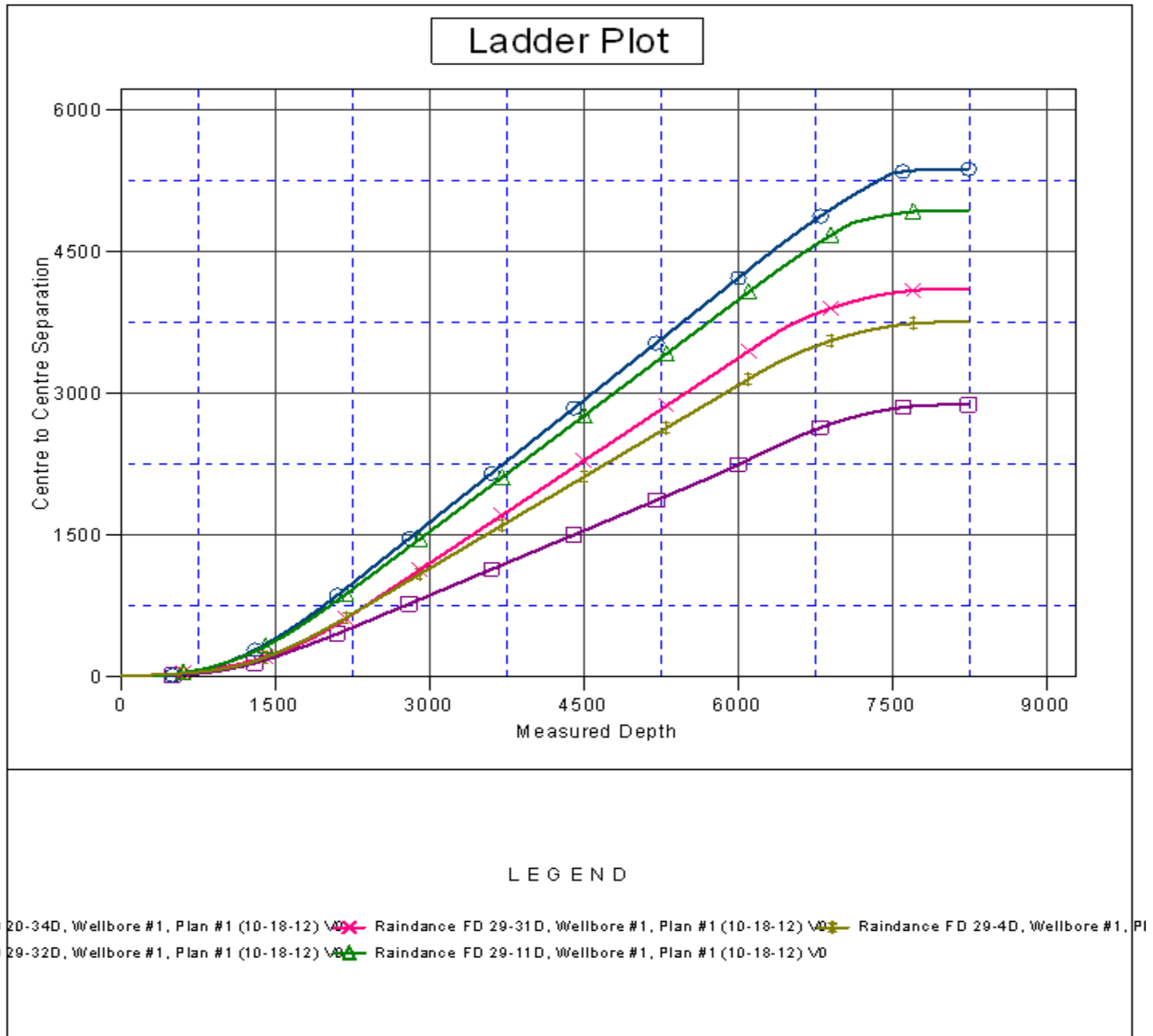
Offset Design Raindance FD West Row Pad Sec.30-T6N-R67W - Raindance FD 29-32D - Wellbore #1 - Plan #1 (10-1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.5	0.5	0.0	0.0	180.00	-14.9	0.0	14.9	14.9	0.00	N/A		
100.0	100.0	100.5	100.5	0.1	0.1	180.00	-14.9	0.0	14.9	14.7	0.23	66.143		
200.0	200.0	200.5	200.5	0.3	0.3	180.00	-14.9	0.0	14.9	14.3	0.68	22.121 CC		
227.6	227.5	228.0	228.0	0.4	0.4	-90.51	-14.9	0.0	14.9	14.1	0.80	18.759		
300.0	300.0	300.5	300.5	0.6	0.6	-96.66	-14.9	0.0	15.0	13.9	1.11	13.491 ES		
400.0	399.8	400.3	400.3	0.8	0.8	-114.98	-14.9	0.0	16.5	14.9	1.56	10.542 SF		
450.0	449.7	449.9	449.9	0.9	0.9	-125.27	-15.4	0.0	18.9	17.1	1.79	10.569		
500.0	499.5	499.4	499.3	1.0	1.0	-142.81	-16.7	0.2	23.1	21.1	2.01	11.477		
600.0	599.0	597.7	597.6	1.3	1.2	-162.75	-21.7	0.6	36.0	33.6	2.45	14.686		
700.0	698.3	694.7	694.2	1.6	1.4	-171.50	-30.0	1.4	54.5	51.6	2.91	18.696		
800.0	797.2	789.8	788.6	1.9	1.6	-175.46	-41.3	2.4	78.8	75.4	3.39	23.233		
900.0	895.6	882.2	880.0	2.2	1.9	-177.39	-55.3	3.7	109.1	105.2	3.87	28.165		
1,000.0	993.5	971.6	967.8	2.6	2.2	-178.43	-71.5	5.2	145.5	141.1	4.36	33.386		
1,100.0	1,090.6	1,057.3	1,051.6	3.0	2.6	-179.08	-89.7	6.9	187.7	182.9	4.84	38.814		
1,200.0	1,186.9	1,139.1	1,131.0	3.5	2.9	-179.53	-109.4	8.7	235.6	230.3	5.31	44.386		
1,300.0	1,282.3	1,216.7	1,205.7	4.1	3.3	-179.89	-130.1	10.6	288.9	283.1	5.77	50.058		
1,400.0	1,376.6	1,289.9	1,275.6	4.7	3.7	179.79	-151.5	12.6	347.2	341.0	6.22	55.786		
1,500.0	1,469.7	1,358.4	1,340.6	5.4	4.1	179.49	-173.1	14.5	410.3	403.6	6.67	61.552		
1,600.0	1,561.5	1,422.4	1,400.8	6.1	4.5	179.19	-194.7	16.5	477.7	470.6	7.09	67.398		
1,700.0	1,651.9	1,481.6	1,456.1	6.9	4.9	178.87	-215.9	18.5	549.2	541.6	7.51	73.091		
1,800.0	1,740.8	1,536.3	1,506.8	7.7	5.3	178.54	-236.4	20.4	624.3	616.4	7.93	78.743		
1,900.0	1,828.1	1,586.5	1,552.8	8.7	5.7	178.17	-256.1	22.2	702.9	694.6	8.32	84.449		
2,000.0	1,913.7	1,639.6	1,601.4	9.6	6.1	177.88	-277.7	24.2	784.4	775.7	8.72	89.922		
2,100.0	1,997.4	1,694.2	1,651.2	10.7	6.5	177.61	-299.9	26.2	867.9	858.8	9.12	95.132		
2,182.6	2,065.0	1,737.0	1,690.3	11.6	6.8	177.35	-317.3	27.8	938.3	928.9	9.45	99.297		
2,200.0	2,079.2	1,745.9	1,698.4	11.8	6.9	177.47	-320.9	28.1	953.3	943.8	9.54	99.949		
2,300.0	2,160.3	1,796.5	1,744.6	12.9	7.3	178.11	-341.4	30.0	1,039.4	1,029.3	10.05	103.452		
2,400.0	2,241.4	1,847.2	1,790.8	14.0	7.7	178.66	-362.0	31.9	1,125.4	1,114.8	10.57	106.503		
2,500.0	2,322.6	1,897.8	1,837.1	15.2	8.1	179.12	-382.6	33.8	1,211.5	1,200.4	11.09	109.240		
2,600.0	2,403.7	1,948.5	1,883.3	16.3	8.5	179.53	-403.2	35.7	1,297.6	1,286.0	11.62	111.649		
2,700.0	2,484.8	1,999.1	1,929.6	17.4	8.9	179.88	-423.8	37.6	1,383.7	1,371.6	12.16	113.831		
2,800.0	2,566.0	2,049.8	1,975.8	18.6	9.3	-179.80	-444.4	39.5	1,469.9	1,457.2	12.70	115.771		
2,900.0	2,647.1	2,100.4	2,022.0	19.7	9.7	-179.52	-465.0	41.4	1,556.0	1,542.8	13.24	117.542		
3,000.0	2,728.2	2,151.1	2,068.3	20.9	10.1	-179.27	-485.6	43.3	1,642.1	1,628.4	13.78	119.130		
3,100.0	2,809.4	2,201.7	2,114.5	22.0	10.5	-179.05	-506.2	45.2	1,728.3	1,714.0	14.33	120.590		
3,200.0	2,890.5	2,252.4	2,160.8	23.2	10.9	-178.84	-526.7	47.1	1,814.5	1,799.6	14.88	121.909		
3,300.0	2,971.6	2,303.0	2,207.0	24.4	11.3	-178.66	-547.3	49.0	1,900.6	1,885.2	15.44	123.128		
3,400.0	3,052.8	2,353.7	2,253.2	25.5	11.7	-178.49	-567.9	50.8	1,986.8	1,970.8	15.99	124.238		
3,500.0	3,133.9	2,404.3	2,299.5	26.7	12.1	-178.33	-588.5	52.7	2,073.0	2,056.4	16.55	125.268		
3,600.0	3,215.0	2,455.0	2,345.7	27.8	12.5	-178.19	-609.1	54.6	2,159.2	2,142.1	17.11	126.212		
3,700.0	3,296.1	2,505.6	2,392.0	29.0	12.9	-178.06	-629.7	56.5	2,245.3	2,227.7	17.67	127.092		
3,800.0	3,377.3	2,556.3	2,438.2	30.1	13.4	-177.93	-650.3	58.4	2,331.5	2,313.3	18.23	127.902		
3,900.0	3,458.4	2,606.9	2,484.5	31.3	13.8	-177.82	-670.9	60.3	2,417.7	2,398.9	18.79	128.660		
4,000.0	3,539.5	2,657.6	2,530.7	32.5	14.2	-177.71	-691.5	62.2	2,503.9	2,484.6	19.36	129.361		
4,100.0	3,620.7	2,708.3	2,576.9	33.6	14.6	-177.62	-712.1	64.1	2,590.1	2,570.2	19.92	130.020		
4,200.0	3,701.8	2,758.9	2,623.2	34.8	15.0	-177.52	-732.6	66.0	2,676.3	2,655.8	20.49	130.632		
4,300.0	3,782.9	2,809.6	2,669.4	35.9	15.4	-177.44	-753.2	67.9	2,762.5	2,741.4	21.05	131.208		
4,400.0	3,864.1	2,860.2	2,715.7	37.1	15.8	-177.35	-773.8	69.8	2,848.7	2,827.1	21.62	131.745		
4,500.0	3,945.2	2,910.9	2,761.9	38.3	16.2	-177.28	-794.4	71.7	2,934.9	2,912.7	22.19	132.253		
4,600.0	4,026.3	2,961.5	2,808.1	39.4	16.6	-177.21	-815.0	73.6	3,021.1	2,998.3	22.76	132.728		
4,700.0	4,107.5	3,012.2	2,854.4	40.6	17.0	-177.14	-835.6	75.5	3,107.3	3,084.0	23.33	133.177		

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

Offset Design													Offset Site Error:	
Survey Program: 0-MWD													Offset Well Error:	
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		
4,800.0	4,188.6	3,062.8	2,900.6	41.8	17.4	-177.07	-856.2	77.4	3,193.5	3,169.6	23.90	133.599		
4,900.0	4,269.7	3,113.5	2,946.9	42.9	17.9	-177.01	-876.8	79.2	3,279.7	3,255.2	24.48	133.998		
5,000.0	4,350.9	3,164.1	2,993.1	44.1	18.3	-176.95	-897.4	81.1	3,365.9	3,340.9	25.05	134.375		
5,100.0	4,432.0	3,214.8	3,039.3	45.2	18.7	-176.90	-917.9	83.0	3,452.1	3,426.5	25.62	134.733		
5,200.0	4,513.1	3,265.4	3,085.6	46.4	19.1	-176.85	-938.5	84.9	3,538.3	3,512.1	26.20	135.070		
5,300.0	4,594.2	3,316.1	3,131.8	47.6	19.5	-176.80	-959.1	86.8	3,624.5	3,597.8	26.77	135.391		
5,400.0	4,675.4	3,366.7	3,178.1	48.7	19.9	-176.75	-979.7	88.7	3,710.7	3,683.4	27.35	135.695		
5,500.0	4,756.5	3,417.4	3,224.3	49.9	20.3	-176.70	-1,000.3	90.6	3,797.0	3,769.0	27.92	135.985		
5,600.0	4,837.6	3,468.0	3,270.5	51.1	20.7	-176.66	-1,020.9	92.5	3,883.2	3,854.7	28.50	136.259		
5,700.0	4,918.8	3,518.7	3,316.8	52.2	21.1	-176.62	-1,041.5	94.4	3,969.4	3,940.3	29.08	136.521		
5,800.0	4,999.9	3,569.3	3,363.0	53.4	21.5	-176.58	-1,062.1	96.3	4,055.6	4,025.9	29.65	136.770		
5,900.0	5,081.0	3,620.0	3,409.3	54.6	22.0	-176.54	-1,082.7	98.2	4,141.8	4,111.6	30.23	137.007		
6,000.0	5,162.2	3,670.6	3,455.5	55.7	22.4	-176.50	-1,103.2	100.1	4,228.0	4,197.2	30.81	137.233		
6,100.0	5,243.3	3,721.3	3,501.7	56.9	22.8	-176.47	-1,123.8	102.0	4,314.2	4,282.8	31.39	137.450		
6,201.0	5,325.2	3,772.4	3,548.4	58.1	23.2	-176.43	-1,144.6	103.9	4,401.3	4,369.3	31.97	137.658		
6,300.0	5,406.5	3,824.1	3,595.6	59.1	23.6	-176.60	-1,165.6	105.8	4,485.8	4,452.9	32.84	136.608		
6,400.0	5,490.6	3,879.1	3,645.8	59.9	24.1	-176.73	-1,188.0	107.9	4,569.2	4,535.6	33.67	135.719		
6,500.0	5,576.5	3,937.0	3,698.7	60.7	24.5	-176.85	-1,211.5	110.0	4,650.7	4,616.3	34.47	134.940		
6,600.0	5,664.1	3,997.7	3,754.1	61.5	25.0	-176.95	-1,236.2	112.3	4,730.1	4,694.9	35.23	134.268		
6,700.0	5,753.4	4,061.2	3,812.0	62.2	25.5	-177.03	-1,262.0	114.7	4,807.4	4,771.5	35.96	133.695		
6,800.0	5,844.2	4,127.2	3,872.3	62.9	26.1	-177.10	-1,288.8	117.1	4,882.4	4,845.8	36.65	133.219		
6,900.0	5,936.3	4,195.9	3,935.0	63.5	26.6	-177.15	-1,316.7	119.7	4,955.1	4,917.8	37.30	132.837		
7,000.0	6,029.8	4,267.0	3,999.9	64.1	27.2	-177.20	-1,345.7	122.4	5,025.3	4,987.4	37.91	132.542		
7,100.0	6,124.5	4,340.5	4,067.0	64.6	27.8	-177.24	-1,375.5	125.1	5,093.0	5,054.5	38.49	132.334		
7,200.0	6,220.2	4,416.3	4,136.2	65.1	28.4	-177.26	-1,406.4	127.9	5,158.1	5,119.1	39.01	132.210		
7,300.0	6,316.9	4,494.4	4,207.5	65.5	29.1	-177.29	-1,438.1	130.9	5,220.5	5,181.0	39.50	132.168		
7,400.0	6,414.4	4,574.5	4,280.6	65.9	29.7	-177.30	-1,470.7	133.9	5,280.1	5,240.2	39.94	132.205		
7,500.0	6,512.6	4,656.7	4,355.7	66.2	30.4	-177.31	-1,504.1	136.9	5,337.0	5,296.6	40.33	132.321		
7,600.0	6,611.5	4,740.5	4,436.2	66.5	31.0	-176.78	-1,540.0	139.2	5,393.7	5,353.1	40.72	132.437		
7,700.0	6,710.7	4,825.8	4,517.2	66.7	31.6	-176.80	-1,576.0	141.5	5,450.4	5,410.0	41.11	132.553		
7,800.0	6,810.4	4,912.4	4,600.9	66.8	32.1	-176.81	-1,612.1	143.8	5,507.1	5,467.3	41.50	132.669		
7,900.0	6,910.3	5,000.3	4,688.8	67.0	32.7	-176.82	-1,648.2	146.1	5,563.8	5,523.2	41.89	132.785		
7,989.7	7,000.0	5,089.0	4,780.5	67.0	32.9	-166.76	-1,964.0	179.2	5,380.2	5,334.2	45.96	117.057		
8,000.0	7,010.3	5,099.3	4,790.8	67.0	33.0	-166.76	-1,964.0	179.2	5,380.2	5,334.2	45.99	116.994		
8,100.0	7,110.3	5,199.3	4,890.8	67.1	33.3	-166.76	-1,964.0	179.2	5,380.2	5,333.9	46.24	116.356		
8,200.0	7,210.3	5,299.3	4,990.8	67.1	33.4	-166.76	-1,964.0	179.2	5,380.2	5,333.7	46.49	115.719		
8,238.7	7,249.0	5,331.0	5,029.5	67.1	33.4	-166.76	-1,964.0	179.2	5,380.2	5,333.6	46.59	115.471		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4796.1ft (Original Well Elev) Coordinates are relative to: Raindance FD 19-14D  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.37°



<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Raindance FD 19-14D
<b>Project:</b>	SEC.30-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Reference Site:</b>	Raindance FD West Row Pad Sec.30-T6N-R67W	<b>MD Reference:</b>	WELL @ 4796.1ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Raindance FD 19-14D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (10-18-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4796.1ft (Original Well Elev) Coordinates are relative to: Raindance FD 19-14D  
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