

# Great Western

Well Name: **Spaur Brothers EH 31-262HN**

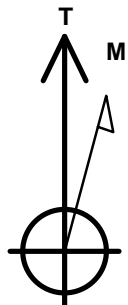
Surface Location: Spaur Brothers North Pad Sec.31-T7N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4762.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1437373.54	3286004.99	40.529436	-104.471103	
RKB - 16.5' WELL @ 4778.5ft (RKB - 16.5')						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 2406'FSL & 222'FEL	1.0	0.0	0.0	Point
BHL 1610'FSL & 470'FWL	6757.5	-838.7	-4472.8	Point
Entry Pt 1622'FSL & 460'FEL	6757.5	-786.2	-235.5	Point



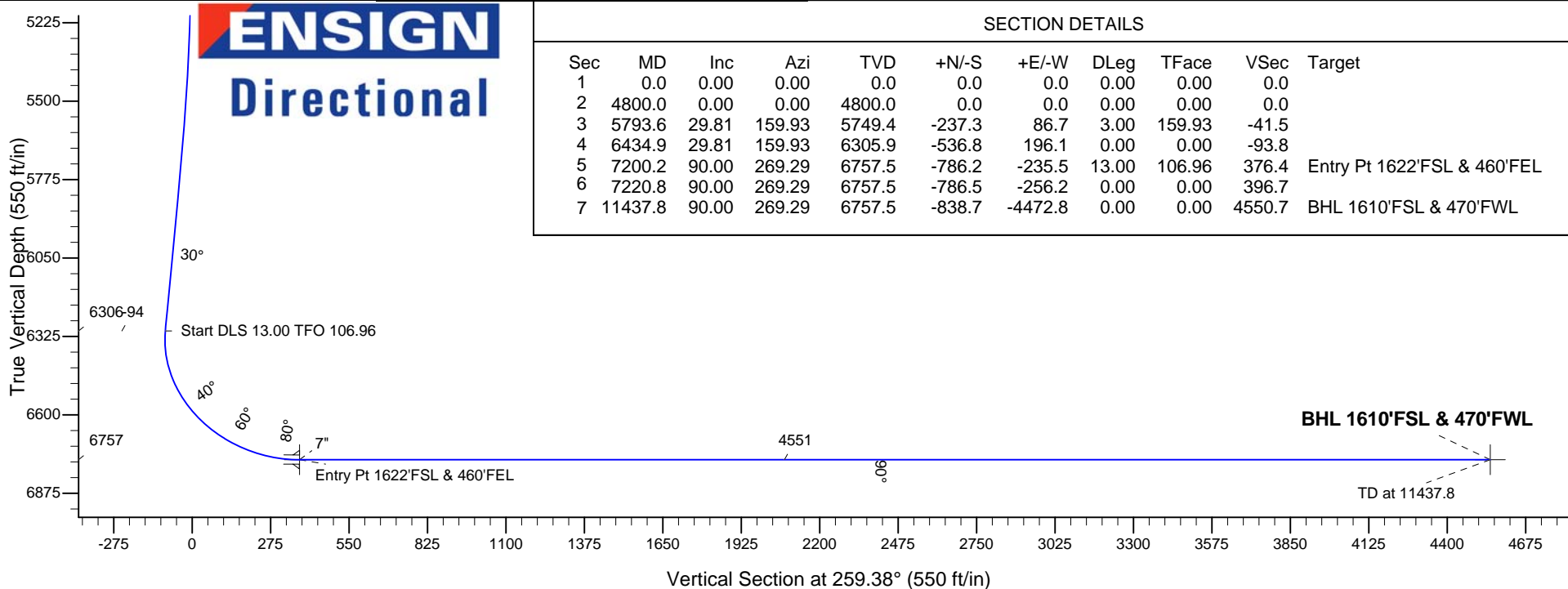
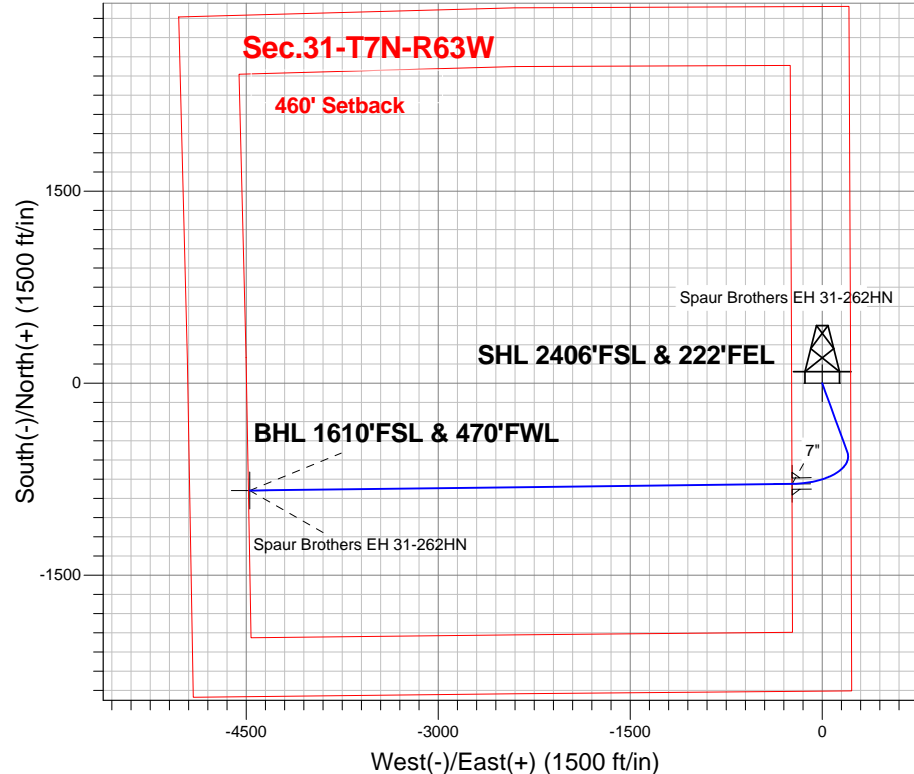
Azimuths to True North  
Magnetic North: 8.40°

Magnetic Field  
Strength: 52982.0snT  
Dip Angle: 67.12°  
Date: 10/22/2013  
Model: IGRF2010

Spaur Brothers North Pad Sec.31-T7N-R63W  
Spaur Brothers EH 31-262HN  
Plan #1 (10-22-13)  
13:55, October 23 2013

## ANNOTATIONS

TVD	MD	Annotation
4800.0	4800.0	KOP - Start Build 3.00
6305.8	6434.9	Start DLS 13.00 TFO 106.96
6757.5	11437.8	TD at 11437.8



## 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	4800.0	0.00	0.00	4800.0	0.0	0.0	0.00	0.00	0.0	
3	5793.6	29.81	159.93	5749.4	-237.3	86.7	3.00	159.93	-41.5	
4	6434.9	29.81	159.93	6305.9	-536.8	196.1	0.00	0.00	-93.8	
5	7200.2	90.00	269.29	6757.5	-786.2	-235.5	13.00	106.96	376.4	Entry Pt 1622'FSL & 460'FEL
6	7220.8	90.00	269.29	6757.5	-786.5	-256.2	0.00	0.00	396.7	
7	11437.8	90.00	269.29	6757.5	-838.7	-4472.8	0.00	0.00	4550.7	BHL 1610'FSL & 470'FWL



## **Great Western**

**SEC.31-T7N-R63W**

**Spaur Brothers North Pad Sec.31-T7N-R63W**

**Spaur Brothers EH 31-262HN**

**Wellbore #1**

**Plan: Plan #1 (10-22-13)**

## **Standard Planning Report**

**23 October, 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	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,793.6	29.81	159.93	5,749.4	-237.3	86.7	3.00	3.00	0.00	159.93	
6,434.9	29.81	159.93	6,305.9	-536.8	196.1	0.00	0.00	0.00	0.00	
7,200.2	90.00	269.29	6,757.5	-786.2	-235.5	13.00	7.87	14.29	106.96	Entry Pt 1622'FSL & 47
7,220.8	90.00	269.29	6,757.5	-786.5	-256.2	0.00	0.00	0.00	0.00	
11,437.8	90.00	269.29	6,757.5	-838.7	-4,472.8	0.00	0.00	0.00	0.00	BHL 1610'FSL & 47

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Project:</b>	SEC.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Spaur Brothers EH 31-262HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-22-13)		

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 2406'FSL &amp; 222'FEL</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
<b>KOP - Start Build 3.00</b>									
4,900.0	3.00	159.93	4,900.0	-2.5	0.9	-0.4	3.00	3.00	0.00
5,000.0	6.00	159.93	4,999.6	-9.8	3.6	-1.7	3.00	3.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Project:</b>	SEC.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Spaur Brothers EH 31-262HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (10-22-13)		

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)
5,100.0	9.00	159.93	5,098.8	-22.1	8.1	-3.9	3.00	3.00	0.00
5,200.0	12.00	159.93	5,197.1	-39.2	14.3	-6.9	3.00	3.00	0.00
5,300.0	15.00	159.93	5,294.3	-61.1	22.3	-10.7	3.00	3.00	0.00
5,400.0	18.00	159.93	5,390.2	-87.8	32.1	-15.4	3.00	3.00	0.00
5,500.0	21.00	159.93	5,484.4	-119.1	43.5	-20.8	3.00	3.00	0.00
5,600.0	24.00	159.93	5,576.8	-155.1	56.7	-27.1	3.00	3.00	0.00
5,700.0	27.00	159.93	5,667.1	-195.5	71.4	-34.2	3.00	3.00	0.00
5,793.6	29.81	159.93	5,749.4	-237.3	86.7	-41.5	3.00	3.00	0.00
5,800.0	29.81	159.93	5,754.9	-240.3	87.8	-42.0	0.00	0.00	0.00
5,900.0	29.81	159.93	5,841.7	-287.0	104.9	-50.2	0.00	0.00	0.00
6,000.0	29.81	159.93	5,928.5	-333.7	121.9	-58.3	0.00	0.00	0.00
6,100.0	29.81	159.93	6,015.2	-380.4	139.0	-66.5	0.00	0.00	0.00
6,200.0	29.81	159.93	6,102.0	-427.1	156.0	-74.7	0.00	0.00	0.00
6,300.0	29.81	159.93	6,188.8	-473.8	173.1	-82.8	0.00	0.00	0.00
6,400.0	29.81	159.93	6,275.6	-520.5	190.2	-91.0	0.00	0.00	0.00
6,434.9	29.81	159.93	6,305.8	-536.8	196.1	-93.8	0.00	0.00	0.00
Start DLS 13.00 TFO 106.96									
6,500.0	28.41	177.13	6,362.8	-567.5	202.5	-94.4	12.99	-2.15	26.42
6,600.0	30.62	203.33	6,450.2	-614.8	193.5	-76.9	13.00	2.21	26.20
6,700.0	37.11	223.70	6,533.5	-660.2	162.5	-38.0	13.00	6.49	20.37
6,800.0	46.09	237.94	6,608.3	-701.3	110.9	20.3	13.00	8.98	14.24
6,900.0	56.36	248.21	6,671.0	-736.0	41.4	94.9	13.00	10.27	10.27
7,000.0	67.29	256.22	6,718.2	-762.6	-42.4	182.2	13.00	10.93	8.01
7,100.0	78.56	263.01	6,747.5	-779.6	-136.2	277.6	13.00	11.27	6.79
7,200.0	89.98	269.28	6,757.5	-786.2	-235.3	376.2	13.00	11.41	6.26
7,200.2	90.00	269.29	6,757.5	-786.2	-235.5	376.4	12.29	10.82	5.85
7" - Entry Pt 1622'FSL & 460'FEL									
7,220.8	90.00	269.29	6,757.5	-786.5	-256.2	396.7	0.01	0.01	0.00
7,300.0	90.00	269.29	6,757.5	-787.5	-335.3	474.7	0.00	0.00	0.00
7,400.0	90.00	269.29	6,757.5	-788.7	-435.3	573.2	0.00	0.00	0.00
7,500.0	90.00	269.29	6,757.5	-789.9	-535.3	671.7	0.00	0.00	0.00
7,600.0	90.00	269.29	6,757.5	-791.2	-635.3	770.2	0.00	0.00	0.00
7,700.0	90.00	269.29	6,757.5	-792.4	-735.3	868.7	0.00	0.00	0.00
7,800.0	90.00	269.29	6,757.5	-793.7	-835.3	967.2	0.00	0.00	0.00
7,900.0	90.00	269.29	6,757.5	-794.9	-935.3	1,065.7	0.00	0.00	0.00
8,000.0	90.00	269.29	6,757.5	-796.1	-1,035.3	1,164.2	0.00	0.00	0.00
8,100.0	90.00	269.29	6,757.5	-797.4	-1,135.2	1,262.7	0.00	0.00	0.00
8,200.0	90.00	269.29	6,757.5	-798.6	-1,235.2	1,361.3	0.00	0.00	0.00
8,300.0	90.00	269.29	6,757.5	-799.9	-1,335.2	1,459.8	0.00	0.00	0.00
8,400.0	90.00	269.29	6,757.5	-801.1	-1,435.2	1,558.3	0.00	0.00	0.00
8,500.0	90.00	269.29	6,757.5	-802.3	-1,535.2	1,656.8	0.00	0.00	0.00
8,600.0	90.00	269.29	6,757.5	-803.6	-1,635.2	1,755.3	0.00	0.00	0.00
8,700.0	90.00	269.29	6,757.5	-804.8	-1,735.2	1,853.8	0.00	0.00	0.00
8,800.0	90.00	269.29	6,757.5	-806.1	-1,835.2	1,952.3	0.00	0.00	0.00
8,900.0	90.00	269.29	6,757.5	-807.3	-1,935.2	2,050.8	0.00	0.00	0.00
9,000.0	90.00	269.29	6,757.5	-808.5	-2,035.2	2,149.3	0.00	0.00	0.00
9,100.0	90.00	269.29	6,757.5	-809.8	-2,135.2	2,247.8	0.00	0.00	0.00
9,200.0	90.00	269.29	6,757.5	-811.0	-2,235.2	2,346.3	0.00	0.00	0.00
9,300.0	90.00	269.29	6,757.5	-812.2	-2,335.2	2,444.8	0.00	0.00	0.00
9,400.0	90.00	269.29	6,757.5	-813.5	-2,435.1	2,543.4	0.00	0.00	0.00
9,500.0	90.00	269.29	6,757.5	-814.7	-2,535.1	2,641.9	0.00	0.00	0.00
9,600.0	90.00	269.29	6,757.5	-816.0	-2,635.1	2,740.4	0.00	0.00	0.00
9,700.0	90.00	269.29	6,757.5	-817.2	-2,735.1	2,838.9	0.00	0.00	0.00
9,800.0	90.00	269.29	6,757.5	-818.4	-2,835.1	2,937.4	0.00	0.00	0.00

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,900.0	90.00	269.29	6,757.5	-819.7	-2,935.1	3,035.9	0.00	0.00	0.00	
10,000.0	90.00	269.29	6,757.5	-820.9	-3,035.1	3,134.4	0.00	0.00	0.00	
10,100.0	90.00	269.29	6,757.5	-822.2	-3,135.1	3,232.9	0.00	0.00	0.00	
10,200.0	90.00	269.29	6,757.5	-823.4	-3,235.1	3,331.4	0.00	0.00	0.00	
10,300.0	90.00	269.29	6,757.5	-824.6	-3,335.1	3,429.9	0.00	0.00	0.00	
10,400.0	90.00	269.29	6,757.5	-825.9	-3,435.1	3,528.4	0.00	0.00	0.00	
10,500.0	90.00	269.29	6,757.5	-827.1	-3,535.1	3,626.9	0.00	0.00	0.00	
10,600.0	90.00	269.29	6,757.5	-828.4	-3,635.1	3,725.4	0.00	0.00	0.00	
10,700.0	90.00	269.29	6,757.5	-829.6	-3,735.0	3,824.0	0.00	0.00	0.00	
10,800.0	90.00	269.29	6,757.5	-830.8	-3,835.0	3,922.5	0.00	0.00	0.00	
10,900.0	90.00	269.29	6,757.5	-832.1	-3,935.0	4,021.0	0.00	0.00	0.00	
11,000.0	90.00	269.29	6,757.5	-833.3	-4,035.0	4,119.5	0.00	0.00	0.00	
11,100.0	90.00	269.29	6,757.5	-834.6	-4,135.0	4,218.0	0.00	0.00	0.00	
11,200.0	90.00	269.29	6,757.5	-835.8	-4,235.0	4,316.5	0.00	0.00	0.00	
11,300.0	90.00	269.29	6,757.5	-837.0	-4,335.0	4,415.0	0.00	0.00	0.00	
11,400.0	90.00	269.29	6,757.5	-838.3	-4,435.0	4,513.5	0.00	0.00	0.00	
11,437.8	90.00	269.29	6,757.5	-838.7	-4,472.8	4,550.7	0.00	0.00	0.00	
BHL 1610'FSL & 470'FWL										

Plan Annotations					
	Measured Depth	Vertical	Local Coordinates		Comment
	Depth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	
	4,800.0	4,800.0	0.0	0.0	
	6,434.9	6,305.8	-536.8	196.1	
11,437.8	6,757.5	-838.7	-4,472.8	TD at 11437.8	



## **Great Western**

**SEC.31-T7N-R63W**

**Spaur Brothers North Pad Sec.31-T7N-R63W**

**Spaur Brothers EH 31-262HN**

**Wellbore #1**

**Plan #1 (10-22-13)**

## **Anticollision Report**

**23 October, 2013**

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (10-22-13)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<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 1,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 10/23/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	6,930.0	Plan #1 (10-22-13) (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s
6,930.0	11,437.8	Plan #1 (10-22-13) (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>Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Spaur Brothers North Pad Sec.31-T7N-R63W						
Spaur Brothers EH 31-219HN - Wellbore #1 - Plan #1 (10-22-13)	4,800.0	4,800.0	90.0	64.7	3.567	CC, ES, SF
Spaur Brothers EH 31-222HN - Wellbore #1 - Plan #1 (10-22-13)	4,800.0	4,800.0	59.7	34.5	2.368	CC, ES
Spaur Brothers EH 31-222HN - Wellbore #1 - Plan #1 (10-22-13)	11,437.8	11,325.0	561.9	309.2	2.224	SF
Spaur Brothers EH 31-259HC - Wellbore #1 - Plan #1 (10-22-13)	4,800.0	4,800.0	30.2	4.9	1.196	Level 2, CC, ES, SF

<b>Offset Design</b>												
Spaur Brothers North Pad Sec.31-T7N-R63W - Spaur Brothers EH 31-219HN - Wellbore #1 - Plan #1 (10-22-13)												
Survey Program: 0-NS-GYRO-MS, 6825-MWD												
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>			<b>Distance</b>				<b>Warning</b>			
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>
0.0	0.0	0.0	0.0	0.0	0.0	0.00	90.0	0.0	90.0			
100.0	100.0	100.0	100.0	0.1	0.1	0.00	90.0	0.0	90.0	89.7	0.27	338.866
200.0	200.0	200.0	200.0	0.4	0.4	0.00	90.0	0.0	90.0	89.2	0.80	112.955
300.0	300.0	300.0	300.0	0.7	0.7	0.00	90.0	0.0	90.0	88.6	1.33	67.773
400.0	400.0	400.0	400.0	0.9	0.9	0.00	90.0	0.0	90.0	88.1	1.86	48.409
500.0	500.0	500.0	500.0	1.2	1.2	0.00	90.0	0.0	90.0	87.6	2.39	37.652
600.0	600.0	600.0	600.0	1.5	1.5	0.00	90.0	0.0	90.0	87.0	2.92	30.806
700.0	700.0	700.0	700.0	1.7	1.7	0.00	90.0	0.0	90.0	86.5	3.45	26.067
800.0	800.0	800.0	800.0	2.0	2.0	0.00	90.0	0.0	90.0	86.0	3.98	22.591
900.0	900.0	900.0	900.0	2.3	2.3	0.00	90.0	0.0	90.0	85.4	4.51	19.933
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	0.00	90.0	0.0	90.0	84.9	5.04	17.835
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	0.00	90.0	0.0	90.0	84.4	5.57	16.136
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	0.00	90.0	0.0	90.0	83.8	6.11	14.733
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	0.00	90.0	0.0	90.0	83.3	6.64	13.555
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	0.00	90.0	0.0	90.0	82.8	7.17	12.551
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	0.00	90.0	0.0	90.0	82.3	7.70	11.685
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	0.00	90.0	0.0	90.0	81.7	8.23	10.931
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	0.00	90.0	0.0	90.0	81.2	8.76	10.269
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	0.00	90.0	0.0	90.0	80.7	9.29	9.682
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	0.00	90.0	0.0	90.0	80.1	9.82	9.159
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	0.00	90.0	0.0	90.0	79.6	10.35	8.689
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	0.00	90.0	0.0	90.0	79.1	10.88	8.265

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 Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS, 6825-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	0.00	90.0	0.0	90.0	78.5	11.41	7.881		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	0.00	90.0	0.0	90.0	78.0	11.95	7.530		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	0.00	90.0	0.0	90.0	77.5	12.48	7.210		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	0.00	90.0	0.0	90.0	76.9	13.01	6.916		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	0.00	90.0	0.0	90.0	76.4	13.54	6.644		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	0.00	90.0	0.0	90.0	75.9	14.07	6.394		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	0.00	90.0	0.0	90.0	75.4	14.60	6.161		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	0.00	90.0	0.0	90.0	74.8	15.13	5.945		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	0.00	90.0	0.0	90.0	74.3	15.66	5.743		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	0.00	90.0	0.0	90.0	73.8	16.19	5.555		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	0.00	90.0	0.0	90.0	73.2	16.72	5.379		
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	0.00	90.0	0.0	90.0	72.7	17.25	5.213		
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	0.00	90.0	0.0	90.0	72.2	17.78	5.058		
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	0.00	90.0	0.0	90.0	71.6	18.32	4.911		
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	0.00	90.0	0.0	90.0	71.1	18.85	4.773		
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	0.00	90.0	0.0	90.0	70.6	19.38	4.642		
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	0.00	90.0	0.0	90.0	70.0	19.91	4.518		
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	0.00	90.0	0.0	90.0	69.5	20.44	4.401		
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	0.00	90.0	0.0	90.0	69.0	20.97	4.289		
4,100.0	4,100.0	4,100.0	4,100.0	10.8	10.8	0.00	90.0	0.0	90.0	68.4	21.50	4.184		
4,200.0	4,200.0	4,200.0	4,200.0	11.0	11.0	0.00	90.0	0.0	90.0	67.9	22.03	4.083		
4,300.0	4,300.0	4,300.0	4,300.0	11.3	11.3	0.00	90.0	0.0	90.0	67.4	22.56	3.987		
4,400.0	4,400.0	4,400.0	4,400.0	11.5	11.5	0.00	90.0	0.0	90.0	66.9	23.09	3.895		
4,500.0	4,500.0	4,500.0	4,500.0	11.8	11.8	0.00	90.0	0.0	90.0	66.3	23.62	3.807		
4,600.0	4,600.0	4,600.0	4,600.0	12.1	12.1	0.00	90.0	0.0	90.0	65.8	24.16	3.724		
4,700.0	4,700.0	4,700.0	4,700.0	12.3	12.3	0.00	90.0	0.0	90.0	65.3	24.69	3.644		
4,800.0	4,800.0	4,800.0	4,800.0	12.6	12.6	0.00	90.0	0.0	90.0	64.7	25.22	3.567 CC, ES, SF		
4,900.0	4,900.0	4,900.0	4,900.0	12.7	12.9	-160.46	90.0	0.0	92.4	66.8	25.57	3.614		
5,000.0	4,999.6	4,999.6	4,999.6	12.7	13.1	-161.90	90.0	0.0	99.8	74.1	25.72	3.882		
5,100.0	5,098.8	5,098.8	5,098.8	12.7	13.4	-163.86	90.0	0.0	112.3	86.5	25.80	4.353		
5,200.0	5,197.1	5,197.1	5,197.1	12.7	13.7	-165.96	90.0	0.0	129.9	104.1	25.82	5.033		
5,300.0	5,294.3	5,294.3	5,294.3	12.7	13.9	-167.94	90.0	0.0	152.7	127.0	25.75	5.930		
5,400.0	5,390.2	5,390.2	5,390.2	12.7	14.2	-169.66	90.0	0.0	180.6	155.0	25.62	7.051		
5,500.0	5,484.4	5,484.4	5,484.4	12.7	14.4	-171.11	90.0	0.0	213.6	188.2	25.40	8.408		
5,600.0	5,576.8	5,575.7	5,575.7	12.7	14.6	-172.10	90.2	0.7	251.6	226.5	25.10	10.025		
5,700.0	5,667.1	5,663.0	5,662.8	12.8	14.8	-171.64	92.4	6.7	295.1	270.5	24.68	11.958		
5,800.0	5,754.9	5,746.7	5,745.5	12.9	14.9	-170.17	96.7	18.3	344.2	319.9	24.25	14.192		
5,900.0	5,841.7	5,827.1	5,823.9	13.0	15.1	-168.36	102.7	34.8	396.3	371.9	24.44	16.217		
6,000.0	5,928.5	5,904.7	5,898.3	13.1	15.2	-166.21	110.3	55.5	449.9	425.3	24.65	18.253		
6,100.0	6,015.2	5,978.9	5,967.9	13.2	15.4	-163.90	119.1	79.7	505.3	480.4	24.88	20.309		
6,200.0	6,102.0	6,049.4	6,032.3	13.3	15.5	-161.57	129.0	106.6	562.6	537.5	25.13	22.389		
6,300.0	6,188.8	6,115.9	6,091.4	13.5	15.6	-159.28	139.5	135.3	622.1	596.7	25.39	24.500		
6,400.0	6,275.6	6,184.6	6,151.4	13.7	15.8	-157.12	151.5	166.2	683.7	658.1	25.68	26.623		
6,500.0	6,362.8	6,259.7	6,221.2	13.9	15.9	-177.58	165.4	190.1	746.5	720.9	25.62	29.138		
6,600.0	6,450.2	6,336.0	6,295.1	14.0	16.1	150.89	179.8	201.7	809.7	783.4	26.26	30.828		
6,700.0	6,533.5	6,416.5	6,374.1	14.2	16.3	126.50	195.1	199.6	870.8	843.2	27.56	31.594		
6,800.0	6,608.3	6,506.4	6,460.1	14.3	16.5	110.11	211.4	180.1	927.3	898.5	28.78	32.220		
6,900.0	6,671.0	6,612.2	6,553.9	14.4	16.6	99.82	228.9	135.0	976.5	946.9	29.56	33.029		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS, 6840-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	-0.06	59.7	-0.1	59.7					
100.0	100.0	100.0	100.0	0.1	0.1	-0.06	59.7	-0.1	59.7	59.4	0.27	224.950		
200.0	200.0	200.0	200.0	0.4	0.4	-0.06	59.7	-0.1	59.7	58.9	0.80	74.983		
300.0	300.0	300.0	300.0	0.7	0.7	-0.06	59.7	-0.1	59.7	58.4	1.33	44.990		
400.0	400.0	400.0	400.0	0.9	0.9	-0.06	59.7	-0.1	59.7	57.9	1.86	32.136		
500.0	500.0	500.0	500.0	1.2	1.2	-0.06	59.7	-0.1	59.7	57.3	2.39	24.994		
600.0	600.0	600.0	600.0	1.5	1.5	-0.06	59.7	-0.1	59.7	56.8	2.92	20.450		
700.0	700.0	700.0	700.0	1.7	1.7	-0.06	59.7	-0.1	59.7	56.3	3.45	17.304		
800.0	800.0	800.0	800.0	2.0	2.0	-0.06	59.7	-0.1	59.7	55.7	3.98	14.997		
900.0	900.0	900.0	900.0	2.3	2.3	-0.06	59.7	-0.1	59.7	55.2	4.51	13.232		
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	-0.06	59.7	-0.1	59.7	54.7	5.04	11.839		
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	-0.06	59.7	-0.1	59.7	54.1	5.57	10.712		
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	-0.06	59.7	-0.1	59.7	53.6	6.11	9.780		
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	-0.06	59.7	-0.1	59.7	53.1	6.64	8.998		
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	-0.06	59.7	-0.1	59.7	52.5	7.17	8.331		
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	-0.06	59.7	-0.1	59.7	52.0	7.70	7.757		
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	-0.06	59.7	-0.1	59.7	51.5	8.23	7.256		
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	-0.06	59.7	-0.1	59.7	51.0	8.76	6.817		
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	-0.06	59.7	-0.1	59.7	50.4	9.29	6.427		
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	-0.06	59.7	-0.1	59.7	49.9	9.82	6.080		
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	-0.06	59.7	-0.1	59.7	49.4	10.35	5.768		
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	-0.06	59.7	-0.1	59.7	48.8	10.88	5.487		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	-0.06	59.7	-0.1	59.7	48.3	11.41	5.231		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	-0.06	59.7	-0.1	59.7	47.8	11.95	4.999		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	-0.06	59.7	-0.1	59.7	47.2	12.48	4.786		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	-0.06	59.7	-0.1	59.7	46.7	13.01	4.591		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	-0.06	59.7	-0.1	59.7	46.2	13.54	4.411		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	-0.06	59.7	-0.1	59.7	45.6	14.07	4.244		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	-0.06	59.7	-0.1	59.7	45.1	14.60	4.090		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	-0.06	59.7	-0.1	59.7	44.6	15.13	3.946		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	-0.06	59.7	-0.1	59.7	44.1	15.66	3.813		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	-0.06	59.7	-0.1	59.7	43.5	16.19	3.688		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	-0.06	59.7	-0.1	59.7	43.0	16.72	3.571		
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	-0.06	59.7	-0.1	59.7	42.5	17.25	3.461		
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	-0.06	59.7	-0.1	59.7	41.9	17.78	3.357		
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	-0.06	59.7	-0.1	59.7	41.4	18.32	3.260		
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	-0.06	59.7	-0.1	59.7	40.9	18.85	3.168		
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	-0.06	59.7	-0.1	59.7	40.3	19.38	3.082		
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	-0.06	59.7	-0.1	59.7	39.8	19.91	2.999		
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	-0.06	59.7	-0.1	59.7	39.3	20.44	2.921		
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	-0.06	59.7	-0.1	59.7	38.7	20.97	2.847		
4,100.0	4,100.0	4,100.0	4,100.0	10.8	10.8	-0.06	59.7	-0.1	59.7	38.2	21.50	2.777		
4,200.0	4,200.0	4,200.0	4,200.0	11.0	11.0	-0.06	59.7	-0.1	59.7	37.7	22.03	2.710		
4,300.0	4,300.0	4,300.0	4,300.0	11.3	11.3	-0.06	59.7	-0.1	59.7	37.1	22.56	2.646		
4,400.0	4,400.0	4,400.0	4,400.0	11.5	11.5	-0.06	59.7	-0.1	59.7	36.6	23.09	2.586		
4,500.0	4,500.0	4,500.0	4,500.0	11.8	11.8	-0.06	59.7	-0.1	59.7	36.1	23.62	2.528		
4,600.0	4,600.0	4,600.0	4,600.0	12.1	12.1	-0.06	59.7	-0.1	59.7	35.6	24.16	2.472		
4,700.0	4,700.0	4,700.0	4,700.0	12.3	12.3	-0.06	59.7	-0.1	59.7	35.0	24.69	2.419		
4,800.0	4,800.0	4,800.0	4,800.0	12.6	12.6	-0.06	59.7	-0.1	59.7	34.5	25.22	2.368 CC, ES		
4,900.0	4,900.0	4,900.0	4,900.0	12.7	12.9	-160.79	59.7	-0.1	62.2	36.6	25.57	2.431		
5,000.0	4,999.6	4,999.6	4,999.6	12.7	13.1	-162.85	59.7	-0.1	69.6	43.9	25.72	2.707		
5,100.0	5,098.8	5,098.8	5,098.8	12.7	13.4	-165.43	59.7	-0.1	82.2	56.4	25.80	3.186		

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 Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS, 6840-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	5,197.1	5,197.1	5,197.1	12.7	13.7	-167.95	59.7	-0.1	100.0	74.1	25.81	3.873		
5,300.0	5,294.3	5,294.3	5,294.3	12.7	13.9	-170.10	59.7	-0.1	122.9	97.2	25.74	4.774		
5,400.0	5,390.2	5,390.2	5,390.2	12.7	14.2	-171.83	59.7	-0.1	151.0	125.4	25.60	5.897		
5,500.0	5,484.4	5,484.4	5,484.4	12.7	14.4	-173.18	59.7	-0.1	184.1	158.7	25.39	7.252		
5,600.0	5,576.8	5,576.8	5,576.8	12.7	14.7	-174.23	59.7	-0.1	222.2	197.1	25.10	8.852		
5,700.0	5,667.1	5,673.0	5,673.0	12.8	14.9	-175.03	59.5	0.3	264.9	240.1	24.73	10.711		
5,800.0	5,754.9	5,799.5	5,798.4	12.9	15.0	-173.79	52.3	13.6	305.0	280.7	24.23	12.588		
5,900.0	5,841.7	5,933.9	5,926.5	13.0	15.1	-169.88	33.1	48.7	335.9	311.5	24.38	13.779		
6,000.0	5,928.5	6,056.8	6,035.6	13.1	15.1	-164.37	6.1	98.3	357.0	332.4	24.63	14.497		
6,100.0	6,015.2	6,150.6	6,116.6	13.2	15.2	-160.09	-16.6	139.8	377.7	352.8	24.91	15.164		
6,200.0	6,102.0	6,248.9	6,203.1	13.3	15.3	-156.68	-40.8	179.3	399.9	374.7	25.20	15.872		
6,300.0	6,188.8	6,354.6	6,302.6	13.5	15.3	-156.53	-69.1	200.1	421.2	395.9	25.32	16.635		
6,400.0	6,275.6	6,455.9	6,399.6	13.7	15.3	-159.52	-97.1	196.5	441.2	415.9	25.25	17.471		
6,500.0	6,362.8	6,545.9	6,483.1	13.9	15.4	179.22	-121.6	174.0	462.7	437.6	25.15	18.398		
6,600.0	6,450.2	6,629.9	6,555.5	14.0	15.4	149.67	-143.0	137.5	486.7	461.0	25.68	18.950		
6,700.0	6,533.5	6,710.1	6,617.1	14.2	15.4	126.89	-161.5	89.9	510.8	484.2	26.64	19.175		
6,800.0	6,608.3	6,787.6	6,667.9	14.3	15.4	111.42	-177.1	33.5	533.2	505.6	27.60	19.319		
6,900.0	6,671.0	6,863.4	6,707.5	14.4	16.9	101.25	-189.5	-29.8	552.3	524.0	28.36	19.477		
7,000.0	6,718.2	6,938.0	6,735.8	16.1	16.9	94.82	-198.8	-98.0	566.8	537.9	28.88	19.624		
7,100.0	6,747.5	7,011.8	6,752.5	16.1	17.0	91.21	-204.8	-169.6	575.8	545.9	29.91	19.255		
7,200.0	6,757.5	7,087.3	6,757.5	16.2	17.1	90.00	-207.5	-244.8	578.9	547.2	31.70	18.260		
7,300.0	6,757.5	7,187.3	6,757.5	16.5	18.0	90.00	-209.1	-344.8	578.5	544.0	34.42	16.806		
7,400.0	6,757.5	7,287.3	6,757.5	18.2	19.6	90.00	-210.7	-444.8	578.1	540.3	37.77	15.307		
7,500.0	6,757.5	7,387.3	6,757.5	20.2	21.4	90.00	-212.4	-544.8	577.7	536.1	41.60	13.886		
7,600.0	6,757.5	7,487.3	6,757.5	22.3	23.5	90.00	-214.0	-644.7	577.3	531.5	45.80	12.603		
7,700.0	6,757.5	7,587.3	6,757.5	24.6	25.7	90.00	-215.6	-744.7	576.9	526.6	50.28	11.472		
7,800.0	6,757.5	7,687.3	6,757.5	27.0	27.9	90.00	-217.3	-844.7	576.5	521.5	54.97	10.487		
7,900.0	6,757.5	7,787.3	6,757.5	29.5	30.3	90.00	-218.9	-944.7	576.1	516.2	59.82	9.630		
8,000.0	6,757.5	7,887.3	6,757.5	32.0	32.8	90.00	-220.6	-1,044.7	575.7	510.9	64.79	8.885		
8,100.0	6,757.5	7,987.3	6,757.5	34.6	35.3	90.00	-222.2	-1,144.7	575.3	505.4	69.86	8.235		
8,200.0	6,757.5	8,087.3	6,757.5	37.2	37.8	90.00	-223.8	-1,244.7	574.9	499.9	75.00	7.664		
8,300.0	6,757.5	8,187.3	6,757.5	39.8	40.4	90.00	-225.5	-1,344.6	574.5	494.3	80.21	7.162		
8,400.0	6,757.5	8,287.3	6,757.5	42.5	43.0	90.00	-227.1	-1,444.6	574.1	488.6	85.47	6.716		
8,500.0	6,757.5	8,387.3	6,757.5	45.2	45.6	90.00	-228.7	-1,544.6	573.7	482.9	90.78	6.320		
8,600.0	6,757.5	8,487.3	6,757.5	47.8	48.3	90.00	-230.4	-1,644.6	573.3	477.2	96.11	5.964		
8,700.0	6,757.5	8,587.3	6,757.5	50.5	50.9	90.00	-232.0	-1,744.6	572.9	471.4	101.48	5.645		
8,800.0	6,757.5	8,687.3	6,757.5	53.3	53.6	90.00	-233.7	-1,844.6	572.5	465.6	106.88	5.356		
8,900.0	6,757.5	8,787.3	6,757.5	56.0	56.3	90.00	-235.3	-1,944.6	572.1	459.8	112.29	5.095		
9,000.0	6,757.5	8,887.3	6,757.5	58.7	59.0	90.00	-236.9	-2,044.5	571.7	454.0	117.72	4.856		
9,100.0	6,757.5	8,987.3	6,757.5	61.4	61.7	90.00	-238.6	-2,144.5	571.3	448.1	123.17	4.638		
9,200.0	6,757.5	9,087.3	6,757.5	64.2	64.5	90.00	-240.2	-2,244.5	570.9	442.2	128.64	4.438		
9,300.0	6,757.5	9,187.3	6,757.5	66.9	67.2	90.00	-241.8	-2,344.5	570.5	436.4	134.11	4.254		
9,400.0	6,757.5	9,287.3	6,757.5	69.7	69.9	90.00	-243.5	-2,444.5	570.1	430.5	139.60	4.084		
9,500.0	6,757.5	9,387.2	6,757.5	72.4	72.7	90.00	-245.1	-2,544.5	569.7	424.6	145.10	3.926		
9,600.0	6,757.5	9,487.2	6,757.5	75.2	75.4	90.00	-246.8	-2,644.5	569.3	418.7	150.61	3.780		
9,700.0	6,757.5	9,587.2	6,757.5	78.0	78.2	90.00	-248.4	-2,744.4	568.9	412.8	156.12	3.644		
9,800.0	6,757.5	9,687.2	6,757.5	80.7	80.9	90.00	-250.0	-2,844.4	568.5	406.8	161.64	3.517		
9,900.0	6,757.5	9,787.2	6,757.5	83.5	83.7	90.00	-251.7	-2,944.4	568.1	400.9	167.17	3.398		
10,000.0	6,757.5	9,887.2	6,757.5	86.3	86.4	90.00	-253.3	-3,044.4	567.7	395.0	172.70	3.287		
10,100.0	6,757.5	9,987.2	6,757.5	89.1	89.2	90.00	-254.9	-3,144.4	567.3	389.1	178.24	3.183		
10,200.0	6,757.5	10,087.2	6,757.5	91.8	91.9	90.00	-256.6	-3,244.4	566.9	383.1	183.78	3.085		
10,300.0	6,757.5	10,187.2	6,757.5	94.6	94.7	90.00	-258.2	-3,344.4	566.5	377.2	189.32	2.992		

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 Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
Spaur Brothers North Pad Sec.31-T7N-R63W - Spaur Brothers EH 31-222HN - Wellbore #1 - Plan #1 (1												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 0-NS-GYRO-MS, 6840-MWD													
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.0	6,757.5	10,287.2	6,757.5	97.4	97.5	90.00	-259.9	-3,444.3	566.1	371.2	194.88	2.905	
10,500.0	6,757.5	10,387.2	6,757.5	100.2	100.3	90.00	-261.5	-3,544.3	565.7	365.3	200.43	2.822	
10,600.0	6,757.5	10,487.2	6,757.5	103.0	103.0	90.00	-263.1	-3,644.3	565.3	359.3	205.99	2.744	
10,700.0	6,757.5	10,587.2	6,757.5	105.7	105.8	90.00	-264.8	-3,744.3	564.9	353.4	211.55	2.670	
10,800.0	6,757.5	10,687.2	6,757.5	108.5	108.6	90.00	-266.4	-3,844.3	564.5	347.4	217.11	2.600	
10,900.0	6,757.5	10,787.2	6,757.5	111.3	111.4	90.00	-268.0	-3,944.3	564.1	341.4	222.67	2.533	
11,000.0	6,757.5	10,887.2	6,757.5	114.1	114.1	90.00	-269.7	-4,044.3	563.7	335.5	228.24	2.470	
11,100.0	6,757.5	10,987.2	6,757.5	116.9	116.9	90.00	-271.3	-4,144.2	563.3	329.5	233.81	2.409	
11,200.0	6,757.5	11,087.2	6,757.5	119.7	119.7	90.00	-273.0	-4,244.2	562.9	323.5	239.39	2.351	
11,300.0	6,757.5	11,187.2	6,757.5	122.5	122.5	90.00	-274.6	-4,344.2	562.5	317.5	244.96	2.296	
11,400.0	6,757.5	11,287.2	6,757.5	125.3	125.3	90.00	-276.2	-4,444.2	562.1	311.6	250.54	2.244	
11,437.8	6,757.5	11,325.0	6,757.5	126.3	126.3	90.00	-276.9	-4,482.0	561.9	309.2	252.64	2.224 SF	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS, 7010-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	-0.12	30.2	-0.1	30.2					
100.0	100.0	100.0	100.0	0.1	0.1	-0.12	30.2	-0.1	30.2	29.9	0.27	113.627		
200.0	200.0	200.0	200.0	0.4	0.4	-0.12	30.2	-0.1	30.2	29.4	0.80	37.876		
300.0	300.0	300.0	300.0	0.7	0.7	-0.12	30.2	-0.1	30.2	28.8	1.33	22.725		
400.0	400.0	400.0	400.0	0.9	0.9	-0.12	30.2	-0.1	30.2	28.3	1.86	16.232		
500.0	500.0	500.0	500.0	1.2	1.2	-0.12	30.2	-0.1	30.2	27.8	2.39	12.625		
600.0	600.0	600.0	600.0	1.5	1.5	-0.12	30.2	-0.1	30.2	27.2	2.92	10.330		
700.0	700.0	700.0	700.0	1.7	1.7	-0.12	30.2	-0.1	30.2	26.7	3.45	8.741		
800.0	800.0	800.0	800.0	2.0	2.0	-0.12	30.2	-0.1	30.2	26.2	3.98	7.575		
900.0	900.0	900.0	900.0	2.3	2.3	-0.12	30.2	-0.1	30.2	25.6	4.51	6.684		
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	-0.12	30.2	-0.1	30.2	25.1	5.04	5.980		
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	-0.12	30.2	-0.1	30.2	24.6	5.57	5.411		
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	-0.12	30.2	-0.1	30.2	24.1	6.11	4.940		
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	-0.12	30.2	-0.1	30.2	23.5	6.64	4.545		
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	-0.12	30.2	-0.1	30.2	23.0	7.17	4.208		
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	-0.12	30.2	-0.1	30.2	22.5	7.70	3.918		
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	-0.12	30.2	-0.1	30.2	21.9	8.23	3.665		
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	-0.12	30.2	-0.1	30.2	21.4	8.76	3.443		
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	-0.12	30.2	-0.1	30.2	20.9	9.29	3.246		
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	-0.12	30.2	-0.1	30.2	20.3	9.82	3.071		
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	-0.12	30.2	-0.1	30.2	19.8	10.35	2.914		
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	-0.12	30.2	-0.1	30.2	19.3	10.88	2.771		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	-0.12	30.2	-0.1	30.2	18.7	11.41	2.642		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	-0.12	30.2	-0.1	30.2	18.2	11.95	2.525		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	-0.12	30.2	-0.1	30.2	17.7	12.48	2.418		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	-0.12	30.2	-0.1	30.2	17.2	13.01	2.319		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	-0.12	30.2	-0.1	30.2	16.6	13.54	2.228		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	-0.12	30.2	-0.1	30.2	16.1	14.07	2.144		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	-0.12	30.2	-0.1	30.2	15.6	14.60	2.066		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	-0.12	30.2	-0.1	30.2	15.0	15.13	1.993		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	-0.12	30.2	-0.1	30.2	14.5	15.66	1.926		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	-0.12	30.2	-0.1	30.2	14.0	16.19	1.863		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	-0.12	30.2	-0.1	30.2	13.4	16.72	1.804		
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	-0.12	30.2	-0.1	30.2	12.9	17.25	1.748		
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	-0.12	30.2	-0.1	30.2	12.4	17.78	1.696		
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	-0.12	30.2	-0.1	30.2	11.8	18.32	1.647		
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	-0.12	30.2	-0.1	30.2	11.3	18.85	1.600		
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	-0.12	30.2	-0.1	30.2	10.8	19.38	1.557		
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	-0.12	30.2	-0.1	30.2	10.3	19.91	1.515		
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	-0.12	30.2	-0.1	30.2	9.7	20.44	1.476 Level 3		
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	-0.12	30.2	-0.1	30.2	9.2	20.97	1.438 Level 3		
4,100.0	4,100.0	4,100.0	4,100.0	10.8	10.8	-0.12	30.2	-0.1	30.2	8.7	21.50	1.403 Level 3		
4,200.0	4,200.0	4,200.0	4,200.0	11.0	11.0	-0.12	30.2	-0.1	30.2	8.1	22.03	1.369 Level 3		
4,300.0	4,300.0	4,300.0	4,300.0	11.3	11.3	-0.12	30.2	-0.1	30.2	7.6	22.56	1.337 Level 3		
4,400.0	4,400.0	4,400.0	4,400.0	11.5	11.5	-0.12	30.2	-0.1	30.2	7.1	23.09	1.306 Level 3		
4,500.0	4,500.0	4,500.0	4,500.0	11.8	11.8	-0.12	30.2	-0.1	30.2	6.5	23.62	1.277 Level 3		
4,600.0	4,600.0	4,600.0	4,600.0	12.1	12.1	-0.12	30.2	-0.1	30.2	6.0	24.16	1.249 Level 2		
4,700.0	4,700.0	4,700.0	4,700.0	12.3	12.3	-0.12	30.2	-0.1	30.2	5.5	24.69	1.222 Level 2		
4,800.0	4,800.0	4,800.0	4,800.0	12.6	12.6	-0.12	30.2	-0.1	30.2	4.9	25.22	1.196 Level 2, CC, ES, SF		
4,900.0	4,900.0	4,900.0	4,900.0	12.7	12.9	-161.59	30.2	-0.1	32.6	7.1	25.57	1.276 Level 3		
5,000.0	4,999.6	4,999.6	4,999.6	12.7	13.1	-165.07	30.2	-0.1	40.2	14.4	25.72	1.561		
5,100.0	5,098.8	5,098.8	5,098.8	12.7	13.4	-168.64	30.2	-0.1	52.9	27.1	25.79	2.050		

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 Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		Spaur Brothers North Pad Sec.31-T7N-R63W - Spaur Brothers EH 31-259HC - Wellbore #1 - Plan #1 (1										Offset Site Error:		0.0 ft	
Survey Program: 0-NS-GYRO-MS, 7010-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)				
5,200.0	5,197.1	5,197.1	5,197.1	12.7	13.7	-171.46	30.2	-0.1	70.8	45.0	25.80	2.746			
5,300.0	5,294.3	5,294.3	5,294.3	12.7	13.9	-173.49	30.2	-0.1	94.0	68.3	25.73	3.654			
5,400.0	5,390.2	5,395.6	5,395.5	12.7	14.1	-174.46	28.4	1.5	120.3	94.8	25.48	4.719			
5,500.0	5,484.4	5,498.3	5,497.9	12.7	14.1	-174.26	22.5	6.8	147.0	121.9	25.05	5.867			
5,600.0	5,576.8	5,602.3	5,601.0	12.7	14.1	-173.40	12.5	16.0	174.1	149.5	24.57	7.087			
5,700.0	5,667.1	5,707.4	5,704.3	12.8	14.1	-172.12	-1.9	29.0	201.7	177.6	24.05	8.386			
5,800.0	5,754.9	5,813.7	5,807.5	12.9	14.1	-170.58	-20.8	46.0	229.6	206.1	23.53	9.757			
5,900.0	5,841.7	5,921.9	5,911.0	13.0	14.2	-168.85	-44.3	67.3	255.2	231.6	23.63	10.800			
6,000.0	5,928.5	6,023.9	6,007.0	13.1	14.2	-167.00	-69.7	90.3	277.3	253.5	23.76	11.671			
6,100.0	6,015.2	6,121.2	6,098.5	13.2	14.3	-165.45	-94.2	112.5	299.2	275.3	23.90	12.520			
6,200.0	6,102.0	6,218.4	6,190.0	13.3	14.4	-164.12	-118.8	134.7	321.3	297.2	24.05	13.358			
6,300.0	6,188.8	6,315.7	6,281.4	13.5	14.4	-162.95	-143.3	156.9	343.5	319.3	24.23	14.181			
6,400.0	6,275.6	6,413.0	6,372.9	13.7	14.5	-161.93	-167.9	179.1	365.9	341.5	24.41	14.987			
6,500.0	6,362.8	6,510.0	6,464.6	13.9	14.6	-177.73	-192.5	198.6	388.5	364.0	24.52	15.844			
6,600.0	6,450.2	6,608.3	6,559.3	14.0	14.6	157.78	-218.3	199.5	411.3	386.6	24.66	16.682			
6,700.0	6,533.5	6,709.3	6,654.1	14.2	14.7	139.30	-244.4	177.9	433.2	408.3	24.91	17.395			
6,800.0	6,608.3	6,813.4	6,744.3	14.3	14.7	127.27	-269.5	132.7	453.2	427.9	25.25	17.951			
6,900.0	6,671.0	6,921.0	6,823.9	14.4	14.8	119.72	-292.2	64.4	470.0	444.4	25.62	18.348			
7,000.0	6,718.2	7,031.7	6,886.6	16.1	16.5	115.10	-310.5	-24.6	482.8	456.8	26.00	18.569			
7,100.0	6,747.5	7,144.9	6,926.6	16.1	16.5	112.55	-322.9	-129.4	490.6	463.7	26.96	18.201			
7,200.0	6,757.5	7,258.5	6,939.5	16.2	16.6	111.66	-328.0	-241.8	493.1	464.2	28.88	17.074			
7,300.0	6,757.5	7,358.5	6,939.5	16.5	17.4	111.67	-329.4	-341.8	492.9	461.5	31.48	15.660			
7,400.0	6,757.5	7,458.5	6,939.5	18.2	19.0	111.68	-330.8	-441.8	492.8	458.1	34.64	14.226			
7,500.0	6,757.5	7,558.5	6,939.5	20.2	20.9	111.68	-332.3	-541.8	492.6	454.3	38.26	12.875			
7,600.0	6,757.5	7,658.5	6,939.5	22.3	22.9	111.69	-333.7	-641.8	492.4	450.2	42.22	11.663			
7,700.0	6,757.5	7,758.5	6,939.5	24.6	25.1	111.70	-335.1	-741.8	492.2	445.8	46.44	10.600			
7,800.0	6,757.5	7,858.5	6,939.5	27.0	27.5	111.71	-336.5	-841.8	492.1	441.2	50.84	9.678			
7,900.0	6,757.5	7,958.5	6,939.5	29.5	29.9	111.72	-338.0	-941.8	491.9	436.5	55.39	8.880			
8,000.0	6,757.5	8,058.5	6,939.5	32.0	32.3	111.72	-339.4	-1,041.8	491.7	431.7	60.06	8.188			
8,100.0	6,757.5	8,158.5	6,939.5	34.6	34.9	111.73	-340.8	-1,141.7	491.6	426.8	64.81	7.585			
8,200.0	6,757.5	8,258.5	6,939.5	37.2	37.4	111.74	-342.2	-1,241.7	491.4	421.8	69.63	7.057			
8,300.0	6,757.5	8,358.5	6,939.5	39.8	40.0	111.75	-343.6	-1,341.7	491.2	416.7	74.50	6.593			
8,400.0	6,757.5	8,458.5	6,939.5	42.5	42.6	111.76	-345.1	-1,441.7	491.0	411.6	79.43	6.182			
8,500.0	6,757.5	8,558.5	6,939.5	45.2	45.3	111.76	-346.5	-1,541.7	490.9	406.5	84.38	5.817			
8,600.0	6,757.5	8,658.5	6,939.5	47.8	48.0	111.77	-347.9	-1,641.7	490.7	401.3	89.37	5.490			
8,700.0	6,757.5	8,758.5	6,939.5	50.5	50.6	111.78	-349.3	-1,741.7	490.5	396.1	94.39	5.197			
8,800.0	6,757.5	8,858.5	6,939.5	53.3	53.3	111.79	-350.8	-1,841.7	490.4	390.9	99.43	4.932			
8,900.0	6,757.5	8,958.5	6,939.5	56.0	56.0	111.80	-352.2	-1,941.7	490.2	385.7	104.48	4.692			
9,000.0	6,757.5	9,058.5	6,939.5	58.7	58.7	111.80	-353.6	-2,041.7	490.0	380.5	109.56	4.473			
9,100.0	6,757.5	9,158.5	6,939.5	61.4	61.5	111.81	-355.0	-2,141.6	489.8	375.2	114.64	4.273			
9,200.0	6,757.5	9,258.5	6,939.5	64.2	64.2	111.82	-356.5	-2,241.6	489.7	369.9	119.74	4.089			
9,300.0	6,757.5	9,358.5	6,939.5	66.9	66.9	111.83	-357.9	-2,341.6	489.5	364.6	124.85	3.921			
9,400.0	6,757.5	9,458.5	6,939.5	69.7	69.7	111.84	-359.3	-2,441.6	489.3	359.4	129.97	3.765			
9,500.0	6,757.5	9,558.5	6,939.5	72.4	72.4	111.84	-360.7	-2,541.6	489.2	354.1	135.09	3.621			
9,600.0	6,757.5	9,658.5	6,939.5	75.2	75.2	111.85	-362.2	-2,641.6	489.0	348.8	140.23	3.487			
9,700.0	6,757.5	9,758.5	6,939.5	78.0	77.9	111.86	-363.6	-2,741.6	488.8	343.4	145.37	3.363			
9,800.0	6,757.5	9,858.5	6,939.5	80.7	80.7	111.87	-365.0	-2,841.6	488.6	338.1	150.51	3.247			
9,900.0	6,757.5	9,958.5	6,939.5	83.5	83.4	111.88	-366.4	-2,941.6	488.5	332.8	155.66	3.138			
10,000.0	6,757.5	10,058.5	6,939.5	86.3	86.2	111.88	-367.9	-3,041.6	488.3	327.5	160.82	3.036			
10,100.0	6,757.5	10,158.5	6,939.5	89.1	89.0	111.89	-369.3	-3,141.5	488.1	322.2	165.97	2.941			
10,200.0	6,757.5	10,258.5	6,939.5	91.8	91.7	111.90	-370.7	-3,241.5	488.0	316.8	171.14	2.851			
10,300.0	6,757.5	10,358.5	6,939.5	94.6	94.5	111.91	-372.1	-3,341.5	487.8	311.5	176.30	2.767			

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 Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Spaur Brothers North Pad Sec.31-T7N-R63W - Spaur Brothers EH 31-259HC - Wellbore #1 - Plan #1 (1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-NS-GYRO-MS, 7010-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	6,757.5	10,458.5	6,939.5	97.4	97.3	111.92	-373.6	-3,441.5	487.6	306.1	181.47	2.687	
10,500.0	6,757.5	10,558.5	6,939.5	100.2	100.1	111.92	-375.0	-3,541.5	487.4	300.8	186.64	2.612	
10,600.0	6,757.5	10,658.5	6,939.5	103.0	102.8	111.93	-376.4	-3,641.5	487.3	295.5	191.81	2.540	
10,700.0	6,757.5	10,758.5	6,939.5	105.7	105.6	111.94	-377.8	-3,741.5	487.1	290.1	196.99	2.473	
10,800.0	6,757.5	10,858.5	6,939.5	108.5	108.4	111.95	-379.3	-3,841.5	486.9	284.8	202.16	2.409	
10,900.0	6,757.5	10,958.5	6,939.5	111.3	111.2	111.96	-380.7	-3,941.5	486.8	279.4	207.34	2.348	
11,000.0	6,757.5	11,058.5	6,939.5	114.1	114.0	111.97	-382.1	-4,041.4	486.6	274.1	212.52	2.290	
11,100.0	6,757.5	11,158.5	6,939.5	116.9	116.8	111.97	-383.5	-4,141.4	486.4	268.7	217.71	2.234	
11,200.0	6,757.5	11,258.5	6,939.5	119.7	119.5	111.98	-385.0	-4,241.4	486.2	263.3	222.89	2.182	
11,300.0	6,757.5	11,358.5	6,939.5	122.5	122.3	111.99	-386.4	-4,341.4	486.1	258.0	228.07	2.131	
11,400.0	6,757.5	11,458.5	6,939.5	125.3	125.1	112.00	-387.8	-4,441.4	485.9	252.6	233.26	2.083	
11,437.8	6,757.5	11,496.2	6,939.5	126.3	126.2	112.00	-388.3	-4,479.2	485.7	250.5	235.21	2.065	



<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4778.5ft (RKB - 16.5')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Spaur Brothers EH 31-262HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.66°





<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Spaur Brothers EH 31-262HN
<b>Project:</b>	SEC.31-T7N-R63W	<b>TVD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Reference Site:</b>	Spaur Brothers North Pad Sec.31-T7N-R63W	<b>MD Reference:</b>	WELL @ 4778.5ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Spaur Brothers EH 31-262HN	<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 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4778.5ft (RKB - 16.5')  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Spaur Brothers EH 31-262HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.66°

