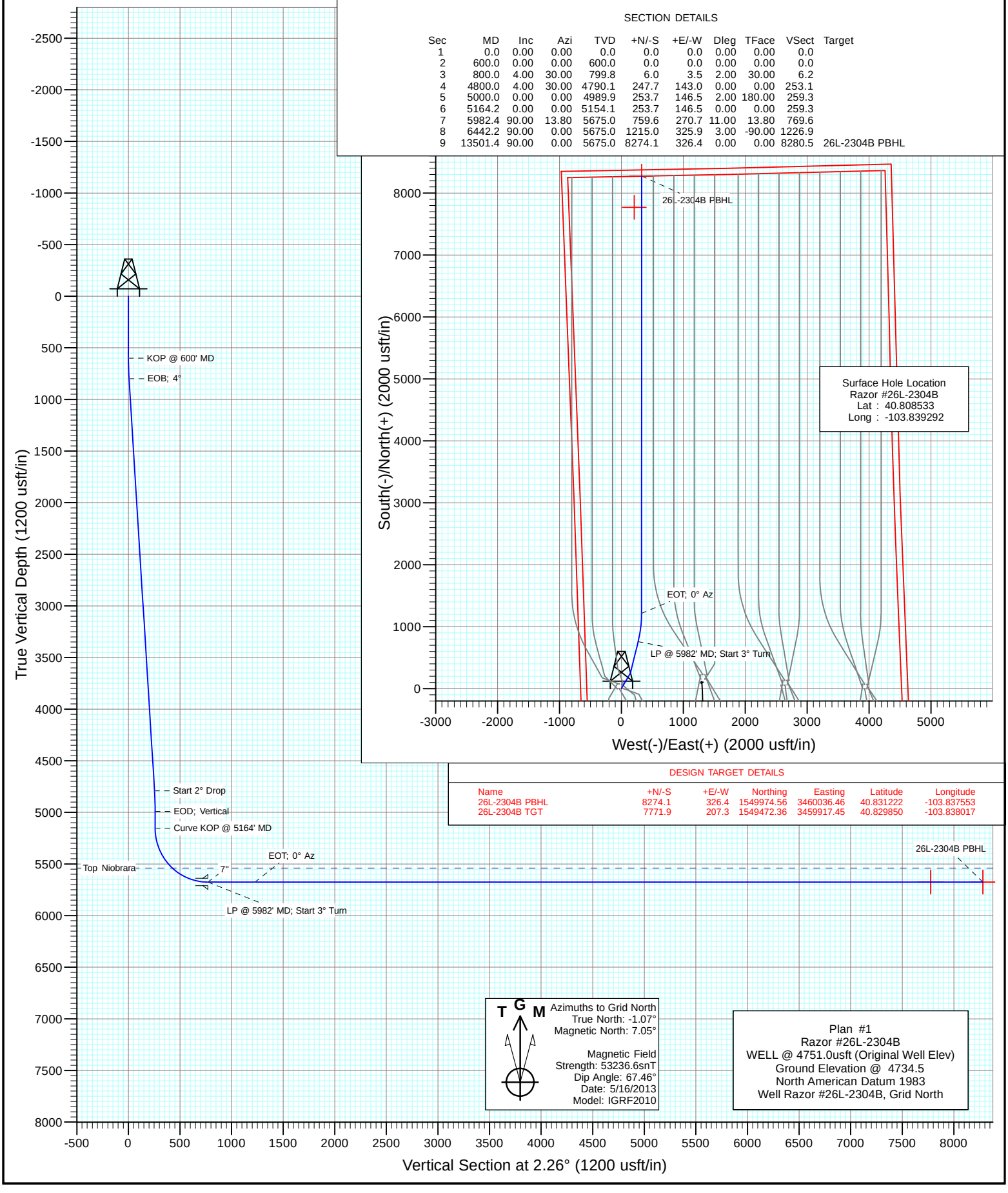
WHITING PETROLEUM CORPORATION

Project: Weld County, CO
Site: S26-T10N-R58W
Well: Razor #26L-2304B
Wellbore: HZ
Design: Plan #1

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	800.0	4.00	30.00	799.8	6.0	3.5	2.00	30.00	6.2	
4	4800.0	4.00	30.00	4790.1	247.7	143.0	0.00	0.00	253.1	
5	5000.0	0.00	0.00	4989.9	253.7	146.5	2.00	180.00	259.3	
6	5164.2	0.00	0.00	5154.1	253.7	146.5	0.00	0.00	259.3	
7	5982.4	90.00	13.80	5675.0	759.6	270.7	11.00	13.80	769.6	
8	6442.2	90.00	0.00	5675.0	1215.0	325.9	3.00	-90.00	1226.9	
9	13501.4	90.00	0.00	5675.0	8274.1	326.4	0.00	0.00	8280.5	26L-2304B PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
26L-2304B PBHL	8274.1	326.4	1549974.56	3460036.46	40.831222	-103.837553
26L-2304B TGT	7771.9	207.3	1549472.36	3459917.45	40.829850	-103.838017

Plan #1
Razor #26L-2304B
WELL @ 4751.0usft (Original Well Elev)
Ground Elevation @ 4734.5
North American Datum 1983
Well Razor #26L-2304B, Grid North

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Project:	Weld County, CO	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site:	S26-T10N-R58W	**North Reference:**	Grid
Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Project Weld County, CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site S26-T10N-R58W

Site Position:		**Northing:**	1,541,777.36 ft	**Latitude:**	40.808739
From:	Lat/Long	**Easting:**	3,459,649.47 ft	**Longitude:**	-103.839531
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.07 °

Well Razor #26L-2304B

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,541,703.53 ft	**Latitude:**	40.808533
	+E/-W	0.0 ft	**Easting:**	3,459,717.03 ft	**Longitude:**	-103.839292
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,734.5 ft

Wellbore HZ

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/16/2013	8.13	67.46	53,237

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	2.26

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	4.00	30.00	799.8	6.0	3.5	2.00	2.00	0.00	30.00	
4,800.0	4.00	30.00	4,790.1	247.7	143.0	0.00	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,989.9	253.7	146.5	2.00	-2.00	0.00	180.00	
5,164.2	0.00	0.00	5,154.1	253.7	146.5	0.00	0.00	0.00	0.00	
5,982.4	90.00	13.80	5,675.0	759.6	270.7	11.00	11.00	0.00	13.80	
6,442.2	90.00	0.00	5,675.0	1,215.0	325.9	3.00	0.00	-3.00	-90.00	
13,501.4	90.00	0.00	5,675.0	8,274.1	326.4	0.00	0.00	0.00	0.00	26L-2304B PBHL

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Project:	Weld County, CO	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site:	S26-T10N-R58W	**North Reference:**	Grid
Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

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)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600' MD
700.0	2.00	30.00	700.0	1.5	0.9	1.5	2.00	2.00	
800.0	4.00	30.00	799.8	6.0	3.5	6.2	2.00	2.00	EOB; 4°
900.0	4.00	30.00	899.6	12.1	7.0	12.4	0.00	0.00	
1,000.0	4.00	30.00	999.4	18.1	10.5	18.5	0.00	0.00	
1,100.0	4.00	30.00	1,099.1	24.2	14.0	24.7	0.00	0.00	
1,200.0	4.00	30.00	1,198.9	30.2	17.4	30.9	0.00	0.00	
1,300.0	4.00	30.00	1,298.6	36.2	20.9	37.0	0.00	0.00	
1,400.0	4.00	30.00	1,398.4	42.3	24.4	43.2	0.00	0.00	
1,500.0	4.00	30.00	1,498.1	48.3	27.9	49.4	0.00	0.00	
1,600.0	4.00	30.00	1,597.9	54.4	31.4	55.6	0.00	0.00	
1,700.0	4.00	30.00	1,697.6	60.4	34.9	61.7	0.00	0.00	
1,800.0	4.00	30.00	1,797.4	66.5	38.4	67.9	0.00	0.00	
1,900.0	4.00	30.00	1,897.2	72.5	41.9	74.1	0.00	0.00	
2,000.0	4.00	30.00	1,996.9	78.5	45.3	80.3	0.00	0.00	
2,100.0	4.00	30.00	2,096.7	84.6	48.8	86.4	0.00	0.00	
2,200.0	4.00	30.00	2,196.4	90.6	52.3	92.6	0.00	0.00	
2,300.0	4.00	30.00	2,296.2	96.7	55.8	98.8	0.00	0.00	
2,400.0	4.00	30.00	2,395.9	102.7	59.3	105.0	0.00	0.00	
2,500.0	4.00	30.00	2,495.7	108.7	62.8	111.1	0.00	0.00	
2,600.0	4.00	30.00	2,595.5	114.8	66.3	117.3	0.00	0.00	
2,700.0	4.00	30.00	2,695.2	120.8	69.8	123.5	0.00	0.00	
2,800.0	4.00	30.00	2,795.0	126.9	73.2	129.7	0.00	0.00	
2,900.0	4.00	30.00	2,894.7	132.9	76.7	135.8	0.00	0.00	
3,000.0	4.00	30.00	2,994.5	138.9	80.2	142.0	0.00	0.00	
3,100.0	4.00	30.00	3,094.2	145.0	83.7	148.2	0.00	0.00	
3,200.0	4.00	30.00	3,194.0	151.0	87.2	154.3	0.00	0.00	
3,300.0	4.00	30.00	3,293.7	157.1	90.7	160.5	0.00	0.00	
3,400.0	4.00	30.00	3,393.5	163.1	94.2	166.7	0.00	0.00	
3,500.0	4.00	30.00	3,493.3	169.2	97.7	172.9	0.00	0.00	
3,600.0	4.00	30.00	3,593.0	175.2	101.1	179.0	0.00	0.00	
3,700.0	4.00	30.00	3,692.8	181.2	104.6	185.2	0.00	0.00	
3,800.0	4.00	30.00	3,792.5	187.3	108.1	191.4	0.00	0.00	
3,900.0	4.00	30.00	3,892.3	193.3	111.6	197.6	0.00	0.00	
4,000.0	4.00	30.00	3,992.0	199.4	115.1	203.7	0.00	0.00	
4,100.0	4.00	30.00	4,091.8	205.4	118.6	209.9	0.00	0.00	
4,200.0	4.00	30.00	4,191.6	211.4	122.1	216.1	0.00	0.00	
4,300.0	4.00	30.00	4,291.3	217.5	125.6	222.3	0.00	0.00	
4,400.0	4.00	30.00	4,391.1	223.5	129.1	228.4	0.00	0.00	
4,500.0	4.00	30.00	4,490.8	229.6	132.5	234.6	0.00	0.00	
4,600.0	4.00	30.00	4,590.6	235.6	136.0	240.8	0.00	0.00	
4,700.0	4.00	30.00	4,690.3	241.6	139.5	247.0	0.00	0.00	
4,800.0	4.00	30.00	4,790.1	247.7	143.0	253.1	0.00	0.00	Start 2° Drop
4,900.0	2.00	30.00	4,890.0	252.2	145.6	257.8	2.00	-2.00	
5,000.0	0.00	0.00	4,989.9	253.7	146.5	259.3	2.00	-2.00	EOD; Vertical
5,100.0	0.00	0.00	5,089.9	253.7	146.5	259.3	0.00	0.00	

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Project:	Weld County, CO	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site:	S26-T10N-R58W	**North Reference:**	Grid
Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

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)	Comments / Formations
5,164.2	0.00	0.00	5,154.1	253.7	146.5	259.3	0.00	0.00	Curve KOP @ 5164' MD
5,200.0	3.94	13.80	5,189.9	254.9	146.8	260.5	11.00	11.00	
5,300.0	14.94	13.80	5,288.4	270.8	150.7	276.6	11.00	11.00	
5,400.0	25.94	13.80	5,382.0	304.7	159.0	310.7	11.00	11.00	
5,500.0	36.94	13.80	5,467.1	355.3	171.4	361.7	11.00	11.00	
5,598.8	47.80	13.80	5,540.0	419.8	187.3	426.8	11.00	11.00	Top Niobrara
5,600.0	47.94	13.80	5,540.8	420.7	187.5	427.8	11.00	11.00	
5,700.0	58.94	13.80	5,600.3	498.6	206.6	506.3	11.00	11.00	
5,800.0	69.94	13.80	5,643.4	586.0	228.1	594.6	11.00	11.00	
5,900.0	80.94	13.80	5,668.5	679.9	251.2	689.3	11.00	11.00	
5,982.4	90.00	13.80	5,675.0	759.6	270.7	769.7	11.00	11.00	LP @ 5982' MD; Start 3° Turn - 7"
6,000.0	90.00	13.27	5,675.0	776.7	274.9	786.9	3.01	0.00	
6,100.0	90.00	10.27	5,675.0	874.6	295.3	885.5	3.00	0.00	
6,200.0	90.00	7.27	5,675.0	973.4	310.5	984.9	3.00	0.00	
6,300.0	90.00	4.27	5,675.0	1,072.9	320.6	1,084.7	3.00	0.00	
6,400.0	90.00	1.27	5,675.0	1,172.8	325.4	1,184.7	3.00	0.00	
6,442.2	90.00	0.00	5,675.0	1,215.0	325.9	1,226.9	3.00	0.00	EOT; 0° Az
6,500.0	90.00	0.00	5,675.0	1,272.7	325.9	1,284.6	0.00	0.00	
6,600.0	90.00	0.00	5,675.0	1,372.7	325.9	1,384.5	0.00	0.00	
6,700.0	90.00	0.00	5,675.0	1,472.7	325.9	1,484.4	0.00	0.00	
6,800.0	90.00	0.00	5,675.0	1,572.7	325.9	1,584.4	0.00	0.00	
6,900.0	90.00	0.00	5,675.0	1,672.7	325.9	1,684.3	0.00	0.00	
7,000.0	90.00	0.00	5,675.0	1,772.7	325.9	1,784.2	0.00	0.00	
7,100.0	90.00	0.00	5,675.0	1,872.7	325.9	1,884.1	0.00	0.00	
7,200.0	90.00	0.00	5,675.0	1,972.7	325.9	1,984.1	0.00	0.00	
7,300.0	90.00	0.00	5,675.0	2,072.7	325.9	2,084.0	0.00	0.00	
7,400.0	90.00	0.00	5,675.0	2,172.7	325.9	2,183.9	0.00	0.00	
7,500.0	90.00	0.00	5,675.0	2,272.7	325.9	2,283.8	0.00	0.00	
7,600.0	90.00	0.00	5,675.0	2,372.7	325.9	2,383.8	0.00	0.00	
7,700.0	90.00	0.00	5,675.0	2,472.7	326.0	2,483.7	0.00	0.00	
7,800.0	90.00	0.00	5,675.0	2,572.7	326.0	2,583.6	0.00	0.00	
7,900.0	90.00	0.00	5,675.0	2,672.7	326.0	2,683.5	0.00	0.00	
8,000.0	90.00	0.00	5,675.0	2,772.7	326.0	2,783.4	0.00	0.00	
8,100.0	90.00	0.00	5,675.0	2,872.7	326.0	2,883.4	0.00	0.00	
8,200.0	90.00	0.00	5,675.0	2,972.7	326.0	2,983.3	0.00	0.00	
8,300.0	90.00	0.00	5,675.0	3,072.7	326.0	3,083.2	0.00	0.00	
8,400.0	90.00	0.00	5,675.0	3,172.7	326.0	3,183.1	0.00	0.00	
8,500.0	90.00	0.00	5,675.0	3,272.7	326.0	3,283.1	0.00	0.00	
8,600.0	90.00	0.00	5,675.0	3,372.7	326.0	3,383.0	0.00	0.00	
8,700.0	90.00	0.00	5,675.0	3,472.7	326.0	3,482.9	0.00	0.00	
8,800.0	90.00	0.00	5,675.0	3,572.7	326.0	3,582.8	0.00	0.00	
8,900.0	90.00	0.00	5,675.0	3,672.7	326.0	3,682.7	0.00	0.00	
9,000.0	90.00	0.00	5,675.0	3,772.7	326.0	3,782.7	0.00	0.00	
9,100.0	90.00	0.00	5,675.0	3,872.7	326.1	3,882.6	0.00	0.00	
9,200.0	90.00	0.00	5,675.0	3,972.7	326.1	3,982.5	0.00	0.00	
9,300.0	90.00	0.00	5,675.0	4,072.7	326.1	4,082.4	0.00	0.00	
9,400.0	90.00	0.00	5,675.0	4,172.7	326.1	4,182.4	0.00	0.00	
9,500.0	90.00	0.00	5,675.0	4,272.7	326.1	4,282.3	0.00	0.00	
9,600.0	90.00	0.00	5,675.0	4,372.7	326.1	4,382.2	0.00	0.00	
9,700.0	90.00	0.00	5,675.0	4,472.7	326.1	4,482.1	0.00	0.00	
9,800.0	90.00	0.00	5,675.0	4,572.7	326.1	4,582.0	0.00	0.00	
9,900.0	90.00	0.00	5,675.0	4,672.7	326.1	4,682.0	0.00	0.00	

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Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

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)	Comments / Formations
10,000.0	90.00	0.00	5,675.0	4,772.7	326.1	4,781.9	0.00	0.00	
10,100.0	90.00	0.00	5,675.0	4,872.7	326.1	4,881.8	0.00	0.00	
10,200.0	90.00	0.00	5,675.0	4,972.7	326.1	4,981.7	0.00	0.00	
10,300.0	90.00	0.00	5,675.0	5,072.7	326.1	5,081.7	0.00	0.00	
10,400.0	90.00	0.00	5,675.0	5,172.7	326.1	5,181.6	0.00	0.00	
10,500.0	90.00	0.00	5,675.0	5,272.7	326.1	5,281.5	0.00	0.00	
10,600.0	90.00	0.00	5,675.0	5,372.7	326.2	5,381.4	0.00	0.00	
10,700.0	90.00	0.00	5,675.0	5,472.7	326.2	5,481.4	0.00	0.00	
10,800.0	90.00	0.00	5,675.0	5,572.7	326.2	5,581.3	0.00	0.00	
10,900.0	90.00	0.00	5,675.0	5,672.7	326.2	5,681.2	0.00	0.00	
11,000.0	90.00	0.00	5,675.0	5,772.7	326.2	5,781.1	0.00	0.00	
11,100.0	90.00	0.00	5,675.0	5,872.7	326.2	5,881.0	0.00	0.00	
11,200.0	90.00	0.00	5,675.0	5,972.7	326.2	5,981.0	0.00	0.00	
11,300.0	90.00	0.00	5,675.0	6,072.7	326.2	6,080.9	0.00	0.00	
11,400.0	90.00	0.00	5,675.0	6,172.7	326.2	6,180.8	0.00	0.00	
11,500.0	90.00	0.00	5,675.0	6,272.7	326.2	6,280.7	0.00	0.00	
11,600.0	90.00	0.00	5,675.0	6,372.7	326.2	6,380.7	0.00	0.00	
11,700.0	90.00	0.00	5,675.0	6,472.7	326.2	6,480.6	0.00	0.00	
11,800.0	90.00	0.00	5,675.0	6,572.7	326.2	6,580.5	0.00	0.00	
11,900.0	90.00	0.00	5,675.0	6,672.7	326.2	6,680.4	0.00	0.00	
12,000.0	90.00	0.00	5,675.0	6,772.7	326.3	6,780.3	0.00	0.00	
12,100.0	90.00	0.00	5,675.0	6,872.7	326.3	6,880.3	0.00	0.00	
12,200.0	90.00	0.00	5,675.0	6,972.7	326.3	6,980.2	0.00	0.00	
12,300.0	90.00	0.00	5,675.0	7,072.7	326.3	7,080.1	0.00	0.00	
12,400.0	90.00	0.00	5,675.0	7,172.7	326.3	7,180.0	0.00	0.00	
12,500.0	90.00	0.00	5,675.0	7,272.7	326.3	7,280.0	0.00	0.00	
12,600.0	90.00	0.00	5,675.0	7,372.7	326.3	7,379.9	0.00	0.00	
12,700.0	90.00	0.00	5,675.0	7,472.7	326.3	7,479.8	0.00	0.00	
12,800.0	90.00	0.00	5,675.0	7,572.7	326.3	7,579.7	0.00	0.00	
12,900.0	90.00	0.00	5,675.0	7,672.7	326.3	7,679.6	0.00	0.00	
13,000.0	90.00	0.00	5,675.0	7,772.7	326.3	7,779.6	0.00	0.00	
13,100.0	90.00	0.00	5,675.0	7,872.7	326.3	7,879.5	0.00	0.00	
13,200.0	90.00	0.00	5,675.0	7,972.7	326.3	7,979.4	0.00	0.00	
13,300.0	90.00	0.00	5,675.0	8,072.7	326.3	8,079.3	0.00	0.00	
13,400.0	90.00	0.00	5,675.0	8,172.7	326.4	8,179.3	0.00	0.00	
13,500.0	90.00	0.00	5,675.0	8,272.7	326.4	8,279.2	0.00	0.00	
13,501.4	90.00	0.00	5,675.0	8,274.1	326.4	8,280.6	0.00	0.00	PBHL @ 13501' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
26L-2304B TGT - plan misses target center by 119.0ft at 12999.2ft MD (5675.0 TVD, 7771.9 N, 326.3 E) - Point	0.00	0.00	5,675.0	7,771.9	207.3	1,549,475.46	3,459,924.37	40.829850	-103.838017
26L-2304B PBHL - plan hits target center - Point	0.00	0.00	5,675.0	8,274.1	326.4	1,549,977.66	3,460,043.38	40.831222	-103.837553

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Project:	Weld County, CO	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site:	S26-T10N-R58W	**North Reference:**	Grid
Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
5,982.4	5,675.0	7"	0.000	0.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,598.8	5,540.0	Top Niobrara		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
600.0	600.0	0.0	0.0	KOP @ 600' MD
800.0	799.8	6.0	3.5	EOB; 4°
4,800.0	4,790.1	247.7	143.0	Start 2° Drop
5,000.0	4,989.9	253.7	146.5	EOD; Vertical
5,164.2	5,154.1	253.7	146.5	Curve KOP @ 5164' MD
5,982.4	5,675.0	759.6	270.7	LP @ 5982' MD; Start 3° Turn
6,442.2	5,675.0	1,215.0	325.9	EOT; 0° Az
13,501.4	5,675.0	8,274.1	326.4	PBHL @ 13501' MD

Whiting Petroleum Corporation

Weld County, CO
S26-T10N-R58W
Razor #26L-2304B
HZ
Plan #1

Anticollision Report

22 May, 2013

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 5/22/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,501.1	Plan #1 (HZ)	ISCWSA MWD	MWD - ISCWSA

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S26-T10N-R58W						
Razor #26J-2633L - HZ - Plan #1						Out of range
Razor #26K-2305A - HZ - Plan #1	13,502.0	13,338.6	203.2	-95.2	0.681	Level 1, CC, ES, SF
Razor #26K-2306B - HZ - Plan #1						Out of range
Razor #26K-2307A - HZ - Plan #1						Out of range
Razor #26K-2308B - HZ - Plan #1						Out of range
Razor #26K-3505A - HZ - Plan #1						Out of range
Razor #26K-3507A - HZ - Plan #1						Out of range
Razor #26K-3508B - HZ - Plan #1						Out of range
Razor #26L-2301A - HZ - Plan #1	466.7	466.7	82.0	80.1	44.654	CC
Razor #26L-2301A - HZ - Plan #1	500.0	500.0	82.0	80.0	41.285	ES
Razor #26L-2301A - HZ - Plan #1	2,000.0	1,988.3	173.6	164.7	19.501	SF
Razor #26L-2302B - HZ - Plan #1	600.0	600.0	66.2	63.7	27.168	CC, ES
Razor #26L-2302B - HZ - Plan #1	5,250.0	5,241.0	421.6	397.1	17.215	SF
Razor #26L-2303A - HZ - Plan #1	1,327.7	1,323.4	52.7	47.0	9.207	CC
Razor #26L-2303A - HZ - Plan #1	1,400.0	1,395.6	52.9	46.8	8.723	ES
Razor #26L-2303A - HZ - Plan #1	13,501.4	13,324.9	477.0	168.8	1.547	SF
Razor #26L-3501A - HZ - Plan #1	1,016.3	1,015.8	95.4	91.2	22.439	CC, ES
Razor #26L-3501A - HZ - Plan #1	1,500.0	1,494.8	116.8	110.4	18.210	SF
Razor #26L-3502B - HZ - Plan #1	600.0	600.0	32.9	30.5	13.527	CC, ES
Razor #26L-3502B - HZ - Plan #1	900.0	899.6	41.9	38.1	11.081	SF
Razor #26L-3503A - HZ - Plan #1	1,344.0	1,343.6	16.1	10.3	2.775	CC, ES, SF
Razor #26L-3504B - HZ - Plan #1	945.6	945.1	28.5	24.5	7.115	CC
Razor #26L-3504B - HZ - Plan #1	1,000.0	999.4	28.7	24.5	6.752	ES, SF
Razor 26-3524H (Existing) - Existing - SURVEYs						Out of range
Razor Federal #26I-2313A - HZ - Plan #1						Out of range
Razor Federal #26I-2314B - HZ - Plan #1						Out of range
Razor Federal #26I-2315A - HZ - Plan #1						Out of range
Razor Federal #26I-2316B - HZ - Plan #1						Out of range
Razor Federal #26I-3513A - HZ - Plan #1						Out of range
Razor Federal #26I-3514B - HZ - Plan #1						Out of range
Razor Federal #26I-3515A - HZ - Plan #1						Out of range
Razor Federal #26I-3516B - HZ - Plan #1						Out of range
Razor Federal #26J-2309A - HZ - Plan #1						Out of range
Razor Federal #26J-2310B - HZ - Plan #1						Out of range
Razor Federal #26J-2311A - HZ - Plan #1						Out of range
Razor Federal #26J-2312B - HZ - Plan #1						Out of range
Razor Federal #26J-3509A - HZ - Plan #1						Out of range
Razor Federal #26J-3510B - HZ - Plan #1						Out of range
Razor Federal #26J-3511A - HZ - Plan #1						Out of range
Razor Federal #26J-3512B - HZ - Plan #1						Out of range

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26K-2305A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
6,200.0	5,675.0	6,200.0	5,610.0	22.4	25.2	79.54	1,164.5	706.2	444.6	399.1	45.48	9.777	
6,300.0	5,675.0	6,270.2	5,610.0	23.8	26.4	78.81	1,228.3	676.9	394.7	346.2	48.51	8.136	
6,400.0	5,675.0	6,346.1	5,610.0	25.3	27.7	77.99	1,298.5	648.0	352.8	301.2	51.65	6.831	
6,442.2	5,675.0	6,379.5	5,610.0	26.0	28.3	77.63	1,329.7	636.1	337.7	284.7	53.00	6.371	
6,500.0	5,675.0	6,426.1	5,610.0	26.9	29.1	77.00	1,373.6	620.5	318.7	264.1	54.59	5.839	
6,600.0	5,675.0	6,508.6	5,610.0	28.5	30.5	75.84	1,452.2	595.5	289.2	231.8	57.37	5.040	
6,700.0	5,675.0	6,593.3	5,610.0	30.1	31.9	74.63	1,533.9	573.3	263.8	203.6	60.18	4.384	
6,800.0	5,675.0	6,679.8	5,610.0	31.8	33.4	73.43	1,618.4	554.5	242.8	179.8	62.99	3.855	
6,900.0	5,675.0	6,768.0	5,610.0	33.5	34.8	72.32	1,705.2	539.2	226.3	160.4	65.82	3.438	
7,000.0	5,675.0	6,857.4	5,610.0	35.2	36.3	71.39	1,793.8	527.9	214.2	145.5	68.68	3.118	
7,100.0	5,675.0	6,947.6	5,610.0	37.0	37.7	70.75	1,883.8	520.6	206.6	134.9	71.62	2.884	
7,200.0	5,675.0	7,038.4	5,610.0	38.7	39.2	70.47	1,974.5	517.7	203.5	128.8	74.68	2.724	
7,241.6	5,675.0	7,078.2	5,610.0	39.4	39.8	70.46	2,014.3	517.6	203.4	127.4	75.99	2.676	
7,300.0	5,675.0	7,136.6	5,610.0	40.5	40.7	70.46	2,072.8	517.6	203.4	125.4	77.95	2.609	
7,400.0	5,675.0	7,236.6	5,610.0	42.3	42.2	70.46	2,172.8	517.6	203.4	122.1	81.26	2.503	
7,500.0	5,675.0	7,336.6	5,610.0	44.1	43.8	70.46	2,272.8	517.6	203.4	118.8	84.60	2.404	
7,600.0	5,675.0	7,436.6	5,610.0	45.9	45.4	70.46	2,372.8	517.6	203.4	115.4	87.97	2.312	
7,700.0	5,675.0	7,536.6	5,610.0	47.7	47.1	70.46	2,472.8	517.6	203.4	112.0	91.35	2.226	
7,800.0	5,675.0	7,636.6	5,610.0	49.5	48.7	70.46	2,572.8	517.6	203.4	108.6	94.76	2.146	
7,900.0	5,675.0	7,736.6	5,610.0	51.3	50.4	70.46	2,672.8	517.6	203.3	105.2	98.19	2.071	
8,000.0	5,675.0	7,836.6	5,610.0	53.2	52.1	70.46	2,772.8	517.6	203.3	101.7	101.63	2.001	
8,100.0	5,675.0	7,936.6	5,610.0	55.0	53.8	70.46	2,872.8	517.6	203.3	98.3	105.09	1.935	
8,200.0	5,675.0	8,036.6	5,610.0	56.9	55.5	70.46	2,972.8	517.6	203.3	94.8	108.56	1.873	
8,300.0	5,675.0	8,136.6	5,610.0	58.7	57.2	70.46	3,072.8	517.6	203.3	91.3	112.04	1.815	
8,400.0	5,675.0	8,236.6	5,610.0	60.6	59.0	70.46	3,172.8	517.6	203.3	87.8	115.53	1.760	
8,500.0	5,675.0	8,336.6	5,610.0	62.4	60.7	70.46	3,272.8	517.6	203.3	84.3	119.04	1.708	
8,600.0	5,675.0	8,436.6	5,610.0	64.3	62.5	70.46	3,372.8	517.6	203.3	80.8	122.55	1.659	
8,700.0	5,675.0	8,536.6	5,610.0	66.1	64.3	70.46	3,472.8	517.6	203.3	77.3	126.07	1.613	
8,800.0	5,675.0	8,636.6	5,610.0	68.0	66.1	70.46	3,572.8	517.6	203.3	73.7	129.59	1.569	
8,900.0	5,675.0	8,736.6	5,610.0	69.9	67.8	70.46	3,672.8	517.6	203.3	70.2	133.13	1.527	
9,000.0	5,675.0	8,836.6	5,610.0	71.7	69.6	70.46	3,772.8	517.6	203.3	66.7	136.67	1.488	Level 3
9,100.0	5,675.0	8,936.6	5,610.0	73.6	71.4	70.46	3,872.8	517.7	203.3	63.1	140.21	1.450	Level 3
9,200.0	5,675.0	9,036.6	5,610.0	75.5	73.2	70.46	3,972.8	517.7	203.3	59.6	143.76	1.414	Level 3
9,300.0	5,675.0	9,136.6	5,610.0	77.4	75.1	70.46	4,072.8	517.7	203.3	56.0	147.32	1.380	Level 3
9,400.0	5,675.0	9,236.6	5,610.0	79.3	76.9	70.46	4,172.8	517.7	203.3	52.4	150.88	1.348	Level 3
9,500.0	5,675.0	9,336.6	5,610.0	81.1	78.7	70.46	4,272.8	517.7	203.3	48.9	154.44	1.316	Level 3
9,600.0	5,675.0	9,436.6	5,610.0	83.0	80.5	70.46	4,372.8	517.7	203.3	45.3	158.01	1.287	Level 3
9,700.0	5,675.0	9,536.6	5,610.0	84.9	82.3	70.45	4,472.8	517.7	203.3	41.7	161.58	1.258	Level 3
9,800.0	5,675.0	9,636.6	5,610.0	86.8	84.2	70.45	4,572.8	517.7	203.3	38.1	165.15	1.231	Level 2
9,900.0	5,675.0	9,736.6	5,610.0	88.7	86.0	70.45	4,672.8	517.7	203.3	34.6	168.73	1.205	Level 2
10,000.0	5,675.0	9,836.6	5,610.0	90.6	87.9	70.45	4,772.8	517.7	203.3	31.0	172.31	1.180	Level 2
10,100.0	5,675.0	9,936.6	5,610.0	92.5	89.7	70.45	4,872.8	517.7	203.3	27.4	175.90	1.156	Level 2
10,200.0	5,675.0	10,036.6	5,610.0	94.4	91.5	70.45	4,972.8	517.7	203.3	23.8	179.48	1.133	Level 2
10,300.0	5,675.0	10,136.6	5,610.0	96.2	93.4	70.45	5,072.8	517.7	203.3	20.2	183.07	1.110	Level 2
10,400.0	5,675.0	10,236.6	5,610.0	98.1	95.3	70.45	5,172.8	517.7	203.3	16.6	186.66	1.089	Level 2
10,500.0	5,675.0	10,336.6	5,610.0	100.0	97.1	70.45	5,272.8	517.7	203.3	13.0	190.26	1.068	Level 2
10,600.0	5,675.0	10,436.6	5,610.0	101.9	99.0	70.45	5,372.8	517.7	203.3	9.4	193.85	1.049	Level 2
10,700.0	5,675.0	10,536.6	5,610.0	103.8	100.8	70.45	5,472.8	517.7	203.3	5.8	197.45	1.029	Level 2
10,800.0	5,675.0	10,636.6	5,610.0	105.7	102.7	70.45	5,572.8	517.7	203.3	2.2	201.05	1.011	Level 2
10,900.0	5,675.0	10,736.6	5,610.0	107.6	104.6	70.45	5,672.8	517.7	203.3	-1.4	204.65	0.993	Level 1
11,000.0	5,675.0	10,836.6	5,610.0	109.5	106.4	70.45	5,772.8	517.7	203.3	-5.0	208.25	0.976	Level 1
11,100.0	5,675.0	10,936.6	5,610.0	111.4	108.3	70.45	5,872.8	517.7	203.3	-8.6	211.85	0.959	Level 1

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26K-2305A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
11,200.0	5,675.0	11,036.6	5,610.0	113.3	110.2	70.45	5,972.8	517.7	203.3	-12.2	215.46	0.943	Level 1
11,300.0	5,675.0	11,136.6	5,610.0	115.2	112.0	70.45	6,072.8	517.7	203.3	-15.8	219.07	0.928	Level 1
11,400.0	5,675.0	11,236.6	5,610.0	117.1	113.9	70.45	6,172.8	517.7	203.2	-19.4	222.67	0.913	Level 1
11,500.0	5,675.0	11,336.6	5,610.0	119.0	115.8	70.45	6,272.8	517.7	203.2	-23.0	226.28	0.898	Level 1
11,600.0	5,675.0	11,436.6	5,610.0	120.9	117.6	70.45	6,372.8	517.8	203.2	-26.7	229.89	0.884	Level 1
11,700.0	5,675.0	11,536.6	5,610.0	122.8	119.5	70.45	6,472.8	517.8	203.2	-30.3	233.51	0.870	Level 1
11,800.0	5,675.0	11,636.6	5,610.0	124.7	121.4	70.45	6,572.8	517.8	203.2	-33.9	237.12	0.857	Level 1
11,900.0	5,675.0	11,736.6	5,610.0	126.6	123.3	70.45	6,672.8	517.8	203.2	-37.5	240.73	0.844	Level 1
12,000.0	5,675.0	11,836.6	5,610.0	128.5	125.2	70.45	6,772.8	517.8	203.2	-41.1	244.35	0.832	Level 1
12,100.0	5,675.0	11,936.6	5,610.0	130.4	127.0	70.45	6,872.8	517.8	203.2	-44.7	247.96	0.820	Level 1
12,200.0	5,675.0	12,036.6	5,610.0	132.3	128.9	70.45	6,972.8	517.8	203.2	-48.4	251.58	0.808	Level 1
12,300.0	5,675.0	12,136.6	5,610.0	134.2	130.8	70.45	7,072.8	517.8	203.2	-52.0	255.20	0.796	Level 1
12,400.0	5,675.0	12,236.6	5,610.0	136.1	132.7	70.45	7,172.8	517.8	203.2	-55.6	258.81	0.785	Level 1
12,500.0	5,675.0	12,336.6	5,610.0	138.1	134.6	70.45	7,272.8	517.8	203.2	-59.2	262.43	0.774	Level 1
12,600.0	5,675.0	12,436.6	5,610.0	140.0	136.5	70.45	7,372.8	517.8	203.2	-62.8	266.05	0.764	Level 1
12,700.0	5,675.0	12,536.6	5,610.0	141.9	138.4	70.45	7,472.8	517.8	203.2	-66.5	269.67	0.754	Level 1
12,800.0	5,675.0	12,636.6	5,610.0	143.8	140.2	70.45	7,572.8	517.8	203.2	-70.1	273.30	0.744	Level 1
12,900.0	5,675.0	12,736.6	5,610.0	145.7	142.1	70.45	7,672.8	517.8	203.2	-73.7	276.92	0.734	Level 1
13,000.0	5,675.0	12,836.6	5,610.0	147.6	144.0	70.45	7,772.8	517.8	203.2	-77.3	280.54	0.724	Level 1
13,100.0	5,675.0	12,936.6	5,610.0	149.5	145.9	70.45	7,872.8	517.8	203.2	-81.0	284.16	0.715	Level 1
13,200.0	5,675.0	13,036.6	5,610.0	151.4	147.8	70.45	7,972.8	517.8	203.2	-84.6	287.79	0.706	Level 1
13,300.0	5,675.0	13,136.6	5,610.0	153.3	149.7	70.45	8,072.8	517.8	203.2	-88.2	291.41	0.697	Level 1
13,400.0	5,675.0	13,236.6	5,610.0	155.2	151.6	70.45	8,172.8	517.8	203.2	-91.8	295.04	0.689	Level 1
13,501.4	5,675.0	13,338.0	5,610.0	156.8	153.5	70.45	8,274.1	517.8	203.2	-95.2	298.37	0.681	Level 1
13,502.0	5,675.0	13,338.6	5,610.0	156.8	153.5	70.45	8,274.8	517.8	203.2	-95.2	298.39	0.681	Level 1, CC, ES, SF

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2301A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-24.77	74.4	-34.3	82.0				
100.0	100.0	100.0	100.0	0.1	0.1	-24.77	74.4	-34.3	82.0	81.8	0.19	436.825	
200.0	200.0	200.0	200.0	0.3	0.3	-24.77	74.4	-34.3	82.0	81.3	0.64	128.659	
300.0	300.0	300.0	300.0	0.5	0.5	-24.77	74.4	-34.3	82.0	80.9	1.09	75.439	
400.0	400.0	400.0	400.0	0.8	0.8	-24.77	74.4	-34.3	82.0	80.4	1.54	53.365	
466.7	466.7	466.7	466.7	0.9	0.9	-24.77	74.4	-34.3	82.0	80.1	1.84	44.654	CC
500.0	500.0	500.0	500.0	1.0	1.0	-24.77	74.4	-34.3	82.0	80.0	1.99	41.285	ES
600.0	600.0	598.0	598.0	1.2	1.2	-25.58	75.0	-35.9	83.2	80.8	2.42	34.329	
700.0	700.0	695.7	695.6	1.4	1.4	-58.81	76.7	-40.6	86.0	83.2	2.86	30.079	
800.0	799.8	795.2	794.8	1.7	1.6	-64.57	79.1	-47.1	89.0	85.7	3.31	26.934	
900.0	899.6	894.6	894.0	1.9	1.9	-70.96	81.5	-53.7	92.3	88.6	3.76	24.556	
1,000.0	999.4	994.0	993.1	2.1	2.1	-76.85	83.8	-60.2	96.7	92.5	4.22	22.915	
1,100.0	1,099.1	1,093.4	1,092.3	2.4	2.4	-82.18	86.2	-66.7	102.0	97.3	4.68	21.783	
1,200.0	1,198.9	1,192.9	1,191.5	2.6	2.6	-86.95	88.6	-73.2	108.1	102.9	5.15	21.001	
1,300.0	1,298.6	1,292.3	1,290.7	2.9	2.9	-91.19	91.0	-79.7	114.8	109.2	5.61	20.463	
1,400.0	1,398.4	1,391.7	1,389.9	3.1	3.1	-94.95	93.3	-86.2	122.2	116.1	6.08	20.095	
1,500.0	1,498.1	1,491.2	1,489.1	3.4	3.4	-98.27	95.7	-92.8	129.9	123.4	6.55	19.848	
1,600.0	1,597.9	1,590.6	1,588.3	3.6	3.6	-101.20	98.1	-99.3	138.1	131.1	7.02	19.686	
1,700.0	1,697.6	1,690.0	1,687.4	3.9	3.9	-103.81	100.5	-105.8	146.6	139.1	7.49	19.586	
1,800.0	1,797.4	1,789.5	1,786.6	4.1	4.1	-106.13	102.8	-112.3	155.4	147.4	7.96	19.529	
1,900.0	1,897.2	1,888.9	1,885.8	4.4	4.4	-108.19	105.2	-118.8	164.4	155.9	8.43	19.503	
2,000.0	1,996.9	1,988.3	1,985.0	4.6	4.6	-110.04	107.6	-125.3	173.6	164.7	8.90	19.501	SF
2,100.0	2,096.7	2,087.7	2,084.2	4.9	4.9	-111.71	109.9	-131.9	182.9	173.5	9.37	19.514	
2,200.0	2,196.4	2,187.2	2,183.4	5.1	5.2	-113.21	112.3	-138.4	192.4	182.5	9.85	19.540	
2,300.0	2,296.2	2,286.6	2,282.6	5.4	5.4	-114.57	114.7	-144.9	202.0	191.7	10.32	19.573	
2,400.0	2,395.9	2,386.0	2,381.8	5.6	5.7	-115.81	117.1	-151.4	211.7	200.9	10.79	19.613	
2,500.0	2,495.7	2,485.5	2,480.9	5.9	5.9	-116.93	119.4	-157.9	221.5	210.2	11.27	19.656	
2,600.0	2,595.5	2,584.9	2,580.1	6.2	6.2	-117.97	121.8	-164.5	231.3	219.6	11.74	19.702	
2,700.0	2,695.2	2,684.3	2,679.3	6.4	6.4	-118.91	124.2	-171.0	241.3	229.1	12.22	19.750	
2,800.0	2,795.0	2,783.7	2,778.5	6.7	6.7	-119.78	126.5	-177.5	251.3	238.6	12.69	19.798	
2,900.0	2,894.7	2,883.2	2,877.7	6.9	7.0	-120.59	128.9	-184.0	261.3	248.2	13.17	19.847	
3,000.0	2,994.5	2,982.6	2,976.9	7.2	7.2	-121.34	131.3	-190.5	271.4	257.8	13.64	19.895	
3,100.0	3,094.2	3,082.0	3,076.1	7.4	7.5	-122.03	133.7	-197.0	281.6	267.4	14.12	19.943	
3,200.0	3,194.0	3,181.5	3,175.3	7.7	7.7	-122.67	136.0	-203.6	291.7	277.2	14.59	19.990	
3,300.0	3,293.8	3,280.9	3,274.4	7.9	8.0	-123.27	138.4	-210.1	302.0	286.9	15.07	20.036	
3,400.0	3,393.5	3,380.3	3,373.6	8.2	8.2	-123.83	140.8	-216.6	312.2	296.7	15.55	20.081	
3,500.0	3,493.3	3,479.7	3,472.8	8.4	8.5	-124.36	143.1	-223.1	322.5	306.5	16.02	20.124	
3,600.0	3,593.0	3,579.2	3,572.0	8.7	8.8	-124.85	145.5	-229.6	332.8	316.3	16.50	20.167	
3,700.0	3,692.8	3,678.6	3,671.2	9.0	9.0	-125.32	147.9	-236.1	343.1	326.1	16.98	20.209	
3,800.0	3,792.5	3,778.0	3,770.4	9.2	9.3	-125.75	150.3	-242.7	353.4	336.0	17.45	20.249	
3,900.0	3,892.3	3,877.5	3,869.6	9.5	9.5	-126.16	152.6	-249.2	363.8	345.9	17.93	20.288	
4,000.0	3,992.1	3,976.9	3,968.7	9.7	9.8	-126.55	155.0	-255.7	374.2	355.8	18.41	20.326	
4,100.0	4,091.8	4,076.3	4,067.9	10.0	10.0	-126.92	157.4	-262.2	384.6	365.7	18.89	20.363	
4,200.0	4,191.6	4,175.7	4,167.1	10.2	10.3	-127.27	159.8	-268.7	395.0	375.6	19.36	20.398	
4,300.0	4,291.3	4,275.2	4,266.3	10.5	10.6	-127.60	162.1	-275.3	405.4	385.6	19.84	20.433	
4,400.0	4,391.1	4,374.6	4,365.5	10.8	10.8	-127.91	164.5	-281.8	415.8	395.5	20.32	20.467	
4,500.0	4,490.8	4,474.0	4,464.7	11.0	11.1	-128.21	166.9	-288.3	426.3	405.5	20.79	20.499	
4,600.0	4,590.6	4,573.5	4,563.9	11.3	11.3	-128.50	169.2	-294.8	436.7	415.5	21.27	20.530	
4,700.0	4,690.3	4,672.9	4,663.1	11.5	11.6	-128.77	171.6	-301.3	447.2	425.4	21.75	20.561	
4,800.0	4,790.1	4,784.0	4,774.0	11.8	11.8	-129.13	173.8	-307.5	456.7	434.5	22.23	20.547	
4,900.0	4,890.0	4,900.0	4,890.0	12.0	12.1	-129.65	174.6	-309.7	461.8	439.2	22.67	20.374	
5,000.0	4,989.9	5,000.0	4,989.9	12.2	12.2	-99.84	174.6	-309.7	463.0	439.9	23.05	20.082	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2301A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,056.3	5,046.2	5,056.3	5,046.2	12.3	12.3	-99.84	174.6	-309.7	463.0	439.7	23.27	19.894	
5,100.0	5,089.9	5,094.6	5,084.5	12.3	12.4	-99.80	174.9	-309.8	463.1	439.7	23.43	19.763	
5,164.2	5,154.1	5,143.9	5,133.7	12.5	12.5	-99.32	178.5	-311.8	464.9	441.2	23.69	19.623	
5,200.0	5,189.9	5,171.1	5,160.5	12.6	12.6	-112.50	182.2	-313.8	467.3	443.4	23.81	19.621	
5,250.0	5,239.6	5,208.5	5,197.0	12.7	12.7	-111.44	189.3	-317.8	473.3	449.3	24.02	19.700	
5,300.0	5,288.4	5,250.0	5,236.7	12.9	12.9	-110.13	199.8	-323.6	482.4	458.1	24.27	19.873	
5,350.0	5,336.0	5,281.5	5,266.1	13.1	13.0	-108.71	209.6	-329.0	494.2	469.7	24.52	20.154	

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2302B - HZ - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-ISCWSA MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.05	-1.2	-66.2	66.2				
100.0	100.0	100.0	100.0	0.1	0.1	-91.05	-1.2	-66.2	66.2	66.0	0.19	352.530	
200.0	200.0	200.0	200.0	0.3	0.3	-91.05	-1.2	-66.2	66.2	65.5	0.64	103.832	
300.0	300.0	300.0	300.0	0.5	0.5	-91.05	-1.2	-66.2	66.2	65.1	1.09	60.882	
400.0	400.0	400.0	400.0	0.8	0.8	-91.05	-1.2	-66.2	66.2	64.6	1.54	43.067	
500.0	500.0	500.0	500.0	1.0	1.0	-91.05	-1.2	-66.2	66.2	64.2	1.99	33.318	
600.0	600.0	600.0	600.0	1.2	1.2	-91.05	-1.2	-66.2	66.2	63.7	2.44	27.168	CC, ES
700.0	700.0	700.0	700.0	1.4	1.4	-122.31	-1.2	-66.2	67.1	64.2	2.88	23.270	
800.0	799.8	798.3	798.3	1.7	1.7	-124.76	0.0	-67.3	71.1	67.8	3.32	21.394	
900.0	899.6	896.4	896.2	1.9	1.9	-126.05	3.5	-70.9	78.4	74.7	3.77	20.806	
1,000.0	999.4	996.0	995.6	2.1	2.1	-126.19	8.5	-75.8	86.9	82.7	4.23	20.568	
1,100.0	1,099.1	1,095.6	1,095.0	2.4	2.3	-126.30	13.4	-80.7	95.4	90.7	4.69	20.355	
1,200.0	1,198.9	1,195.2	1,194.4	2.6	2.6	-126.39	18.3	-85.6	103.9	98.7	5.15	20.158	
1,300.0	1,298.6	1,294.9	1,293.8	2.9	2.8	-126.47	23.2	-90.6	112.4	106.7	5.62	19.979	
1,400.0	1,398.4	1,394.5	1,393.2	3.1	3.1	-126.54	28.1	-95.5	120.8	114.7	6.10	19.817	
1,500.0	1,498.1	1,494.2	1,492.5	3.4	3.3	-126.60	33.0	-100.4	129.3	122.8	6.57	19.671	
1,600.0	1,597.9	1,593.8	1,591.9	3.6	3.6	-126.65	37.9	-105.3	137.8	130.8	7.05	19.540	
1,700.0	1,697.6	1,693.4	1,691.3	3.9	3.8	-126.69	42.9	-110.2	146.3	138.8	7.53	19.420	
1,800.0	1,797.4	1,793.1	1,790.7	4.1	4.1	-126.73	47.8	-115.1	154.8	146.8	8.01	19.312	
1,900.0	1,897.2	1,892.7	1,890.1	4.4	4.3	-126.77	52.7	-120.1	163.3	154.8	8.50	19.213	
2,000.0	1,996.9	1,992.4	1,989.5	4.6	4.6	-126.80	57.6	-125.0	171.8	162.8	8.98	19.123	
2,100.0	2,096.7	2,092.0	2,088.9	4.9	4.8	-126.83	62.5	-129.9	180.2	170.8	9.47	19.041	
2,200.0	2,196.4	2,191.6	2,188.3	5.1	5.1	-126.86	67.4	-134.8	188.7	178.8	9.95	18.966	
2,300.0	2,296.2	2,291.3	2,287.7	5.4	5.3	-126.88	72.3	-139.7	197.2	186.8	10.44	18.896	
2,400.0	2,395.9	2,390.9	2,387.1	5.6	5.6	-126.91	77.3	-144.6	205.7	194.8	10.92	18.832	
2,500.0	2,495.7	2,490.6	2,486.5	5.9	5.8	-126.93	82.2	-149.5	214.2	202.8	11.41	18.772	
2,600.0	2,595.5	2,590.2	2,585.9	6.2	6.1	-126.95	87.1	-154.5	222.7	210.8	11.90	18.717	
2,700.0	2,695.2	2,689.8	2,685.3	6.4	6.3	-126.97	92.0	-159.4	231.1	218.8	12.38	18.665	
2,800.0	2,795.0	2,789.5	2,784.7	6.7	6.6	-126.98	96.9	-164.3	239.6	226.8	12.87	18.617	
2,900.0	2,894.7	2,889.1	2,884.1	6.9	6.9	-127.00	101.8	-169.2	248.1	234.8	13.36	18.573	
3,000.0	2,994.5	2,988.8	2,983.5	7.2	7.1	-127.01	106.7	-174.1	256.6	242.8	13.85	18.531	
3,100.0	3,094.2	3,088.4	3,082.9	7.4	7.4	-127.02	111.7	-179.0	265.1	250.8	14.34	18.491	
3,200.0	3,194.0	3,188.0	3,182.3	7.7	7.6	-127.04	116.6	-183.9	273.6	258.7	14.82	18.454	
3,300.0	3,293.8	3,287.7	3,281.7	7.9	7.9	-127.05	121.5	-188.9	282.1	266.7	15.31	18.419	
3,400.0	3,393.5	3,387.3	3,381.1	8.2	8.1	-127.06	126.4	-193.8	290.5	274.7	15.80	18.386	
3,500.0	3,493.3	3,486.9	3,480.5	8.4	8.4	-127.07	131.3	-198.7	299.0	282.7	16.29	18.355	
3,600.0	3,593.0	3,586.6	3,579.9	8.7	8.6	-127.08	136.2	-203.6	307.5	290.7	16.78	18.326	
3,700.0	3,692.8	3,686.2	3,679.3	9.0	8.9	-127.09	141.2	-208.5	316.0	298.7	17.27	18.298	
3,800.0	3,792.5	3,785.9	3,778.7	9.2	9.2	-127.10	146.1	-213.4	324.5	306.7	17.76	18.271	
3,900.0	3,892.3	3,885.5	3,878.1	9.5	9.4	-127.11	151.0	-218.3	333.0	314.7	18.25	18.246	
4,000.0	3,992.1	3,985.1	3,977.5	9.7	9.7	-127.12	155.9	-223.3	341.5	322.7	18.74	18.222	
4,100.0	4,091.8	4,084.8	4,076.9	10.0	9.9	-127.12	160.8	-228.2	349.9	330.7	19.23	18.199	
4,200.0	4,191.6	4,184.4	4,176.3	10.2	10.2	-127.13	165.7	-233.1	358.4	338.7	19.72	18.178	
4,300.0	4,291.3	4,284.1	4,275.7	10.5	10.4	-127.14	170.6	-238.0	366.9	346.7	20.21	18.157	
4,400.0	4,391.1	4,383.7	4,375.1	10.8	10.7	-127.14	175.6	-242.9	375.4	354.7	20.70	18.137	
4,500.0	4,490.8	4,483.3	4,474.5	11.0	11.0	-127.15	180.5	-247.8	383.9	362.7	21.19	18.118	
4,600.0	4,590.6	4,583.0	4,573.9	11.3	11.2	-127.16	185.4	-252.8	392.4	370.7	21.68	18.100	
4,700.0	4,690.3	4,682.6	4,673.2	11.5	11.5	-127.16	190.3	-257.7	400.9	378.7	22.17	18.082	
4,800.0	4,790.1	4,782.3	4,772.6	11.8	11.7	-127.17	195.2	-262.6	409.3	386.7	22.66	18.066	
4,900.0	4,890.0	4,890.0	4,880.2	12.0	12.0	-127.22	199.5	-266.9	416.0	392.9	23.12	17.995	
5,000.0	4,989.9	4,999.7	4,989.9	12.2	12.2	-97.24	201.0	-268.4	418.2	394.7	23.47	17.816	
5,100.0	5,089.9	5,099.8	5,089.9	12.3	12.3	-97.24	201.0	-268.4	418.2	394.4	23.84	17.540	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2302B - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,164.2	5,154.1	5,164.0	5,154.1	12.5	12.5	-97.24	201.0	-268.4	418.2	394.1	24.11	17.349	
5,200.0	5,189.9	5,196.2	5,186.3	12.6	12.5	-110.99	202.0	-268.7	418.8	394.5	24.26	17.262	
5,250.0	5,239.6	5,241.0	5,230.9	12.7	12.7	-110.73	206.5	-269.9	421.6	397.1	24.49	17.215 SF	
5,300.0	5,288.4	5,285.8	5,274.8	12.9	12.8	-110.26	214.7	-272.1	426.7	402.0	24.75	17.241	
5,350.0	5,336.0	5,330.2	5,317.6	13.1	13.0	-109.59	226.4	-275.3	434.1	409.0	25.05	17.332	
5,400.0	5,382.0	5,374.3	5,358.8	13.3	13.2	-108.72	241.4	-279.4	443.6	418.2	25.39	17.472	
5,450.0	5,425.8	5,417.9	5,398.2	13.6	13.4	-107.66	259.6	-284.4	455.1	429.3	25.79	17.645	
5,500.0	5,467.2	5,461.2	5,435.5	14.0	13.6	-106.43	280.6	-290.1	468.6	442.3	26.27	17.837	
5,550.0	5,505.6	5,503.9	5,470.5	14.3	13.9	-105.03	304.3	-296.5	483.9	457.0	26.84	18.031	

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2303A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	22.80	75.7	31.8	82.1				
100.0	100.0	100.0	100.0	0.1	0.1	22.80	75.7	31.8	82.1	81.9	0.19	437.305	
200.0	200.0	200.0	200.0	0.3	0.3	22.80	75.7	31.8	82.1	81.4	0.64	128.801	
300.0	300.0	300.0	300.0	0.5	0.5	22.80	75.7	31.8	82.1	81.0	1.09	75.522	
400.0	400.0	400.0	400.0	0.8	0.8	22.80	75.7	31.8	82.1	80.5	1.54	53.424	
500.0	500.0	500.0	500.0	1.0	1.0	22.80	75.7	31.8	82.1	80.1	1.99	41.330	
600.0	600.0	600.0	600.0	1.2	1.2	22.80	75.7	31.8	82.1	79.6	2.44	33.701	
700.0	700.0	700.0	700.0	1.4	1.4	-7.36	75.7	31.8	80.3	77.5	2.89	27.847	
800.0	799.8	799.8	799.8	1.7	1.7	-7.88	75.7	31.8	75.2	71.8	3.33	22.536	
900.0	899.6	899.6	899.6	1.9	1.9	-8.69	75.7	31.8	68.3	64.5	3.78	18.039	
1,000.0	999.4	999.4	999.4	2.1	2.1	-9.67	75.7	31.8	61.4	57.1	4.23	14.493	
1,100.0	1,099.1	1,097.6	1,097.6	2.4	2.3	-11.96	77.2	31.2	55.8	51.1	4.68	11.925	
1,200.0	1,198.9	1,196.0	1,195.8	2.6	2.6	-16.84	82.0	29.5	53.2	48.1	5.13	10.371	
1,300.0	1,298.6	1,295.7	1,295.3	2.9	2.8	-23.17	88.5	27.1	52.7	47.1	5.59	9.424	
1,327.7	1,326.3	1,323.4	1,322.9	2.9	2.9	-24.95	90.3	26.5	52.7	47.0	5.72	9.207	CC
1,400.0	1,398.4	1,395.6	1,394.9	3.1	3.0	-29.56	95.0	24.8	52.9	46.8	6.06	8.723	ES
1,500.0	1,498.1	1,495.4	1,494.5	3.4	3.3	-35.84	101.6	22.4	53.7	47.1	6.53	8.217	
1,600.0	1,597.9	1,595.2	1,594.1	3.6	3.5	-41.86	108.1	20.0	55.1	48.1	7.01	7.860	
1,700.0	1,697.6	1,695.0	1,693.7	3.9	3.7	-47.52	114.7	17.6	57.1	49.6	7.49	7.622	
1,800.0	1,797.4	1,794.9	1,793.3	4.1	4.0	-52.75	121.2	15.2	59.6	51.6	7.97	7.474	
1,900.0	1,897.2	1,894.7	1,892.8	4.4	4.2	-57.53	127.8	12.8	62.6	54.1	8.46	7.395	
2,000.0	1,996.9	1,994.5	1,992.4	4.6	4.5	-61.84	134.3	10.5	65.9	57.0	8.95	7.367	
2,100.0	2,096.7	2,094.3	2,092.0	4.9	4.7	-65.72	140.8	8.1	69.6	60.2	9.44	7.375	
2,200.0	2,196.4	2,194.2	2,191.6	5.1	5.0	-69.19	147.4	5.7	73.6	63.7	9.93	7.411	
2,300.0	2,296.2	2,294.0	2,291.2	5.4	5.2	-72.30	153.9	3.3	77.8	67.4	10.43	7.465	
2,400.0	2,395.9	2,393.8	2,390.8	5.6	5.5	-75.08	160.5	0.9	82.3	71.4	10.92	7.533	
2,500.0	2,495.7	2,493.7	2,490.3	5.9	5.7	-77.57	167.0	-1.4	86.9	75.5	11.42	7.609	
2,600.0	2,595.5	2,593.5	2,589.9	6.2	6.0	-79.81	173.6	-3.8	91.6	79.7	11.92	7.691	
2,700.0	2,695.2	2,693.3	2,689.5	6.4	6.2	-81.82	180.1	-6.2	96.5	84.1	12.41	7.776	
2,800.0	2,795.0	2,793.1	2,789.1	6.7	6.5	-83.64	186.6	-8.6	101.5	88.6	12.91	7.863	
2,900.0	2,894.7	2,893.0	2,888.7	6.9	6.7	-85.28	193.2	-11.0	106.6	93.2	13.41	7.950	
3,000.0	2,994.5	2,992.8	2,988.3	7.2	7.0	-86.78	199.7	-13.4	111.8	97.8	13.91	8.036	
3,100.0	3,094.2	3,092.6	3,087.8	7.4	7.2	-88.14	206.3	-15.7	117.0	102.6	14.41	8.120	
3,200.0	3,194.0	3,192.4	3,187.4	7.7	7.5	-89.38	212.8	-18.1	122.3	107.4	14.91	8.203	
3,300.0	3,293.8	3,292.3	3,287.0	7.9	7.7	-90.53	219.4	-20.5	127.6	112.2	15.41	8.284	
3,400.0	3,393.5	3,392.1	3,386.6	8.2	8.0	-91.57	225.9	-22.9	133.0	117.1	15.91	8.363	
3,500.0	3,493.3	3,491.9	3,486.2	8.4	8.2	-92.54	232.5	-25.3	138.4	122.0	16.41	8.439	
3,600.0	3,593.0	3,591.7	3,585.8	8.7	8.5	-93.44	239.0	-27.6	143.9	127.0	16.91	8.513	
3,700.0	3,692.8	3,691.6	3,685.3	9.0	8.7	-94.26	245.5	-30.0	149.4	132.0	17.41	8.584	
3,800.0	3,792.5	3,791.4	3,784.9	9.2	9.0	-95.03	252.1	-32.4	154.9	137.0	17.91	8.653	
3,900.0	3,892.3	3,891.2	3,884.5	9.5	9.3	-95.75	258.6	-34.8	160.5	142.1	18.41	8.719	
4,000.0	3,992.1	3,991.0	3,984.1	9.7	9.5	-96.42	265.2	-37.2	166.1	147.2	18.91	8.783	
4,100.0	4,091.8	4,090.9	4,083.7	10.0	9.8	-97.04	271.7	-39.5	171.7	152.3	19.41	8.845	
4,200.0	4,191.6	4,190.7	4,183.3	10.2	10.0	-97.63	278.3	-41.9	177.3	157.4	19.91	8.905	
4,300.0	4,291.3	4,290.5	4,282.8	10.5	10.3	-98.18	284.8	-44.3	182.9	162.5	20.41	8.963	
4,400.0	4,391.1	4,390.4	4,382.4	10.8	10.5	-98.70	291.3	-46.7	188.6	167.7	20.91	9.018	
4,500.0	4,490.8	4,490.2	4,482.0	11.0	10.8	-99.18	297.9	-49.1	194.2	172.8	21.41	9.072	
4,600.0	4,590.6	4,590.0	4,581.6	11.3	11.0	-99.64	304.4	-51.5	199.9	178.0	21.91	9.123	
4,700.0	4,690.3	4,689.8	4,681.2	11.5	11.3	-100.07	311.0	-53.8	205.6	183.2	22.41	9.173	
4,800.0	4,790.1	4,794.0	4,785.2	11.8	11.5	-100.83	316.4	-55.8	210.4	187.5	22.90	9.189	
4,900.0	4,890.0	4,898.8	4,889.9	12.0	11.7	-101.91	318.2	-56.5	212.6	189.3	23.30	9.123	
5,000.0	4,989.9	4,998.8	4,989.9	12.2	11.9	-72.38	318.2	-56.5	213.0	189.3	23.68	8.995	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2303A - HZ - Plan #1

Survey Program: 0-ISCWSA MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,056.3	5,046.2	5,055.1	5,046.2	12.3	12.0	-72.38	318.2	-56.5	213.0	189.1	23.89	8.913	
5,100.0	5,089.9	5,095.2	5,086.4	12.3	12.1	-72.28	318.6	-56.5	213.2	189.1	24.06	8.860	
5,164.2	5,154.1	5,150.0	5,140.9	12.5	12.2	-71.08	323.5	-57.2	215.7	191.4	24.34	8.864	
5,200.0	5,189.9	5,179.2	5,169.6	12.6	12.3	-83.68	328.5	-57.9	218.4	193.9	24.47	8.924	
5,250.0	5,239.6	5,220.3	5,209.6	12.7	12.5	-82.11	338.2	-59.2	223.4	198.6	24.74	9.028	
5,300.0	5,288.4	5,261.1	5,248.3	12.9	12.7	-80.74	350.8	-60.8	229.7	204.6	25.05	9.167	
5,350.0	5,336.0	5,300.0	5,284.2	13.1	12.8	-79.56	365.6	-62.8	237.2	211.8	25.40	9.338	
5,400.0	5,382.0	5,341.3	5,321.0	13.3	13.1	-78.54	384.2	-65.3	245.7	219.9	25.80	9.524	
5,450.0	5,425.8	5,380.8	5,354.7	13.6	13.3	-77.71	404.6	-68.1	255.2	229.0	26.24	9.727	
5,500.0	5,467.2	5,419.9	5,386.4	14.0	13.6	-77.03	427.3	-71.1	265.6	238.9	26.72	9.940	
5,550.0	5,505.6	5,458.6	5,416.0	14.3	13.9	-76.48	452.0	-74.4	276.8	249.5	27.26	10.153	
5,600.0	5,540.8	5,500.0	5,445.5	14.8	14.2	-76.12	480.7	-78.3	288.7	260.8	27.88	10.353	
5,650.0	5,572.5	5,535.1	5,468.7	15.2	14.5	-75.70	506.8	-81.8	301.2	272.7	28.53	10.556	
5,700.0	5,600.3	5,573.0	5,491.7	15.8	14.9	-75.43	536.7	-85.8	314.3	285.0	29.28	10.735	
5,750.0	5,624.0	5,610.7	5,512.3	16.3	15.3	-75.22	568.0	-90.0	327.9	297.8	30.10	10.895	
5,800.0	5,643.4	5,650.0	5,531.3	16.9	15.7	-75.13	602.1	-94.6	342.0	311.0	31.02	11.026	
5,850.0	5,658.3	5,685.9	5,546.3	17.6	16.1	-74.94	634.4	-98.9	356.5	324.5	31.98	11.147	
5,900.0	5,668.5	5,723.6	5,559.7	18.3	16.6	-74.86	669.3	-103.6	371.3	338.2	33.03	11.239	
5,950.0	5,674.0	5,761.4	5,570.4	19.0	17.1	-74.81	705.3	-108.5	386.3	352.2	34.16	11.309	
5,982.4	5,675.0	5,786.1	5,576.0	19.5	17.4	-74.79	729.0	-111.7	396.2	361.2	34.92	11.343	
6,000.0	5,675.0	5,800.0	5,578.7	19.7	17.6	-75.42	742.6	-113.5	401.5	366.1	35.43	11.333	
6,100.0	5,675.0	5,879.3	5,586.8	21.0	18.8	-77.66	820.7	-124.0	431.8	393.6	38.13	11.325	
6,200.0	5,675.0	5,997.4	5,587.0	22.4	20.4	-78.67	938.0	-136.9	457.3	416.1	41.18	11.105	
6,300.0	5,675.0	6,127.3	5,587.0	23.8	22.2	-79.21	1,067.8	-142.7	471.6	427.1	44.49	10.599	
6,400.0	5,675.0	6,232.3	5,587.0	25.3	23.8	-79.35	1,172.8	-142.8	476.4	428.9	47.54	10.021	
6,442.2	5,675.0	6,274.5	5,587.0	26.0	24.5	-79.37	1,215.0	-142.8	476.9	428.0	48.81	9.770	
6,500.0	5,675.0	6,332.3	5,587.0	26.9	25.4	-79.37	1,272.8	-142.8	476.9	426.2	50.65	9.415	
6,600.0	5,675.0	6,432.3	5,587.0	28.5	27.1	-79.37	1,372.8	-142.8	476.9	422.9	53.91	8.845	
6,700.0	5,675.0	6,532.3	5,587.0	30.1	28.8	-79.37	1,472.8	-142.8	476.9	419.6	57.24	8.331	
6,800.0	5,675.0	6,632.3	5,587.0	31.8	30.5	-79.37	1,572.8	-142.8	476.9	416.2	60.61	7.867	
6,900.0	5,675.0	6,732.3	5,587.0	33.5	32.2	-79.37	1,672.8	-142.8	476.9	412.8	64.04	7.447	
7,000.0	5,675.0	6,832.3	5,587.0	35.2	34.0	-79.37	1,772.8	-142.8	476.9	409.4	67.50	7.065	
7,100.0	5,675.0	6,932.3	5,587.0	37.0	35.8	-79.37	1,872.8	-142.8	476.9	405.9	70.99	6.717	
7,200.0	5,675.0	7,032.3	5,587.0	38.7	37.6	-79.37	1,972.8	-142.8	476.9	402.3	74.51	6.400	
7,300.0	5,675.0	7,132.3	5,587.0	40.5	39.4	-79.37	2,072.8	-142.7	476.9	398.8	78.05	6.109	
7,400.0	5,675.0	7,232.3	5,587.0	42.3	41.2	-79.37	2,172.8	-142.7	476.9	395.2	81.62	5.842	
7,500.0	5,675.0	7,332.3	5,587.0	44.1	43.0	-79.37	2,272.8	-142.7	476.9	391.7	85.20	5.597	
7,600.0	5,675.0	7,432.3	5,587.0	45.9	44.8	-79.37	2,372.8	-142.7	476.9	388.1	88.80	5.370	
7,700.0	5,675.0	7,532.3	5,587.0	47.7	46.7	-79.37	2,472.8	-142.7	476.9	384.4	92.42	5.160	
7,800.0	5,675.0	7,632.3	5,587.0	49.5	48.5	-79.37	2,572.8	-142.7	476.9	380.8	96.04	4.965	
7,900.0	5,675.0	7,732.3	5,587.0	51.3	50.4	-79.37	2,672.8	-142.7	476.9	377.2	99.68	4.784	
8,000.0	5,675.0	7,832.3	5,587.0	53.2	52.2	-79.37	2,772.8	-142.7	476.9	373.5	103.33	4.615	
8,100.0	5,675.0	7,932.3	5,587.0	55.0	54.1	-79.37	2,872.8	-142.7	476.9	369.9	106.98	4.457	
8,200.0	5,675.0	8,032.3	5,587.0	56.9	55.9	-79.37	2,972.8	-142.7	476.9	366.2	110.65	4.310	
8,300.0	5,675.0	8,132.3	5,587.0	58.7	57.8	-79.37	3,072.8	-142.7	476.9	362.5	114.32	4.171	
8,400.0	5,675.0	8,232.3	5,587.0	60.6	59.7	-79.37	3,172.8	-142.7	476.9	358.9	118.00	4.041	
8,500.0	5,675.0	8,332.3	5,587.0	62.4	61.5	-79.37	3,272.8	-142.7	476.9	355.2	121.68	3.919	
8,600.0	5,675.0	8,432.3	5,587.0	64.3	63.4	-79.37	3,372.8	-142.7	476.9	351.5	125.37	3.804	
8,700.0	5,675.0	8,532.3	5,587.0	66.1	65.3	-79.37	3,472.8	-142.7	476.9	347.8	129.07	3.695	
8,800.0	5,675.0	8,632.3	5,587.0	68.0	67.2	-79.37	3,572.8	-142.7	476.9	344.1	132.77	3.592	
8,900.0	5,675.0	8,732.3	5,587.0	69.9	69.0	-79.37	3,672.8	-142.6	476.9	340.4	136.47	3.494	
9,000.0	5,675.0	8,832.3	5,587.0	71.7	70.9	-79.37	3,772.8	-142.6	476.9	336.7	140.18	3.402	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-2303A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
9,100.0	5,675.0	8,932.3	5,587.0	73.6	72.8	-79.37	3,872.8	-142.6	476.9	333.0	143.89	3.314	
9,200.0	5,675.0	9,032.3	5,587.0	75.5	74.7	-79.37	3,972.8	-142.6	476.9	329.3	147.61	3.231	
9,300.0	5,675.0	9,132.3	5,587.0	77.4	76.6	-79.37	4,072.8	-142.6	476.9	325.5	151.33	3.151	
9,400.0	5,675.0	9,232.3	5,587.0	79.3	78.5	-79.37	4,172.8	-142.6	476.9	321.8	155.05	3.076	
9,500.0	5,675.0	9,332.3	5,587.0	81.1	80.4	-79.37	4,272.8	-142.6	476.9	318.1	158.77	3.004	
9,600.0	5,675.0	9,432.3	5,587.0	83.0	82.3	-79.37	4,372.8	-142.6	476.9	314.4	162.50	2.935	
9,700.0	5,675.0	9,532.3	5,587.0	84.9	84.2	-79.37	4,472.8	-142.6	476.9	310.7	166.22	2.869	
9,800.0	5,675.0	9,632.3	5,587.0	86.8	86.0	-79.37	4,572.8	-142.6	476.9	306.9	169.95	2.806	
9,900.0	5,675.0	9,732.3	5,587.0	88.7	87.9	-79.37	4,672.8	-142.6	476.9	303.2	173.69	2.746	
10,000.0	5,675.0	9,832.3	5,587.0	90.6	89.8	-79.37	4,772.8	-142.6	476.9	299.5	177.42	2.688	
10,100.0	5,675.0	9,932.3	5,587.0	92.5	91.7	-79.37	4,872.8	-142.6	476.9	295.7	181.16	2.632	
10,200.0	5,675.0	10,032.3	5,587.0	94.4	93.6	-79.37	4,972.8	-142.6	476.9	292.0	184.90	2.579	
10,300.0	5,675.0	10,132.3	5,587.0	96.2	95.5	-79.37	5,072.8	-142.6	476.9	288.2	188.63	2.528	
10,400.0	5,675.0	10,232.3	5,587.0	98.1	97.4	-79.37	5,172.8	-142.6	476.9	284.5	192.38	2.479	
10,500.0	5,675.0	10,332.3	5,587.0	100.0	99.3	-79.37	5,272.8	-142.5	476.9	280.8	196.12	2.432	
10,600.0	5,675.0	10,432.3	5,587.0	101.9	101.2	-79.37	5,372.8	-142.5	476.9	277.0	199.86	2.386	
10,700.0	5,675.0	10,532.3	5,587.0	103.8	103.1	-79.37	5,472.8	-142.5	476.9	273.3	203.61	2.342	
10,800.0	5,675.0	10,632.3	5,587.0	105.7	105.0	-79.37	5,572.8	-142.5	476.9	269.5	207.35	2.300	
10,900.0	5,675.0	10,732.3	5,587.0	107.6	106.9	-79.37	5,672.8	-142.5	476.9	265.8	211.10	2.259	
11,000.0	5,675.0	10,832.3	5,587.0	109.5	108.8	-79.37	5,772.8	-142.5	476.9	262.0	214.85	2.220	
11,100.0	5,675.0	10,932.3	5,587.0	111.4	110.7	-79.37	5,872.8	-142.5	476.9	258.3	218.60	2.182	
11,200.0	5,675.0	11,032.3	5,587.0	113.3	112.6	-79.37	5,972.8	-142.5	476.9	254.5	222.35	2.145	
11,300.0	5,675.0	11,132.3	5,587.0	115.2	114.5	-79.37	6,072.8	-142.5	476.9	250.8	226.10	2.109	
11,400.0	5,675.0	11,232.3	5,587.0	117.1	116.4	-79.37	6,172.8	-142.5	476.9	247.0	229.85	2.075	
11,500.0	5,675.0	11,332.3	5,587.0	119.0	118.4	-79.37	6,272.8	-142.5	476.9	243.3	233.60	2.041	
11,600.0	5,675.0	11,432.3	5,587.0	120.9	120.3	-79.37	6,372.8	-142.5	476.9	239.5	237.35	2.009	
11,700.0	5,675.0	11,532.3	5,587.0	122.8	122.2	-79.37	6,472.8	-142.5	476.9	235.8	241.11	1.978	
11,800.0	5,675.0	11,632.3	5,587.0	124.7	124.1	-79.37	6,572.8	-142.5	476.9	232.0	244.86	1.948	
11,900.0	5,675.0	11,732.3	5,587.0	126.6	126.0	-79.37	6,672.8	-142.5	476.9	228.3	248.62	1.918	
12,000.0	5,675.0	11,832.3	5,587.0	128.5	127.9	-79.37	6,772.8	-142.4	476.9	224.5	252.38	1.890	
12,100.0	5,675.0	11,932.3	5,587.0	130.4	129.8	-79.37	6,872.8	-142.4	476.9	220.8	256.13	1.862	
12,200.0	5,675.0	12,032.3	5,587.0	132.3	131.7	-79.37	6,972.8	-142.4	476.9	217.0	259.89	1.835	
12,300.0	5,675.0	12,132.3	5,587.0	134.2	133.6	-79.37	7,072.8	-142.4	476.9	213.2	263.65	1.809	
12,400.0	5,675.0	12,232.3	5,587.0	136.1	135.5	-79.37	7,172.8	-142.4	476.9	209.5	267.41	1.783	
12,500.0	5,675.0	12,332.3	5,587.0	138.1	137.4	-79.37	7,272.8	-142.4	476.9	205.7	271.17	1.759	
12,600.0	5,675.0	12,432.3	5,587.0	140.0	139.3	-79.37	7,372.8	-142.4	476.9	202.0	274.92	1.735	
12,700.0	5,675.0	12,532.3	5,587.0	141.9	141.2	-79.37	7,472.8	-142.4	476.9	198.2	278.68	1.711	
12,800.0	5,675.0	12,632.3	5,587.0	143.8	143.1	-79.37	7,572.8	-142.4	476.9	194.5	282.45	1.688	
12,900.0	5,675.0	12,732.3	5,587.0	145.7	145.1	-79.37	7,672.8	-142.4	476.9	190.7	286.21	1.666	
13,000.0	5,675.0	12,832.3	5,587.0	147.6	147.0	-79.37	7,772.8	-142.4	476.9	186.9	289.97	1.645	
13,100.0	5,675.0	12,932.3	5,587.0	149.5	148.9	-79.37	7,872.8	-142.4	476.9	183.2	293.73	1.624	
13,200.0	5,675.0	13,032.3	5,587.0	151.4	150.8	-79.37	7,972.8	-142.4	476.9	179.4	297.49	1.603	
13,300.0	5,675.0	13,132.3	5,587.0	153.3	152.7	-79.37	8,072.8	-142.4	476.9	175.6	301.25	1.583	
13,400.0	5,675.0	13,232.3	5,587.0	155.2	154.6	-79.37	8,172.8	-142.4	476.9	171.9	305.02	1.564	
13,458.8	5,675.0	13,291.1	5,587.0	156.1	155.7	-79.37	8,231.6	-142.4	476.9	169.9	307.03	1.553	
13,501.4	5,675.0	13,324.9	5,587.0	156.8	156.3	-79.37	8,265.3	-142.4	477.0	168.8	308.23	1.547	SF
13,502.0	5,675.0	13,324.9	5,587.0	156.8	156.3	-79.37	8,265.3	-142.4	477.0	168.8	308.24	1.547	

Cathedral Energy Services

Anticollision Report

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3501A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-42.46	73.8	-67.6	100.1				
100.0	100.0	100.0	100.0	0.1	0.1	-42.46	73.8	-67.6	100.1	99.9	0.19	533.183	
200.0	200.0	200.0	200.0	0.3	0.3	-42.46	73.8	-67.6	100.1	99.4	0.64	157.040	
300.0	300.0	300.0	300.0	0.5	0.5	-42.46	73.8	-67.6	100.1	99.0	1.09	92.080	
400.0	400.0	400.0	400.0	0.8	0.8	-42.46	73.8	-67.6	100.1	98.5	1.54	65.137	
500.0	500.0	500.0	500.0	1.0	1.0	-42.46	73.8	-67.6	100.1	98.1	1.99	50.391	
600.0	600.0	600.0	600.0	1.2	1.2	-42.46	73.8	-67.6	100.1	97.6	2.44	41.090	
700.0	700.0	700.0	700.0	1.4	1.4	-73.43	73.8	-67.6	99.6	96.7	2.88	34.532	
800.0	799.8	799.8	799.8	1.7	1.7	-76.38	73.8	-67.6	98.2	94.9	3.33	29.470	
900.0	899.6	900.1	900.1	1.9	1.9	-81.43	72.3	-68.4	96.5	92.7	3.76	25.649	
1,000.0	999.4	999.7	999.5	2.1	2.1	-88.65	67.8	-71.0	95.4	91.3	4.18	22.827	
1,016.3	1,015.6	1,015.8	1,015.6	2.2	2.1	-90.00	66.8	-71.6	95.4	91.2	4.25	22.439	CC, ES
1,100.0	1,099.1	1,098.7	1,098.3	2.4	2.2	-96.89	61.8	-74.5	96.1	91.5	4.62	20.822	
1,200.0	1,198.9	1,197.7	1,197.1	2.6	2.5	-104.86	55.8	-77.9	98.8	93.7	5.06	19.511	
1,300.0	1,298.6	1,296.8	1,295.9	2.9	2.7	-112.28	49.9	-81.4	103.3	97.7	5.51	18.730	
1,400.0	1,398.4	1,395.8	1,394.7	3.1	2.9	-118.99	43.9	-84.9	109.3	103.4	5.96	18.334	
1,500.0	1,498.1	1,494.8	1,493.4	3.4	3.1	-124.94	37.9	-88.3	116.8	110.4	6.41	18.210	SF
1,600.0	1,597.9	1,593.8	1,592.2	3.6	3.4	-130.13	31.9	-91.8	125.3	118.5	6.86	18.271	
1,700.0	1,697.6	1,692.9	1,691.0	3.9	3.6	-134.64	25.9	-95.2	134.8	127.4	7.30	18.452	
1,800.0	1,797.4	1,791.9	1,789.8	4.1	3.8	-138.54	19.9	-98.7	144.9	137.2	7.75	18.709	
1,900.0	1,897.2	1,890.9	1,888.6	4.4	4.1	-141.92	14.0	-102.1	155.7	147.5	8.19	19.010	
2,000.0	1,996.9	1,989.9	1,987.4	4.6	4.3	-144.86	8.0	-105.6	166.9	158.2	8.63	19.336	
2,100.0	2,096.7	2,089.0	2,086.2	4.9	4.6	-147.43	2.0	-109.0	178.5	169.4	9.07	19.672	
2,200.0	2,196.4	2,188.0	2,184.9	5.1	4.8	-149.68	-4.0	-112.5	190.4	180.9	9.51	20.008	
2,300.0	2,296.2	2,287.0	2,283.7	5.4	5.1	-151.66	-10.0	-115.9	202.5	192.6	9.96	20.339	
2,400.0	2,395.9	2,386.1	2,382.5	5.6	5.3	-153.42	-16.0	-119.4	214.9	204.5	10.40	20.661	
2,500.0	2,495.7	2,485.1	2,481.3	5.9	5.6	-154.98	-21.9	-122.8	227.5	216.6	10.85	20.972	
2,600.0	2,595.5	2,584.1	2,580.1	6.2	5.8	-156.39	-27.9	-126.3	240.2	228.9	11.29	21.271	
2,700.0	2,695.2	2,683.1	2,678.9	6.4	6.1	-157.65	-33.9	-129.8	253.0	241.3	11.74	21.557	
2,800.0	2,795.0	2,782.2	2,777.7	6.7	6.4	-158.79	-39.9	-133.2	265.9	253.8	12.18	21.829	
2,900.0	2,894.7	2,881.2	2,876.4	6.9	6.6	-159.82	-45.9	-136.7	279.0	266.4	12.63	22.089	
3,000.0	2,994.5	2,980.2	2,975.2	7.2	6.9	-160.76	-51.8	-140.1	292.1	279.0	13.08	22.337	
3,100.0	3,094.2	3,079.2	3,074.0	7.4	7.1	-161.62	-57.8	-143.6	305.3	291.8	13.52	22.572	
3,200.0	3,194.0	3,178.3	3,172.8	7.7	7.4	-162.41	-63.8	-147.0	318.5	304.6	13.97	22.796	
3,300.0	3,293.8	3,277.3	3,271.6	7.9	7.6	-163.13	-69.8	-150.5	331.8	317.4	14.42	23.009	
3,400.0	3,393.5	3,376.3	3,370.4	8.2	7.9	-163.80	-75.8	-153.9	345.2	330.3	14.87	23.212	
3,500.0	3,493.3	3,475.3	3,469.2	8.4	8.2	-164.42	-81.8	-157.4	358.6	343.3	15.32	23.405	
3,600.0	3,593.0	3,574.4	3,567.9	8.7	8.4	-165.00	-87.7	-160.8	372.0	356.3	15.77	23.589	
3,700.0	3,692.8	3,673.4	3,666.7	9.0	8.7	-165.53	-93.7	-164.3	385.5	369.3	16.22	23.765	
3,800.0	3,792.5	3,772.4	3,765.5	9.2	8.9	-166.03	-99.7	-167.7	399.0	382.3	16.67	23.932	
3,900.0	3,892.3	3,871.5	3,864.3	9.5	9.2	-166.50	-105.7	-171.2	412.5	395.4	17.12	24.092	
4,000.0	3,992.1	3,970.5	3,963.1	9.7	9.5	-166.94	-111.7	-174.7	426.1	408.5	17.57	24.245	
4,100.0	4,091.8	4,069.5	4,061.9	10.0	9.7	-167.35	-117.7	-178.1	439.6	421.6	18.02	24.391	
4,200.0	4,191.6	4,168.5	4,160.7	10.2	10.0	-167.73	-123.6	-181.6	453.2	434.8	18.48	24.531	
4,300.0	4,291.3	4,267.6	4,259.4	10.5	10.2	-168.09	-129.6	-185.0	466.9	447.9	18.93	24.665	
4,400.0	4,391.1	4,366.6	4,358.2	10.8	10.5	-168.44	-135.6	-188.5	480.5	461.1	19.38	24.793	
4,500.0	4,490.8	4,465.6	4,457.0	11.0	10.8	-168.76	-141.6	-191.9	494.1	474.3	19.83	24.916	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3502B - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.05	-0.6	-32.9	32.9				
100.0	100.0	100.0	100.0	0.1	0.1	-91.05	-0.6	-32.9	32.9	32.8	0.19	175.528	
200.0	200.0	200.0	200.0	0.3	0.3	-91.05	-0.6	-32.9	32.9	32.3	0.64	51.699	
300.0	300.0	300.0	300.0	0.5	0.5	-91.05	-0.6	-32.9	32.9	31.9	1.09	30.313	
400.0	400.0	400.0	400.0	0.8	0.8	-91.05	-0.6	-32.9	32.9	31.4	1.54	21.443	
500.0	500.0	500.0	500.0	1.0	1.0	-91.05	-0.6	-32.9	32.9	31.0	1.99	16.589	
600.0	600.0	600.0	600.0	1.2	1.2	-91.05	-0.6	-32.9	32.9	30.5	2.44	13.527	CC, ES
700.0	700.0	700.0	700.0	1.4	1.4	-123.57	-0.6	-32.9	33.9	31.0	2.88	11.751	
800.0	799.8	799.8	799.8	1.7	1.7	-130.27	-0.6	-32.9	37.0	33.7	3.33	11.119	
900.0	899.6	899.6	899.6	1.9	1.9	-137.57	-0.6	-32.9	41.9	38.1	3.78	11.081	SF
1,000.0	999.4	999.4	999.4	2.1	2.1	-143.28	-0.6	-32.9	47.3	43.0	4.23	11.174	
1,100.0	1,099.1	1,099.1	1,099.1	2.4	2.3	-147.78	-0.6	-32.9	53.0	48.3	4.68	11.326	
1,200.0	1,198.9	1,198.8	1,198.8	2.6	2.5	-153.04	-2.1	-32.1	59.1	54.0	5.11	11.578	
1,300.0	1,298.6	1,298.0	1,297.8	2.9	2.7	-160.23	-6.5	-29.5	66.1	60.6	5.51	12.004	
1,400.0	1,398.4	1,397.2	1,396.8	3.1	2.9	-167.31	-12.5	-26.1	74.5	68.6	5.93	12.574	
1,500.0	1,498.1	1,496.5	1,495.9	3.4	3.1	-172.90	-18.5	-22.6	83.8	77.5	6.35	13.192	
1,600.0	1,597.9	1,595.8	1,594.9	3.6	3.3	-177.35	-24.5	-19.1	93.7	86.9	6.79	13.810	
1,700.0	1,697.6	1,695.0	1,693.9	3.9	3.5	179.07	-30.5	-15.7	104.1	96.9	7.23	14.405	
1,800.0	1,797.4	1,794.3	1,792.9	4.1	3.8	176.14	-36.5	-12.2	114.8	107.1	7.67	14.967	
1,900.0	1,897.2	1,893.6	1,892.0	4.4	4.0	173.72	-42.5	-8.7	125.7	117.6	8.12	15.490	
2,000.0	1,996.9	1,992.8	1,991.0	4.6	4.2	171.68	-48.5	-5.3	136.9	128.3	8.57	15.976	
2,100.0	2,096.7	2,092.1	2,090.0	4.9	4.4	169.96	-54.5	-1.8	148.2	139.1	9.02	16.424	
2,200.0	2,196.4	2,191.4	2,189.1	5.1	4.7	168.47	-60.5	1.6	159.6	150.1	9.48	16.839	
2,300.0	2,296.2	2,290.7	2,288.1	5.4	4.9	167.19	-66.5	5.1	171.0	161.1	9.93	17.221	
2,400.0	2,395.9	2,389.9	2,387.1	5.6	5.2	166.07	-72.5	8.6	182.6	172.2	10.39	17.575	
2,500.0	2,495.7	2,489.2	2,486.1	5.9	5.4	165.08	-78.5	12.0	194.2	183.4	10.85	17.902	
2,600.0	2,595.5	2,588.5	2,585.2	6.2	5.7	164.21	-84.5	15.5	205.9	194.6	11.31	18.206	
2,700.0	2,695.2	2,687.7	2,684.2	6.4	5.9	163.42	-90.5	19.0	217.6	205.8	11.77	18.487	
2,800.0	2,795.0	2,787.0	2,783.2	6.7	6.2	162.72	-96.5	22.4	229.4	217.1	12.23	18.750	
2,900.0	2,894.7	2,886.3	2,882.3	6.9	6.4	162.09	-102.5	25.9	241.1	228.4	12.70	18.994	
3,000.0	2,994.5	2,985.5	2,981.3	7.2	6.7	161.51	-108.5	29.3	252.9	239.8	13.16	19.222	
3,100.0	3,094.2	3,084.8	3,080.3	7.4	6.9	160.99	-114.5	32.8	264.8	251.2	13.62	19.435	
3,200.0	3,194.0	3,184.1	3,179.3	7.7	7.2	160.51	-120.5	36.3	276.6	262.5	14.09	19.635	
3,300.0	3,293.8	3,283.4	3,278.4	7.9	7.4	160.07	-126.5	39.7	288.5	273.9	14.55	19.823	
3,400.0	3,393.5	3,382.6	3,377.4	8.2	7.7	159.67	-132.5	43.2	300.4	285.4	15.02	19.999	
3,500.0	3,493.3	3,481.9	3,476.4	8.4	7.9	159.29	-138.5	46.7	312.3	296.8	15.49	20.165	
3,600.0	3,593.0	3,581.2	3,575.5	8.7	8.2	158.95	-144.5	50.1	324.2	308.2	15.95	20.322	
3,700.0	3,692.8	3,680.4	3,674.5	9.0	8.4	158.62	-150.5	53.6	336.1	319.7	16.42	20.470	
3,800.0	3,792.5	3,779.7	3,773.5	9.2	8.7	158.32	-156.5	57.0	348.0	331.1	16.89	20.610	
3,900.0	3,892.3	3,879.0	3,872.5	9.5	8.9	158.04	-162.4	60.5	360.0	342.6	17.35	20.743	
4,000.0	3,992.1	3,978.3	3,971.6	9.7	9.2	157.78	-168.4	64.0	371.9	354.1	17.82	20.869	
4,100.0	4,091.8	4,077.5	4,070.6	10.0	9.5	157.54	-174.4	67.4	383.9	365.6	18.29	20.988	
4,200.0	4,191.6	4,176.8	4,169.6	10.2	9.7	157.31	-180.4	70.9	395.8	377.1	18.76	21.102	
4,300.0	4,291.3	4,276.1	4,268.7	10.5	10.0	157.09	-186.4	74.4	407.8	388.6	19.23	21.210	
4,400.0	4,391.1	4,375.3	4,367.7	10.8	10.2	156.88	-192.4	77.8	419.8	400.1	19.69	21.313	
4,500.0	4,490.8	4,474.6	4,466.7	11.0	10.5	156.69	-198.4	81.3	431.7	411.6	20.16	21.411	
4,600.0	4,590.6	4,573.9	4,565.7	11.3	10.8	156.51	-204.4	84.7	443.7	423.1	20.63	21.505	
4,700.0	4,690.3	4,673.1	4,664.8	11.5	11.0	156.33	-210.4	88.2	455.7	434.6	21.10	21.595	
4,800.0	4,790.1	4,772.4	4,763.8	11.8	11.3	156.17	-216.4	91.7	467.7	446.1	21.57	21.681	
4,900.0	4,890.0	4,883.0	4,874.2	12.0	11.5	156.06	-222.1	94.9	477.2	455.2	22.04	21.654	
5,000.0	4,989.9	4,998.6	4,989.7	12.2	11.7	-173.98	-224.1	96.1	480.5	458.1	22.45	21.399	
5,100.0	5,089.9	5,098.8	5,089.9	12.3	11.9	-173.98	-224.1	96.1	480.5	457.7	22.84	21.037	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3502B - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,142.8	5,132.7	5,141.6	5,132.7	12.4	12.0	-173.98	-224.1	96.1	480.5	457.5	23.01	20.881	
5,164.2	5,154.1	5,163.0	5,154.1	12.5	12.0	-173.98	-224.1	96.1	480.5	457.4	23.10	20.804	
5,200.0	5,189.9	5,181.6	5,172.8	12.6	12.1	172.20	-224.5	96.1	482.4	459.2	23.16	20.825	
5,250.0	5,239.6	5,200.0	5,191.1	12.7	12.1	172.08	-225.4	96.1	491.2	468.1	23.10	21.266	

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3503A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-1.07	75.0	-1.4	75.1				
100.0	100.0	100.0	100.0	0.1	0.1	-1.07	75.0	-1.4	75.1	74.9	0.19	399.945	
200.0	200.0	200.0	200.0	0.3	0.3	-1.07	75.0	-1.4	75.1	74.4	0.64	117.797	
300.0	300.0	300.0	300.0	0.5	0.5	-1.07	75.0	-1.4	75.1	74.0	1.09	69.070	
400.0	400.0	400.0	400.0	0.8	0.8	-1.07	75.0	-1.4	75.1	73.5	1.54	48.860	
500.0	500.0	500.0	500.0	1.0	1.0	-1.07	75.0	-1.4	75.1	73.1	1.99	37.799	
600.0	600.0	601.7	601.7	1.2	1.2	-0.02	73.9	0.0	73.9	71.5	2.42	30.561	
700.0	700.0	703.1	702.9	1.4	1.4	-27.37	70.4	4.1	69.1	66.2	2.85	24.232	
800.0	799.8	802.6	802.2	1.7	1.6	-24.46	66.0	9.4	60.3	57.0	3.29	18.292	
900.0	899.6	902.1	901.4	1.9	1.8	-21.17	61.5	14.7	50.1	46.3	3.74	13.372	
1,000.0	999.4	1,001.5	1,000.6	2.1	2.1	-16.24	57.0	20.1	40.1	35.9	4.20	9.539	
1,100.0	1,099.1	1,100.9	1,099.8	2.4	2.3	-8.16	52.6	25.4	30.6	26.0	4.67	6.553	
1,200.0	1,198.9	1,200.3	1,199.0	2.6	2.6	6.47	48.1	30.7	22.3	17.1	5.15	4.323	
1,300.0	1,298.6	1,299.8	1,298.1	2.9	2.8	33.77	43.7	36.0	16.8	11.2	5.62	2.988	
1,344.0	1,342.6	1,343.6	1,341.8	3.0	2.9	49.93	41.7	38.3	16.1	10.3	5.81	2.775	CC, ES, SF
1,400.0	1,398.4	1,399.2	1,397.3	3.1	3.1	70.15	39.2	41.3	17.2	11.2	6.04	2.847	
1,500.0	1,498.1	1,498.6	1,496.5	3.4	3.3	95.67	34.8	46.6	23.2	16.7	6.47	3.579	
1,600.0	1,597.9	1,598.1	1,595.7	3.6	3.6	109.23	30.3	51.9	31.7	24.8	6.94	4.571	
1,700.0	1,697.6	1,697.5	1,694.9	3.9	3.8	116.81	25.8	57.2	41.3	33.9	7.41	5.567	
1,800.0	1,797.4	1,796.9	1,794.1	4.1	4.1	121.50	21.4	62.6	51.3	43.4	7.89	6.498	
1,900.0	1,897.2	1,896.3	1,893.3	4.4	4.3	124.64	16.9	67.9	61.5	53.1	8.37	7.350	
2,000.0	1,996.9	1,995.8	1,992.5	4.6	4.6	126.89	12.5	73.2	71.8	63.0	8.84	8.124	
2,100.0	2,096.7	2,095.2	2,091.6	4.9	4.9	128.56	8.0	78.5	82.3	73.0	9.32	8.827	
2,200.0	2,196.4	2,194.6	2,190.8	5.1	5.1	129.86	3.5	83.8	92.8	83.0	9.80	9.467	
2,300.0	2,296.2	2,294.1	2,290.0	5.4	5.4	130.90	-0.9	89.1	103.3	93.0	10.28	10.050	
2,400.0	2,395.9	2,393.5	2,389.2	5.6	5.6	131.74	-5.4	94.4	113.8	103.1	10.76	10.584	
2,500.0	2,495.7	2,492.9	2,488.4	5.9	5.9	132.44	-9.8	99.7	124.4	113.2	11.24	11.074	
2,600.0	2,595.5	2,592.4	2,587.6	6.2	6.2	133.03	-14.3	105.1	135.0	123.3	11.71	11.525	
2,700.0	2,695.2	2,691.8	2,686.8	6.4	6.4	133.54	-18.7	110.4	145.6	133.4	12.19	11.941	
2,800.0	2,795.0	2,791.2	2,786.0	6.7	6.7	133.97	-23.2	115.7	156.2	143.5	12.67	12.326	
2,900.0	2,894.7	2,890.6	2,885.1	6.9	6.9	134.35	-27.7	121.0	166.8	153.7	13.15	12.684	
3,000.0	2,994.5	2,990.1	2,984.3	7.2	7.2	134.69	-32.1	126.3	177.5	163.8	13.63	13.016	
3,100.0	3,094.2	3,089.5	3,083.5	7.4	7.5	134.98	-36.6	131.6	188.1	174.0	14.11	13.327	
3,200.0	3,194.0	3,188.9	3,182.7	7.7	7.7	135.25	-41.0	136.9	198.7	184.1	14.59	13.617	
3,300.0	3,293.8	3,288.4	3,281.9	7.9	8.0	135.49	-45.5	142.3	209.4	194.3	15.07	13.888	
3,400.0	3,393.5	3,387.8	3,381.1	8.2	8.2	135.70	-50.0	147.6	220.0	204.5	15.56	14.143	
3,500.0	3,493.3	3,487.2	3,480.3	8.4	8.5	135.90	-54.4	152.9	230.7	214.6	16.04	14.383	
3,600.0	3,593.0	3,586.6	3,579.4	8.7	8.8	136.08	-58.9	158.2	241.3	224.8	16.52	14.609	
3,700.0	3,692.8	3,686.1	3,678.6	9.0	9.0	136.24	-63.3	163.5	251.9	234.9	17.00	14.822	
3,800.0	3,792.5	3,785.5	3,777.8	9.2	9.3	136.39	-67.8	168.8	262.6	245.1	17.48	15.024	
3,900.0	3,892.3	3,884.9	3,877.0	9.5	9.5	136.53	-72.2	174.1	273.3	255.3	17.96	15.215	
4,000.0	3,992.1	3,984.4	3,976.2	9.7	9.8	136.66	-76.7	179.4	283.9	265.5	18.44	15.395	
4,100.0	4,091.8	4,083.8	4,075.4	10.0	10.1	136.77	-81.2	184.8	294.6	275.6	18.92	15.567	
4,200.0	4,191.6	4,183.2	4,174.6	10.2	10.3	136.89	-85.6	190.1	305.2	285.8	19.40	15.730	
4,300.0	4,291.3	4,282.6	4,273.8	10.5	10.6	136.99	-90.1	195.4	315.9	296.0	19.88	15.885	
4,400.0	4,391.1	4,382.1	4,372.9	10.8	10.8	137.08	-94.5	200.7	326.5	306.2	20.37	16.033	
4,500.0	4,490.8	4,481.5	4,472.1	11.0	11.1	137.17	-99.0	206.0	337.2	316.3	20.85	16.174	
4,600.0	4,590.6	4,589.5	4,580.0	11.3	11.3	137.41	-102.9	210.7	346.8	325.5	21.32	16.267	
4,700.0	4,690.3	4,699.9	4,690.3	11.5	11.6	138.04	-104.3	212.3	353.5	331.8	21.78	16.234	
4,800.0	4,790.1	4,799.7	4,790.1	11.8	11.7	138.79	-104.3	212.3	358.8	336.6	22.21	16.153	
4,900.0	4,890.0	4,899.5	4,890.0	12.0	11.9	139.38	-104.3	212.3	362.7	340.1	22.62	16.035	
5,000.0	4,989.9	4,999.5	4,989.9	12.2	12.1	169.58	-104.3	212.3	364.0	341.1	22.96	15.856	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3503A - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,056.3	5,046.2	5,055.8	5,046.2	12.3	12.2	169.58	-104.3	212.3	364.0	340.9	23.17	15.714	
5,100.0	5,089.9	5,089.7	5,080.2	12.3	12.2	169.58	-104.5	212.4	364.4	341.1	23.31	15.630	
5,164.2	5,154.1	5,127.4	5,117.8	12.5	12.3	169.54	-106.8	213.0	368.4	344.9	23.52	15.661	
5,200.0	5,189.9	5,150.0	5,140.2	12.6	12.4	155.51	-109.4	213.8	373.8	350.1	23.63	15.815	
5,250.0	5,239.6	5,176.0	5,165.8	12.7	12.5	155.01	-113.6	215.0	387.2	363.5	23.62	16.390	
5,300.0	5,288.4	5,200.0	5,189.3	12.9	12.5	154.24	-118.5	216.4	407.1	383.6	23.46	17.355	
5,350.0	5,336.0	5,225.6	5,214.0	13.1	12.6	153.20	-124.9	218.2	433.0	409.8	23.16	18.693	
5,400.0	5,382.0	5,250.0	5,237.2	13.3	12.7	151.79	-132.1	220.2	464.2	441.5	22.76	20.394	
5,450.0	5,425.8	5,264.3	5,250.6	13.6	12.8	149.53	-136.8	221.5	500.0	477.7	22.30	22.415	

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3504B - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	88.95	0.6	33.2	33.2				
100.0	100.0	100.0	100.0	0.1	0.1	88.95	0.6	33.2	33.2	33.0	0.19	177.002	
200.0	200.0	200.0	200.0	0.3	0.3	88.95	0.6	33.2	33.2	32.6	0.64	52.133	
300.0	300.0	300.0	300.0	0.5	0.5	88.95	0.6	33.2	33.2	32.1	1.09	30.568	
400.0	400.0	400.0	400.0	0.8	0.8	88.95	0.6	33.2	33.2	31.7	1.54	21.624	
500.0	500.0	500.0	500.0	1.0	1.0	88.95	0.6	33.2	33.2	31.2	1.99	16.729	
600.0	600.0	600.0	600.0	1.2	1.2	88.95	0.6	33.2	33.2	30.8	2.44	13.641	
700.0	700.0	700.0	700.0	1.4	1.4	61.61	0.6	33.2	32.4	29.5	2.88	11.223	
800.0	799.8	799.8	799.8	1.7	1.7	70.40	0.6	33.2	30.2	26.9	3.33	9.071	
900.0	899.6	899.6	899.6	1.9	1.9	83.64	0.6	33.2	28.6	24.8	3.79	7.559	
945.6	945.1	945.1	945.1	2.0	2.0	90.00	0.6	33.2	28.5	24.5	4.00	7.115	CC
1,000.0	999.4	999.4	999.4	2.1	2.1	97.58	0.6	33.2	28.7	24.5	4.25	6.752	ES, SF
1,100.0	1,099.1	1,098.2	1,098.2	2.4	2.3	109.03	0.0	34.8	31.9	27.2	4.70	6.792	
1,200.0	1,198.9	1,196.8	1,196.7	2.6	2.5	115.01	-1.7	39.6	38.9	33.8	5.13	7.579	
1,300.0	1,298.6	1,296.4	1,296.0	2.9	2.7	117.78	-4.1	46.1	47.6	42.0	5.58	8.538	
1,400.0	1,398.4	1,396.0	1,395.4	3.1	2.9	119.70	-6.5	52.6	56.4	50.4	6.03	9.360	
1,500.0	1,498.1	1,495.6	1,494.7	3.4	3.2	121.10	-8.8	59.1	65.2	58.8	6.48	10.066	
1,600.0	1,597.9	1,595.2	1,594.1	3.6	3.4	122.16	-11.2	65.7	74.1	67.2	6.94	10.676	
1,700.0	1,697.6	1,694.8	1,693.4	3.9	3.6	123.00	-13.6	72.2	83.0	75.6	7.40	11.207	
1,800.0	1,797.4	1,794.4	1,792.8	4.1	3.9	123.67	-16.0	78.7	91.9	84.0	7.87	11.672	
1,900.0	1,897.2	1,894.0	1,892.1	4.4	4.1	124.23	-18.3	85.3	100.8	92.5	8.34	12.082	
2,000.0	1,996.9	1,993.6	1,991.5	4.6	4.3	124.69	-20.7	91.8	109.7	100.9	8.82	12.446	
2,100.0	2,096.7	2,093.2	2,090.8	4.9	4.6	125.09	-23.1	98.3	118.6	109.3	9.29	12.770	
2,200.0	2,196.4	2,192.8	2,190.2	5.1	4.8	125.43	-25.5	104.8	127.6	117.8	9.77	13.061	
2,300.0	2,296.2	2,292.4	2,289.6	5.4	5.1	125.72	-27.8	111.4	136.5	126.3	10.24	13.324	
2,400.0	2,395.9	2,392.0	2,388.9	5.6	5.3	125.98	-30.2	117.9	145.4	134.7	10.72	13.562	
2,500.0	2,495.7	2,491.6	2,488.3	5.9	5.6	126.21	-32.6	124.4	154.4	143.2	11.20	13.778	
2,600.0	2,595.5	2,591.2	2,587.6	6.2	5.8	126.41	-35.0	131.0	163.3	151.6	11.69	13.975	
2,700.0	2,695.2	2,690.8	2,687.0	6.4	6.1	126.60	-37.3	137.5	172.3	160.1	12.17	14.156	
2,800.0	2,795.0	2,790.4	2,786.3	6.7	6.3	126.76	-39.7	144.0	181.2	168.6	12.65	14.323	
2,900.0	2,894.7	2,890.0	2,885.7	6.9	6.6	126.91	-42.1	150.5	190.1	177.0	13.14	14.476	
3,000.0	2,994.5	2,989.6	2,985.0	7.2	6.8	127.05	-44.5	157.1	199.1	185.5	13.62	14.618	
3,100.0	3,094.2	3,089.2	3,084.4	7.4	7.1	127.17	-46.8	163.6	208.0	193.9	14.10	14.750	
3,200.0	3,194.0	3,188.8	3,183.8	7.7	7.3	127.28	-49.2	170.1	217.0	202.4	14.59	14.872	
3,300.0	3,293.8	3,288.4	3,283.1	7.9	7.6	127.39	-51.6	176.7	225.9	210.9	15.08	14.987	
3,400.0	3,393.5	3,388.0	3,382.5	8.2	7.9	127.49	-54.0	183.2	234.9	219.3	15.56	15.093	
3,500.0	3,493.3	3,487.6	3,481.8	8.4	8.1	127.58	-56.4	189.7	243.8	227.8	16.05	15.193	
3,600.0	3,593.0	3,587.2	3,581.2	8.7	8.4	127.66	-58.7	196.2	252.8	236.3	16.54	15.287	
3,700.0	3,692.8	3,686.8	3,680.5	9.0	8.6	127.74	-61.1	202.8	261.7	244.7	17.02	15.375	
3,800.0	3,792.5	3,786.4	3,779.9	9.2	8.9	127.81	-63.5	209.3	270.7	253.2	17.51	15.458	
3,900.0	3,892.3	3,886.0	3,879.2	9.5	9.1	127.88	-65.9	215.8	279.7	261.7	18.00	15.537	
4,000.0	3,992.1	3,985.6	3,978.6	9.7	9.4	127.94	-68.2	222.4	288.6	270.1	18.49	15.611	
4,100.0	4,091.8	4,085.1	4,078.0	10.0	9.7	128.00	-70.6	228.9	297.6	278.6	18.98	15.681	
4,200.0	4,191.6	4,184.7	4,177.3	10.2	9.9	128.06	-73.0	235.4	306.5	287.0	19.46	15.747	
4,300.0	4,291.3	4,284.3	4,276.7	10.5	10.2	128.11	-75.4	241.9	315.5	295.5	19.95	15.810	
4,400.0	4,391.1	4,383.9	4,376.0	10.8	10.4	128.16	-77.7	248.5	324.4	304.0	20.44	15.870	
4,500.0	4,490.8	4,483.5	4,475.4	11.0	10.7	128.21	-80.1	255.0	333.4	312.4	20.93	15.927	
4,600.0	4,590.6	4,583.1	4,574.7	11.3	10.9	128.25	-82.5	261.5	342.3	320.9	21.42	15.982	
4,700.0	4,690.3	4,682.7	4,674.1	11.5	11.2	128.30	-84.9	268.1	351.3	329.4	21.91	16.033	
4,800.0	4,790.1	4,782.3	4,773.4	11.8	11.5	128.34	-87.2	274.6	360.2	337.8	22.40	16.083	
4,900.0	4,890.0	4,889.6	4,880.6	12.0	11.7	128.42	-89.3	280.3	367.3	344.4	22.86	16.068	
5,000.0	4,989.9	4,998.9	4,989.8	12.2	11.9	158.44	-90.1	282.3	369.6	346.5	23.19	15.940	

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

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S26-T10N-R58W - Razor #26L-3504B - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-ISCWSA MWD

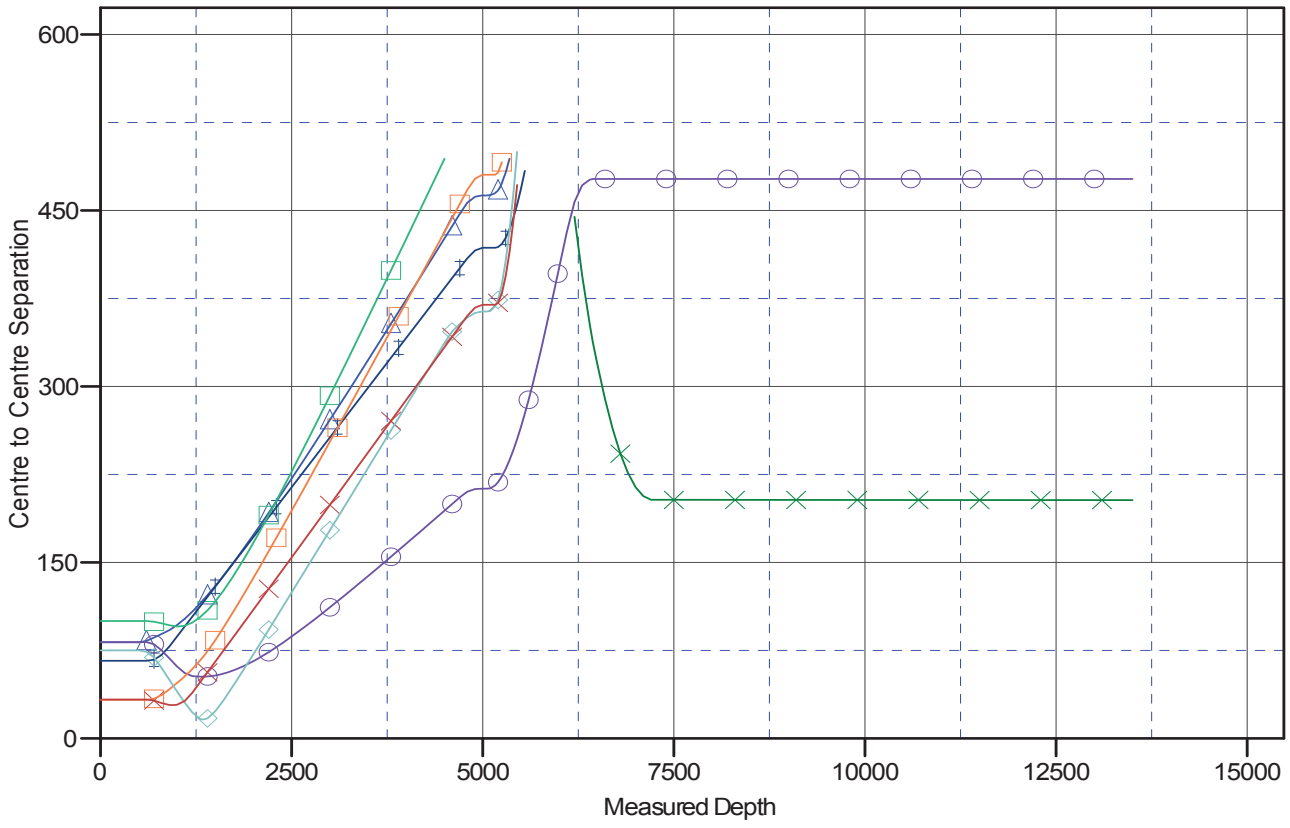
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,089.9	5,099.0	5,089.9	12.3	12.1	158.44	-90.1	282.3	369.6	346.1	23.56	15.687	
5,142.8	5,132.7	5,141.8	5,132.7	12.4	12.2	158.44	-90.1	282.3	369.6	345.9	23.73	15.575	
5,164.2	5,154.1	5,163.2	5,154.1	12.5	12.2	158.44	-90.1	282.3	369.6	345.8	23.82	15.519	
5,200.0	5,189.9	5,184.2	5,175.1	12.6	12.2	144.59	-90.4	282.5	371.4	347.4	23.95	15.504	
5,250.0	5,239.6	5,212.9	5,203.7	12.7	12.3	144.33	-92.1	283.4	379.5	355.5	23.98	15.824	
5,300.0	5,288.4	5,250.0	5,240.5	12.9	12.4	144.01	-96.4	285.7	394.2	370.3	23.92	16.482	
5,350.0	5,336.0	5,265.7	5,256.0	13.1	12.5	142.95	-98.9	287.1	414.6	390.8	23.72	17.479	
5,400.0	5,382.0	5,300.0	5,289.3	13.3	12.6	142.06	-105.8	290.7	440.9	417.5	23.48	18.778	
5,450.0	5,425.8	5,300.0	5,289.3	13.6	12.6	139.30	-105.8	290.7	471.9	448.7	23.22	20.325	

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Razor #26L-2304B
Project:	Weld County, CO	**TVD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Reference Site:	S26-T10N-R58W	**MD Reference:**	WELL @ 4751.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	Grid
Reference Well:	Razor #26L-2304B	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4751.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Razor #26L-2304B
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.07°



LEGEND

Razor #26K-2305A, HZ, Plan #1 V0
Razor #26L-2303A, HZ, Plan #1 V0
Razor #26L-3503A, HZ, Plan #1 V0
Razor #26L-2301A, HZ, Plan #1 V0
Razor #26L-3501A, HZ, Plan #1 V0
Razor #26L-3504B, HZ, Plan #1 V0
Razor #26L-2302B, HZ, Plan #1 V0
Razor #26L-3502B, HZ, Plan #1 V0