

# Great Western

Well Name: **Gustafson EF 31-378HC**

Surface Location: Gustafson Pad Sec.31-T7N-R65W

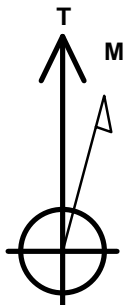
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4828.2

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1439921.52	3219243.15	40.538308	-104.711181	
RKB - 16.5 WELL @ 4844.7ft (RKB - 16.5)						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 280'FNL & 1298'FWL	1.0	0.0	0.0	Point
BHL 470'FSL & 736'FWL	7255.7	-4517.6	-570.5	Point
Entry Pt. 460'FNL & 737'FWL	7255.7	-163.9	-560.4	Point



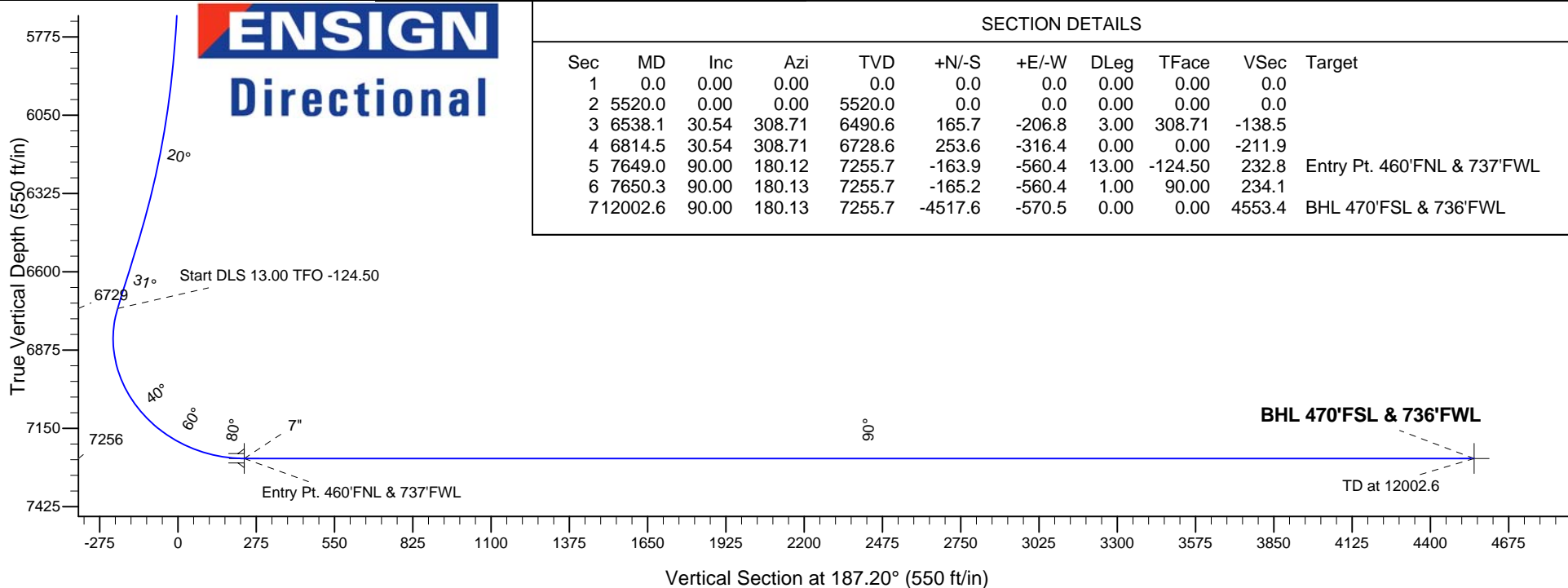
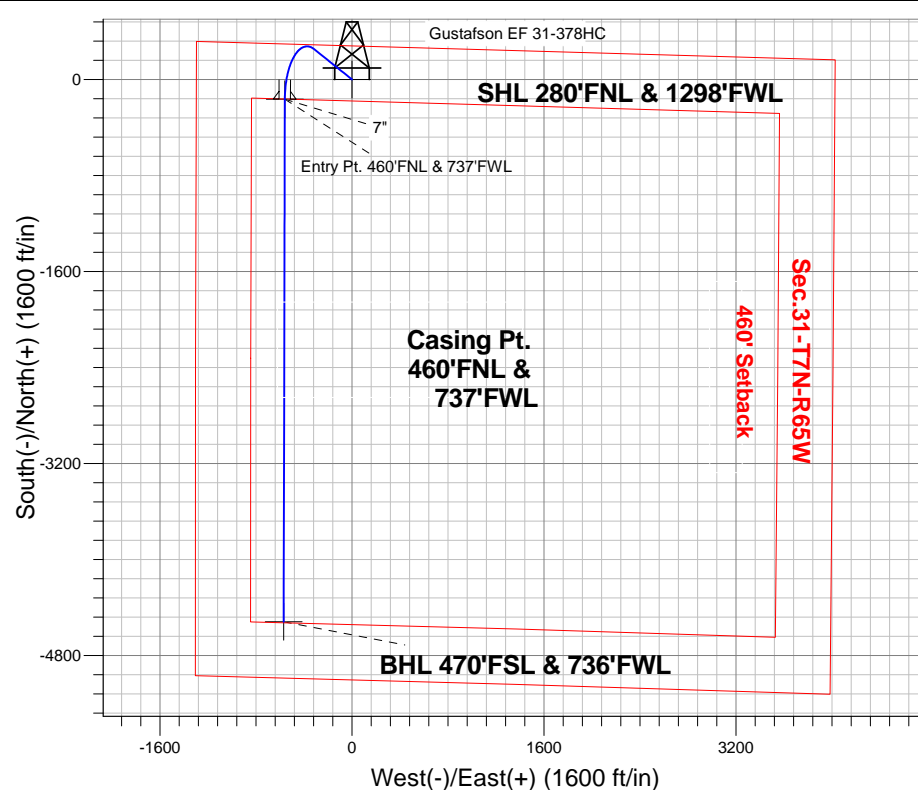
Azimuths to True North  
Magnetic North:  $8.51^\circ$

Magnetic Field  
Strength: 52945.2snT  
Dip Angle: 67.08°  
Date: 12/16/2013  
Model: IGRF2010

Gustafson Pad Sec.31-T7N-R65W  
Gustafson EF 31-378HC  
Plan #1 (12-16-13)  
11:27, December 18 2013

## ANNOTATIONS

TVD	MD	Annotation
5520.0	5520.0	KOP - Start Build 3.00
6728.6	6814.5	Start DLS 13.00 TFO -124.50
7255.7	12002.6	TD at 12002.6





## **Great Western**

**SEC.31-T7N-R65W**

**Gustafson Pad Sec.31-T7N-R65W**

**Gustafson EF 31-378HC**

**Wellbore #1**

**Plan: Plan #1 (12-16-13)**

## **Standard Planning Report**

**18 December, 2013**

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,520.0	0.00	0.00	5,520.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,538.1	30.54	308.71	6,490.6	165.7	-206.8	3.00	3.00	0.00	308.71	
6,814.5	30.54	308.71	6,728.6	253.6	-316.4	0.00	0.00	0.00	0.00	
7,649.0	90.00	180.12	7,255.7	-163.9	-560.4	13.00	7.13	-15.41	-124.50	Entry Pt. 460°FNL & 460°FSL
7,650.3	90.00	180.13	7,255.7	-165.2	-560.4	1.00	0.00	1.00	90.00	
12,002.6	90.00	180.13	7,255.7	-4,517.6	-570.5	0.00	0.00	0.00	0.00	BHL 470°FSL & 736°FNL

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Project:</b>	SEC.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Gustafson EF 31-378HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (12-16-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>SHL 280'FNL &amp; 1298'FWL</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Project:</b>	SEC.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Gustafson EF 31-378HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (12-16-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,520.0	0.00	0.00	5,520.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP - Start Build 3.00</b>									
5,600.0	2.40	308.71	5,600.0	1.0	-1.3	-0.9	3.00	3.00	0.00
5,700.0	5.40	308.71	5,699.7	5.3	-6.6	-4.4	3.00	3.00	0.00
5,800.0	8.40	308.71	5,799.0	12.8	-16.0	-10.7	3.00	3.00	0.00
5,900.0	11.40	308.71	5,897.5	23.6	-29.4	-19.7	3.00	3.00	0.00
6,000.0	14.40	308.71	5,995.0	37.5	-46.8	-31.4	3.00	3.00	0.00
6,100.0	17.40	308.71	6,091.1	54.7	-68.2	-45.7	3.00	3.00	0.00
6,200.0	20.40	308.71	6,185.7	74.9	-93.5	-62.6	3.00	3.00	0.00
6,300.0	23.40	308.71	6,278.5	98.2	-122.6	-82.1	3.00	3.00	0.00
6,400.0	26.40	308.71	6,369.2	124.6	-155.4	-104.1	3.00	3.00	0.00
6,500.0	29.40	308.71	6,457.6	153.8	-191.9	-128.6	3.00	3.00	0.00
6,538.1	30.54	308.71	6,490.6	165.7	-206.8	-138.5	3.00	3.00	0.00
6,600.0	30.54	308.71	6,543.9	185.4	-231.3	-155.0	0.00	0.00	0.00
6,700.0	30.54	308.71	6,630.0	217.2	-271.0	-181.5	0.00	0.00	0.00
6,800.0	30.54	308.71	6,716.1	249.0	-310.6	-208.1	0.00	0.00	0.00
6,814.5	30.54	308.71	6,728.6	253.6	-316.4	-211.9	0.00	0.00	0.00
<b>Start DLS 13.00 TFO -124.50</b>									
6,900.0	25.77	287.27	6,804.2	272.7	-351.2	-226.6	13.00	-5.59	-25.07
7,000.0	25.35	256.87	6,894.8	274.3	-393.0	-222.9	13.00	-0.41	-30.41
7,100.0	30.63	231.28	6,983.4	253.4	-433.9	-197.1	13.00	5.28	-25.58
7,200.0	39.36	214.33	7,065.4	211.1	-471.8	-150.4	13.00	8.73	-16.95
7,300.0	49.74	203.11	7,136.7	149.6	-504.8	-85.2	13.00	10.38	-11.22
7,400.0	60.91	194.99	7,193.5	72.0	-531.2	-4.8	13.00	11.17	-8.12
7,500.0	72.48	188.49	7,233.1	-17.8	-549.6	86.5	13.00	11.56	-6.49
7,600.0	84.22	182.80	7,253.2	-115.1	-559.1	184.2	13.00	11.75	-5.70
7,649.0	90.00	180.12	7,255.7	-163.9	-560.4	232.8	12.99	11.79	-5.46
<b>7" - Entry Pt. 460'FNL &amp; 737'FWL</b>									
7,650.3	90.00	180.13	7,255.7	-165.2	-560.4	234.1	0.92	0.26	0.88
7,700.0	90.00	180.13	7,255.7	-215.0	-560.5	283.5	0.00	0.00	0.00
7,800.0	90.00	180.13	7,255.7	-315.0	-560.7	382.7	0.00	0.00	0.00
7,900.0	90.00	180.13	7,255.7	-415.0	-560.9	482.0	0.00	0.00	0.00
8,000.0	90.00	180.13	7,255.7	-515.0	-561.2	581.2	0.00	0.00	0.00
8,100.0	90.00	180.13	7,255.7	-615.0	-561.4	680.4	0.00	0.00	0.00
8,200.0	90.00	180.13	7,255.7	-715.0	-561.6	779.7	0.00	0.00	0.00
8,300.0	90.00	180.13	7,255.7	-815.0	-561.9	878.9	0.00	0.00	0.00
8,400.0	90.00	180.13	7,255.7	-915.0	-562.1	978.2	0.00	0.00	0.00
8,500.0	90.00	180.13	7,255.7	-1,015.0	-562.3	1,077.4	0.00	0.00	0.00
8,600.0	90.00	180.13	7,255.7	-1,115.0	-562.6	1,176.6	0.00	0.00	0.00
8,700.0	90.00	180.13	7,255.7	-1,215.0	-562.8	1,275.9	0.00	0.00	0.00
8,800.0	90.00	180.13	7,255.7	-1,315.0	-563.0	1,375.1	0.00	0.00	0.00
8,900.0	90.00	180.13	7,255.7	-1,415.0	-563.3	1,474.4	0.00	0.00	0.00
9,000.0	90.00	180.13	7,255.7	-1,515.0	-563.5	1,573.6	0.00	0.00	0.00
9,100.0	90.00	180.13	7,255.7	-1,615.0	-563.7	1,672.8	0.00	0.00	0.00
9,200.0	90.00	180.13	7,255.7	-1,715.0	-564.0	1,772.1	0.00	0.00	0.00
9,300.0	90.00	180.13	7,255.7	-1,815.0	-564.2	1,871.3	0.00	0.00	0.00
9,400.0	90.00	180.13	7,255.7	-1,915.0	-564.4	1,970.6	0.00	0.00	0.00
9,500.0	90.00	180.13	7,255.7	-2,014.9	-564.7	2,069.8	0.00	0.00	0.00
9,600.0	90.00	180.13	7,255.7	-2,114.9	-564.9	2,169.1	0.00	0.00	0.00

Plan Annotations					
	Measured	Vertical	Local Coordinates		Comment
	Depth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	
	5,520.0	5,520.0	0.0	0.0	
	6,814.5	6,728.6	253.6	-316.4	
	12,002.6	7,255.7	-4,517.5	-570.5	



## **Great Western**

**SEC.31-T7N-R65W**

**Gustafson Pad Sec.31-T7N-R65W**

**Gustafson EF 31-378HC**

**Wellbore #1**

**Plan #1 (12-16-13)**

## **Anticollision Report**

**18 December, 2013**





<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	91.16	-1.8	89.8	89.8	80.6	9.22	9.744		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	91.16	-1.8	89.8	89.8	80.1	9.66	9.291		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	91.16	-1.8	89.8	89.8	79.7	10.11	8.878		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	91.16	-1.8	89.8	89.8	79.2	10.56	8.500		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	91.16	-1.8	89.8	89.8	78.8	11.01	8.153		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	91.16	-1.8	89.8	89.8	78.3	11.46	7.834		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	91.16	-1.8	89.8	89.8	77.9	11.91	7.538		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	91.16	-1.8	89.8	89.8	77.4	12.36	7.264		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	91.16	-1.8	89.8	89.8	77.0	12.81	7.009		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	91.16	-1.8	89.8	89.8	76.5	13.26	6.771		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	91.16	-1.8	89.8	89.8	76.1	13.71	6.549		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	91.16	-1.8	89.8	89.8	75.6	14.16	6.341		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	91.16	-1.8	89.8	89.8	75.2	14.61	6.146		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	91.16	-1.8	89.8	89.8	74.7	15.06	5.963		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	91.16	-1.8	89.8	89.8	74.3	15.51	5.790		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	91.16	-1.8	89.8	89.8	73.8	15.96	5.627		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	91.16	-1.8	89.8	89.8	73.4	16.41	5.473		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	91.16	-1.8	89.8	89.8	72.9	16.86	5.327		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	91.16	-1.8	89.8	89.8	72.5	17.31	5.188		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	91.16	-1.8	89.8	89.8	72.0	17.76	5.057		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	91.16	-1.8	89.8	89.8	71.6	18.21	4.932		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	91.16	-1.8	89.8	89.8	71.1	18.66	4.813		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	91.16	-1.8	89.8	89.8	70.7	19.11	4.700		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	91.16	-1.8	89.8	89.8	70.2	19.55	4.592		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	91.16	-1.8	89.8	89.8	69.8	20.00	4.489		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	91.16	-1.8	89.8	89.8	69.3	20.45	4.390		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	91.16	-1.8	89.8	89.8	68.9	20.90	4.296		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	91.16	-1.8	89.8	89.8	68.4	21.35	4.205		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	91.16	-1.8	89.8	89.8	68.0	21.80	4.119		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	91.16	-1.8	89.8	89.8	67.5	22.25	4.035		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	91.16	-1.8	89.8	89.8	67.1	22.70	3.956		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	91.16	-1.8	89.8	89.8	66.6	23.15	3.879 CC, ES		
5,300.0	5,300.0	5,297.3	5,297.3	11.8	11.8	90.63	-1.0	91.2	91.3	67.7	23.59	3.869 SF		
5,400.0	5,400.0	5,394.5	5,394.3	12.0	12.0	89.12	1.5	95.5	95.7	71.7	24.02	3.984		
5,500.0	5,500.0	5,491.1	5,490.6	12.2	12.2	86.91	5.5	102.6	103.2	78.7	24.45	4.220		
5,600.0	5,600.0	5,587.1	5,585.9	12.5	12.4	135.97	11.2	112.4	115.0	90.2	24.86	4.629		
5,700.0	5,699.7	5,681.6	5,679.3	12.7	12.6	134.93	18.3	124.8	133.6	108.4	25.23	5.296		
5,800.0	5,799.0	5,774.0	5,770.2	12.9	12.9	134.77	26.7	139.5	158.7	133.2	25.57	6.207		
5,900.0	5,897.5	5,863.9	5,858.0	13.1	13.1	135.08	36.3	156.2	190.2	164.3	25.88	7.348		
6,000.0	5,995.0	5,950.8	5,942.2	13.4	13.3	135.55	46.9	174.6	227.8	201.7	26.16	8.709		
6,100.0	6,091.1	6,034.1	6,022.4	13.7	13.6	135.99	58.2	194.4	271.4	245.0	26.41	10.279		
6,200.0	6,185.7	6,113.6	6,098.2	14.0	13.8	136.30	70.1	215.1	320.7	294.1	26.63	12.045		
6,300.0	6,278.5	6,188.9	6,169.4	14.3	14.1	136.43	82.3	236.4	375.5	348.6	26.84	13.989		
6,400.0	6,369.2	6,259.9	6,235.9	14.7	14.3	136.34	94.7	257.9	435.3	408.3	27.05	16.091		
6,500.0	6,457.6	6,326.4	6,297.6	15.2	14.6	136.01	107.0	279.4	499.9	472.6	27.29	18.320		
6,600.0	6,543.9	6,388.9	6,355.1	15.7	14.9	136.60	119.2	300.7	568.4	540.7	27.66	20.549		
6,700.0	6,630.0	6,449.3	6,410.0	16.4	15.1	137.58	131.6	322.3	638.5	610.4	28.14	22.688		
6,800.0	6,716.1	6,500.0	6,455.8	17.0	15.4	138.21	142.5	341.3	710.0	681.3	28.65	24.780		
6,900.0	6,804.2	6,564.0	6,513.1	17.6	15.7	168.90	156.8	366.2	782.8	754.3	28.48	27.483		
7,000.0	6,894.8	6,615.5	6,558.6	18.1	16.0	-151.73	168.7	387.0	855.9	826.6	29.27	29.240		
7,100.0	6,983.4	6,659.6	6,597.3	18.5	16.3	-119.28	179.3	405.4	926.8	896.2	30.62	30.268		
7,200.0	7,065.4	6,700.0	6,632.4	18.7	16.6	-97.69	189.2	422.7	994.0	962.4	31.63	31.428		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Gustafson Pad Sec.31-T7N-R65W - Gustafson EF 31-373HC - Wellbore #1 - Plan #1 (12-16-13)													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		
7,300.0	7,136.7	6,718.5	6,648.4	18.9	16.7	-82.62	193.8	430.7	1,056.2	1,024.5	31.78	33.240		
7,400.0	7,193.5	6,736.4	6,663.9	19.0	16.8	-72.70	198.3	438.6	1,112.2	1,081.1	31.11	35.752		
7,500.0	7,233.1	6,739.9	6,666.8	19.1	16.8	-65.51	199.2	440.1	1,160.7	1,130.8	29.87	38.860		
7,600.0	7,253.2	6,728.7	6,657.2	19.3	16.7	-60.34	196.4	435.2	1,200.4	1,171.8	28.56	42.033		
7,700.0	7,255.7	6,709.0	6,640.2	19.5	16.6	-58.03	191.4	426.6	1,232.2	1,204.1	28.10	43.854		
7,800.0	7,255.7	6,700.0	6,632.4	19.9	16.6	-57.60	189.2	422.7	1,268.7	1,240.3	28.49	44.534		
7,900.0	7,255.7	7,877.3	7,255.7	20.5	21.8	-90.00	-421.1	735.5	1,296.5	1,259.7	36.81	35.217		
8,000.0	7,255.7	7,977.3	7,255.7	21.2	22.5	-90.00	-521.1	735.0	1,296.2	1,257.5	38.74	33.461		
8,100.0	7,255.7	8,077.3	7,255.7	22.2	23.5	-90.00	-621.1	734.6	1,296.0	1,255.1	40.94	31.659		
8,200.0	7,255.7	8,177.3	7,255.7	23.3	24.5	-90.00	-721.1	734.1	1,295.7	1,252.4	43.36	29.882		
8,300.0	7,255.7	8,277.3	7,255.7	24.5	25.6	-90.00	-821.1	733.6	1,295.5	1,249.5	45.98	28.174		
8,400.0	7,255.7	8,377.3	7,255.7	25.8	26.9	-90.00	-921.1	733.1	1,295.3	1,246.5	48.77	26.561		
8,500.0	7,255.7	8,477.3	7,255.7	27.2	28.2	-90.00	-1,021.1	732.7	1,295.0	1,243.3	51.69	25.056		
8,600.0	7,255.7	8,577.3	7,255.7	28.6	29.6	-90.00	-1,121.1	732.2	1,294.8	1,240.0	54.72	23.662		
8,700.0	7,255.7	8,677.3	7,255.7	30.1	31.0	-90.00	-1,221.1	731.7	1,294.5	1,236.7	57.85	22.377		
8,800.0	7,255.7	8,777.3	7,255.7	31.6	32.5	-90.00	-1,321.1	731.2	1,294.3	1,233.2	61.06	21.196		
8,900.0	7,255.7	8,877.3	7,255.7	33.2	34.1	-90.00	-1,421.1	730.8	1,294.0	1,229.7	64.34	20.111		
9,000.0	7,255.7	8,977.3	7,255.7	34.8	35.6	-90.00	-1,521.1	730.3	1,293.8	1,226.1	67.69	19.115		
9,100.0	7,255.7	9,077.3	7,255.7	36.5	37.2	-90.00	-1,621.1	729.8	1,293.5	1,222.5	71.08	18.199		
9,200.0	7,255.7	9,177.3	7,255.7	38.2	38.9	-90.00	-1,721.1	729.3	1,293.3	1,218.8	74.51	17.356		
9,300.0	7,255.7	9,277.3	7,255.7	39.9	40.6	-90.00	-1,821.1	728.9	1,293.1	1,215.1	77.99	16.580		
9,400.0	7,255.7	9,377.3	7,255.7	41.6	42.2	-90.00	-1,921.1	728.4	1,292.8	1,211.3	81.50	15.864		
9,500.0	7,255.7	9,477.3	7,255.7	43.3	43.9	-90.00	-2,021.1	727.9	1,292.6	1,207.5	85.03	15.201		
9,600.0	7,255.7	9,577.3	7,255.7	45.1	45.7	-90.00	-2,121.1	727.4	1,292.3	1,203.7	88.59	14.587		
9,700.0	7,255.7	9,677.3	7,255.7	46.8	47.4	-90.00	-2,221.1	726.9	1,292.1	1,199.9	92.18	14.017		
9,800.0	7,255.7	9,777.3	7,255.7	48.6	49.2	-90.00	-2,321.1	726.5	1,291.8	1,196.0	95.79	13.487		
9,900.0	7,255.7	9,877.3	7,255.7	50.4	50.9	-90.00	-2,421.1	726.0	1,291.6	1,192.2	99.41	12.993		
10,000.0	7,255.7	9,977.3	7,255.7	52.2	52.7	-90.00	-2,521.1	725.5	1,291.3	1,188.3	103.05	12.532		
10,100.0	7,255.7	10,077.3	7,255.7	54.0	54.5	-90.00	-2,621.1	725.0	1,291.1	1,184.4	106.70	12.100		
10,200.0	7,255.7	10,177.3	7,255.7	55.8	56.3	-90.00	-2,721.1	724.6	1,290.9	1,180.5	110.37	11.696		
10,300.0	7,255.7	10,277.3	7,255.7	57.6	58.1	-90.00	-2,821.1	724.1	1,290.6	1,176.6	114.05	11.317		
10,400.0	7,255.7	10,377.3	7,255.7	59.5	59.9	-90.00	-2,921.1	723.6	1,290.4	1,172.6	117.74	10.960		
10,500.0	7,255.7	10,477.3	7,255.7	61.3	61.7	-90.00	-3,021.1	723.1	1,290.1	1,168.7	121.43	10.624		
10,600.0	7,255.7	10,577.3	7,255.7	63.1	63.5	-90.00	-3,121.1	722.7	1,289.9	1,164.7	125.14	10.307		
10,700.0	7,255.7	10,677.3	7,255.7	65.0	65.4	-90.00	-3,221.1	722.2	1,289.6	1,160.8	128.86	10.008		
10,800.0	7,255.7	10,777.3	7,255.7	66.8	67.2	-90.00	-3,321.1	721.7	1,289.4	1,156.8	132.58	9.725		
10,900.0	7,255.7	10,877.3	7,255.7	68.7	69.0	-90.00	-3,421.1	721.2	1,289.1	1,152.8	136.31	9.457		
11,000.0	7,255.7	10,977.3	7,255.7	70.5	70.9	-90.00	-3,521.1	720.8	1,288.9	1,148.9	140.05	9.203		
11,100.0	7,255.7	11,077.3	7,255.7	72.4	72.7	-90.00	-3,621.1	720.3	1,288.7	1,144.9	143.79	8.962		
11,200.0	7,255.7	11,177.3	7,255.7	74.2	74.6	-90.00	-3,721.1	719.8	1,288.4	1,140.9	147.53	8.733		
11,300.0	7,255.7	11,277.3	7,255.7	76.1	76.4	-90.00	-3,821.1	719.3	1,288.2	1,136.9	151.29	8.515		
11,400.0	7,255.7	11,377.3	7,255.7	78.0	78.3	-90.00	-3,921.1	718.8	1,287.9	1,132.9	155.04	8.307		
11,500.0	7,255.7	11,477.3	7,255.7	79.8	80.2	-90.00	-4,021.1	718.4	1,287.7	1,128.9	158.80	8.109		
11,600.0	7,255.7	11,577.2	7,255.7	81.7	82.0	-90.00	-4,121.1	717.9	1,287.4	1,124.9	162.57	7.919		
11,700.0	7,255.7	11,677.2	7,255.7	83.6	83.9	-90.00	-4,221.1	717.4	1,287.2	1,120.9	166.34	7.739		
11,800.0	7,255.7	11,777.2	7,255.7	85.5	85.8	-90.00	-4,321.1	716.9	1,286.9	1,116.8	170.11	7.566		
11,900.0	7,255.7	11,877.2	7,255.7	87.3	87.6	-90.00	-4,421.1	716.5	1,286.7	1,112.8	173.88	7.400		
12,000.0	7,255.7	11,977.2	7,255.7	89.2	89.5	-90.00	-4,521.1	716.0	1,286.5	1,108.8	177.66	7.241		
12,003.1	7,255.7	11,980.4	7,255.7	89.3	89.6	-90.00	-4,524.2	716.0	1,286.5	1,108.7	177.78	7.236		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
0.0	0.0	0.0	0.0	0.0	0.0	90.69	-0.7	60.3	60.3					
100.0	100.0	100.0	100.0	0.1	0.1	90.69	-0.7	60.3	60.3	60.1	0.22	268.367		
200.0	200.0	200.0	200.0	0.3	0.3	90.69	-0.7	60.3	60.3	59.6	0.67	89.456		
300.0	300.0	300.0	300.0	0.6	0.6	90.69	-0.7	60.3	60.3	59.2	1.12	53.673		
400.0	400.0	400.0	400.0	0.8	0.8	90.69	-0.7	60.3	60.3	58.7	1.57	38.338		
500.0	500.0	500.0	500.0	1.0	1.0	90.69	-0.7	60.3	60.3	58.3	2.02	29.819		
600.0	600.0	600.0	600.0	1.2	1.2	90.69	-0.7	60.3	60.3	57.8	2.47	24.397		
700.0	700.0	700.0	700.0	1.5	1.5	90.69	-0.7	60.3	60.3	57.4	2.92	20.644		
800.0	800.0	800.0	800.0	1.7	1.7	90.69	-0.7	60.3	60.3	56.9	3.37	17.891		
900.0	900.0	900.0	900.0	1.9	1.9	90.69	-0.7	60.3	60.3	56.5	3.82	15.786		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.69	-0.7	60.3	60.3	56.0	4.27	14.125		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.69	-0.7	60.3	60.3	55.6	4.72	12.779		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.69	-0.7	60.3	60.3	55.2	5.17	11.668		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.69	-0.7	60.3	60.3	54.7	5.62	10.735		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.69	-0.7	60.3	60.3	54.3	6.07	9.940		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.69	-0.7	60.3	60.3	53.8	6.52	9.254		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.69	-0.7	60.3	60.3	53.4	6.97	8.657		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.69	-0.7	60.3	60.3	52.9	7.42	8.132		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.69	-0.7	60.3	60.3	52.5	7.87	7.668		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.69	-0.7	60.3	60.3	52.0	8.32	7.253		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.69	-0.7	60.3	60.3	51.6	8.77	6.881		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.69	-0.7	60.3	60.3	51.1	9.22	6.546		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.69	-0.7	60.3	60.3	50.7	9.66	6.241		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.69	-0.7	60.3	60.3	50.2	10.11	5.964		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.69	-0.7	60.3	60.3	49.8	10.56	5.710		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.69	-0.7	60.3	60.3	49.3	11.01	5.477		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.69	-0.7	60.3	60.3	48.9	11.46	5.262		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.69	-0.7	60.3	60.3	48.4	11.91	5.064		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.69	-0.7	60.3	60.3	48.0	12.36	4.879		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.69	-0.7	60.3	60.3	47.5	12.81	4.708		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.69	-0.7	60.3	60.3	47.1	13.26	4.549		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.69	-0.7	60.3	60.3	46.6	13.71	4.399		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.69	-0.7	60.3	60.3	46.2	14.16	4.260		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.69	-0.7	60.3	60.3	45.7	14.61	4.129		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.69	-0.7	60.3	60.3	45.3	15.06	4.005		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.69	-0.7	60.3	60.3	44.8	15.51	3.889		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.69	-0.7	60.3	60.3	44.4	15.96	3.780		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.69	-0.7	60.3	60.3	43.9	16.41	3.676		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.69	-0.7	60.3	60.3	43.5	16.86	3.578		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.69	-0.7	60.3	60.3	43.0	17.31	3.485		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.69	-0.7	60.3	60.3	42.6	17.76	3.397		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.69	-0.7	60.3	60.3	42.1	18.21	3.313		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	90.69	-0.7	60.3	60.3	41.7	18.66	3.233		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	90.69	-0.7	60.3	60.3	41.2	19.11	3.157		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	90.69	-0.7	60.3	60.3	40.8	19.55	3.085		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	90.69	-0.7	60.3	60.3	40.3	20.00	3.015		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	90.69	-0.7	60.3	60.3	39.9	20.45	2.949		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	90.69	-0.7	60.3	60.3	39.4	20.90	2.886		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	90.69	-0.7	60.3	60.3	39.0	21.35	2.825		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	90.69	-0.7	60.3	60.3	38.5	21.80	2.767		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	90.69	-0.7	60.3	60.3	38.1	22.25	2.711		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	90.69	-0.7	60.3	60.3	37.6	22.70	2.657		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	90.69	-0.7	60.3	60.3	37.2	23.15	2.606		
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	90.69	-0.7	60.3	60.3	36.7	23.60	2.556		
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	90.69	-0.7	60.3	60.3	36.3	24.05	2.508		
5,500.0	5,500.0	5,500.0	5,500.0	12.2	12.2	90.69	-0.7	60.3	60.3	35.8	24.50	2.462 CC, ES, SF		
5,600.0	5,600.0	5,598.6	5,598.6	12.5	12.5	141.85	0.4	61.1	62.5	37.5	24.93	2.506		
5,700.0	5,699.7	5,696.1	5,695.9	12.7	12.7	140.98	5.3	64.9	71.6	46.3	25.31	2.830		
5,800.0	5,799.0	5,792.3	5,791.4	12.9	12.9	139.72	14.0	71.5	87.8	62.2	25.65	3.424		
5,900.0	5,897.5	5,886.5	5,884.4	13.1	13.1	138.40	26.3	80.8	111.0	85.1	25.97	4.276		
6,000.0	5,995.0	5,978.0	5,973.8	13.4	13.3	137.18	41.7	92.5	141.0	114.7	26.27	5.367		
6,100.0	6,091.1	6,066.5	6,059.3	13.7	13.5	136.05	59.8	106.3	177.4	150.8	26.56	6.680		
6,200.0	6,185.7	6,151.3	6,140.2	14.0	13.8	134.97	80.1	121.7	220.0	193.1	26.84	8.195		
6,300.0	6,278.5	6,232.1	6,216.2	14.3	14.0	133.90	102.1	138.4	268.3	241.2	27.14	9.887		
6,400.0	6,369.2	6,308.9	6,287.1	14.7	14.3	132.78	125.3	156.0	322.0	294.6	27.46	11.729		
6,500.0	6,457.6	6,381.3	6,353.0	15.2	14.5	131.59	149.3	174.2	380.8	353.0	27.83	13.685		
6,600.0	6,543.9	6,449.6	6,414.1	15.7	14.8	131.34	173.7	192.8	443.7	415.3	28.34	15.655		
6,700.0	6,630.0	6,515.5	6,471.8	16.4	15.1	131.44	198.9	211.9	508.4	479.5	28.96	17.555		
6,800.0	6,716.1	6,586.6	6,533.9	17.0	15.4	131.54	225.9	233.6	574.4	544.8	29.63	19.383		
6,900.0	6,804.2	6,656.2	6,597.5	17.6	15.7	160.96	243.0	255.8	641.9	612.6	29.31	21.901		
7,000.0	6,894.8	6,724.0	6,661.2	18.1	16.0	-159.98	249.3	278.1	711.0	681.4	29.57	24.041		
7,100.0	6,983.4	6,793.3	6,726.4	18.5	16.2	-127.51	245.0	300.8	778.4	747.8	30.53	25.494		
7,200.0	7,065.4	6,867.6	6,794.7	18.7	16.3	-106.07	228.4	324.6	841.3	809.8	31.45	26.748		
7,300.0	7,136.7	6,951.3	6,867.3	18.9	16.5	-92.87	195.5	349.7	897.1	865.3	31.84	28.173		
7,400.0	7,193.5	7,049.9	6,943.5	19.0	16.6	-85.14	139.1	376.0	943.4	911.7	31.74	29.728		
7,500.0	7,233.1	7,168.9	7,016.8	19.1	16.7	-81.21	49.3	401.2	977.4	945.9	31.54	30.991		
7,600.0	7,253.2	7,310.5	7,071.0	19.3	16.9	-79.95	-79.6	419.6	996.1	964.2	31.88	31.242		
7,700.0	7,255.7	7,451.0	7,084.7	19.5	17.5	-80.14	-218.9	423.8	999.0	966.1	32.93	30.338		
7,800.0	7,255.7	7,551.0	7,084.7	19.9	18.1	-80.14	-318.9	423.4	998.8	964.7	34.17	29.235		
7,900.0	7,255.7	7,651.0	7,084.7	20.5	18.9	-80.14	-418.9	423.0	998.7	962.9	35.79	27.905		
8,000.0	7,255.7	7,751.0	7,084.7	21.2	19.9	-80.14	-518.9	422.6	998.5	960.8	37.72	26.469		
8,100.0	7,255.7	7,851.0	7,084.7	22.2	20.9	-80.14	-618.9	422.2	998.3	958.4	39.93	25.004		
8,200.0	7,255.7	7,951.0	7,084.7	23.3	22.1	-80.14	-718.9	421.8	998.2	955.8	42.36	23.565		
8,300.0	7,255.7	8,051.0	7,084.7	24.5	23.4	-80.13	-818.9	421.4	998.0	953.0	44.98	22.189		
8,400.0	7,255.7	8,151.0	7,084.7	25.8	24.8	-80.13	-918.9	421.0	997.8	950.1	47.75	20.895		
8,500.0	7,255.7	8,251.0	7,084.7	27.2	26.3	-80.13	-1,018.9	420.6	997.7	947.0	50.67	19.691		
8,600.0	7,255.7	8,351.0	7,084.7	28.6	27.8	-80.13	-1,118.9	420.2	997.5	943.8	53.69	18.580		
8,700.0	7,255.7	8,451.0	7,084.7	30.1	29.3	-80.13	-1,218.9	419.8	997.3	940.5	56.80	17.558		
8,800.0	7,255.7	8,551.0	7,084.7	31.6	30.9	-80.13	-1,318.9	419.4	997.2	937.2	59.99	16.621		
8,900.0	7,255.7	8,651.0	7,084.7	33.2	32.5	-80.12	-1,418.9	419.0	997.0	933.7	63.25	15.762		
9,000.0	7,255.7	8,751.0	7,084.7	34.8	34.2	-80.12	-1,518.9	418.6	996.8	930.3	66.57	14.974		
9,100.0	7,255.7	8,851.0	7,084.7	36.5	35.9	-80.12	-1,618.9	418.2	996.7	926.7	69.94	14.251		
9,200.0	7,255.7	8,951.0	7,084.7	38.2	37.6	-80.12	-1,718.9	417.8	996.5	923.2	73.35	13.586		
9,300.0	7,255.7	9,051.0	7,084.7	39.9	39.3	-80.12	-1,818.9	417.4	996.3	919.5	76.79	12.975		
9,400.0	7,255.7	9,151.0	7,084.7	41.6	41.1	-80.12	-1,918.9	417.0	996.2	915.9	80.27	12.411		
9,500.0	7,255.7	9,251.0	7,084.7	43.3	42.8	-80.11	-2,018.9	416.6	996.0	912.2	83.77	11.890		
9,600.0	7,255.7	9,351.0	7,084.7	45.1	44.6	-80.11	-2,118.9	416.2	995.8	908.5	87.30	11.407		
9,700.0	7,255.7	9,451.0	7,084.7	46.8	46.4	-80.11	-2,218.9	415.8	995.7	904.8	90.85	10.960		
9,800.0	7,255.7	9,551.0	7,084.7	48.6	48.2	-80.11	-2,318.9	415.3	995.5	901.1	94.42	10.544		
9,900.0	7,255.7	9,651.0	7,084.7	50.4	50.0	-80.11	-2,418.9	414.9	995.3	897.3	98.00	10.156		
10,000.0	7,255.7	9,751.0	7,084.7	52.2	51.8	-80.11	-2,518.9	414.5	995.2	893.6	101.60	9.795		
10,100.0	7,255.7	9,851.0	7,084.7	54.0	53.6	-80.10	-2,618.9	414.1	995.0	889.8	105.22	9.456		
10,200.0	7,255.7	9,951.0	7,084.7	55.8	55.4	-80.10	-2,718.9	413.7	994.8	886.0	108.85	9.140		
10,300.0	7,255.7	10,051.0	7,084.7	57.6	57.3	-80.10	-2,818.9	413.3	994.7	882.2	112.49	8.843		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Gustafson Pad Sec.31-T7N-R65W - Gustafson EF 31-374HN - Wellbore #1 - Plan #1 (12-16-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
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
10,400.0	7,255.7	10,151.0	7,084.7	59.5	59.1	-80.10	-2,918.9	412.9	994.5	878.4	116.13	8.563	
10,500.0	7,255.7	10,251.0	7,084.7	61.3	61.0	-80.10	-3,018.9	412.5	994.3	874.5	119.79	8.301	
10,600.0	7,255.7	10,351.0	7,084.7	63.1	62.8	-80.10	-3,118.9	412.1	994.2	870.7	123.46	8.053	
10,700.0	7,255.7	10,451.0	7,084.7	65.0	64.7	-80.09	-3,218.9	411.7	994.0	866.9	127.13	7.819	
10,800.0	7,255.7	10,551.0	7,084.7	66.8	66.5	-80.09	-3,318.9	411.3	993.8	863.0	130.81	7.597	
10,900.0	7,255.7	10,651.0	7,084.7	68.7	68.4	-80.09	-3,418.9	410.9	993.7	859.2	134.50	7.388	
11,000.0	7,255.7	10,751.0	7,084.7	70.5	70.2	-80.09	-3,518.9	410.5	993.5	855.3	138.19	7.189	
11,100.0	7,255.7	10,851.0	7,084.7	72.4	72.1	-80.09	-3,618.9	410.1	993.3	851.5	141.89	7.001	
11,200.0	7,255.7	10,951.0	7,084.7	74.2	74.0	-80.09	-3,718.9	409.7	993.2	847.6	145.59	6.822	
11,300.0	7,255.7	11,051.0	7,084.7	76.1	75.9	-80.08	-3,818.9	409.3	993.0	843.7	149.30	6.651	
11,400.0	7,255.7	11,151.0	7,084.7	78.0	77.7	-80.08	-3,918.9	408.9	992.8	839.8	153.01	6.489	
11,500.0	7,255.7	11,251.0	7,084.7	79.8	79.6	-80.08	-4,018.9	408.5	992.7	835.9	156.73	6.334	
11,600.0	7,255.7	11,351.0	7,084.7	81.7	81.5	-80.08	-4,118.9	408.1	992.5	832.1	160.45	6.186	
11,700.0	7,255.7	11,451.0	7,084.7	83.6	83.4	-80.08	-4,218.9	407.7	992.3	828.2	164.17	6.045	
11,800.0	7,255.7	11,551.0	7,084.7	85.5	85.3	-80.08	-4,318.9	407.3	992.2	824.3	167.90	5.909	
11,900.0	7,255.7	11,651.0	7,084.7	87.3	87.1	-80.07	-4,418.9	406.9	992.0	820.4	171.63	5.780	
12,000.0	7,255.7	11,751.0	7,084.7	89.2	88.9	-80.07	-4,518.9	406.5	991.8	816.7	175.18	5.662	
12,003.1	7,255.7	11,754.1	7,084.7	89.3	88.9	-80.07	-4,522.0	406.5	991.8	816.6	175.28	5.659	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	30.3	30.3					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	30.3	30.3	30.1	0.22	134.792		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	30.3	30.3	29.6	0.67	44.931		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	30.3	30.3	29.2	1.12	26.958		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	30.3	30.3	28.7	1.57	19.256		
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	30.3	30.3	28.3	2.02	14.977		
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	30.3	30.3	27.8	2.47	12.254		
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	30.3	30.3	27.4	2.92	10.369		
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	30.3	30.3	26.9	3.37	8.986		
900.0	900.0	900.0	900.0	1.9	1.9	90.02	0.0	30.3	30.3	26.5	3.82	7.929		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.02	0.0	30.3	30.3	26.0	4.27	7.094		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.02	0.0	30.3	30.3	25.6	4.72	6.419		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.02	0.0	30.3	30.3	25.1	5.17	5.861		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.02	0.0	30.3	30.3	24.7	5.62	5.392		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.02	0.0	30.3	30.3	24.2	6.07	4.992		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.02	0.0	30.3	30.3	23.8	6.52	4.648		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.02	0.0	30.3	30.3	23.3	6.97	4.348		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.02	0.0	30.3	30.3	22.9	7.42	4.085		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.02	0.0	30.3	30.3	22.4	7.87	3.851		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.02	0.0	30.3	30.3	22.0	8.32	3.643		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.02	0.0	30.3	30.3	21.5	8.77	3.456		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.02	0.0	30.3	30.3	21.1	9.22	3.288		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.02	0.0	30.3	30.3	20.6	9.66	3.135		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.02	0.0	30.3	30.3	20.2	10.11	2.995		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.02	0.0	30.3	30.3	19.7	10.56	2.868		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.02	0.0	30.3	30.3	19.3	11.01	2.751		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.02	0.0	30.3	30.3	18.8	11.46	2.643		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.02	0.0	30.3	30.3	18.4	11.91	2.543		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.02	0.0	30.3	30.3	17.9	12.36	2.451		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.02	0.0	30.3	30.3	17.5	12.81	2.365		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.02	0.0	30.3	30.3	17.0	13.26	2.285		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.02	0.0	30.3	30.3	16.6	13.71	2.210		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.02	0.0	30.3	30.3	16.1	14.16	2.140		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.02	0.0	30.3	30.3	15.7	14.61	2.074		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.02	0.0	30.3	30.3	15.2	15.06	2.012		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.02	0.0	30.3	30.3	14.8	15.51	1.954		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.02	0.0	30.3	30.3	14.3	15.96	1.898		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.02	0.0	30.3	30.3	13.9	16.41	1.846		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.02	0.0	30.3	30.3	13.4	16.86	1.797		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.02	0.0	30.3	30.3	13.0	17.31	1.751		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.02	0.0	30.3	30.3	12.5	17.76	1.706		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.02	0.0	30.3	30.3	12.1	18.21	1.664		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	90.02	0.0	30.3	30.3	11.6	18.66	1.624		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	90.02	0.0	30.3	30.3	11.2	19.11	1.586		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	90.02	0.0	30.3	30.3	10.7	19.55	1.549		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	90.02	0.0	30.3	30.3	10.3	20.00	1.515		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	90.02	0.0	30.3	30.3	9.8	20.45	1.481 Level 3		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	90.02	0.0	30.3	30.3	9.4	20.90	1.449 Level 3		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	90.02	0.0	30.3	30.3	8.9	21.35	1.419 Level 3		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	90.02	0.0	30.3	30.3	8.5	21.80	1.390 Level 3		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	90.02	0.0	30.3	30.3	8.0	22.25	1.362 Level 3		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	90.02	0.0	30.3	30.3	7.6	22.70	1.335 Level 3		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	90.02	0.0	30.3	30.3	7.1	23.15	1.309	Level 3	
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	90.02	0.0	30.3	30.3	6.7	23.60	1.284	Level 3	
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	90.02	0.0	30.3	30.3	6.2	24.05	1.260	Level 3	
5,500.0	5,500.0	5,500.0	5,500.0	12.2	12.2	90.02	0.0	30.3	30.3	5.8	24.50	1.237	Level 2, CC, ES, SF	
5,600.0	5,600.0	5,600.0	5,600.0	12.5	12.5	143.19	0.0	30.3	31.6	6.7	24.93	1.268	Level 3	
5,700.0	5,699.7	5,699.7	5,699.7	12.7	12.7	149.37	0.0	30.3	37.3	12.0	25.31	1.473	Level 3	
5,800.0	5,799.0	5,800.4	5,800.4	12.9	12.9	155.36	1.2	29.8	47.2	21.6	25.63	1.843		
5,900.0	5,897.5	5,902.7	5,902.2	13.1	13.2	154.97	10.0	26.2	57.4	31.5	25.91	2.215		
6,000.0	5,995.0	6,005.2	6,003.0	13.4	13.4	150.29	27.2	19.1	67.2	41.0	26.19	2.565		
6,100.0	6,091.1	6,107.4	6,101.4	13.7	13.6	143.01	52.5	8.6	77.5	51.0	26.53	2.921		
6,200.0	6,185.7	6,208.5	6,196.0	14.0	13.9	134.33	85.5	-5.0	89.7	62.6	27.03	3.317		
6,300.0	6,278.5	6,308.1	6,285.8	14.3	14.2	125.30	125.3	-21.5	104.9	77.2	27.74	3.781		
6,400.0	6,369.2	6,405.6	6,370.3	14.7	14.6	117.28	170.2	-40.0	124.1	95.5	28.64	4.333		
6,500.0	6,457.6	6,502.6	6,453.9	15.2	15.0	112.76	215.5	-58.7	146.8	117.2	29.59	4.962		
6,600.0	6,543.9	6,620.0	6,561.0	15.7	15.4	115.48	256.0	-82.8	165.4	135.0	30.35	5.449		
6,700.0	6,630.0	6,731.0	6,668.6	16.4	15.7	126.22	266.5	-107.0	175.5	145.1	30.43	5.769		
6,800.0	6,716.1	6,824.5	6,758.8	17.0	15.9	140.27	253.7	-127.3	188.3	158.5	29.76	6.326		
6,900.0	6,804.2	6,902.7	6,830.8	17.6	15.9	174.60	228.2	-143.6	213.9	184.9	29.02	7.371		
7,000.0	6,894.8	6,975.0	6,892.5	18.1	16.0	-145.07	193.3	-157.7	248.9	219.3	29.56	8.420		
7,100.0	6,983.4	7,045.0	6,946.1	18.5	15.9	-112.69	150.2	-169.9	285.9	255.4	30.53	9.363		
7,200.0	7,065.4	7,112.3	6,990.8	18.7	15.9	-91.82	101.0	-180.1	320.6	289.5	31.06	10.321		
7,300.0	7,136.7	7,175.0	7,025.5	18.9	15.9	-79.03	49.4	-188.1	350.3	319.4	30.92	11.329		
7,400.0	7,193.5	7,243.2	7,054.6	19.0	15.9	-71.13	-11.8	-194.8	373.4	343.1	30.37	12.295		
7,500.0	7,233.1	7,307.8	7,073.4	19.1	16.0	-66.64	-73.3	-199.2	389.0	359.2	29.82	13.048		
7,600.0	7,253.2	7,375.0	7,083.4	19.3	16.2	-64.65	-139.7	-201.7	396.5	366.8	29.69	13.355		
7,700.0	7,255.7	7,451.4	7,084.7	19.5	16.6	-64.49	-216.1	-202.2	397.0	366.8	30.21	13.143		
7,800.0	7,255.7	7,551.4	7,084.7	19.9	17.3	-64.48	-316.1	-202.5	396.9	365.6	31.31	12.677		
7,900.0	7,255.7	7,651.4	7,084.7	20.5	18.1	-64.48	-416.1	-202.8	396.9	364.1	32.79	12.103		
8,000.0	7,255.7	7,751.4	7,084.7	21.2	19.1	-64.47	-516.1	-203.1	396.8	362.2	34.57	11.479		
8,100.0	7,255.7	7,851.4	7,084.7	22.2	20.2	-64.47	-616.1	-203.4	396.7	360.1	36.60	10.840		
8,200.0	7,255.7	7,951.4	7,084.7	23.3	21.5	-64.46	-716.1	-203.7	396.6	357.8	38.84	10.211		
8,300.0	7,255.7	8,051.4	7,084.7	24.5	22.8	-64.46	-816.1	-204.0	396.6	355.3	41.27	9.610		
8,400.0	7,255.7	8,151.4	7,084.7	25.8	24.2	-64.45	-916.1	-204.4	396.5	352.7	43.84	9.044		
8,500.0	7,255.7	8,251.4	7,084.7	27.2	25.7	-64.45	-1,016.1	-204.7	396.4	349.9	46.54	8.518		
8,600.0	7,255.7	8,351.4	7,084.7	28.6	27.2	-64.44	-1,116.1	-205.0	396.4	347.0	49.35	8.032		
8,700.0	7,255.7	8,451.4	7,084.7	30.1	28.8	-64.44	-1,216.1	-205.3	396.3	344.1	52.24	7.586		
8,800.0	7,255.7	8,551.4	7,084.7	31.6	30.4	-64.43	-1,316.1	-205.6	396.2	341.0	55.21	7.178		
8,900.0	7,255.7	8,651.4	7,084.7	33.2	32.1	-64.43	-1,416.1	-205.9	396.2	337.9	58.23	6.803		
9,000.0	7,255.7	8,751.4	7,084.7	34.8	33.8	-64.42	-1,516.0	-206.2	396.1	334.8	61.31	6.460		
9,100.0	7,255.7	8,851.4	7,084.7	36.5	35.5	-64.42	-1,616.0	-206.5	396.0	331.6	64.44	6.146		
9,200.0	7,255.7	8,951.4	7,084.7	38.2	37.2	-64.41	-1,716.0	-206.8	396.0	328.4	67.60	5.857		
9,300.0	7,255.7	9,051.4	7,084.7	39.9	38.9	-64.41	-1,816.0	-207.1	395.9	325.1	70.80	5.592		
9,400.0	7,255.7	9,151.4	7,084.7	41.6	40.7	-64.41	-1,916.0	-207.4	395.8	321.8	74.03	5.347		
9,500.0	7,255.7	9,251.4	7,084.7	43.3	42.5	-64.40	-2,016.0	-207.7	395.8	318.5	77.29	5.121		
9,600.0	7,255.7	9,351.4	7,084.7	45.1	44.3	-64.40	-2,116.0	-208.0	395.7	315.1	80.56	4.912		
9,700.0	7,255.7	9,451.4	7,084.7	46.8	46.0	-64.39	-2,216.0	-208.4	395.6	311.8	83.86	4.718		
9,800.0	7,255.7	9,551.4	7,084.7	48.6	47.9	-64.39	-2,316.0	-208.7	395.6	308.4	87.17	4.538		
9,900.0	7,255.7	9,651.4	7,084.7	50.4	49.7	-64.38	-2,416.0	-209.0	395.5	305.0	90.50	4.370		
10,000.0	7,255.7	9,751.4	7,084.7	52.2	51.5	-64.38	-2,516.0	-209.3	395.4	301.6	93.85	4.214		
10,100.0	7,255.7	9,851.4	7,084.7	54.0	53.3	-64.37	-2,616.0	-209.6	395.4	298.2	97.20	4.067		
10,200.0	7,255.7	9,951.4	7,084.7	55.8	55.2	-64.37	-2,716.0	-209.9	395.3	294.7	100.57	3.931		
10,300.0	7,255.7	10,051.4	7,084.7	57.6	57.0	-64.36	-2,816.0	-210.2	395.2	291.3	103.95	3.802		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Gustafson Pad Sec.31-T7N-R65W - Gustafson EF 31-377HN - Wellbore #1 - Plan #1 (12-16-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
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
10,400.0	7,255.7	10,151.4	7,084.7	59.5	58.9	-64.36	-2,916.0	-210.5	395.2	287.8	107.33	3.682	
10,500.0	7,255.7	10,251.4	7,084.7	61.3	60.7	-64.35	-3,016.0	-210.8	395.1	284.4	110.73	3.568	
10,600.0	7,255.7	10,351.4	7,084.7	63.1	62.6	-64.35	-3,116.0	-211.1	395.0	280.9	114.13	3.461	
10,700.0	7,255.7	10,451.4	7,084.7	65.0	64.4	-64.34	-3,216.0	-211.4	395.0	277.4	117.54	3.360	
10,800.0	7,255.7	10,551.4	7,084.7	66.8	66.3	-64.34	-3,316.0	-211.7	394.9	273.9	120.95	3.265	
10,900.0	7,255.7	10,651.4	7,084.7	68.7	68.2	-64.33	-3,416.0	-212.0	394.8	270.4	124.37	3.174	
11,000.0	7,255.7	10,751.4	7,084.7	70.5	70.0	-64.33	-3,516.0	-212.3	394.7	266.9	127.80	3.089	
11,100.0	7,255.7	10,851.4	7,084.7	72.4	71.9	-64.33	-3,616.0	-212.7	394.7	263.4	131.23	3.008	
11,200.0	7,255.7	10,951.4	7,084.7	74.2	73.8	-64.32	-3,716.0	-213.0	394.6	259.9	134.67	2.930	
11,300.0	7,255.7	11,051.4	7,084.7	76.1	75.7	-64.32	-3,816.0	-213.3	394.5	256.4	138.11	2.857	
11,400.0	7,255.7	11,151.4	7,084.7	78.0	77.5	-64.31	-3,916.0	-213.6	394.5	252.9	141.55	2.787	
11,500.0	7,255.7	11,251.4	7,084.7	79.8	79.4	-64.31	-4,016.0	-213.9	394.4	249.4	144.99	2.720	
11,600.0	7,255.7	11,351.4	7,084.7	81.7	81.3	-64.30	-4,116.0	-214.2	394.3	245.9	148.44	2.656	
11,700.0	7,255.7	11,451.4	7,084.7	83.6	83.2	-64.30	-4,216.0	-214.5	394.3	242.4	151.90	2.596	
11,800.0	7,255.7	11,551.4	7,084.7	85.5	85.1	-64.29	-4,316.0	-214.8	394.2	238.9	155.35	2.537	
11,900.0	7,255.7	11,651.4	7,084.7	87.3	87.0	-64.29	-4,416.0	-215.1	394.1	235.3	158.81	2.482	
12,000.0	7,255.7	11,751.4	7,084.7	89.2	88.7	-64.28	-4,516.0	-215.4	394.1	232.0	162.09	2.431	
12,003.1	7,255.7	11,754.5	7,084.7	89.3	88.7	-64.28	-4,519.2	-215.4	394.1	231.9	162.19	2.430	



<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
0.0	0.0	0.0	0.0	0.0	0.0	-87.91	1.1	-30.0	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	-87.91	1.1	-30.0	30.0	29.8	0.22	133.645		
200.0	200.0	200.0	200.0	0.3	0.3	-87.91	1.1	-30.0	30.0	29.4	0.67	44.548		
300.0	300.0	300.0	300.0	0.6	0.6	-87.91	1.1	-30.0	30.0	28.9	1.12	26.729		
400.0	400.0	400.0	400.0	0.8	0.8	-87.91	1.1	-30.0	30.0	28.5	1.57	19.092		
500.0	500.0	500.0	500.0	1.0	1.0	-87.91	1.1	-30.0	30.0	28.0	2.02	14.849		
600.0	600.0	600.0	600.0	1.2	1.2	-87.91	1.1	-30.0	30.0	27.6	2.47	12.150		
700.0	700.0	700.0	700.0	1.5	1.5	-87.91	1.1	-30.0	30.0	27.1	2.92	10.280		
800.0	800.0	800.0	800.0	1.7	1.7	-87.91	1.1	-30.0	30.0	26.7	3.37	8.910		
900.0	900.0	900.0	900.0	1.9	1.9	-87.91	1.1	-30.0	30.0	26.2	3.82	7.861		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-87.91	1.1	-30.0	30.0	25.8	4.27	7.034		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-87.91	1.1	-30.0	30.0	25.3	4.72	6.364		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-87.91	1.1	-30.0	30.0	24.9	5.17	5.811		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-87.91	1.1	-30.0	30.0	24.4	5.62	5.346		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-87.91	1.1	-30.0	30.0	24.0	6.07	4.950		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-87.91	1.1	-30.0	30.0	23.5	6.52	4.608		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-87.91	1.1	-30.0	30.0	23.1	6.97	4.311		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-87.91	1.1	-30.0	30.0	22.6	7.42	4.050		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-87.91	1.1	-30.0	30.0	22.2	7.87	3.818		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-87.91	1.1	-30.0	30.0	21.7	8.32	3.612		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-87.91	1.1	-30.0	30.0	21.3	8.77	3.427		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-87.91	1.1	-30.0	30.0	20.8	9.22	3.260		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-87.91	1.1	-30.0	30.0	20.4	9.66	3.108		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-87.91	1.1	-30.0	30.0	19.9	10.11	2.970		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-87.91	1.1	-30.0	30.0	19.5	10.56	2.844		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-87.91	1.1	-30.0	30.0	19.0	11.01	2.727		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-87.91	1.1	-30.0	30.0	18.6	11.46	2.620		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-87.91	1.1	-30.0	30.0	18.1	11.91	2.522		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-87.91	1.1	-30.0	30.0	17.7	12.36	2.430		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-87.91	1.1	-30.0	30.0	17.2	12.81	2.345		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-87.91	1.1	-30.0	30.0	16.8	13.26	2.265		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-87.91	1.1	-30.0	30.0	16.3	13.71	2.191		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-87.91	1.1	-30.0	30.0	15.9	14.16	2.121		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-87.91	1.1	-30.0	30.0	15.4	14.61	2.056		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-87.91	1.1	-30.0	30.0	15.0	15.06	1.995		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-87.91	1.1	-30.0	30.0	14.5	15.51	1.937		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-87.91	1.1	-30.0	30.0	14.1	15.96	1.882		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-87.91	1.1	-30.0	30.0	13.6	16.41	1.831		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-87.91	1.1	-30.0	30.0	13.2	16.86	1.782		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-87.91	1.1	-30.0	30.0	12.7	17.31	1.736		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-87.91	1.1	-30.0	30.0	12.3	17.76	1.692		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-87.91	1.1	-30.0	30.0	11.8	18.21	1.650		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-87.91	1.1	-30.0	30.0	11.4	18.66	1.610		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-87.91	1.1	-30.0	30.0	10.9	19.11	1.572		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-87.91	1.1	-30.0	30.0	10.5	19.55	1.536		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-87.91	1.1	-30.0	30.0	10.0	20.00	1.502		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-87.91	1.1	-30.0	30.0	9.6	20.45	1.469 Level 3		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-87.91	1.1	-30.0	30.0	9.1	20.90	1.437 Level 3		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-87.91	1.1	-30.0	30.0	8.7	21.35	1.407 Level 3		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-87.91	1.1	-30.0	30.0	8.2	21.80	1.378 Level 3		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-87.91	1.1	-30.0	30.0	7.8	22.25	1.350 Level 3		
5,033.5	5,033.5	5,033.5	5,033.5	11.2	11.2	-87.91	1.1	-30.0	30.0	7.6	22.40	1.341 Level 3, CC, ES, SF		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
5,100.0	5,100.0	5,099.3	5,099.3	11.4	11.3	-87.41	1.4	-30.6	30.6	7.9	22.70	1.349	Level 3	
5,200.0	5,200.0	5,197.6	5,197.4	11.6	11.6	-84.08	3.6	-35.1	35.4	12.3	23.13	1.531		
5,300.0	5,300.0	5,295.1	5,294.4	11.8	11.8	-79.57	8.1	-44.1	45.2	21.6	23.56	1.916		
5,400.0	5,400.0	5,391.4	5,389.6	12.0	12.0	-75.60	14.7	-57.2	60.0	36.0	24.00	2.501		
5,500.0	5,500.0	5,485.9	5,482.1	12.2	12.2	-72.65	23.2	-74.3	79.9	55.5	24.44	3.269		
5,600.0	5,600.0	5,578.7	5,572.0	12.5	12.5	-19.36	33.6	-95.1	103.1	78.3	24.80	4.158		
5,700.0	5,699.7	5,670.5	5,659.7	12.7	12.7	-18.49	45.7	-119.4	126.4	101.2	25.14	5.025		
5,800.0	5,799.0	5,761.3	5,745.0	12.9	13.0	-18.25	59.6	-147.2	149.4	123.9	25.44	5.873		
5,900.0	5,897.5	5,851.2	5,827.9	13.1	13.4	-18.37	75.1	-178.2	172.1	146.5	25.68	6.704		
6,000.0	5,995.0	5,940.1	5,908.2	13.4	13.8	-18.72	92.1	-212.3	194.6	168.7	25.88	7.520		
6,100.0	6,091.1	6,028.2	5,986.0	13.7	14.2	-19.22	110.6	-249.3	216.7	190.7	26.04	8.324		
6,200.0	6,185.7	6,121.7	6,066.8	14.0	14.8	-19.92	131.6	-291.4	237.8	211.6	26.19	9.079		
6,300.0	6,278.5	6,220.2	6,151.7	14.3	15.4	-20.95	153.9	-336.0	254.4	228.1	26.34	9.659		
6,400.0	6,369.2	6,319.2	6,237.1	14.7	16.1	-22.30	176.3	-380.9	266.4	239.9	26.52	10.046		
6,500.0	6,457.6	6,418.6	6,322.8	15.2	16.9	-24.00	198.8	-425.9	273.8	247.0	26.75	10.236		
6,600.0	6,543.9	6,518.0	6,408.5	15.7	17.6	-26.05	221.3	-471.0	277.6	250.3	27.33	10.157		
6,700.0	6,630.0	6,617.4	6,494.2	16.4	18.5	-28.10	243.8	-516.0	281.4	253.3	28.16	9.994		
6,800.0	6,716.1	6,716.9	6,579.9	17.0	19.3	-30.09	266.3	-561.1	285.6	256.5	29.08	9.822		
6,900.0	6,804.2	6,818.5	6,668.4	17.6	20.1	-13.07	283.8	-607.6	290.3	260.3	30.04	9.664		
7,000.0	6,894.8	6,919.9	6,757.9	18.1	20.8	12.54	279.0	-654.7	295.4	264.7	30.70	9.622		
7,100.0	6,983.4	7,019.8	6,842.7	18.5	21.3	33.34	252.0	-699.4	300.5	269.5	31.00	9.693		
7,200.0	7,065.4	7,118.3	6,919.0	18.7	21.7	45.52	204.8	-739.6	305.3	274.3	30.97	9.857		
7,300.0	7,136.7	7,215.6	6,983.4	18.9	21.9	52.00	140.6	-773.6	309.6	278.8	30.75	10.066		
7,400.0	7,193.5	7,311.7	7,033.3	19.0	22.1	55.34	63.0	-800.0	313.1	282.5	30.56	10.246		
7,500.0	7,233.1	7,407.1	7,067.0	19.1	22.3	56.92	-24.2	-817.9	315.6	285.0	30.62	10.307		
7,600.0	7,253.2	7,501.7	7,083.2	19.3	22.4	57.42	-116.8	-826.6	317.0	285.8	31.15	10.175		
7,700.0	7,255.7	7,599.3	7,084.7	19.5	22.5	57.37	-214.4	-827.6	317.2	285.1	32.05	9.896		
7,800.0	7,255.7	7,699.3	7,084.7	19.9	22.7	57.37	-314.4	-827.8	317.1	283.8	33.30	9.525		
7,900.0	7,255.7	7,799.3	7,084.7	20.5	23.1	57.37	-414.4	-828.0	317.1	282.3	34.82	9.107		
8,000.0	7,255.7	7,899.3	7,084.7	21.2	23.6	57.36	-514.4	-828.2	317.1	280.5	36.58	8.667		
8,100.0	7,255.7	7,999.3	7,084.7	22.2	24.3	57.36	-614.4	-828.4	317.1	278.5	38.55	8.224		
8,200.0	7,255.7	8,099.3	7,084.7	23.3	25.2	57.36	-714.4	-828.6	317.0	276.3	40.70	7.789		
8,300.0	7,255.7	8,199.3	7,084.7	24.5	26.2	57.36	-814.4	-828.8	317.0	274.0	43.00	7.372		
8,400.0	7,255.7	8,299.3	7,084.7	25.8	27.3	57.35	-914.4	-829.0	317.0	271.5	45.43	6.977		
8,500.0	7,255.7	8,399.3	7,084.7	27.2	28.6	57.35	-1,014.4	-829.2	317.0	269.0	47.97	6.608		
8,600.0	7,255.7	8,499.3	7,084.7	28.6	29.9	57.35	-1,114.4	-829.4	316.9	266.3	50.60	6.264		
8,700.0	7,255.7	8,599.3	7,084.7	30.1	31.3	57.34	-1,214.4	-829.6	316.9	263.6	53.30	5.945		
8,800.0	7,255.7	8,699.3	7,084.7	31.6	32.8	57.34	-1,314.4	-829.8	316.9	260.8	56.08	5.651		
8,900.0	7,255.7	8,799.3	7,084.7	33.2	34.3	57.34	-1,414.4	-830.0	316.8	257.9	58.91	5.378		
9,000.0	7,255.7	8,899.3	7,084.7	34.8	35.8	57.33	-1,514.4	-830.2	316.8	255.0	61.79	5.127		
9,100.0	7,255.7	8,999.3	7,084.7	36.5	37.4	57.33	-1,614.4	-830.4	316.8	252.1	64.72	4.895		
9,200.0	7,255.7	9,099.3	7,084.7	38.2	39.1	57.33	-1,714.4	-830.6	316.8	249.1	67.68	4.681		
9,300.0	7,255.7	9,199.3	7,084.7	39.9	40.7	57.33	-1,814.4	-830.8	316.7	246.1	70.67	4.482		
9,400.0	7,255.7	9,299.3	7,084.7	41.6	42.4	57.32	-1,914.4	-831.0	316.7	243.0	73.69	4.298		
9,500.0	7,255.7	9,399.3	7,084.7	43.3	44.1	57.32	-2,014.4	-831.2	316.7	239.9	76.74	4.127		
9,600.0	7,255.7	9,499.3	7,084.7	45.1	45.8	57.32	-2,114.4	-831.4	316.7	236.8	79.81	3.968		
9,700.0	7,255.7	9,599.3	7,084.7	46.8	47.5	57.31	-2,214.4	-831.6	316.6	233.7	82.90	3.819		
9,800.0	7,255.7	9,699.3	7,084.7	48.6	49.3	57.31	-2,314.4	-831.8	316.6	230.6	86.01	3.681		
9,900.0	7,255.7	9,799.3	7,084.7	50.4	51.0	57.31	-2,414.4	-832.0	316.6	227.4	89.14	3.552		
10,000.0	7,255.7	9,899.3	7,084.7	52.2	52.8	57.30	-2,514.4	-832.2	316.6	224.3	92.27	3.431		
10,100.0	7,255.7	9,999.3	7,084.7	54.0	54.6	57.30	-2,614.4	-832.4	316.5	221.1	95.42	3.317		
10,200.0	7,255.7	10,099.3	7,084.7	55.8	56.4	57.30	-2,714.4	-832.6	316.5	217.9	98.59	3.210		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Gustafson Pad Sec.31-T7N-R65W - Gustafson EF 31-379HN - Wellbore #1 - Plan #1 (12-16-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
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
10,300.0	7,255.7	10,199.3	7,084.7	57.6	58.2	57.29	-2,814.4	-832.8	316.5	214.7	101.76	3.110	
10,400.0	7,255.7	10,299.3	7,084.7	59.5	60.0	57.29	-2,914.4	-833.0	316.5	211.5	104.94	3.016	
10,500.0	7,255.7	10,399.3	7,084.7	61.3	61.8	57.29	-3,014.4	-833.2	316.4	208.3	108.13	2.926	
10,600.0	7,255.7	10,499.3	7,084.7	63.1	63.6	57.29	-3,114.4	-833.4	316.4	205.1	111.33	2.842	
10,700.0	7,255.7	10,599.3	7,084.7	65.0	65.5	57.28	-3,214.4	-833.6	316.4	201.8	114.54	2.762	
10,800.0	7,255.7	10,699.3	7,084.7	66.8	67.3	57.28	-3,314.4	-833.8	316.4	198.6	117.75	2.687	
10,900.0	7,255.7	10,799.3	7,084.7	68.7	69.1	57.28	-3,414.4	-834.0	316.3	195.4	120.97	2.615	
11,000.0	7,255.7	10,899.3	7,084.7	70.5	71.0	57.27	-3,514.4	-834.2	316.3	192.1	124.19	2.547	
11,100.0	7,255.7	10,999.3	7,084.7	72.4	72.8	57.27	-3,614.4	-834.4	316.3	188.9	127.42	2.482	
11,200.0	7,255.7	11,099.3	7,084.7	74.2	74.7	57.27	-3,714.4	-834.6	316.2	185.6	130.65	2.420	
11,300.0	7,255.7	11,199.3	7,084.7	76.1	76.5	57.26	-3,814.4	-834.8	316.2	182.3	133.89	2.362	
11,400.0	7,255.7	11,299.3	7,084.7	78.0	78.4	57.26	-3,914.4	-835.0	316.2	179.1	137.13	2.306	
11,500.0	7,255.7	11,399.3	7,084.7	79.8	80.2	57.26	-4,014.4	-835.2	316.2	175.8	140.38	2.252	
11,600.0	7,255.7	11,499.3	7,084.7	81.7	82.1	57.26	-4,114.4	-835.4	316.1	172.5	143.63	2.201	
11,700.0	7,255.7	11,599.3	7,084.7	83.6	84.0	57.25	-4,214.4	-835.6	316.1	169.2	146.88	2.152	
11,800.0	7,255.7	11,699.3	7,084.7	85.5	85.8	57.25	-4,314.4	-835.8	316.1	166.0	150.14	2.105	
11,900.0	7,255.7	11,799.3	7,084.7	87.3	87.7	57.25	-4,414.4	-836.0	316.1	162.7	153.40	2.060	
11,971.6	7,255.7	11,870.9	7,084.7	88.7	89.1	57.24	-4,486.0	-836.2	316.0	160.3	155.73	2.029	
12,000.0	7,255.7	11,895.7	7,084.7	89.2	89.6	57.24	-4,510.7	-836.2	316.1	159.5	156.60	2.018	
12,003.1	7,255.7	11,895.7	7,084.7	89.3	89.6	57.24	-4,510.7	-836.2	316.1	159.5	156.65	2.018	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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		
0.0	0.0	0.0	0.0	0.0	0.0	-87.92	2.2	-60.0	60.1					
100.0	100.0	100.0	100.0	0.1	0.1	-87.92	2.2	-60.0	60.1	59.9	0.22	267.287		
200.0	200.0	200.0	200.0	0.3	0.3	-87.92	2.2	-60.0	60.1	59.4	0.67	89.096		
300.0	300.0	300.0	300.0	0.6	0.6	-87.92	2.2	-60.0	60.1	59.0	1.12	53.457		
400.0	400.0	400.0	400.0	0.8	0.8	-87.92	2.2	-60.0	60.1	58.5	1.57	38.184		
500.0	500.0	500.0	500.0	1.0	1.0	-87.92	2.2	-60.0	60.1	58.1	2.02	29.699		
600.0	600.0	600.0	600.0	1.2	1.2	-87.92	2.2	-60.0	60.1	57.6	2.47	24.299		
700.0	700.0	700.0	700.0	1.5	1.5	-87.92	2.2	-60.0	60.1	57.2	2.92	20.561		
800.0	800.0	800.0	800.0	1.7	1.7	-87.92	2.2	-60.0	60.1	56.7	3.37	17.819		
900.0	900.0	900.0	900.0	1.9	1.9	-87.92	2.2	-60.0	60.1	56.3	3.82	15.723		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-87.92	2.2	-60.0	60.1	55.8	4.27	14.068		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-87.92	2.2	-60.0	60.1	55.4	4.72	12.728		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-87.92	2.2	-60.0	60.1	54.9	5.17	11.621		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-87.92	2.2	-60.0	60.1	54.5	5.62	10.691		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-87.92	2.2	-60.0	60.1	54.0	6.07	9.900		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-87.92	2.2	-60.0	60.1	53.6	6.52	9.217		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-87.92	2.2	-60.0	60.1	53.1	6.97	8.622		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-87.92	2.2	-60.0	60.1	52.7	7.42	8.100		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-87.92	2.2	-60.0	60.1	52.2	7.87	7.637		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-87.92	2.2	-60.0	60.1	51.8	8.32	7.224		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-87.92	2.2	-60.0	60.1	51.3	8.77	6.854		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-87.92	2.2	-60.0	60.1	50.9	9.22	6.519		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-87.92	2.2	-60.0	60.1	50.4	9.66	6.216		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-87.92	2.2	-60.0	60.1	50.0	10.11	5.940		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-87.92	2.2	-60.0	60.1	49.5	10.56	5.687		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-87.92	2.2	-60.0	60.1	49.1	11.01	5.455		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-87.92	2.2	-60.0	60.1	48.6	11.46	5.241		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-87.92	2.2	-60.0	60.1	48.2	11.91	5.043		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-87.92	2.2	-60.0	60.1	47.7	12.36	4.860		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-87.92	2.2	-60.0	60.1	47.3	12.81	4.689		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-87.92	2.2	-60.0	60.1	46.8	13.26	4.530		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-87.92	2.2	-60.0	60.1	46.4	13.71	4.382		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-87.92	2.2	-60.0	60.1	45.9	14.16	4.243		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-87.92	2.2	-60.0	60.1	45.5	14.61	4.112		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-87.92	2.2	-60.0	60.1	45.0	15.06	3.989		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-87.92	2.2	-60.0	60.1	44.6	15.51	3.874		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-87.92	2.2	-60.0	60.1	44.1	15.96	3.765		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-87.92	2.2	-60.0	60.1	43.7	16.41	3.661		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-87.92	2.2	-60.0	60.1	43.2	16.86	3.564		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-87.92	2.2	-60.0	60.1	42.8	17.31	3.471		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-87.92	2.2	-60.0	60.1	42.3	17.76	3.383		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-87.92	2.2	-60.0	60.1	41.9	18.21	3.300		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-87.92	2.2	-60.0	60.1	41.4	18.66	3.220		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-87.92	2.2	-60.0	60.1	41.0	19.11	3.145		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-87.92	2.2	-60.0	60.1	40.5	19.55	3.072 CC, ES, SF		
4,500.0	4,500.0	4,497.0	4,496.9	10.0	10.0	-87.36	2.9	-62.4	62.5	42.6	19.99	3.129		
4,600.0	4,600.0	4,593.4	4,593.1	10.2	10.2	-85.92	5.0	-69.4	69.9	49.5	20.41	3.426		
4,700.0	4,700.0	4,688.9	4,687.8	10.5	10.4	-84.10	8.4	-81.0	82.3	61.4	20.84	3.948		
4,800.0	4,800.0	4,783.0	4,780.4	10.7	10.6	-82.33	13.0	-96.7	99.6	78.3	21.28	4.679		
4,900.0	4,900.0	4,875.2	4,870.3	10.9	10.8	-80.80	18.9	-116.4	121.6	99.9	21.72	5.601		
5,000.0	5,000.0	4,965.2	4,957.0	11.1	11.1	-79.57	25.7	-139.6	148.4	126.2	22.17	6.693		
5,100.0	5,100.0	5,052.7	5,040.0	11.4	11.4	-78.59	33.5	-165.9	179.6	157.0	22.63	7.935		

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 Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<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
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	
5,200.0	5,200.0	5,137.4	5,119.2	11.6	11.7	-77.83	42.0	-194.9	215.1	192.0	23.11	9.306	
5,300.0	5,300.0	5,219.2	5,194.3	11.8	12.0	-77.23	51.2	-225.9	254.7	231.0	23.61	10.784	
5,400.0	5,400.0	5,300.0	5,267.1	12.0	12.4	-76.74	61.2	-259.7	298.1	273.9	24.14	12.346	
5,500.0	5,500.0	5,373.4	5,331.8	12.2	12.8	-76.37	71.0	-292.8	345.1	320.4	24.69	13.978	
5,600.0	5,600.0	5,450.3	5,398.2	12.5	13.3	-24.31	82.0	-330.0	394.0	369.6	24.45	16.117	
5,700.0	5,699.7	5,539.2	5,474.5	12.7	13.9	-23.79	94.9	-373.6	439.8	415.0	24.81	17.725	
5,800.0	5,799.0	5,630.1	5,552.6	12.9	14.6	-23.61	108.1	-418.3	481.3	456.2	25.15	19.138	
5,900.0	5,897.5	5,722.8	5,632.3	13.1	15.4	-23.70	121.6	-463.9	518.4	492.9	25.46	20.362	
6,000.0	5,995.0	5,817.1	5,713.2	13.4	16.2	-24.01	135.3	-510.2	551.1	525.3	25.75	21.404	
6,100.0	6,091.1	5,912.7	5,795.3	13.7	17.0	-24.51	149.1	-557.2	579.3	553.3	26.02	22.265	
6,200.0	6,185.7	6,009.3	5,878.2	14.0	17.9	-25.21	163.2	-604.7	603.1	576.8	26.28	22.945	
6,300.0	6,278.5	6,106.6	5,961.8	14.3	18.8	-26.10	177.3	-652.5	622.4	595.8	26.55	23.438	
6,400.0	6,369.2	6,204.5	6,045.9	14.7	19.7	-27.18	191.5	-700.6	637.4	610.5	26.86	23.734	
6,500.0	6,457.6	6,302.6	6,130.1	15.2	20.7	-28.46	205.8	-748.8	648.1	620.9	27.21	23.817	
6,600.0	6,543.9	6,400.6	6,214.3	15.7	21.6	-29.98	220.0	-797.0	655.6	627.7	27.87	23.524	
6,700.0	6,630.0	6,498.7	6,298.5	16.4	22.6	-31.53	234.3	-845.2	663.2	634.5	28.73	23.082	
6,800.0	6,716.1	6,596.8	6,382.7	17.0	23.6	-33.04	248.5	-893.4	671.4	641.7	29.68	22.623	
6,900.0	6,804.2	6,695.7	6,467.7	17.6	24.6	-15.83	262.9	-942.0	680.0	649.3	30.67	22.172	
7,000.0	6,894.8	6,794.3	6,552.3	18.1	25.7	11.65	277.2	-990.5	688.7	657.4	31.27	22.021	
7,100.0	6,983.4	6,887.4	6,632.3	18.5	26.7	35.78	290.7	-1,036.2	698.2	666.6	31.59	22.098	
7,200.0	7,065.4	6,986.7	6,718.1	18.7	27.6	52.08	297.5	-1,085.3	710.3	678.4	31.87	22.286	
7,300.0	7,136.7	7,103.5	6,817.6	18.9	28.5	62.66	277.5	-1,142.4	724.3	692.1	32.23	22.472	
7,400.0	7,193.5	7,243.3	6,925.6	19.0	29.3	69.90	215.2	-1,204.3	738.5	705.8	32.71	22.575	
7,500.0	7,233.1	7,411.5	7,025.2	19.1	29.9	74.73	93.6	-1,261.6	750.0	716.6	33.38	22.468	
7,600.0	7,253.2	7,603.6	7,081.5	19.3	30.2	76.88	-85.5	-1,294.1	755.4	721.0	34.42	21.948	
7,700.0	7,255.7	7,731.8	7,084.7	19.5	30.3	76.92	-213.5	-1,296.2	755.4	720.0	35.42	21.326	
7,800.0	7,255.7	7,831.8	7,084.7	19.9	30.4	76.92	-313.5	-1,296.4	755.3	718.7	36.68	20.592	
7,900.0	7,255.7	7,931.8	7,084.7	20.5	30.6	76.92	-413.5	-1,296.6	755.3	717.0	38.27	19.735	
8,000.0	7,255.7	8,031.8	7,084.7	21.2	30.9	76.91	-513.5	-1,296.8	755.3	715.1	40.15	18.810	
8,100.0	7,255.7	8,131.8	7,084.7	22.2	31.3	76.91	-613.5	-1,297.0	755.3	713.0	42.29	17.860	
8,200.0	7,255.7	8,231.8	7,084.7	23.3	31.8	76.91	-713.5	-1,297.3	755.2	710.6	44.64	16.920	
8,300.0	7,255.7	8,331.8	7,084.7	24.5	32.4	76.91	-813.5	-1,297.5	755.2	708.0	47.17	16.011	
8,400.0	7,255.7	8,431.8	7,084.7	25.8	33.1	76.91	-913.5	-1,297.7	755.2	705.3	49.85	15.148	
8,500.0	7,255.7	8,531.8	7,084.7	27.2	33.9	76.91	-1,013.5	-1,297.9	755.1	702.5	52.67	14.337	
8,600.0	7,255.7	8,631.8	7,084.7	28.6	34.8	76.91	-1,113.5	-1,298.1	755.1	699.5	55.60	13.581	
8,700.0	7,255.7	8,731.8	7,084.7	30.1	35.9	76.91	-1,213.5	-1,298.3	755.1	696.5	58.63	12.879	
8,800.0	7,255.7	8,831.8	7,084.7	31.6	37.0	76.91	-1,313.5	-1,298.5	755.1	693.3	61.73	12.231	
8,900.0	7,255.7	8,931.8	7,084.7	33.2	38.2	76.91	-1,413.5	-1,298.7	755.0	690.1	64.91	11.632	
9,000.0	7,255.7	9,031.8	7,084.7	34.8	39.5	76.91	-1,513.5	-1,298.9	755.0	686.9	68.14	11.080	
9,100.0	7,255.7	9,131.8	7,084.7	36.5	40.9	76.91	-1,613.5	-1,299.1	755.0	683.5	71.43	10.570	
9,200.0	7,255.7	9,231.8	7,084.7	38.2	42.3	76.91	-1,713.5	-1,299.3	754.9	680.2	74.76	10.099	
9,300.0	7,255.7	9,331.8	7,084.7	39.9	43.8	76.91	-1,813.5	-1,299.5	754.9	676.8	78.13	9.663	
9,400.0	7,255.7	9,431.8	7,084.7	41.6	45.3	76.91	-1,913.5	-1,299.7	754.9	673.4	81.53	9.259	
9,500.0	7,255.7	9,531.8	7,084.7	43.3	46.9	76.91	-2,013.5	-1,299.9	754.9	669.9	84.96	8.884	
9,600.0	7,255.7	9,631.8	7,084.7	45.1	48.5	76.91	-2,113.5	-1,300.1	754.8	666.4	88.43	8.536	
9,700.0	7,255.7	9,731.8	7,084.7	46.8	50.1	76.91	-2,213.5	-1,300.3	754.8	662.9	91.91	8.213	
9,800.0	7,255.7	9,831.8	7,084.7	48.6	51.7	76.91	-2,313.5	-1,300.5	754.8	659.4	95.41	7.911	
9,900.0	7,255.7	9,931.8	7,084.7	50.4	53.4	76.91	-2,413.5	-1,300.7	754.7	655.8	98.94	7.629	
10,000.0	7,255.7	10,031.8	7,084.7	52.2	55.1	76.90	-2,513.5	-1,300.9	754.7	652.2	102.48	7.365	
10,100.0	7,255.7	10,131.8	7,084.7	54.0	56.8	76.90	-2,613.5	-1,301.1	754.7	648.7	106.03	7.118	
10,200.0	7,255.7	10,231.8	7,084.7	55.8	58.5	76.90	-2,713.5	-1,301.3	754.7	645.1	109.60	6.886	
10,300.0	7,255.7	10,331.8	7,084.7	57.6	60.2	76.90	-2,813.5	-1,301.5	754.6	641.5	113.18	6.667	

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

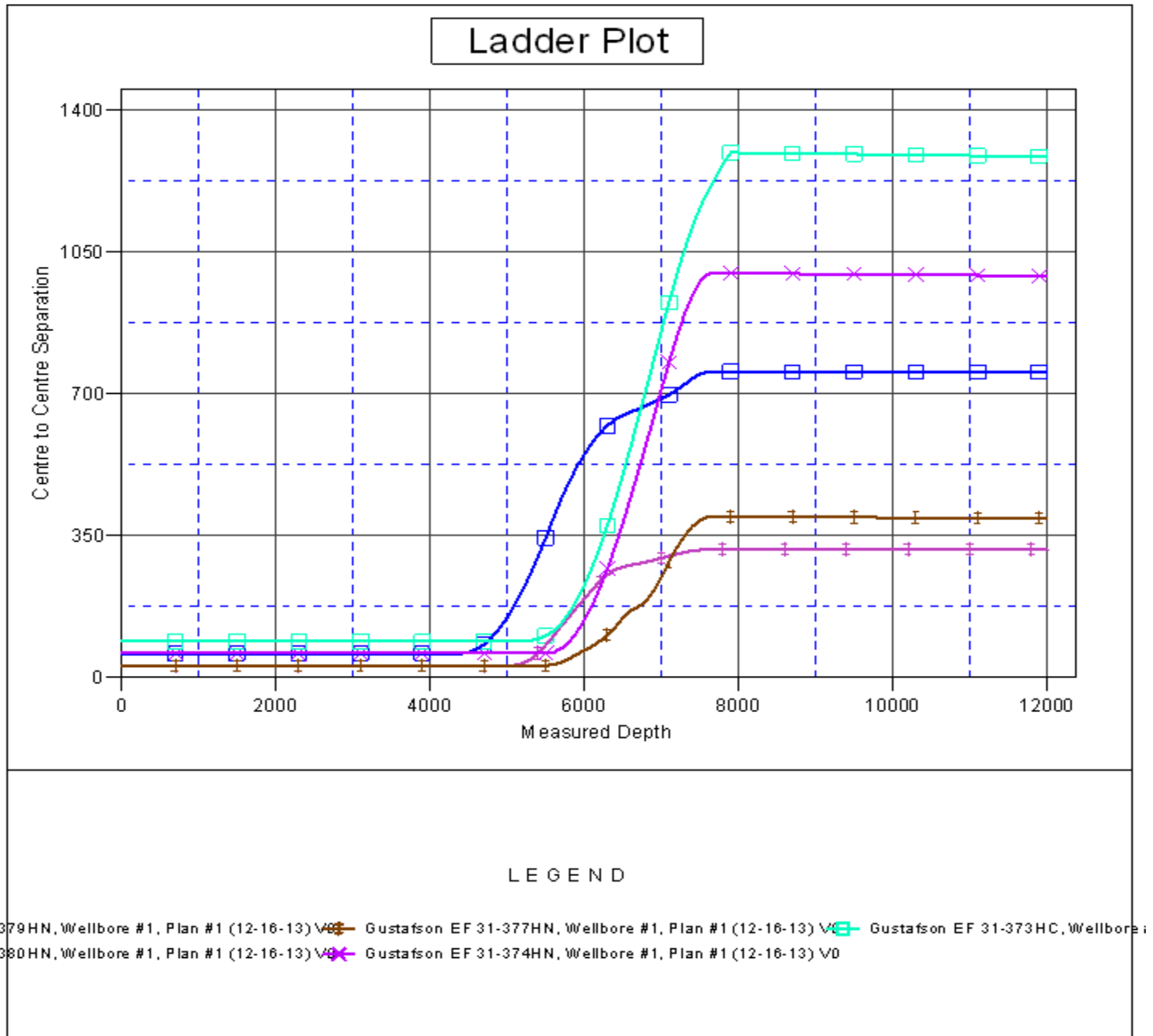
<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Gustafson Pad Sec.31-T7N-R65W - Gustafson EF 31-380HN - Wellbore #1 - Plan #1 (12-16-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	
10,400.0	7,255.7	10,431.8	7,084.7	59.5	61.9	76.90	-2,913.5	-1,301.7	754.6	637.8	116.77	6.462	
10,500.0	7,255.7	10,531.8	7,084.7	61.3	63.7	76.90	-3,013.5	-1,301.9	754.6	634.2	120.38	6.268	
10,600.0	7,255.7	10,631.8	7,084.7	63.1	65.5	76.90	-3,113.5	-1,302.1	754.6	630.6	123.99	6.086	
10,700.0	7,255.7	10,731.8	7,084.7	65.0	67.2	76.90	-3,213.5	-1,302.3	754.5	626.9	127.61	5.913	
10,800.0	7,255.7	10,831.8	7,084.7	66.8	69.0	76.90	-3,313.5	-1,302.5	754.5	623.3	131.24	5.749	
10,900.0	7,255.7	10,931.8	7,084.7	68.7	70.8	76.90	-3,413.5	-1,302.7	754.5	619.6	134.87	5.594	
11,000.0	7,255.7	11,031.8	7,084.7	70.5	72.6	76.90	-3,513.5	-1,302.9	754.4	615.9	138.51	5.447	
11,100.0	7,255.7	11,131.8	7,084.7	72.4	74.4	76.90	-3,613.5	-1,303.1	754.4	612.2	142.16	5.307	
11,200.0	7,255.7	11,231.8	7,084.7	74.2	76.2	76.90	-3,713.5	-1,303.3	754.4	608.6	145.82	5.173	
11,300.0	7,255.7	11,331.8	7,084.7	76.1	78.0	76.90	-3,813.5	-1,303.5	754.4	604.9	149.48	5.047	
11,400.0	7,255.7	11,431.8	7,084.7	78.0	79.9	76.90	-3,913.5	-1,303.7	754.3	601.2	153.14	4.926	
11,500.0	7,255.7	11,531.8	7,084.7	79.8	81.7	76.90	-4,013.5	-1,303.9	754.3	597.5	156.81	4.810	
11,600.0	7,255.7	11,631.8	7,084.7	81.7	83.5	76.90	-4,113.5	-1,304.1	754.3	593.8	160.48	4.700	
11,700.0	7,255.7	11,731.8	7,084.7	83.6	85.3	76.90	-4,213.5	-1,304.4	754.2	590.1	164.16	4.595	
11,800.0	7,255.7	11,831.8	7,084.7	85.5	87.2	76.90	-4,313.5	-1,304.6	754.2	586.4	167.84	4.494	
11,900.0	7,255.7	11,931.8	7,084.7	87.3	89.0	76.89	-4,413.5	-1,304.8	754.2	582.7	171.52	4.397	
11,966.6	7,255.7	11,998.3	7,084.7	88.6	90.3	76.89	-4,480.0	-1,304.9	754.2	580.2	173.97	4.335	
12,000.0	7,255.7	12,016.5	7,084.7	89.2	90.6	76.89	-4,498.2	-1,304.9	754.3	579.4	174.93	4.312	
12,003.1	7,255.7	12,016.5	7,084.7	89.3	90.6	76.89	-4,498.2	-1,304.9	754.4	579.4	174.98	4.311	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Gustafson EF 31-378HC
<b>Project:</b>	SEC.31-T7N-R65W	<b>TVD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Reference Site:</b>	Gustafson Pad Sec.31-T7N-R65W	<b>MD Reference:</b>	WELL @ 4844.7ft (RKB - 16.5)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Gustafson EF 31-378HC	<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 (12-16-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4844.7ft (RKB - 16.5)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Gustafson EF 31-378HC  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.51°





Coordinates are relative to: Gustafson EF 31-378HC  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.51°

