



# **Whiting Petroleum Corp.**

**Weld County, CO**

**Sec 25-T10N-R58W**

**Razor #25N-2440**

**Hz**

**APD**

## **Anticollision Report**

**15 May, 2015**



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,550.00 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	3.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/15/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	16,011.07	APD (Hz)	MWD+IFR1+MS+sag	Fixed:v2:crustal dec & 3-axis correction + sag	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 25-T10N-R58W						
Razor #25N-2405 - Hz - APD	300.00	300.00	102.25	100.64	63.317	CC, ES
Razor #25N-2405 - Hz - APD	16,011.07	15,626.44	874.67	585.84	3.028	SF
Razor #25N-2406 - Hz - APD	300.00	300.00	77.83	76.21	48.193	CC, ES
Razor #25N-2406 - Hz - APD	16,011.07	15,668.31	544.62	264.60	1.945	SF
Razor #25N-2407 - Hz - APD	300.00	300.00	58.36	56.74	36.135	CC
Razor #25N-2407 - Hz - APD	400.00	401.50	58.80	56.57	26.437	ES
Razor #25N-2407 - Hz - APD	16,011.07	15,691.20	334.66	155.47	1.868	SF
Razor #25N-2408 - HZ - APD	300.00	300.00	50.60	48.99	31.334	CC
Razor #25N-2408 - HZ - APD	400.00	401.01	51.18	48.95	22.928	ES
Razor #25N-2408 - HZ - APD	16,011.07	15,721.80	280.79	78.77	1.390	Level 3, SF
Razor #25N-2437 - Hz - APD	300.00	300.00	89.98	88.37	55.719	CC, ES
Razor #25N-2437 - Hz - APD	16,011.07	15,918.20	994.69	691.66	3.282	SF
Razor #25N-2438 - Hz - APD	300.00	300.00	59.99	58.38	37.149	CC, ES
Razor #25N-2438 - Hz - APD	16,011.07	16,022.11	659.56	354.77	2.164	SF
Razor #25N-2439 - Hz - APD	300.00	300.00	29.99	28.38	18.572	CC, ES
Razor #25N-2439 - Hz - APD	16,011.07	15,828.65	345.49	52.73	1.180	Level 2, SF

Offset Design												Sec 25-T10N-R58W - Razor #25N-2405 - Hz - APD		Offset Site Error:		0.00 usft	
Survey Program:												0-MWD+IFR1+MS+sag		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning				
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)						
0.00	0.00	0.00	0.00	0.00	0.00	-61.64	48.58	-89.98	102.25								
100.00	100.00	100.00	100.00	0.13	0.13	-61.64	48.58	-89.98	102.25	101.99	0.27	383.909					
200.00	200.00	200.00	200.00	0.47	0.47	-61.64	48.58	-89.98	102.25	101.31	0.94	108.706					
300.00	300.00	300.00	300.00	0.81	0.81	-61.64	48.58	-89.98	102.25	100.64	1.61	63.317	CC, ES				
400.00	399.98	397.21	397.19	1.11	1.12	143.33	48.29	-91.60	104.98	102.75	2.23	47.029					
500.00	499.84	493.98	493.83	1.41	1.43	143.22	47.44	-96.44	113.16	110.31	2.85	39.675					
600.00	599.59	590.09	589.59	1.72	1.75	142.75	46.03	-104.43	125.36	121.87	3.49	35.957					
700.00	699.35	685.42	684.26	2.05	2.08	141.56	44.08	-115.47	140.21	136.07	4.14	33.860					
800.00	799.11	781.14	778.91	2.38	2.43	139.93	41.61	-129.51	157.64	152.82	4.82	32.738					
900.00	898.86	879.38	875.94	2.73	2.81	138.46	38.94	-144.64	175.80	170.32	5.49	32.049					
1,000.00	998.62	977.63	972.98	3.07	3.20	137.26	36.27	-159.78	194.06	187.90	6.16	31.496					
1,100.00	1,098.38	1,075.88	1,070.02	3.42	3.59	136.27	33.60	-174.92	212.38	205.54	6.84	31.038					

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



# WOG

## Anticollision Report

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<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,200.00	1,198.13	1,174.12	1,167.05	3.77	3.98	135.43	30.93	-190.05	230.76	223.23	7.53	30.654		
1,300.00	1,297.89	1,272.37	1,264.09	4.12	4.37	134.72	28.26	-205.19	249.18	240.96	8.22	30.327		
1,400.00	1,397.65	1,370.61	1,361.12	4.48	4.77	134.11	25.60	-220.32	267.63	258.72	8.91	30.048		
1,500.00	1,497.40	1,468.86	1,458.16	4.83	5.17	133.57	22.93	-235.46	286.10	276.50	9.60	29.807		
1,600.00	1,597.16	1,567.10	1,555.20	5.18	5.56	133.10	20.26	-250.59	304.60	294.31	10.29	29.592		
1,700.00	1,696.91	1,665.35	1,652.23	5.54	5.96	132.69	17.59	-265.73	323.11	312.12	10.99	29.408		
1,800.00	1,796.67	1,763.60	1,749.27	5.89	6.36	132.32	14.92	-280.86	341.64	329.96	11.68	29.243		
1,900.00	1,896.43	1,861.84	1,846.31	6.25	6.76	131.98	12.25	-296.00	360.18	347.80	12.38	29.096		
2,000.00	1,996.18	1,960.09	1,943.34	6.60	7.16	131.68	9.58	-311.14	378.73	365.66	13.08	28.964		
2,100.00	2,095.94	2,058.33	2,040.38	6.96	7.56	131.41	6.91	-326.27	397.29	383.52	13.77	28.845		
2,200.00	2,195.70	2,156.58	2,137.41	7.31	7.96	131.16	4.25	-341.41	415.86	401.39	14.47	28.737		
2,300.00	2,295.45	2,254.83	2,234.45	7.67	8.37	130.94	1.58	-356.54	434.44	419.27	15.17	28.639		
2,400.00	2,395.21	2,353.07	2,331.49	8.03	8.77	130.73	-1.09	-371.68	453.02	437.15	15.87	28.549		
2,500.00	2,494.97	2,451.32	2,428.52	8.38	9.17	130.54	-3.76	-386.81	471.60	455.04	16.57	28.466		
2,600.00	2,594.72	2,549.56	2,525.56	8.74	9.57	130.36	-6.43	-401.95	490.19	472.93	17.27	28.390		
2,700.00	2,694.48	2,647.81	2,622.60	9.10	9.97	130.20	-9.10	-417.08	508.79	490.82	17.97	28.319		
2,800.00	2,794.23	2,746.05	2,719.63	9.45	10.38	130.04	-11.77	-432.22	527.39	508.72	18.67	28.254		
2,900.00	2,893.99	2,844.30	2,816.67	9.81	10.78	129.90	-14.44	-447.36	545.99	526.63	19.37	28.193		
3,000.00	2,993.75	2,942.55	2,913.70	10.17	11.18	129.77	-17.10	-462.49	564.60	544.53	20.07	28.137		
3,100.00	3,093.50	3,040.79	3,010.74	10.52	11.58	129.64	-19.77	-477.63	583.20	562.44	20.77	28.084		
3,200.00	3,193.26	3,139.04	3,107.78	10.88	11.99	129.53	-22.44	-492.76	601.82	580.35	21.47	28.035		
3,300.00	3,293.02	3,237.28	3,204.81	11.24	12.39	129.42	-25.11	-507.90	620.43	598.26	22.17	27.988		
3,400.00	3,392.77	3,335.53	3,301.85	11.59	12.79	129.31	-27.78	-523.03	639.04	616.18	22.87	27.944		
3,500.00	3,492.59	3,433.87	3,398.98	11.91	13.20	129.36	-30.45	-538.18	657.05	633.50	23.55	27.895		
3,600.00	3,592.55	3,532.50	3,496.39	12.16	13.60	129.23	-33.13	-553.38	672.96	648.78	24.18	27.835		
3,700.00	3,692.55	3,631.26	3,593.94	12.45	14.01	-76.24	-35.81	-568.59	687.34	662.53	24.82	27.698		
3,800.00	3,792.55	3,730.03	3,691.49	12.71	14.41	-76.76	-38.50	-583.81	701.72	676.30	25.42	27.608		
3,900.00	3,892.55	3,828.80	3,789.05	12.97	14.82	-77.25	-41.18	-599.03	716.15	690.12	26.02	27.520		
4,000.00	3,992.55	3,927.57	3,886.60	13.23	15.22	-77.72	-43.86	-614.24	730.62	703.99	26.63	27.435		
4,100.00	4,092.55	4,026.34	3,984.15	13.50	15.63	-78.18	-46.54	-629.46	745.15	717.91	27.24	27.354		
4,200.00	4,192.55	4,125.11	4,081.70	13.77	16.03	-78.62	-49.23	-644.67	759.72	731.86	27.85	27.274		
4,300.00	4,292.55	4,223.87	4,179.26	14.04	16.44	-79.04	-51.91	-659.89	774.33	745.86	28.47	27.198		
4,400.00	4,392.55	4,322.64	4,276.81	14.32	16.84	-79.44	-54.59	-675.11	788.98	759.89	29.09	27.123		
4,500.00	4,492.55	4,421.41	4,374.36	14.60	17.25	-79.83	-57.28	-690.32	803.67	773.96	29.71	27.051		
4,600.00	4,592.55	4,536.81	4,488.44	14.88	17.66	-80.26	-60.30	-707.45	817.93	787.59	30.34	26.960		
4,700.00	4,692.55	4,673.14	4,623.90	15.16	18.02	-80.61	-62.94	-722.42	828.45	797.49	30.96	26.761		
4,800.00	4,792.55	4,810.61	4,761.09	15.45	18.36	-80.81	-64.46	-731.06	834.48	802.89	31.58	26.421		
4,900.00	4,892.55	4,942.11	4,892.55	15.74	18.67	-80.87	-64.86	-733.31	836.04	803.83	32.21	25.956		
5,000.00	4,992.55	5,042.11	4,992.55	16.03	18.93	-80.87	-64.86	-733.31	836.04	803.26	32.79	25.501		
5,100.00	5,092.55	5,124.81	5,075.08	16.32	19.14	-80.58	-60.66	-733.31	836.90	803.59	33.31	25.124		
5,200.00	5,192.55	5,200.00	5,148.72	16.61	19.34	-79.58	-45.80	-733.31	840.42	806.60	33.82	24.851		
5,299.99	5,292.54	5,271.80	5,216.35	16.91	19.51	-77.98	-21.86	-733.31	847.37	813.05	34.31	24.696		
5,400.00	5,392.07	5,337.61	5,274.91	17.19	19.65	-75.40	8.06	-733.31	856.77	821.96	34.81	24.611		
5,500.00	5,488.20	5,400.00	5,326.54	17.45	19.78	-73.15	43.03	-733.31	865.85	830.67	35.18	24.609		
5,600.00	5,577.43	5,465.34	5,375.72	17.69	19.89	-71.28	85.99	-733.31	873.78	838.36	35.42	24.670		
5,700.00	5,656.47	5,528.00	5,417.47	17.91	19.99	-69.93	132.65	-733.31	879.93	844.38	35.54	24.755		
5,800.00	5,722.41	5,590.21	5,453.09	18.14	20.08	-69.11	183.61	-733.31	883.84	848.18	35.66	24.788		
5,900.00	5,772.83	5,650.00	5,481.37	18.40	20.16	-68.82	236.25	-733.31	885.22	849.36	35.86	24.684		
6,000.00	5,805.89	5,714.19	5,604.80	18.73	20.24	-69.07	295.97	-733.31	883.98	847.69	36.29	24.362		
6,100.00	5,820.36	5,776.39	5,520.34	19.13	20.33	-69.87	356.15	-733.31	880.20	843.24	36.96	23.815		
6,200.00	5,821.00	5,839.42	5,528.65	19.60	20.44	-70.50	418.59	-733.31	875.90	838.15	37.75	23.202		
6,281.01	5,821.00	5,899.41	5,530.00	20.07	20.59	-70.58	478.55	-733.31	875.19	836.72	38.47	22.750		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
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<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,300.00	5,821.00	5,918.39	5,530.00	20.18	20.64	-70.58	497.54	-733.31	875.19	836.52	38.67	22.630		
6,400.00	5,821.00	6,018.39	5,530.00	20.84	21.03	-70.58	597.54	-733.31	875.19	835.34	39.85	21.963		
6,500.00	5,821.00	6,118.39	5,530.00	21.58	21.58	-70.58	697.54	-733.32	875.18	834.00	41.18	21.252		
6,600.00	5,821.00	6,218.39	5,530.00	22.39	22.24	-70.58	797.54	-733.32	875.18	832.52	42.65	20.518		
6,700.00	5,821.00	6,318.39	5,530.00	23.27	23.01	-70.58	897.54	-733.32	875.17	830.92	44.25	19.776		
6,800.00	5,821.00	6,418.39	5,530.00	24.21	23.85	-70.58	997.54	-733.32	875.17	829.20	45.97	19.038		
6,900.00	5,821.00	6,518.39	5,530.00	25.19	24.76	-70.58	1,097.54	-733.32	875.16	827.37	47.79	18.314		
7,000.00	5,821.00	6,618.39	5,530.00	26.23	25.73	-70.58	1,197.54	-733.32	875.16	825.46	49.70	17.610		
7,100.00	5,821.00	6,718.39	5,530.00	27.30	26.74	-70.58	1,297.54	-733.32	875.15	823.46	51.69	16.932		
7,200.00	5,821.00	6,818.39	5,530.00	28.41	27.80	-70.58	1,397.54	-733.32	875.14	821.40	53.75	16.282		
7,300.00	5,821.00	6,918.39	5,530.00	29.55	28.89	-70.58	1,497.54	-733.32	875.14	819.27	55.87	15.663		
7,400.00	5,821.00	7,018.39	5,530.00	30.72	30.02	-70.58	1,597.54	-733.32	875.13	817.08	58.06	15.074		
7,500.00	5,821.00	7,118.39	5,530.00	31.91	31.17	-70.58	1,697.54	-733.32	875.13	814.84	60.29	14.516		
7,600.00	5,821.00	7,218.39	5,530.00	33.13	32.35	-70.58	1,797.54	-733.32	875.12	812.55	62.57	13.987		
7,700.00	5,821.00	7,318.39	5,530.00	34.36	33.56	-70.58	1,897.54	-733.32	875.12	810.23	64.89	13.487		
7,800.00	5,821.00	7,418.39	5,530.00	35.62	34.78	-70.58	1,997.54	-733.32	875.11	807.87	67.24	13.014		
7,900.00	5,821.00	7,518.39	5,530.00	36.89	36.02	-70.58	2,097.54	-733.32	875.11	805.48	69.63	12.568		
8,000.00	5,821.00	7,618.39	5,530.00	38.17	37.28	-70.58	2,197.54	-733.32	875.10	803.05	72.05	12.146		
8,100.00	5,821.00	7,718.39	5,530.00	39.47	38.56	-70.58	2,297.54	-733.32	875.10	800.60	74.49	11.747		
8,200.00	5,821.00	7,818.39	5,530.00	40.78	39.84	-70.58	2,397.54	-733.32	875.09	798.13	76.96	11.371		
8,300.00	5,821.00	7,918.39	5,530.00	42.10	41.14	-70.58	2,497.54	-733.32	875.08	795.63	79.45	11.014		
8,400.00	5,821.00	8,018.39	5,530.00	43.43	42.46	-70.58	2,597.54	-733.32	875.08	793.12	81.96	10.677		
8,500.00	5,821.00	8,118.39	5,530.00	44.77	43.78	-70.58	2,697.54	-733.32	875.07	790.59	84.49	10.357		
8,600.00	5,821.00	8,218.39	5,530.00	46.11	45.11	-70.58	2,797.54	-733.32	875.07	788.04	87.03	10.055		
8,700.00	5,821.00	8,318.39	5,530.00	47.47	46.45	-70.58	2,897.54	-733.32	875.06	785.47	89.59	9.767		
8,800.00	5,821.00	8,418.39	5,530.00	48.83	47.79	-70.58	2,997.54	-733.33	875.06	782.89	92.16	9.495		
8,900.00	5,821.00	8,518.39	5,530.00	50.19	49.15	-70.58	3,097.54	-733.33	875.05	780.30	94.75	9.235		
9,000.00	5,821.00	8,618.39	5,530.00	51.57	50.51	-70.58	3,197.54	-733.33	875.05	777.70	97.35	8.989		
9,100.00	5,821.00	8,718.39	5,530.00	52.95	51.87	-70.58	3,297.54	-733.33	875.04	775.08	99.96	8.754		
9,200.00	5,821.00	8,818.39	5,530.00	54.33	53.25	-70.58	3,397.54	-733.33	875.03	772.46	102.57	8.531		
9,300.00	5,821.00	8,918.39	5,530.00	55.72	54.62	-70.58	3,497.54	-733.33	875.03	769.83	105.20	8.318		
9,400.00	5,821.00	9,018.39	5,530.00	57.11	56.01	-70.58	3,597.54	-733.33	875.02	767.19	107.84	8.114		
9,500.00	5,821.00	9,118.39	5,530.00	58.50	57.39	-70.58	3,697.54	-733.33	875.02	764.54	110.48	7.920		
9,600.00	5,821.00	9,218.39	5,530.00	59.90	58.78	-70.58	3,797.54	-733.33	875.01	761.88	113.13	7.734		
9,700.00	5,821.00	9,318.39	5,530.00	61.31	60.18	-70.58	3,897.54	-733.33	875.01	759.22	115.79	7.557		
9,800.00	5,821.00	9,418.39	5,530.00	62.71	61.58	-70.58	3,997.54	-733.33	875.00	756.55	118.45	7.387		
9,900.00	5,821.00	9,518.39	5,530.00	64.12	62.98	-70.58	4,097.54	-733.33	875.00	753.87	121.12	7.224		
10,000.00	5,821.00	9,618.39	5,530.00	65.53	64.38	-70.57	4,197.54	-733.33	874.99	751.19	123.80	7.068		
10,100.00	5,821.00	9,718.39	5,530.00	66.95	65.79	-70.57	4,297.54	-733.33	874.99	748.50	126.48	6.918		
10,200.00	5,821.00	9,818.39	5,530.00	68.36	67.20	-70.57	4,397.54	-733.33	874.98	745.81	129.17	6.774		
10,300.00	5,821.00	9,918.39	5,530.00	69.78	68.61	-70.57	4,497.54	-733.33	874.97	743.12	131.86	6.636		
10,400.00	5,821.00	10,018.39	5,530.00	71.21	70.03	-70.57	4,597.54	-733.33	874.97	740.42	134.55	6.503		
10,500.00	5,821.00	10,118.39	5,530.00	72.63	71.44	-70.57	4,697.54	-733.33	874.96	737.71	137.25	6.375		
10,600.00	5,821.00	10,218.39	5,530.00	74.05	72.86	-70.57	4,797.54	-733.33	874.96	735.00	139.95	6.252		
10,700.00	5,821.00	10,318.39	5,530.00	75.48	74.29	-70.57	4,897.54	-733.33	874.95	732.29	142.66	6.133		
10,800.00	5,821.00	10,418.39	5,530.00	76.91	75.71	-70.57	4,997.54	-733.33	874.95	729.58	145.37	6.019		
10,900.00	5,821.00	10,518.39	5,530.00	78.34	77.13	-70.57	5,097.54	-733.33	874.94	726.86	148.08	5.908		
11,000.00	5,821.00	10,618.39	5,530.00	79.77	78.56	-70.57	5,197.54	-733.33	874.94	724.14	150.80	5.802		
11,100.00	5,821.00	10,718.39	5,530.00	81.20	79.99	-70.57	5,297.54	-733.34	874.93	721.41	153.52	5.699		
11,200.00	5,821.00	10,818.39	5,530.00	82.64	81.42	-70.57	5,397.54	-733.34	874.92	718.69	156.24	5.600		
11,300.00	5,821.00	10,918.39	5,530.00	84.07	82.85	-70.57	5,497.54	-733.34	874.92	715.96	158.96	5.504		
11,400.00	5,821.00	11,018.39	5,530.00	85.51	84.28	-70.57	5,597.54	-733.34	874.91	713.22	161.69	5.411		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 25-T10N-R58W - Razor #25N-2405 - Hz - APD		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
11,500.00	5,821.00	11,118.39	5,530.00	86.95	85.72	-70.57	5,697.54	-733.34	874.91	710.49	164.42	5.321				
11,600.00	5,821.00	11,218.39	5,530.00	88.39	87.15	-70.57	5,797.54	-733.34	874.90	707.75	167.15	5.234				
11,700.00	5,821.00	11,318.39	5,530.00	89.83	88.59	-70.57	5,897.54	-733.34	874.90	705.01	169.88	5.150				
11,800.00	5,821.00	11,418.39	5,530.00	91.27	90.03	-70.57	5,997.54	-733.34	874.89	702.27	172.62	5.068				
11,900.00	5,821.00	11,518.39	5,530.00	92.71	91.47	-70.57	6,097.54	-733.34	874.89	699.53	175.36	4.989				
12,000.00	5,821.00	11,618.39	5,530.00	94.16	92.91	-70.57	6,197.54	-733.34	874.88	696.79	178.10	4.912				
12,100.00	5,821.00	11,718.39	5,530.00	95.60	94.35	-70.57	6,297.54	-733.34	874.88	694.04	180.84	4.838				
12,200.00	5,821.00	11,818.39	5,530.00	97.04	95.79	-70.57	6,397.54	-733.34	874.87	691.29	183.58	4.766				
12,300.00	5,821.00	11,918.39	5,530.00	98.49	97.23	-70.57	6,497.54	-733.34	874.86	688.54	186.32	4.695				
12,400.00	5,821.00	12,018.39	5,530.00	99.94	98.68	-70.57	6,597.54	-733.34	874.86	685.79	189.07	4.627				
12,500.00	5,821.00	12,118.39	5,530.00	101.38	100.12	-70.57	6,697.54	-733.34	874.85	683.04	191.82	4.561				
12,600.00	5,821.00	12,218.39	5,530.00	102.83	101.56	-70.57	6,797.54	-733.34	874.85	680.28	194.56	4.496				
12,700.00	5,821.00	12,318.39	5,530.00	104.28	103.01	-70.57	6,897.54	-733.34	874.84	677.53	197.31	4.434				
12,800.00	5,821.00	12,418.39	5,530.00	105.73	104.46	-70.57	6,997.54	-733.34	874.84	674.77	200.07	4.373				
12,900.00	5,821.00	12,518.39	5,530.00	107.18	105.90	-70.57	7,097.54	-733.34	874.83	672.01	202.82	4.313				
13,000.00	5,821.00	12,618.39	5,530.00	108.63	107.35	-70.57	7,197.54	-733.34	874.83	669.25	205.57	4.256				
13,100.00	5,821.00	12,718.39	5,530.00	110.08	108.80	-70.57	7,297.54	-733.34	874.82	666.49	208.33	4.199				
13,200.00	5,821.00	12,818.39	5,530.00	111.53	110.25	-70.57	7,397.54	-733.34	874.82	663.73	211.08	4.144				
13,300.00	5,821.00	12,918.39	5,530.00	112.98	111.70	-70.57	7,497.54	-733.35	874.81	660.97	213.84	4.091				
13,400.00	5,821.00	13,018.39	5,530.00	114.44	113.15	-70.57	7,597.54	-733.35	874.80	658.21	216.60	4.039				
13,500.00	5,821.00	13,118.39	5,530.00	115.89	114.60	-70.57	7,697.54	-733.35	874.80	655.44	219.36	3.988				
13,600.00	5,821.00	13,218.39	5,530.00	117.34	116.05	-70.57	7,797.54	-733.35	874.79	652.68	222.12	3.938				
13,700.00	5,821.00	13,318.39	5,530.00	118.80	117.50	-70.57	7,897.54	-733.35	874.79	649.91	224.88	3.890				
13,800.00	5,821.00	13,418.39	5,530.00	120.25	118.96	-70.57	7,997.54	-733.35	874.78	647.14	227.64	3.843				
13,900.00	5,821.00	13,518.39	5,530.00	121.70	120.41	-70.57	8,097.54	-733.35	874.78	644.38	230.40	3.797				
14,000.00	5,821.00	13,618.39	5,530.00	123.16	121.86	-70.57	8,197.54	-733.35	874.77	641.61	233.16	3.752				
14,100.00	5,821.00	13,718.39	5,530.00	124.62	123.32	-70.57	8,297.54	-733.35	874.77	638.84	235.93	3.708				
14,200.00	5,821.00	13,818.39	5,530.00	126.07	124.77	-70.57	8,397.54	-733.35	874.76	636.07	238.69	3.665				
14,300.00	5,821.00	13,918.39	5,530.00	127.53	126.23	-70.57	8,497.54	-733.35	874.75	633.30	241.46	3.623				
14,400.00	5,821.00	14,018.39	5,530.00	128.98	127.68	-70.57	8,597.54	-733.35	874.75	630.52	244.22	3.582				
14,500.00	5,821.00	14,118.39	5,530.00	130.44	129.14	-70.57	8,697.54	-733.35	874.74	627.75	246.99	3.542				
14,600.00	5,821.00	14,218.39	5,530.00	131.90	130.59	-70.57	8,797.54	-733.35	874.74	624.98	249.76	3.502				
14,700.00	5,821.00	14,318.39	5,530.00	133.36	132.05	-70.57	8,897.54	-733.35	874.73	622.21	252.53	3.464				
14,800.00	5,821.00	14,418.39	5,530.00	134.81	133.50	-70.57	8,997.54	-733.35	874.73	619.43	255.30	3.426				
14,900.00	5,821.00	14,518.39	5,530.00	136.27	134.96	-70.57	9,097.54	-733.35	874.72	616.66	258.07	3.390				
15,000.00	5,821.00	14,618.39	5,530.00	137.73	136.42	-70.57	9,197.54	-733.35	874.72	613.88	260.84	3.354				
15,100.00	5,821.00	14,718.39	5,530.00	139.19	137.88	-70.57	9,297.54	-733.35	874.71	611.11	263.61	3.318				
15,200.00	5,821.00	14,818.39	5,530.00	140.65	139.33	-70.57	9,397.54	-733.35	874.71	608.33	266.38	3.284				
15,300.00	5,821.00	14,918.39	5,530.00	142.11	140.79	-70.57	9,497.54	-733.35	874.70	605.55	269.15	3.250				
15,400.00	5,821.00	15,018.39	5,530.00	143.57	142.25	-70.57	9,597.54	-733.35	874.69	602.77	271.92	3.217				
15,500.00	5,821.00	15,118.39	5,530.00	145.03	143.71	-70.57	9,697.54	-733.35	874.69	600.00	274.69	3.184				
15,600.00	5,821.00	15,218.39	5,530.00	146.49	145.17	-70.57	9,797.54	-733.36	874.68	597.22	277.47	3.152				
15,700.00	5,821.00	15,318.39	5,530.00	147.95	146.63	-70.57	9,897.54	-733.36	874.68	594.44	280.24	3.121				
15,800.00	5,821.00	15,418.39	5,530.00	149.41	148.08	-70.57	9,997.54	-733.36	874.67	591.66	283.01	3.091				
15,900.00	5,821.00	15,518.39	5,530.00	150.87	149.54	-70.57	10,097.54	-733.36	874.67	588.88	285.79	3.061				
16,000.00	5,821.00	15,618.39	5,530.00	152.33	151.00	-70.57	10,197.54	-733.36	874.66	586.10	288.56	3.031				
16,008.10	5,821.00	15,626.44	5,530.00	152.45	151.12	-70.57	10,205.58	-733.36	874.66	585.88	288.79	3.029				
16,011.07	5,821.00	15,626.44	5,530.00	152.49	151.12	-70.57	10,205.58	-733.36	874.67	585.84	288.83	3.028 SF				



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-50.42	49.59	-59.98	77.83					
100.00	100.00	100.00	100.00	0.13	0.13	-50.42	49.59	-59.98	77.83	77.56	0.27	292.209		
200.00	200.00	200.00	200.00	0.47	0.47	-50.42	49.59	-59.98	77.83	76.89	0.94	82.740		
300.00	300.00	300.00	300.00	0.81	0.81	-50.42	49.59	-59.98	77.83	76.21	1.61	48.193 CC, ES		
400.00	399.98	398.58	398.56	1.11	1.12	154.04	49.01	-61.58	80.28	78.05	2.23	35.946		
500.00	499.84	496.77	496.62	1.41	1.43	152.61	47.28	-66.33	87.66	84.81	2.85	30.765		
600.00	599.59	595.23	594.74	1.72	1.75	150.45	44.51	-73.93	98.30	94.82	3.48	28.215		
700.00	699.35	694.55	693.69	2.05	2.08	148.48	41.55	-82.07	109.36	105.23	4.13	26.472		
800.00	799.11	793.88	792.63	2.38	2.43	146.88	38.59	-90.20	120.52	115.73	4.79	25.144		
900.00	898.86	893.20	891.58	2.73	2.78	145.55	35.63	-98.34	131.76	126.30	5.46	24.112		
1,000.00	998.62	992.53	990.52	3.07	3.13	144.43	32.67	-106.47	143.06	136.92	6.14	23.292		
1,100.00	1,098.38	1,091.85	1,089.47	3.42	3.49	143.47	29.71	-114.61	154.41	147.58	6.82	22.626		
1,200.00	1,198.13	1,191.17	1,188.42	3.77	3.84	142.65	26.75	-122.74	165.79	158.28	7.51	22.077		
1,300.00	1,297.89	1,290.50	1,287.36	4.12	4.20	141.93	23.79	-130.88	177.20	169.00	8.20	21.617		
1,400.00	1,397.65	1,389.82	1,386.31	4.48	4.56	141.29	20.83	-139.01	188.63	179.75	8.89	21.227		
1,500.00	1,497.40	1,489.14	1,485.25	4.83	4.92	140.73	17.87	-147.14	200.09	190.51	9.58	20.891		
1,600.00	1,597.16	1,588.47	1,584.20	5.18	5.28	140.23	14.91	-155.28	211.56	201.29	10.27	20.600		
1,700.00	1,696.91	1,687.79	1,683.15	5.54	5.63	139.79	11.95	-163.41	223.05	212.08	10.96	20.346		
1,800.00	1,796.67	1,787.12	1,782.09	5.89	5.99	139.38	8.99	-171.55	234.55	222.89	11.66	20.121		
1,900.00	1,896.43	1,886.44	1,881.04	6.25	6.35	139.02	6.02	-179.68	246.05	233.70	12.35	19.921		
2,000.00	1,996.18	1,985.76	1,979.98	6.60	6.71	138.68	3.06	-187.82	257.57	244.53	13.05	19.743		
2,100.00	2,095.94	2,085.09	2,078.93	6.96	7.07	138.38	0.10	-195.95	269.10	255.36	13.74	19.582		
2,200.00	2,195.70	2,184.41	2,177.88	7.31	7.43	138.10	-2.86	-204.09	280.63	266.19	14.44	19.437		
2,300.00	2,295.45	2,283.74	2,276.82	7.67	7.79	137.84	-5.82	-212.22	292.17	277.03	15.13	19.305		
2,400.00	2,395.21	2,383.06	2,375.77	8.03	8.16	137.60	-8.78	-220.36	303.71	287.88	15.83	19.185		
2,500.00	2,494.97	2,482.38	2,474.71	8.38	8.52	137.38	-11.74	-228.49	315.26	298.73	16.53	19.075		
2,600.00	2,594.72	2,581.71	2,573.66	8.74	8.88	137.18	-14.70	-236.62	326.81	309.59	17.22	18.973		
2,700.00	2,694.48	2,681.03	2,672.60	9.10	9.24	136.98	-17.66	-244.76	338.37	320.45	17.92	18.880		
2,800.00	2,794.23	2,780.35	2,771.55	9.45	9.60	136.81	-20.62	-252.89	349.93	331.31	18.62	18.794		
2,900.00	2,893.99	2,879.68	2,870.50	9.81	9.96	136.64	-23.58	-261.03	361.50	342.18	19.32	18.714		
3,000.00	2,993.75	2,979.00	2,969.44	10.17	10.32	136.48	-26.54	-269.16	373.03	353.05	20.02	18.639		
3,100.00	3,093.50	3,078.33	3,068.39	10.52	10.68	136.33	-29.50	-277.30	384.63	363.92	20.71	18.569		
3,200.00	3,193.26	3,177.65	3,167.33	10.88	11.04	136.20	-32.47	-285.43	396.20	374.79	21.41	18.504		
3,300.00	3,293.02	3,276.97	3,266.28	11.24	11.40	136.06	-35.43	-293.57	407.78	385.67	22.11	18.443		
3,400.00	3,392.77	3,376.30	3,365.23	11.59	11.76	135.94	-38.39	-301.70	419.35	396.54	22.81	18.386		
3,500.00	3,492.59	3,475.69	3,464.24	11.91	12.13	135.84	-41.35	-309.84	430.23	406.75	23.48	18.321		
3,600.00	3,592.55	3,575.25	3,563.42	12.16	12.49	135.46	-44.32	-318.00	438.71	414.62	24.10	18.207		
3,700.00	3,692.55	3,674.87	3,662.66	12.45	12.85	-70.24	-47.29	-326.15	445.47	420.73	24.74	18.008		
3,800.00	3,792.55	3,774.49	3,761.90	12.71	13.21	-70.94	-50.26	-334.31	452.21	426.86	25.35	17.842		
3,900.00	3,892.55	3,874.11	3,861.14	12.97	13.58	-71.63	-53.23	-342.47	459.02	433.06	25.96	17.684		
4,000.00	3,992.55	3,973.73	3,960.38	13.23	13.94	-72.29	-56.20	-350.63	465.89	439.32	26.57	17.535		
4,100.00	4,092.55	4,073.35	4,059.62	13.50	14.30	-72.94	-59.16	-358.79	472.83	445.64	27.19	17.392		
4,200.00	4,192.55	4,172.96	4,158.86	13.77	14.66	-73.56	-62.13	-366.95	479.82	452.02	27.80	17.257		
4,300.00	4,292.55	4,272.58	4,258.10	14.04	15.03	-74.17	-65.10	-375.11	486.87	458.45	28.42	17.128		
4,400.00	4,392.55	4,372.20	4,357.34	14.32	15.39	-74.76	-68.07	-383.27	493.97	464.93	29.05	17.006		
4,500.00	4,492.55	4,471.82	4,456.58	14.60	15.75	-75.34	-71.04	-391.42	501.13	471.45	29.67	16.889		
4,600.00	4,592.55	4,583.74	4,568.17	14.88	16.11	-75.89	-73.96	-399.44	507.46	477.16	30.30	16.749		
4,700.00	4,692.55	4,700.95	4,685.29	15.16	16.41	-76.16	-75.47	-403.58	510.58	479.70	30.88	16.535		
4,800.00	4,792.55	4,808.22	4,792.55	15.45	16.70	-76.19	-75.61	-403.98	510.88	479.41	31.47	16.236		
4,900.00	4,892.55	4,908.22	4,892.55	15.74	16.97	-76.19	-75.61	-403.98	510.88	478.84	32.03	15.948		
5,000.00	4,992.55	5,008.22	4,992.55	16.03	17.25	-76.19	-75.61	-403.98	510.88	478.27	32.61	15.668		
5,062.21	5,054.76	5,070.43	5,054.76	16.21	17.42	-76.19	-75.61	-403.98	510.88	477.91	32.96	15.498		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,092.55	5,100.00	5,084.33	16.32	17.51	-76.18	-75.49	-403.98	510.97	477.81	33.16	15.410		
5,200.00	5,192.55	5,184.47	5,168.27	16.61	17.74	-75.24	-66.85	-403.98	513.61	479.92	33.69	15.246		
5,299.99	5,292.54	5,260.13	5,241.39	16.91	17.94	-73.19	-47.69	-403.98	520.77	486.58	34.19	15.232		
5,400.00	5,392.07	5,331.36	5,307.02	17.19	18.12	-69.89	-20.15	-403.97	531.03	496.39	34.64	15.328		
5,500.00	5,488.20	5,400.00	5,366.15	17.45	18.27	-67.13	14.62	-403.97	540.70	505.78	34.92	15.483		
5,600.00	5,577.43	5,469.33	5,420.71	17.69	18.41	-64.98	57.32	-403.97	548.89	513.87	35.01	15.676		
5,700.00	5,656.47	5,536.93	5,467.99	17.91	18.53	-63.51	105.56	-403.97	554.91	519.94	34.97	15.867		
5,800.00	5,722.41	5,600.00	5,506.13	18.14	18.62	-62.72	155.74	-403.97	558.34	523.43	34.91	15.994		
5,900.00	5,772.83	5,670.96	5,541.44	18.40	18.69	-62.58	217.23	-403.97	558.87	523.87	35.00	15.967		
6,000.00	5,805.89	5,737.96	5,566.82	18.73	18.75	-63.13	279.19	-403.96	556.51	521.15	35.36	15.739		
6,100.00	5,820.36	5,800.00	5,583.06	19.13	18.84	-64.27	339.03	-403.96	551.46	515.43	36.03	15.306		
6,200.00	5,821.00	5,873.80	5,592.95	19.60	19.15	-65.31	412.10	-403.96	546.15	509.24	36.91	14.796		
6,264.24	5,821.00	5,923.52	5,594.00	19.97	19.40	-65.41	461.80	-403.96	545.51	508.03	37.48	14.554		
6,300.00	5,821.00	5,959.28	5,594.00	20.18	19.59	-65.41	497.56	-403.95	545.51	507.67	37.84	14.416		
6,400.00	5,821.00	6,059.28	5,594.00	20.84	20.20	-65.41	597.56	-403.95	545.50	506.53	38.97	13.997		
6,500.00	5,821.00	6,159.28	5,594.00	21.58	20.89	-65.41	697.56	-403.95	545.49	505.24	40.26	13.550		
6,600.00	5,821.00	6,259.28	5,594.00	22.39	21.65	-65.41	797.56	-403.94	545.48	503.81	41.68	13.088		
6,700.00	5,821.00	6,359.28	5,594.00	23.27	22.49	-65.41	897.56	-403.94	545.47	502.25	43.22	12.621		
6,800.00	5,821.00	6,459.28	5,594.00	24.21	23.39	-65.41	997.56	-403.93	545.46	500.59	44.87	12.155		
6,900.00	5,821.00	6,559.28	5,594.00	25.19	24.34	-65.41	1,097.56	-403.93	545.46	498.83	46.63	11.698		
7,000.00	5,821.00	6,659.28	5,594.00	26.23	25.34	-65.41	1,197.56	-403.93	545.45	496.98	48.47	11.253		
7,100.00	5,821.00	6,759.28	5,594.00	27.30	26.38	-65.41	1,297.56	-403.92	545.44	495.05	50.39	10.824		
7,200.00	5,821.00	6,859.28	5,594.00	28.41	27.47	-65.41	1,397.56	-403.92	545.43	493.05	52.38	10.413		
7,300.00	5,821.00	6,959.28	5,594.00	29.55	28.58	-65.41	1,497.56	-403.92	545.42	490.99	54.43	10.020		
7,400.00	5,821.00	7,059.28	5,594.00	30.72	29.73	-65.41	1,597.56	-403.91	545.41	488.87	56.54	9.646		
7,500.00	5,821.00	7,159.28	5,594.00	31.91	30.91	-65.41	1,697.56	-403.91	545.40	486.70	58.70	9.292		
7,600.00	5,821.00	7,259.28	5,594.00	33.13	32.11	-65.40	1,797.56	-403.90	545.39	484.49	60.90	8.956		
7,700.00	5,821.00	7,359.28	5,594.00	34.36	33.33	-65.40	1,897.56	-403.90	545.38	482.24	63.14	8.638		
7,800.00	5,821.00	7,459.28	5,594.00	35.62	34.57	-65.40	1,997.56	-403.90	545.37	479.96	65.42	8.337		
7,900.00	5,821.00	7,559.28	5,594.00	36.89	35.83	-65.40	2,097.56	-403.89	545.36	477.64	67.73	8.052		
8,000.00	5,821.00	7,659.28	5,594.00	38.17	37.10	-65.40	2,197.56	-403.89	545.35	475.29	70.06	7.784		
8,100.00	5,821.00	7,759.28	5,594.00	39.47	38.39	-65.40	2,297.56	-403.88	545.34	472.92	72.43	7.530		
8,200.00	5,821.00	7,859.28	5,594.00	40.78	39.69	-65.40	2,397.56	-403.88	545.34	470.52	74.81	7.289		
8,300.00	5,821.00	7,959.28	5,594.00	42.10	41.00	-65.40	2,497.56	-403.88	545.33	468.10	77.22	7.062		
8,400.00	5,821.00	8,059.28	5,594.00	43.43	42.33	-65.40	2,597.56	-403.87	545.32	465.67	79.65	6.846		
8,500.00	5,821.00	8,159.28	5,594.00	44.77	43.66	-65.40	2,697.56	-403.87	545.31	463.21	82.10	6.642		
8,600.00	5,821.00	8,259.28	5,594.00	46.11	45.00	-65.40	2,797.56	-403.86	545.30	460.74	84.56	6.449		
8,700.00	5,821.00	8,359.28	5,594.00	47.47	46.35	-65.40	2,897.56	-403.86	545.29	458.25	87.03	6.265		
8,800.00	5,821.00	8,459.28	5,594.00	48.83	47.70	-65.40	2,997.56	-403.86	545.28	455.76	89.52	6.091		
8,900.00	5,821.00	8,559.28	5,594.00	50.19	49.07	-65.40	3,097.56	-403.85	545.27	453.24	92.03	5.925		
9,000.00	5,821.00	8,659.28	5,594.00	51.57	50.43	-65.40	3,197.56	-403.85	545.26	450.72	94.54	5.767		
9,100.00	5,821.00	8,759.28	5,594.00	52.95	51.81	-65.40	3,297.56	-403.85	545.25	448.19	97.07	5.617		
9,200.00	5,821.00	8,859.28	5,594.00	54.33	53.19	-65.40	3,397.56	-403.84	545.24	445.64	99.60	5.474		
9,300.00	5,821.00	8,959.28	5,594.00	55.72	54.57	-65.40	3,497.56	-403.84	545.23	443.09	102.14	5.338		
9,400.00	5,821.00	9,059.28	5,594.00	57.11	55.96	-65.40	3,597.56	-403.83	545.22	440.53	104.70	5.208		
9,500.00	5,821.00	9,159.28	5,594.00	58.50	57.35	-65.40	3,697.56	-403.83	545.22	437.96	107.25	5.083		
9,600.00	5,821.00	9,259.28	5,594.00	59.90	58.75	-65.40	3,797.56	-403.83	545.21	435.38	109.82	4.964		
9,700.00	5,821.00	9,359.28	5,594.00	61.31	60.15	-65.40	3,897.56	-403.82	545.20	432.80	112.39	4.851		
9,800.00	5,821.00	9,459.28	5,594.00	62.71	61.56	-65.39	3,997.56	-403.82	545.19	430.21	114.97	4.742		
9,900.00	5,821.00	9,559.28	5,594.00	64.12	62.96	-65.39	4,097.56	-403.81	545.18	427.62	117.56	4.637		
10,000.00	5,821.00	9,659.28	5,594.00	65.53	64.37	-65.39	4,197.56	-403.81	545.17	425.02	120.15	4.537		
10,100.00	5,821.00	9,759.28	5,594.00	66.95	65.78	-65.39	4,297.56	-403.81	545.16	422.41	122.75	4.441		

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





# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.00	5,821.00	9,859.28	5,594.00	68.36	67.20	-65.39	4,397.56	-403.80	545.15	419.80	125.35	4.349		
10,300.00	5,821.00	9,959.28	5,594.00	69.78	68.62	-65.39	4,497.56	-403.80	545.14	417.19	127.95	4.260		
10,400.00	5,821.00	10,059.28	5,594.00	71.21	70.04	-65.39	4,597.56	-403.79	545.13	414.57	130.56	4.175		
10,500.00	5,821.00	10,159.28	5,594.00	72.63	71.46	-65.39	4,697.56	-403.79	545.12	411.95	133.18	4.093		
10,600.00	5,821.00	10,259.28	5,594.00	74.05	72.88	-65.39	4,797.56	-403.79	545.11	409.32	135.79	4.014		
10,700.00	5,821.00	10,359.28	5,594.00	75.48	74.31	-65.39	4,897.56	-403.78	545.10	406.69	138.42	3.938		
10,800.00	5,821.00	10,459.28	5,594.00	76.91	75.73	-65.39	4,997.56	-403.78	545.10	404.06	141.04	3.865		
10,900.00	5,821.00	10,559.28	5,594.00	78.34	77.16	-65.39	5,097.56	-403.78	545.09	401.42	143.67	3.794		
11,000.00	5,821.00	10,659.28	5,594.00	79.77	78.59	-65.39	5,197.56	-403.77	545.08	398.78	146.30	3.726		
11,100.00	5,821.00	10,759.28	5,594.00	81.20	80.02	-65.39	5,297.56	-403.77	545.07	396.14	148.93	3.660		
11,200.00	5,821.00	10,859.28	5,594.00	82.64	81.46	-65.39	5,397.56	-403.76	545.06	393.49	151.57	3.596		
11,300.00	5,821.00	10,959.28	5,594.00	84.07	82.89	-65.39	5,497.56	-403.76	545.05	390.84	154.21	3.535		
11,400.00	5,821.00	11,059.28	5,594.00	85.51	84.33	-65.39	5,597.56	-403.76	545.04	388.19	156.85	3.475		
11,500.00	5,821.00	11,159.28	5,594.00	86.95	85.77	-65.39	5,697.56	-403.75	545.03	385.54	159.49	3.417		
11,600.00	5,821.00	11,259.28	5,594.00	88.39	87.20	-65.39	5,797.56	-403.75	545.02	382.89	162.14	3.361		
11,700.00	5,821.00	11,359.28	5,594.00	89.83	88.64	-65.39	5,897.56	-403.74	545.01	380.23	164.78	3.307		
11,800.00	5,821.00	11,459.28	5,594.00	91.27	90.08	-65.39	5,997.56	-403.74	545.00	377.57	167.43	3.255		
11,900.00	5,821.00	11,559.28	5,594.00	92.71	91.53	-65.39	6,097.56	-403.74	544.99	374.91	170.09	3.204		
12,000.00	5,821.00	11,659.28	5,594.00	94.16	92.97	-65.39	6,197.56	-403.73	544.98	372.25	172.74	3.155		
12,100.00	5,821.00	11,759.28	5,594.00	95.60	94.41	-65.38	6,297.56	-403.73	544.98	369.58	175.39	3.107		
12,200.00	5,821.00	11,859.28	5,594.00	97.04	95.86	-65.38	6,397.56	-403.72	544.97	366.92	178.05	3.061		
12,300.00	5,821.00	11,959.28	5,594.00	98.49	97.30	-65.38	6,497.56	-403.72	544.96	364.25	180.71	3.016		
12,400.00	5,821.00	12,059.28	5,594.00	99.94	98.75	-65.38	6,597.56	-403.72	544.95	361.58	183.37	2.972		
12,500.00	5,821.00	12,159.28	5,594.00	101.38	100.19	-65.38	6,697.56	-403.71	544.94	358.91	186.03	2.929		
12,600.00	5,821.00	12,259.28	5,594.00	102.83	101.64	-65.38	6,797.56	-403.71	544.93	356.24	188.69	2.888		
12,700.00	5,821.00	12,359.28	5,594.00	104.28	103.09	-65.38	6,897.56	-403.71	544.92	353.56	191.36	2.848		
12,800.00	5,821.00	12,459.28	5,594.00	105.73	104.54	-65.38	6,997.56	-403.70	544.91	350.89	194.02	2.809		
12,900.00	5,821.00	12,559.28	5,594.00	107.18	105.99	-65.38	7,097.56	-403.70	544.90	348.21	196.69	2.770		
13,000.00	5,821.00	12,659.28	5,594.00	108.63	107.44	-65.38	7,197.56	-403.69	544.89	345.54	199.35	2.733		
13,100.00	5,821.00	12,759.28	5,594.00	110.08	108.89	-65.38	7,297.56	-403.69	544.88	342.86	202.02	2.697		
13,200.00	5,821.00	12,859.28	5,594.00	111.53	110.34	-65.38	7,397.56	-403.69	544.87	340.18	204.69	2.662		
13,300.00	5,821.00	12,959.28	5,594.00	112.98	111.79	-65.38	7,497.56	-403.68	544.87	337.50	207.36	2.628		
13,400.00	5,821.00	13,059.28	5,594.00	114.44	113.24	-65.38	7,597.56	-403.68	544.86	334.82	210.04	2.594		
13,500.00	5,821.00	13,159.28	5,594.00	115.89	114.69	-65.38	7,697.56	-403.67	544.85	332.14	212.71	2.561		
13,600.00	5,821.00	13,259.28	5,594.00	117.34	116.15	-65.38	7,797.56	-403.67	544.84	329.46	215.38	2.530		
13,700.00	5,821.00	13,359.28	5,594.00	118.80	117.60	-65.38	7,897.56	-403.67	544.83	326.77	218.06	2.499		
13,800.00	5,821.00	13,459.28	5,594.00	120.25	119.05	-65.38	7,997.56	-403.66	544.82	324.09	220.73	2.468		
13,900.00	5,821.00	13,559.28	5,594.00	121.70	120.51	-65.38	8,097.56	-403.66	544.81	321.40	223.41	2.439		
14,000.00	5,821.00	13,659.28	5,594.00	123.16	121.96	-65.38	8,197.56	-403.65	544.80	318.72	226.08	2.410		
14,100.00	5,821.00	13,759.28	5,594.00	124.62	123.42	-65.38	8,297.56	-403.65	544.79	316.03	228.76	2.381		
14,200.00	5,821.00	13,859.28	5,594.00	126.07	124.87	-65.38	8,397.56	-403.65	544.78	313.34	231.44	2.354		
14,300.00	5,821.00	13,959.28	5,594.00	127.53	126.33	-65.37	8,497.56	-403.64	544.77	310.65	234.12	2.327		
14,400.00	5,821.00	14,059.28	5,594.00	128.98	127.79	-65.37	8,597.56	-403.64	544.76	307.96	236.80	2.301		
14,500.00	5,821.00	14,159.28	5,594.00	130.44	129.24	-65.37	8,697.56	-403.64	544.75	305.28	239.48	2.275		
14,600.00	5,821.00	14,259.28	5,594.00	131.90	130.70	-65.37	8,797.56	-403.63	544.75	302.59	242.16	2.250		
14,700.00	5,821.00	14,359.28	5,594.00	133.36	132.16	-65.37	8,897.56	-403.63	544.74	299.89	244.84	2.225		
14,800.00	5,821.00	14,459.28	5,594.00	134.81	133.62	-65.37	8,997.56	-403.62	544.73	297.20	247.52	2.201		
14,900.00	5,821.00	14,559.28	5,594.00	136.27	135.07	-65.37	9,097.56	-403.62	544.72	294.51	250.21	2.177		
15,000.00	5,821.00	14,659.28	5,594.00	137.73	136.53	-65.37	9,197.56	-403.62	544.71	291.82	252.89	2.154		
15,100.00	5,821.00	14,759.28	5,594.00	139.19	137.99	-65.37	9,297.56	-403.61	544.70	289.13	255.57	2.131		
15,200.00	5,821.00	14,859.28	5,594.00	140.65	139.45	-65.37	9,397.56	-403.61	544.69	286.43	258.26	2.109		
15,300.00	5,821.00	14,959.28	5,594.00	142.11	140.91	-65.37	9,497.56	-403.60	544.68	283.74	260.94	2.087		

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





# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2406 - Hz - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,400.00	5,821.00	15,059.28	5,594.00	143.57	142.37	-65.37	9,597.56	-403.60	544.67	281.04	263.63	2.066	
15,500.00	5,821.00	15,159.28	5,594.00	145.03	143.83	-65.37	9,697.56	-403.60	544.66	278.35	266.31	2.045	
15,600.00	5,821.00	15,259.28	5,594.00	146.49	145.29	-65.37	9,797.56	-403.59	544.65	275.65	269.00	2.025	
15,700.00	5,821.00	15,359.28	5,594.00	147.95	146.75	-65.37	9,897.56	-403.59	544.64	272.96	271.69	2.005	
15,800.00	5,821.00	15,459.28	5,594.00	149.41	148.21	-65.37	9,997.56	-403.58	544.63	270.26	274.37	1.985	
15,900.00	5,821.00	15,559.28	5,594.00	150.87	149.67	-65.37	10,097.56	-403.58	544.63	267.56	277.06	1.966	
16,000.00	5,821.00	15,659.28	5,594.00	152.33	151.13	-65.37	10,197.56	-403.58	544.62	264.87	279.75	1.947	
16,009.13	5,821.00	15,668.31	5,594.00	152.46	151.26	-65.37	10,206.59	-403.58	544.62	264.62	279.99	1.945	
16,011.07	5,821.00	15,668.31	5,594.00	152.49	151.26	-65.37	10,206.59	-403.58	544.62	264.60	280.02	1.945 SF	



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-31.81	49.59	-30.76	58.36					
100.00	100.00	100.00	100.00	0.13	0.13	-31.81	49.59	-30.76	58.36	58.09	0.27	219.099		
200.00	200.00	200.00	200.00	0.47	0.47	-31.81	49.59	-30.76	58.36	57.42	0.94	62.039		
300.00	300.00	300.00	300.00	0.81	0.81	-31.81	49.59	-30.76	58.36	56.74	1.61	36.135 CC		
400.00	399.98	401.50	401.48	1.11	1.11	172.20	47.83	-31.10	58.80	56.57	2.22	26.437 ES		
500.00	499.84	502.89	502.72	1.41	1.42	169.34	42.54	-32.13	60.22	57.41	2.81	21.437		
600.00	599.59	602.80	602.39	1.72	1.73	165.86	35.70	-33.46	62.41	58.98	3.42	18.232		
700.00	699.35	702.71	702.05	2.05	2.05	162.63	28.86	-34.79	64.80	60.74	4.06	15.943		
800.00	799.11	802.61	801.71	2.38	2.38	159.64	22.02	-36.12	67.39	62.66	4.72	14.267		
900.00	898.86	902.52	901.38	2.73	2.73	156.88	15.18	-37.45	70.14	64.75	5.39	13.004		
1,000.00	998.62	1,002.43	1,001.04	3.07	3.07	154.33	8.34	-38.78	73.05	66.97	6.07	12.028		
1,100.00	1,098.38	1,102.34	1,100.71	3.42	3.42	151.99	1.50	-40.11	76.09	69.33	6.76	11.257		
1,200.00	1,198.13	1,202.24	1,200.37	3.77	3.77	149.82	-5.35	-41.44	79.24	71.79	7.45	10.636		
1,300.00	1,297.89	1,302.15	1,300.03	4.12	4.12	147.82	-12.19	-42.77	82.50	74.36	8.15	10.129		
1,400.00	1,397.65	1,402.06	1,399.70	4.48	4.48	145.98	-19.03	-44.10	85.86	77.01	8.84	9.708		
1,500.00	1,497.40	1,501.96	1,499.36	4.83	4.83	144.28	-25.87	-45.43	89.29	79.75	9.55	9.355		
1,600.00	1,597.16	1,601.87	1,599.02	5.18	5.18	142.70	-32.71	-46.76	92.80	82.56	10.25	9.055		
1,700.00	1,696.91	1,701.78	1,698.69	5.54	5.54	141.24	-39.55	-48.09	96.38	85.42	10.95	8.799		
1,800.00	1,796.67	1,801.69	1,798.35	5.89	5.89	139.89	-46.39	-49.42	100.01	88.35	11.66	8.577		
1,900.00	1,896.43	1,901.59	1,898.02	6.25	6.25	138.63	-53.23	-50.75	103.69	91.33	12.37	8.384		
2,000.00	1,996.18	2,001.50	1,997.68	6.60	6.60	137.45	-60.07	-52.08	107.42	94.35	13.08	8.215		
2,100.00	2,095.94	2,101.41	2,097.34	6.96	6.96	136.36	-66.92	-53.41	111.20	97.41	13.79	8.066		
2,200.00	2,195.70	2,201.31	2,197.01	7.31	7.32	135.34	-73.76	-54.74	115.01	100.51	14.50	7.934		
2,300.00	2,295.45	2,301.22	2,296.67	7.67	7.67	134.38	-80.60	-56.07	118.85	103.65	15.21	7.816		
2,400.00	2,395.21	2,401.13	2,396.33	8.03	8.03	133.49	-87.44	-57.40	122.73	106.81	15.92	7.710		
2,500.00	2,494.97	2,501.03	2,496.00	8.38	8.39	132.65	-94.28	-58.73	126.63	110.00	16.63	7.615		
2,600.00	2,594.72	2,600.94	2,595.66	8.74	8.74	131.86	-101.12	-60.06	130.56	113.22	17.34	7.529		
2,700.00	2,694.48	2,700.85	2,695.33	9.10	9.10	131.11	-107.96	-61.39	134.51	116.46	18.05	7.451		
2,800.00	2,794.23	2,800.76	2,794.99	9.45	9.46	130.41	-114.80	-62.72	138.49	119.72	18.77	7.380		
2,900.00	2,893.99	2,900.66	2,894.65	9.81	9.81	129.75	-121.64	-64.05	142.48	123.00	19.48	7.315		
3,000.00	2,993.75	3,000.57	2,994.32	10.17	10.17	129.13	-128.49	-65.38	146.49	126.30	20.19	7.255		
3,100.00	3,093.50	3,100.48	3,093.98	10.52	10.53	128.53	-135.33	-66.71	150.52	129.62	20.90	7.200		
3,200.00	3,193.26	3,200.38	3,193.64	10.88	10.88	127.97	-142.17	-68.04	154.56	132.95	21.62	7.150		
3,300.00	3,293.02	3,300.29	3,293.31	11.24	11.24	127.44	-149.01	-69.37	158.62	136.29	22.33	7.103		
3,400.00	3,392.77	3,400.20	3,392.97	11.59	11.60	126.93	-155.85	-70.70	162.69	139.65	23.04	7.060		
3,500.00	3,492.59	3,500.11	3,492.64	11.91	11.96	126.22	-162.69	-72.03	166.19	142.47	23.73	7.005		
3,600.00	3,592.55	3,600.08	3,592.47	12.16	12.26	125.18	-167.82	-73.02	167.75	143.46	24.29	6.907		
3,700.00	3,692.55	3,700.18	3,692.55	12.45	12.55	-80.38	-169.53	-73.36	167.84	142.97	24.87	6.749		
3,800.00	3,792.55	3,800.18	3,792.55	12.71	12.83	-80.38	-169.53	-73.36	167.84	142.43	25.41	6.604		
3,900.00	3,892.55	3,900.18	3,892.55	12.97	13.08	-80.38	-169.53	-73.36	167.84	141.92	25.93	6.474		
4,000.00	3,992.55	4,000.18	3,992.55	13.23	13.34	-80.38	-169.53	-73.36	167.84	141.40	26.45	6.346		
4,100.00	4,092.55	4,100.18	4,092.55	13.50	13.60	-80.38	-169.53	-73.36	167.84	140.87	26.97	6.222		
4,200.00	4,192.55	4,200.18	4,192.55	13.77	13.86	-80.38	-169.53	-73.36	167.84	140.33	27.51	6.102		
4,300.00	4,292.55	4,300.18	4,292.55	14.04	14.12	-80.38	-169.53	-73.36	167.84	139.80	28.05	5.984		
4,400.00	4,392.55	4,400.18	4,392.55	14.32	14.39	-80.38	-169.53	-73.36	167.84	139.25	28.59	5.870		
4,500.00	4,492.55	4,500.18	4,492.55	14.60	14.66	-80.38	-169.53	-73.36	167.84	138.70	29.14	5.759		
4,600.00	4,592.55	4,600.18	4,592.55	14.88	14.93	-80.38	-169.53	-73.36	167.84	138.14	29.70	5.652		
4,700.00	4,692.55	4,700.18	4,692.55	15.16	15.21	-80.38	-169.53	-73.36	167.84	137.58	30.26	5.547		
4,800.00	4,792.55	4,800.18	4,792.55	15.45	15.49	-80.38	-169.53	-73.36	167.84	137.02	30.82	5.445		
4,900.00	4,892.55	4,900.18	4,892.55	15.74	15.77	-80.38	-169.53	-73.36	167.84	136.45	31.39	5.346		
5,000.00	4,992.55	5,000.18	4,992.55	16.03	16.05	-80.38	-169.53	-73.36	167.84	135.88	31.97	5.251		
5,100.00	5,092.55	5,095.32	5,087.39	16.32	16.31	-78.41	-163.62	-73.36	169.01	136.50	32.51	5.199		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,192.55	5,184.74	5,174.21	16.61	16.53	-71.65	-142.68	-73.36	175.31	142.33	32.98	5.316		
5,299.99	5,292.54	5,265.01	5,248.09	16.91	16.71	-62.52	-111.48	-73.36	191.76	158.36	33.40	5.742		
5,400.00	5,392.07	5,337.72	5,310.16	17.19	16.87	-52.21	-73.74	-73.36	217.88	184.29	33.59	6.486		
5,500.00	5,488.20	5,407.65	5,364.35	17.45	17.02	-44.47	-29.61	-73.36	245.70	212.35	33.34	7.369		
5,600.00	5,577.43	5,475.58	5,410.87	17.69	17.18	-38.91	19.82	-73.36	272.06	239.48	32.58	8.350		
5,700.00	5,656.47	5,550.00	5,453.98	17.91	17.37	-34.76	80.40	-73.37	295.22	263.81	31.41	9.399		
5,800.00	5,722.41	5,600.00	5,477.90	18.14	17.52	-32.45	124.28	-73.37	313.67	283.59	30.08	10.429		
5,900.00	5,772.83	5,672.13	5,504.76	18.40	17.76	-30.61	191.17	-73.37	326.73	297.88	28.85	11.325		
6,000.00	5,805.89	5,736.38	5,520.70	18.73	18.00	-29.71	253.37	-73.37	334.21	306.14	28.08	11.904		
6,100.00	5,820.36	5,800.00	5,528.82	19.13	18.27	-29.53	316.42	-73.38	335.76	307.74	28.02	11.984		
6,200.00	5,821.00	5,881.14	5,530.00	19.60	18.66	-29.62	397.53	-73.38	334.76	306.30	28.45	11.765		
6,300.00	5,821.00	5,981.14	5,530.00	20.18	19.24	-29.62	497.53	-73.38	334.76	305.77	28.99	11.548		
6,400.00	5,821.00	6,081.14	5,530.00	20.84	19.90	-29.62	597.53	-73.39	334.76	305.14	29.61	11.304		
6,500.00	5,821.00	6,181.14	5,530.00	21.58	20.65	-29.62	697.53	-73.39	334.76	304.43	30.32	11.040		
6,600.00	5,821.00	6,281.14	5,530.00	22.39	21.47	-29.62	797.53	-73.40	334.75	303.64	31.11	10.760		
6,700.00	5,821.00	6,381.14	5,530.00	23.27	22.36	-29.62	897.53	-73.40	334.75	302.78	31.97	10.470		
6,800.00	5,821.00	6,481.14	5,530.00	24.21	23.31	-29.62	997.53	-73.40	334.75	301.85	32.90	10.174		
6,900.00	5,821.00	6,581.14	5,530.00	25.19	24.31	-29.62	1,097.53	-73.41	334.75	300.86	33.90	9.876		
7,000.00	5,821.00	6,681.14	5,530.00	26.23	25.35	-29.62	1,197.53	-73.41	334.75	299.81	34.95	9.579		
7,100.00	5,821.00	6,781.14	5,530.00	27.30	26.44	-29.62	1,297.53	-73.42	334.75	298.70	36.05	9.287		
7,200.00	5,821.00	6,881.14	5,530.00	28.41	27.56	-29.62	1,397.53	-73.42	334.75	297.55	37.20	9.000		
7,300.00	5,821.00	6,981.14	5,530.00	29.55	28.72	-29.62	1,497.53	-73.43	334.75	296.36	38.39	8.720		
7,400.00	5,821.00	7,081.14	5,530.00	30.72	29.90	-29.62	1,597.53	-73.43	334.75	295.13	39.62	8.449		
7,500.00	5,821.00	7,181.14	5,530.00	31.91	31.10	-29.62	1,697.53	-73.43	334.75	293.86	40.88	8.188		
7,600.00	5,821.00	7,281.14	5,530.00	33.13	32.33	-29.62	1,797.53	-73.44	334.74	292.56	42.18	7.935		
7,700.00	5,821.00	7,381.14	5,530.00	34.36	33.58	-29.62	1,897.53	-73.44	334.74	291.23	43.51	7.693		
7,800.00	5,821.00	7,481.14	5,530.00	35.62	34.85	-29.62	1,997.53	-73.45	334.74	289.87	44.87	7.461		
7,900.00	5,821.00	7,581.14	5,530.00	36.89	36.13	-29.62	2,097.53	-73.45	334.74	288.49	46.25	7.238		
8,000.00	5,821.00	7,681.14	5,530.00	38.17	37.42	-29.62	2,197.53	-73.46	334.74	287.09	47.65	7.025		
8,100.00	5,821.00	7,781.14	5,530.00	39.47	38.73	-29.62	2,297.53	-73.46	334.74	285.67	49.07	6.821		
8,200.00	5,821.00	7,881.14	5,530.00	40.78	40.05	-29.62	2,397.53	-73.46	334.74	284.22	50.51	6.627		
8,300.00	5,821.00	7,981.14	5,530.00	42.10	41.38	-29.62	2,497.53	-73.47	334.74	282.76	51.97	6.441		
8,400.00	5,821.00	8,081.14	5,530.00	43.43	42.72	-29.62	2,597.53	-73.47	334.74	281.29	53.45	6.263		
8,500.00	5,821.00	8,181.14	5,530.00	44.77	44.07	-29.62	2,697.53	-73.48	334.74	279.80	54.94	6.093		
8,600.00	5,821.00	8,281.14	5,530.00	46.11	45.42	-29.62	2,797.53	-73.48	334.73	278.29	56.44	5.931		
8,700.00	5,821.00	8,381.14	5,530.00	47.47	46.79	-29.62	2,897.53	-73.49	334.73	276.78	57.95	5.776		
8,800.00	5,821.00	8,481.14	5,530.00	48.83	48.15	-29.62	2,997.53	-73.49	334.73	275.25	59.48	5.628		
8,900.00	5,821.00	8,581.14	5,530.00	50.19	49.53	-29.62	3,097.53	-73.49	334.73	273.71	61.02	5.486		
9,000.00	5,821.00	8,681.14	5,530.00	51.57	50.91	-29.62	3,197.53	-73.50	334.73	272.17	62.56	5.350		
9,100.00	5,821.00	8,781.14	5,530.00	52.95	52.29	-29.61	3,297.53	-73.50	334.73	270.61	64.12	5.220		
9,200.00	5,821.00	8,881.14	5,530.00	54.33	53.68	-29.61	3,397.53	-73.51	334.73	269.05	65.68	5.096		
9,300.00	5,821.00	8,981.14	5,530.00	55.72	55.08	-29.61	3,497.53	-73.51	334.73	267.47	67.26	4.977		
9,400.00	5,821.00	9,081.14	5,530.00	57.11	56.48	-29.61	3,597.53	-73.52	334.73	265.89	68.83	4.863		
9,500.00	5,821.00	9,181.14	5,530.00	58.50	57.88	-29.61	3,697.53	-73.52	334.73	264.31	70.42	4.753		
9,600.00	5,821.00	9,281.14	5,530.00	59.90	59.28	-29.61	3,797.53	-73.52	334.72	262.71	72.01	4.648		
9,700.00	5,821.00	9,381.14	5,530.00	61.31	60.69	-29.61	3,897.53	-73.53	334.72	261.11	73.61	4.547		
9,800.00	5,821.00	9,481.14	5,530.00	62.71	62.10	-29.61	3,997.53	-73.53	334.72	259.51	75.21	4.450		
9,900.00	5,821.00	9,581.14	5,530.00	64.12	63.51	-29.61	4,097.53	-73.54	334.72	257.90	76.82	4.357		
10,000.00	5,821.00	9,681.14	5,530.00	65.53	64.93	-29.61	4,197.53	-73.54	334.72	256.29	78.44	4.267		
10,100.00	5,821.00	9,781.14	5,530.00	66.95	66.35	-29.61	4,297.53	-73.55	334.72	254.67	80.05	4.181		
10,200.00	5,821.00	9,881.14	5,530.00	68.36	67.77	-29.61	4,397.53	-73.55	334.72	253.04	81.68	4.098		
10,300.00	5,821.00	9,981.14	5,530.00	69.78	69.19	-29.61	4,497.53	-73.55	334.72	251.42	83.30	4.018		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.00	5,821.00	10,081.14	5,530.00	71.21	70.62	-29.61	4,597.53	-73.56	334.72	249.78	84.93	3.941		
10,500.00	5,821.00	10,181.14	5,530.00	72.63	72.05	-29.61	4,697.53	-73.56	334.72	248.15	86.57	3.867		
10,600.00	5,821.00	10,281.14	5,530.00	74.05	73.48	-29.61	4,797.53	-73.57	334.71	246.51	88.20	3.795		
10,700.00	5,821.00	10,381.14	5,530.00	75.48	74.91	-29.61	4,897.53	-73.57	334.71	244.87	89.84	3.725		
10,800.00	5,821.00	10,481.14	5,530.00	76.91	76.34	-29.61	4,997.53	-73.58	334.71	243.22	91.49	3.659		
10,900.00	5,821.00	10,581.14	5,530.00	78.34	77.77	-29.61	5,097.53	-73.58	334.71	241.58	93.13	3.594		
11,000.00	5,821.00	10,681.14	5,530.00	79.77	79.21	-29.61	5,197.53	-73.58	334.71	239.93	94.78	3.531		
11,100.00	5,821.00	10,781.14	5,530.00	81.20	80.64	-29.61	5,297.53	-73.59	334.71	238.27	96.44	3.471		
11,200.00	5,821.00	10,881.14	5,530.00	82.64	82.08	-29.61	5,397.53	-73.59	334.71	236.62	98.09	3.412		
11,300.00	5,821.00	10,981.14	5,530.00	84.07	83.52	-29.61	5,497.53	-73.60	334.71	234.96	99.75	3.356		
11,400.00	5,821.00	11,081.14	5,530.00	85.51	84.96	-29.61	5,597.53	-73.60	334.71	233.30	101.40	3.301		
11,500.00	5,821.00	11,181.14	5,530.00	86.95	86.40	-29.61	5,697.53	-73.60	334.71	231.64	103.07	3.248		
11,600.00	5,821.00	11,281.14	5,530.00	88.39	87.84	-29.61	5,797.53	-73.61	334.70	229.98	104.73	3.196		
11,700.00	5,821.00	11,381.14	5,530.00	89.83	89.28	-29.61	5,897.53	-73.61	334.70	228.31	106.39	3.146		
11,800.00	5,821.00	11,481.14	5,530.00	91.27	90.73	-29.61	5,997.53	-73.62	334.70	226.64	108.06	3.097		
11,900.00	5,821.00	11,581.14	5,530.00	92.71	92.17	-29.61	6,097.53	-73.62	334.70	224.97	109.73	3.050		
12,000.00	5,821.00	11,681.14	5,530.00	94.16	93.62	-29.61	6,197.53	-73.63	334.70	223.30	111.40	3.005		
12,100.00	5,821.00	11,781.14	5,530.00	95.60	95.06	-29.61	6,297.53	-73.63	334.70	221.63	113.07	2.960		
12,200.00	5,821.00	11,881.14	5,530.00	97.04	96.51	-29.61	6,397.53	-73.63	334.70	219.96	114.74	2.917		
12,300.00	5,821.00	11,981.14	5,530.00	98.49	97.96	-29.61	6,497.53	-73.64	334.70	218.28	116.42	2.875		
12,400.00	5,821.00	12,081.14	5,530.00	99.94	99.41	-29.61	6,597.53	-73.64	334.70	216.60	118.09	2.834		
12,500.00	5,821.00	12,181.14	5,530.00	101.38	100.86	-29.60	6,697.53	-73.65	334.70	214.93	119.77	2.794		
12,600.00	5,821.00	12,281.14	5,530.00	102.83	102.31	-29.60	6,797.53	-73.65	334.70	213.25	121.45	2.756		
12,700.00	5,821.00	12,381.14	5,530.00	104.28	103.76	-29.60	6,897.53	-73.66	334.69	211.57	123.13	2.718		
12,800.00	5,821.00	12,481.14	5,530.00	105.73	105.21	-29.60	6,997.53	-73.66	334.69	209.88	124.81	2.682		
12,900.00	5,821.00	12,581.14	5,530.00	107.18	106.66	-29.60	7,097.53	-73.66	334.69	208.20	126.49	2.646		
13,000.00	5,821.00	12,681.14	5,530.00	108.63	108.11	-29.60	7,197.53	-73.67	334.69	206.52	128.17	2.611		
13,100.00	5,821.00	12,781.14	5,530.00	110.08	109.56	-29.60	7,297.53	-73.67	334.69	204.83	129.86	2.577		
13,200.00	5,821.00	12,881.14	5,530.00	111.53	111.02	-29.60	7,397.53	-73.68	334.69	203.15	131.54	2.544		
13,300.00	5,821.00	12,981.14	5,530.00	112.98	112.47	-29.60	7,497.53	-73.68	334.69	201.46	133.23	2.512		
13,400.00	5,821.00	13,081.14	5,530.00	114.44	113.93	-29.60	7,597.53	-73.69	334.69	199.77	134.92	2.481		
13,500.00	5,821.00	13,181.14	5,530.00	115.89	115.38	-29.60	7,697.53	-73.69	334.69	198.08	136.60	2.450		
13,600.00	5,821.00	13,281.14	5,530.00	117.34	116.84	-29.60	7,797.53	-73.69	334.69	196.39	138.29	2.420		
13,700.00	5,821.00	13,381.14	5,530.00	118.80	118.29	-29.60	7,897.53	-73.70	334.68	194.70	139.98	2.391		
13,800.00	5,821.00	13,481.14	5,530.00	120.25	119.75	-29.60	7,997.53	-73.70	334.68	193.01	141.67	2.362		
13,900.00	5,821.00	13,581.14	5,530.00	121.70	121.20	-29.60	8,097.53	-73.71	334.68	191.32	143.36	2.334		
14,000.00	5,821.00	13,681.14	5,530.00	123.16	122.66	-29.60	8,197.53	-73.71	334.68	189.63	145.06	2.307		
14,100.00	5,821.00	13,781.14	5,530.00	124.62	124.12	-29.60	8,297.53	-73.72	334.68	187.93	146.75	2.281		
14,200.00	5,821.00	13,881.14	5,530.00	126.07	125.57	-29.60	8,397.53	-73.72	334.68	186.24	148.44	2.255		
14,300.00	5,821.00	13,981.14	5,530.00	127.53	127.03	-29.60	8,497.53	-73.72	334.68	184.54	150.14	2.229		
14,400.00	5,821.00	14,081.14	5,530.00	128.98	128.49	-29.60	8,597.53	-73.73	334.68	182.85	151.83	2.204		
14,500.00	5,821.00	14,181.14	5,530.00	130.44	129.95	-29.60	8,697.53	-73.73	334.68	181.15	153.52	2.180		
14,600.00	5,821.00	14,281.14	5,530.00	131.90	131.41	-29.60	8,797.53	-73.74	334.68	179.45	155.22	2.156		
14,700.00	5,821.00	14,381.14	5,530.00	133.36	132.86	-29.60	8,897.53	-73.74	334.67	177.76	156.92	2.133		
14,800.00	5,821.00	14,481.14	5,530.00	134.81	134.32	-29.60	8,997.53	-73.75	334.67	176.06	158.61	2.110		
14,900.00	5,821.00	14,581.14	5,530.00	136.27	135.78	-29.60	9,097.53	-73.75	334.67	174.36	160.31	2.088		
15,000.00	5,821.00	14,681.14	5,530.00	137.73	137.24	-29.60	9,197.53	-73.75	334.67	172.66	162.01	2.066		
15,100.00	5,821.00	14,781.14	5,530.00	139.19	138.70	-29.60	9,297.53	-73.76	334.67	170.96	163.71	2.044		
15,200.00	5,821.00	14,881.14	5,530.00	140.65	140.16	-29.60	9,397.53	-73.76	334.67	169.26	165.41	2.023		
15,300.00	5,821.00	14,981.14	5,530.00	142.11	141.62	-29.60	9,497.53	-73.77	334.67	167.56	167.11	2.003		
15,400.00	5,821.00	15,081.14	5,530.00	143.57	143.08	-29.60	9,597.53	-73.77	334.67	165.86	168.80	1.983		
15,500.00	5,821.00	15,181.14	5,530.00	145.03	144.54	-29.60	9,697.53	-73.78	334.67	164.16	170.51	1.963		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2407 - Hz - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,600.00	5,821.00	15,281.14	5,530.00	146.49	146.01	-29.60	9,797.53	-73.78	334.67	162.46	172.21	1.943	
15,700.00	5,821.00	15,381.14	5,530.00	147.95	147.47	-29.60	9,897.53	-73.78	334.66	160.76	173.91	1.924	
15,800.00	5,821.00	15,481.14	5,530.00	149.41	148.93	-29.59	9,997.53	-73.79	334.66	159.06	175.61	1.906	
15,900.00	5,821.00	15,581.14	5,530.00	150.87	150.39	-29.59	10,097.53	-73.79	334.66	157.35	177.31	1.887	
16,000.00	5,821.00	15,681.14	5,530.00	152.33	151.85	-29.59	10,197.53	-73.80	334.66	155.65	179.01	1.869	
16,010.06	5,821.00	15,691.20	5,530.00	152.48	152.00	-29.59	10,207.59	-73.80	334.66	155.48	179.18	1.868	
16,011.07	5,821.00	15,691.20	5,530.00	152.49	152.00	-29.59	10,207.60	-73.80	334.66	155.47	179.19	1.868 SF	



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.60	0.00	50.60					
100.00	100.00	100.00	100.00	0.13	0.13	0.00	50.60	0.00	50.60	50.34	0.27	189.986		
200.00	200.00	200.00	200.00	0.47	0.47	0.00	50.60	0.00	50.60	49.66	0.94	53.795		
300.00	300.00	300.00	300.00	0.81	0.81	0.00	50.60	0.00	50.60	48.99	1.61	31.334 CC		
400.00	399.98	401.01	400.99	1.11	1.12	-154.20	49.58	1.46	51.18	48.95	2.23	22.928 ES		
500.00	499.84	501.98	501.81	1.41	1.44	-151.89	46.52	5.83	52.96	50.13	2.83	18.708		
600.00	599.59	602.35	601.84	1.72	1.76	-147.93	41.73	12.67	54.85	51.39	3.46	15.851		
700.00	699.35	702.26	701.36	2.05	2.09	-143.89	36.74	19.80	56.81	52.69	4.12	13.801		
800.00	799.11	802.16	800.88	2.38	2.44	-140.14	31.74	26.93	59.04	54.25	4.79	12.327		
900.00	898.86	902.06	900.41	2.73	2.79	-136.68	26.75	34.07	61.50	56.02	5.47	11.235		
1,000.00	998.62	1,001.97	999.93	3.07	3.14	-133.49	21.76	41.20	64.17	58.00	6.17	10.404		
1,100.00	1,098.38	1,101.87	1,099.45	3.42	3.50	-130.57	16.76	48.33	67.02	60.15	6.87	9.759		
1,200.00	1,198.13	1,201.77	1,198.98	3.77	3.86	-127.89	11.77	55.46	70.03	62.46	7.57	9.249		
1,300.00	1,297.89	1,301.68	1,298.50	4.12	4.21	-125.44	6.77	62.60	73.18	64.90	8.28	8.838		
1,400.00	1,397.65	1,401.58	1,398.02	4.48	4.57	-123.19	1.78	69.73	76.45	67.46	8.99	8.504		
1,500.00	1,497.40	1,501.48	1,497.55	4.83	4.93	-121.13	-3.22	76.86	79.84	70.13	9.70	8.227		
1,600.00	1,597.16	1,601.39	1,597.07	5.18	5.29	-119.24	-8.21	83.99	83.31	72.89	10.42	7.997		
1,700.00	1,696.91	1,701.29	1,696.59	5.54	5.65	-117.50	-13.20	91.12	86.87	75.74	11.13	7.803		
1,800.00	1,796.67	1,801.19	1,796.12	5.89	6.02	-115.90	-18.20	98.26	90.51	78.66	11.85	7.637		
1,900.00	1,896.43	1,901.10	1,895.64	6.25	6.38	-114.43	-23.19	105.39	94.21	81.64	12.57	7.496		
2,000.00	1,996.18	2,001.00	1,995.16	6.60	6.74	-113.06	-28.19	112.52	97.96	84.68	13.29	7.374		
2,100.00	2,095.94	2,100.90	2,094.68	6.96	7.10	-111.80	-33.18	119.65	101.77	87.77	14.00	7.267		
2,200.00	2,195.70	2,200.81	2,194.21	7.31	7.46	-110.63	-38.17	126.79	105.62	90.90	14.72	7.175		
2,300.00	2,295.45	2,300.71	2,293.73	7.67	7.83	-109.54	-43.17	133.92	109.52	94.08	15.44	7.093		
2,400.00	2,395.21	2,400.61	2,393.25	8.03	8.19	-108.53	-48.16	141.05	113.45	97.29	16.16	7.021		
2,500.00	2,494.97	2,500.52	2,492.78	8.38	8.55	-107.59	-53.16	148.18	117.41	100.54	16.88	6.957		
2,600.00	2,594.72	2,600.42	2,592.30	8.74	8.91	-106.70	-58.15	155.32	121.41	103.81	17.60	6.900		
2,700.00	2,694.48	2,700.32	2,691.82	9.10	9.28	-105.88	-63.15	162.45	125.43	107.11	18.31	6.849		
2,800.00	2,794.23	2,800.23	2,791.35	9.45	9.64	-105.10	-68.14	169.58	129.47	110.44	19.03	6.803		
2,900.00	2,893.99	2,900.13	2,890.87	9.81	10.00	-104.38	-73.13	176.71	133.54	113.79	19.75	6.761		
3,000.00	2,993.75	3,000.03	2,990.39	10.17	10.36	-103.69	-78.13	183.85	137.63	117.16	20.47	6.723		
3,100.00	3,093.50	3,099.94	3,089.92	10.52	10.73	-103.05	-83.12	190.98	141.73	120.54	21.19	6.689		
3,200.00	3,193.26	3,199.84	3,189.44	10.88	11.09	-102.44	-88.12	198.11	145.86	123.95	21.91	6.658		
3,300.00	3,293.02	3,299.74	3,288.96	11.24	11.45	-101.86	-93.11	205.24	149.99	127.37	22.62	6.630		
3,400.00	3,392.77	3,399.65	3,388.49	11.59	11.82	-101.32	-98.11	212.38	154.15	130.80	23.34	6.604		
3,500.00	3,492.59	3,499.54	3,487.99	11.91	12.18	-100.51	-103.10	219.51	158.13	134.11	24.02	6.582		
3,600.00	3,592.55	3,599.31	3,587.39	12.16	12.54	-98.58	-108.09	226.63	161.62	136.98	24.64	6.560		
3,700.00	3,692.55	3,698.94	3,686.64	12.45	12.90	-98.18	-113.07	233.74	165.02	139.74	25.28	6.528		
3,800.00	3,792.55	3,798.56	3,785.88	12.71	13.27	-97.53	-118.05	240.86	168.79	142.90	25.88	6.521		
3,900.00	3,892.55	3,898.18	3,885.12	12.97	13.63	-96.84	-123.03	247.97	172.91	146.43	26.49	6.528		
4,000.00	3,992.55	4,001.07	3,987.76	13.23	13.94	-96.47	-127.15	253.86	176.46	149.42	27.04	6.525		
4,100.00	4,092.55	4,104.41	4,091.03	13.50	14.20	-96.43	-129.16	256.73	178.26	150.70	27.56	6.468		
4,200.00	4,192.55	4,205.93	4,192.55	13.77	14.48	-96.53	-129.37	257.03	178.45	150.34	28.11	6.348		
4,300.00	4,292.55	4,305.93	4,292.55	14.04	14.75	-96.53	-129.37	257.03	178.45	149.79	28.65	6.228		
4,400.00	4,392.55	4,405.93	4,392.55	14.32	15.02	-96.53	-129.37	257.03	178.45	149.25	29.20	6.111		
4,500.00	4,492.55	4,505.93	4,492.55	14.60	15.30	-96.53	-129.37	257.03	178.45	148.70	29.75	5.998		
4,600.00	4,592.55	4,605.93	4,592.55	14.88	15.57	-96.53	-129.37	257.03	178.45	148.14	30.31	5.888		
4,700.00	4,692.55	4,705.93	4,692.55	15.16	15.85	-96.53	-129.37	257.03	178.45	147.58	30.87	5.781		
4,800.00	4,792.55	4,805.93	4,792.55	15.45	16.13	-96.53	-129.37	257.03	178.45	147.01	31.44	5.677		
4,900.00	4,892.55	4,905.93	4,892.55	15.74	16.41	-96.53	-129.37	257.03	178.45	146.44	32.01	5.576		
5,000.00	4,992.55	5,005.93	4,992.55	16.03	16.70	-96.53	-129.37	257.03	178.45	145.87	32.58	5.477		
5,058.65	5,051.20	5,064.58	5,051.20	16.20	16.87	-96.53	-129.37	257.03	178.45	145.53	32.92	5.421		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 25-T10N-R58W - Razor #25N-2408 - HZ - APD		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
5,100.00	5,092.55	5,103.68	5,090.29	16.32	16.98	67.45	-129.09	257.03	178.57	145.42	33.15	5.387				
5,200.00	5,192.55	5,190.69	5,176.62	16.61	17.22	64.52	-118.99	257.03	183.36	149.66	33.71	5.440				
5,299.99	5,292.54	5,272.23	5,254.94	16.91	17.43	58.52	-96.61	257.03	196.97	162.73	34.25	5.752				
5,400.00	5,392.07	5,350.00	5,325.52	17.19	17.62	50.69	-64.13	257.03	217.51	182.88	34.62	6.282				
5,500.00	5,488.20	5,421.47	5,385.47	17.45	17.77	45.00	-25.33	257.03	237.79	203.29	34.50	6.893				
5,600.00	5,577.43	5,493.13	5,439.68	17.69	17.90	40.80	21.44	257.02	255.94	222.08	33.86	7.558				
5,700.00	5,656.47	5,563.51	5,486.19	17.91	18.02	37.89	74.20	257.02	270.73	237.89	32.84	8.244				
5,800.00	5,722.41	5,633.01	5,524.73	18.14	18.11	36.03	131.97	257.02	281.38	249.72	31.66	8.886				
5,900.00	5,772.83	5,700.00	5,554.29	18.40	18.20	35.05	192.04	257.02	287.42	256.78	30.64	9.379				
6,000.00	5,805.89	5,770.72	5,576.86	18.73	18.37	34.86	259.00	257.02	288.58	258.48	30.11	9.585				
6,100.00	5,820.36	5,839.55	5,589.93	19.13	18.63	35.46	326.53	257.02	284.85	254.55	30.30	9.401				
6,199.98	5,822.83	5,910.69	5,594.00	19.60	18.94	35.78	397.50	257.01	282.08	251.23	30.84	9.146				
6,200.00	5,821.00	5,910.74	5,594.00	19.60	18.95	36.00	397.54	257.01	280.59	249.69	30.89	9.082				
6,300.00	5,821.00	6,010.74	5,594.00	20.18	19.48	36.00	497.54	257.01	280.59	249.06	31.53	8.900				
6,400.00	5,821.00	6,110.74	5,594.00	20.84	20.10	36.00	597.54	257.01	280.59	248.33	32.26	8.697				
6,500.00	5,821.00	6,210.74	5,594.00	21.58	20.80	36.00	697.54	257.01	280.59	247.50	33.10	8.477				
6,600.00	5,821.00	6,310.74	5,594.00	22.39	21.59	36.00	797.54	257.00	280.60	246.57	34.02	8.247				
6,700.00	5,821.00	6,410.74	5,594.00	23.27	22.44	36.00	897.54	257.00	280.60	245.57	35.03	8.010				
6,800.00	5,821.00	6,510.74	5,594.00	24.21	23.35	36.00	997.54	257.00	280.60	244.48	36.12	7.769				
6,900.00	5,821.00	6,610.74	5,594.00	25.19	24.32	36.00	1,097.54	257.00	280.60	243.33	37.27	7.528				
7,000.00	5,821.00	6,710.74	5,594.00	26.23	25.33	36.00	1,197.54	256.99	280.61	242.12	38.49	7.290				
7,100.00	5,821.00	6,810.74	5,594.00	27.30	26.39	36.00	1,297.54	256.99	280.61	240.84	39.77	7.057				
7,200.00	5,821.00	6,910.74	5,594.00	28.41	27.49	36.01	1,397.54	256.99	280.61	239.52	41.09	6.829				
7,300.00	5,821.00	7,010.74	5,594.00	29.55	28.62	36.01	1,497.54	256.99	280.61	238.14	42.47	6.608				
7,400.00	5,821.00	7,110.74	5,594.00	30.72	29.77	36.01	1,597.54	256.98	280.61	236.73	43.89	6.394				
7,500.00	5,821.00	7,210.74	5,594.00	31.91	30.96	36.01	1,697.54	256.98	280.62	235.27	45.34	6.189				
7,600.00	5,821.00	7,310.74	5,594.00	33.13	32.17	36.01	1,797.54	256.98	280.62	233.78	46.84	5.992				
7,700.00	5,821.00	7,410.74	5,594.00	34.36	33.40	36.01	1,897.54	256.97	280.62	232.26	48.36	5.803				
7,800.00	5,821.00	7,510.74	5,594.00	35.62	34.65	36.01	1,997.54	256.97	280.62	230.71	49.91	5.622				
7,900.00	5,821.00	7,610.74	5,594.00	36.89	35.91	36.01	2,097.54	256.97	280.62	229.13	51.49	5.450				
8,000.00	5,821.00	7,710.74	5,594.00	38.17	37.19	36.01	2,197.54	256.97	280.63	227.53	53.10	5.285				
8,100.00	5,821.00	7,810.74	5,594.00	39.47	38.49	36.01	2,297.54	256.96	280.63	225.91	54.72	5.128				
8,200.00	5,821.00	7,910.74	5,594.00	40.78	39.79	36.01	2,397.54	256.96	280.63	224.26	56.37	4.979				
8,300.00	5,821.00	8,010.74	5,594.00	42.10	41.11	36.01	2,497.54	256.96	280.63	222.60	58.03	4.836				
8,400.00	5,821.00	8,110.74	5,594.00	43.43	42.44	36.01	2,597.54	256.96	280.63	220.92	59.71	4.700				
8,500.00	5,821.00	8,210.74	5,594.00	44.77	43.78	36.01	2,697.54	256.95	280.64	219.23	61.41	4.570				
8,600.00	5,821.00	8,310.74	5,594.00	46.11	45.12	36.01	2,797.54	256.95	280.64	217.52	63.12	4.446				
8,700.00	5,821.00	8,410.74	5,594.00	47.47	46.48	36.01	2,897.54	256.95	280.64	215.80	64.84	4.328				
8,800.00	5,821.00	8,510.74	5,594.00	48.83	47.84	36.01	2,997.54	256.95	280.64	214.06	66.58	4.215				
8,900.00	5,821.00	8,610.74	5,594.00	50.19	49.20	36.02	3,097.54	256.94	280.65	212.32	68.33	4.107				
9,000.00	5,821.00	8,710.74	5,594.00	51.57	50.57	36.02	3,197.54	256.94	280.65	210.56	70.08	4.004				
9,100.00	5,821.00	8,810.74	5,594.00	52.95	51.95	36.02	3,297.54	256.94	280.65	208.80	71.85	3.906				
9,200.00	5,821.00	8,910.74	5,594.00	54.33	53.33	36.02	3,397.54	256.93	280.65	207.03	73.63	3.812				
9,300.00	5,821.00	9,010.74	5,594.00	55.72	54.72	36.02	3,497.54	256.93	280.65	205.24	75.41	3.722				
9,400.00	5,821.00	9,110.74	5,594.00	57.11	56.11	36.02	3,597.54	256.93	280.66	203.45	77.20	3.635				
9,500.00	5,821.00	9,210.74	5,594.00	58.50	57.51	36.02	3,697.54	256.93	280.66	201.66	79.00	3.553				
9,600.00	5,821.00	9,310.74	5,594.00	59.90	58.91	36.02	3,797.54	256.92	280.66	199.85	80.81	3.473				
9,700.00	5,821.00	9,410.74	5,594.00	61.31	60.31	36.02	3,897.54	256.92	280.66	198.04	82.62	3.397				
9,800.00	5,821.00	9,510.74	5,594.00	62.71	61.72	36.02	3,997.54	256.92	280.66	196.23	84.44	3.324				
9,900.00	5,821.00	9,610.74	5,594.00	64.12	63.13	36.02	4,097.54	256.92	280.67	194.41	86.26	3.254				
10,000.00	5,821.00	9,710.74	5,594.00	65.53	64.54	36.02	4,197.54	256.91	280.67	192.58	88.09	3.186				
10,100.00	5,821.00	9,810.74	5,594.00	66.95	65.95	36.02	4,297.54	256.91	280.67	190.75	89.92	3.121				

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





# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.00	5,821.00	9,910.74	5,594.00	68.36	67.37	36.02	4,397.54	256.91	280.67	188.92	91.76	3.059	
10,300.00	5,821.00	10,010.74	5,594.00	69.78	68.79	36.02	4,497.54	256.90	280.67	187.08	93.60	2.999	
10,400.00	5,821.00	10,110.74	5,594.00	71.21	70.21	36.02	4,597.54	256.90	280.68	185.23	95.45	2.941	
10,500.00	5,821.00	10,210.74	5,594.00	72.63	71.63	36.02	4,697.54	256.90	280.68	183.38	97.30	2.885	
10,600.00	5,821.00	10,310.74	5,594.00	74.05	73.06	36.03	4,797.54	256.90	280.68	181.53	99.15	2.831	
10,700.00	5,821.00	10,410.74	5,594.00	75.48	74.49	36.03	4,897.54	256.89	280.68	179.68	101.01	2.779	
10,800.00	5,821.00	10,510.74	5,594.00	76.91	75.91	36.03	4,997.54	256.89	280.69	177.82	102.87	2.729	
10,900.00	5,821.00	10,610.74	5,594.00	78.34	77.34	36.03	5,097.54	256.89	280.69	175.96	104.73	2.680	
11,000.00	5,821.00	10,710.74	5,594.00	79.77	78.78	36.03	5,197.54	256.89	280.69	174.09	106.59	2.633	
11,100.00	5,821.00	10,810.74	5,594.00	81.20	80.21	36.03	5,297.54	256.88	280.69	172.23	108.46	2.588	
11,200.00	5,821.00	10,910.74	5,594.00	82.64	81.64	36.03	5,397.54	256.88	280.69	170.36	110.33	2.544	
11,300.00	5,821.00	11,010.74	5,594.00	84.07	83.08	36.03	5,497.54	256.88	280.70	168.49	112.21	2.502	
11,400.00	5,821.00	11,110.74	5,594.00	85.51	84.52	36.03	5,597.54	256.88	280.70	166.61	114.08	2.460	
11,500.00	5,821.00	11,210.74	5,594.00	86.95	85.96	36.03	5,697.54	256.87	280.70	164.74	115.96	2.421	
11,600.00	5,821.00	11,310.74	5,594.00	88.39	87.40	36.03	5,797.54	256.87	280.70	162.86	117.84	2.382	
11,700.00	5,821.00	11,410.74	5,594.00	89.83	88.84	36.03	5,897.54	256.87	280.70	160.98	119.73	2.345	
11,800.00	5,821.00	11,510.74	5,594.00	91.27	90.28	36.03	5,997.54	256.86	280.71	159.09	121.61	2.308	
11,900.00	5,821.00	11,610.74	5,594.00	92.71	91.72	36.03	6,097.54	256.86	280.71	157.21	123.50	2.273	
12,000.00	5,821.00	11,710.74	5,594.00	94.16	93.16	36.03	6,197.54	256.86	280.71	155.32	125.39	2.239	
12,100.00	5,821.00	11,810.74	5,594.00	95.60	94.61	36.03	6,297.54	256.86	280.71	153.44	127.28	2.206	
12,200.00	5,821.00	11,910.74	5,594.00	97.04	96.05	36.03	6,397.54	256.85	280.71	151.55	129.17	2.173	
12,300.00	5,821.00	12,010.74	5,594.00	98.49	97.50	36.04	6,497.54	256.85	280.72	149.66	131.06	2.142	
12,400.00	5,821.00	12,110.74	5,594.00	99.94	98.95	36.04	6,597.54	256.85	280.72	147.76	132.96	2.111	
12,500.00	5,821.00	12,210.74	5,594.00	101.38	100.39	36.04	6,697.54	256.85	280.72	145.87	134.85	2.082	
12,600.00	5,821.00	12,310.74	5,594.00	102.83	101.84	36.04	6,797.54	256.84	280.72	143.97	136.75	2.053	
12,700.00	5,821.00	12,410.74	5,594.00	104.28	103.29	36.04	6,897.54	256.84	280.73	142.08	138.65	2.025	
12,800.00	5,821.00	12,510.74	5,594.00	105.73	104.74	36.04	6,997.54	256.84	280.73	140.18	140.55	1.997	
12,900.00	5,821.00	12,610.74	5,594.00	107.18	106.19	36.04	7,097.54	256.84	280.73	138.28	142.45	1.971	
13,000.00	5,821.00	12,710.74	5,594.00	108.63	107.64	36.04	7,197.54	256.83	280.73	136.38	144.35	1.945	
13,100.00	5,821.00	12,810.74	5,594.00	110.08	109.09	36.04	7,297.54	256.83	280.73	134.48	146.25	1.919	
13,200.00	5,821.00	12,910.74	5,594.00	111.53	110.54	36.04	7,397.54	256.83	280.74	132.58	148.16	1.895	
13,300.00	5,821.00	13,010.74	5,594.00	112.98	111.99	36.04	7,497.54	256.82	280.74	130.67	150.07	1.871	
13,400.00	5,821.00	13,110.74	5,594.00	114.44	113.45	36.04	7,597.54	256.82	280.74	128.77	151.97	1.847	
13,500.00	5,821.00	13,210.74	5,594.00	115.89	114.90	36.04	7,697.54	256.82	280.74	126.86	153.88	1.824	
13,600.00	5,821.00	13,310.74	5,594.00	117.34	116.35	36.04	7,797.54	256.82	280.74	124.96	155.79	1.802	
13,700.00	5,821.00	13,410.74	5,594.00	118.80	117.81	36.04	7,897.54	256.81	280.75	123.05	157.70	1.780	
13,800.00	5,821.00	13,510.74	5,594.00	120.25	119.26	36.04	7,997.54	256.81	280.75	121.14	159.61	1.759	
13,900.00	5,821.00	13,610.74	5,594.00	121.70	120.72	36.04	8,097.54	256.81	280.75	119.23	161.52	1.738	
14,000.00	5,821.00	13,710.74	5,594.00	123.16	122.17	36.05	8,197.54	256.81	280.75	117.32	163.43	1.718	
14,100.00	5,821.00	13,810.74	5,594.00	124.62	123.63	36.05	8,297.54	256.80	280.75	115.41	165.34	1.698	
14,200.00	5,821.00	13,910.74	5,594.00	126.07	125.08	36.05	8,397.54	256.80	280.76	113.50	167.26	1.679	
14,300.00	5,821.00	14,010.74	5,594.00	127.53	126.54	36.05	8,497.54	256.80	280.76	111.59	169.17	1.660	
14,400.00	5,821.00	14,110.74	5,594.00	128.98	128.00	36.05	8,597.54	256.79	280.76	109.67	171.09	1.641	
14,500.00	5,821.00	14,210.74	5,594.00	130.44	129.46	36.05	8,697.54	256.79	280.76	107.76	173.00	1.623	
14,600.00	5,821.00	14,310.74	5,594.00	131.90	130.91	36.05	8,797.54	256.79	280.77	105.85	174.92	1.605	
14,700.00	5,821.00	14,410.74	5,594.00	133.36	132.37	36.05	8,897.54	256.79	280.77	103.93	176.84	1.588	
14,800.00	5,821.00	14,510.74	5,594.00	134.81	133.83	36.05	8,997.54	256.78	280.77	102.01	178.75	1.571	
14,900.00	5,821.00	14,610.74	5,594.00	136.27	135.29	36.05	9,097.54	256.78	280.77	100.10	180.67	1.554	
15,000.00	5,821.00	14,710.74	5,594.00	137.73	136.75	36.05	9,197.54	256.78	280.77	98.18	182.59	1.538	
15,100.00	5,821.00	14,810.74	5,594.00	139.19	138.21	36.05	9,297.54	256.78	280.78	96.26	184.51	1.522	
15,200.00	5,821.00	14,910.74	5,594.00	140.65	139.66	36.05	9,397.54	256.77	280.78	94.35	186.43	1.506	
15,300.00	5,821.00	15,010.74	5,594.00	142.11	141.12	36.05	9,497.54	256.77	280.78	92.43	188.35	1.491	Level 3

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2408 - HZ - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
15,400.00	5,821.00	15,110.74	5,594.00	143.57	142.58	36.05	9,597.54	256.77	280.78	90.51	190.27	1.476	Level 3
15,500.00	5,821.00	15,210.74	5,594.00	145.03	144.04	36.05	9,697.54	256.77	280.78	88.59	192.19	1.461	Level 3
15,600.00	5,821.00	15,310.74	5,594.00	146.49	145.50	36.05	9,797.54	256.76	280.79	86.67	194.12	1.446	Level 3
15,700.00	5,821.00	15,410.74	5,594.00	147.95	146.96	36.06	9,897.54	256.76	280.79	84.75	196.04	1.432	Level 3
15,800.00	5,821.00	15,510.74	5,594.00	149.41	148.42	36.06	9,997.54	256.76	280.79	82.83	197.96	1.418	Level 3
15,900.00	5,821.00	15,610.74	5,594.00	150.87	149.89	36.06	10,097.54	256.75	280.79	80.91	199.89	1.405	Level 3
16,000.00	5,821.00	15,710.74	5,594.00	152.33	151.35	36.06	10,197.54	256.75	280.79	78.98	201.81	1.391	Level 3
16,011.07	5,821.00	15,721.80	5,594.00	152.49	151.51	36.06	10,208.61	256.75	280.79	78.77	202.02	1.390	Level 3, SF



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.64	-1.01	-89.98	89.98					
100.00	100.00	100.00	100.00	0.13	0.13	-90.64	-1.01	-89.98	89.98	89.72	0.27	337.840		
200.00	200.00	200.00	200.00	0.47	0.47	-90.64	-1.01	-89.98	89.98	89.04	0.94	95.661		
300.00	300.00	300.00	300.00	0.81	0.81	-90.64	-1.01	-89.98	89.98	88.37	1.61	55.719 CC, ES		
400.00	399.98	396.92	396.90	1.11	1.12	115.10	-1.30	-91.59	92.38	90.15	2.23	41.489		
500.00	499.84	493.42	493.27	1.41	1.43	117.12	-2.15	-96.41	99.66	96.82	2.84	35.101		
600.00	599.59	589.25	588.76	1.72	1.75	119.32	-3.55	-104.35	111.15	107.67	3.48	31.957		
700.00	699.35	684.31	683.16	2.05	2.08	120.69	-5.48	-115.33	125.95	121.81	4.13	30.469		
800.00	799.11	778.42	776.20	2.38	2.43	121.40	-7.93	-129.23	143.92	139.12	4.80	29.994		
900.00	898.86	872.57	868.78	2.73	2.80	121.65	-10.90	-146.05	164.89	159.41	5.48	30.113		
1,000.00	998.62	970.15	964.57	3.07	3.20	121.75	-14.13	-164.39	186.76	180.62	6.14	30.401		
1,100.00	1,098.38	1,067.73	1,060.35	3.42	3.61	121.84	-17.37	-182.73	208.63	201.81	6.81	30.617		
1,200.00	1,198.13	1,165.31	1,156.14	3.77	4.02	121.91	-20.60	-201.06	230.50	223.01	7.49	30.771		
1,300.00	1,297.89	1,262.89	1,251.93	4.12	4.44	121.97	-23.83	-219.40	252.37	244.19	8.17	30.882		
1,400.00	1,397.65	1,360.46	1,347.71	4.48	4.86	122.01	-27.06	-237.73	274.23	265.38	8.86	30.965		
1,500.00	1,497.40	1,458.04	1,443.50	4.83	5.28	122.06	-30.30	-256.07	296.10	286.56	9.54	31.027		
1,600.00	1,597.16	1,555.62	1,539.29	5.18	5.70	122.09	-33.53	-274.41	317.97	307.74	10.23	31.071		
1,700.00	1,696.91	1,653.20	1,635.07	5.54	6.13	122.12	-36.76	-292.74	339.84	328.92	10.92	31.109		
1,800.00	1,796.67	1,750.78	1,730.86	5.89	6.55	122.15	-40.00	-311.08	361.71	350.10	11.62	31.137		
1,900.00	1,896.43	1,848.36	1,826.64	6.25	6.98	122.17	-43.23	-329.41	383.58	371.27	12.31	31.158		
2,000.00	1,996.18	1,945.94	1,922.43	6.60	7.41	122.19	-46.46	-347.75	405.45	392.45	13.01	31.175		
2,100.00	2,095.94	2,043.52	2,018.22	6.96	7.84	122.21	-49.70	-366.09	427.32	413.62	13.70	31.188		
2,200.00	2,195.70	2,141.10	2,114.00	7.31	8.26	122.23	-52.93	-384.42	449.19	434.80	14.40	31.198		
2,300.00	2,295.45	2,238.68	2,209.79	7.67	8.69	122.25	-56.16	-402.76	471.06	455.97	15.10	31.206		
2,400.00	2,395.21	2,336.26	2,305.58	8.03	9.12	122.26	-59.40	-421.09	492.93	477.14	15.79	31.212		
2,500.00	2,494.97	2,433.83	2,401.36	8.38	9.55	122.27	-62.63	-439.43	514.80	498.31	16.49	31.217		
2,600.00	2,594.72	2,531.41	2,497.15	8.74	9.98	122.29	-65.86	-457.77	536.67	519.48	17.19	31.220		
2,700.00	2,694.48	2,628.99	2,592.94	9.10	10.41	122.30	-69.09	-476.10	558.54	540.66	17.89	31.222		
2,800.00	2,794.23	2,726.57	2,688.72	9.45	10.84	122.31	-72.33	-494.44	580.42	561.83	18.59	31.224		
2,900.00	2,893.99	2,824.15	2,784.51	9.81	11.27	122.32	-75.56	-512.78	602.29	583.00	19.29	31.225		
3,000.00	2,993.75	2,921.73	2,880.29	10.17	11.70	122.33	-78.79	-531.11	624.16	604.17	19.99	31.225		
3,100.00	3,093.50	3,019.31	2,976.08	10.52	12.13	122.34	-82.03	-549.45	646.03	625.34	20.69	31.225		
3,200.00	3,193.26	3,116.89	3,071.87	10.88	12.56	122.34	-85.26	-567.78	667.90	646.51	21.39	31.224		
3,300.00	3,293.02	3,214.47	3,167.65	11.24	12.99	122.35	-88.49	-586.12	689.77	667.68	22.09	31.223		
3,400.00	3,392.77	3,312.05	3,263.44	11.59	13.42	122.36	-91.73	-604.46	711.64	688.84	22.79	31.222		
3,500.00	3,492.59	3,409.73	3,359.33	11.91	13.85	122.57	-94.96	-622.81	732.99	709.51	23.48	31.217		
3,600.00	3,592.55	3,507.73	3,455.53	12.16	14.28	122.63	-98.21	-641.23	752.58	728.47	24.10	31.221		
3,700.00	3,692.55	3,605.88	3,551.88	12.45	14.72	-82.71	-101.46	-659.67	770.86	746.12	24.74	31.157		
3,800.00	3,792.55	3,704.05	3,648.24	12.71	15.15	-83.13	-104.71	-678.12	789.13	763.79	25.34	31.143		
3,900.00	3,892.55	3,802.21	3,744.60	12.97	15.59	-83.52	-107.97	-696.56	807.44	781.50	25.94	31.126		
4,000.00	3,992.55	3,900.37	3,840.96	13.23	16.02	-83.89	-111.22	-715.01	825.78	799.23	26.55	31.108		
4,100.00	4,092.55	3,998.54	3,937.32	13.50	16.45	-84.25	-114.47	-733.45	844.15	817.00	27.15	31.088		
4,200.00	4,192.55	4,096.70	4,033.67	13.77	16.89	-84.60	-117.72	-751.90	862.56	834.79	27.76	31.067		
4,300.00	4,292.55	4,194.86	4,130.03	14.04	17.32	-84.93	-120.98	-770.35	880.99	852.61	28.38	31.045		
4,400.00	4,392.55	4,293.02	4,226.39	14.32	17.75	-85.24	-124.23	-788.79	899.45	870.46	28.99	31.023		
4,500.00	4,492.55	4,391.19	4,322.75	14.60	18.19	-85.54	-127.48	-807.24	917.93	888.32	29.61	30.999		
4,600.00	4,592.55	4,489.35	4,419.11	14.88	18.62	-85.83	-130.73	-825.68	936.44	906.21	30.23	30.975		
4,700.00	4,692.55	4,587.51	4,515.47	15.16	19.06	-86.11	-133.99	-844.13	954.98	924.12	30.86	30.950		
4,800.00	4,792.55	4,727.90	4,653.79	15.45	19.55	-86.46	-138.15	-867.74	971.67	940.12	31.55	30.799		
4,900.00	4,892.55	4,876.53	4,801.30	15.74	19.95	-86.70	-141.27	-885.47	983.46	951.25	32.21	30.535		
5,000.00	4,992.55	5,026.65	4,951.05	16.03	20.31	-86.84	-143.08	-895.70	990.20	957.32	32.87	30.123		
5,100.00	5,092.55	5,168.19	5,092.55	16.32	20.63	-86.88	-143.54	-898.31	991.91	958.38	33.53	29.580		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,192.55	5,268.19	5,192.55	16.61	20.88	-86.88	-143.54	-898.31	991.91	957.80	34.11	29.082		
5,299.99	5,292.54	5,358.44	5,282.41	16.91	21.10	-86.47	-136.51	-898.31	992.37	957.71	34.66	28.634		
5,400.00	5,392.07	5,445.35	5,366.56	17.19	21.30	-85.52	-115.21	-898.31	993.54	958.35	35.19	28.231		
5,500.00	5,488.20	5,530.39	5,444.38	17.45	21.48	-84.71	-81.12	-898.31	994.73	959.07	35.66	27.896		
5,600.00	5,577.43	5,614.04	5,514.50	17.69	21.63	-84.07	-35.69	-898.31	995.80	959.73	36.07	27.608		
5,700.00	5,656.47	5,700.00	5,578.04	17.91	21.76	-83.60	22.06	-898.30	996.63	960.17	36.46	27.333		
5,800.00	5,722.41	5,778.73	5,627.19	18.14	21.86	-83.36	83.47	-898.30	997.11	960.24	36.87	27.046		
5,900.00	5,772.83	5,860.51	5,667.85	18.40	21.95	-83.31	154.32	-898.30	997.20	959.85	37.35	26.697		
6,000.00	5,805.89	5,942.37	5,696.95	18.73	22.03	-83.47	230.75	-898.29	996.88	958.93	37.95	26.266		
6,100.00	5,820.36	6,024.68	5,713.79	19.13	22.12	-83.83	311.23	-898.29	996.20	957.52	38.68	25.753		
6,200.00	5,821.00	6,111.21	5,718.00	19.60	22.25	-84.06	397.58	-898.29	995.72	956.18	39.54	25.184		
6,300.00	5,821.00	6,211.21	5,718.00	20.18	22.49	-84.06	497.58	-898.28	995.71	955.08	40.63	24.508		
6,400.00	5,821.00	6,311.21	5,718.00	20.84	22.86	-84.06	597.58	-898.28	995.70	953.80	41.89	23.767		
6,500.00	5,821.00	6,411.21	5,718.00	21.58	23.35	-84.06	697.58	-898.27	995.69	952.37	43.32	22.984		
6,600.00	5,821.00	6,511.21	5,718.00	22.39	23.97	-84.06	797.58	-898.27	995.68	950.78	44.89	22.178		
6,700.00	5,821.00	6,611.21	5,718.00	23.27	24.70	-84.06	897.58	-898.27	995.67	949.07	46.60	21.367		
6,800.00	5,821.00	6,711.21	5,718.00	24.21	25.51	-84.06	997.58	-898.26	995.66	947.24	48.42	20.563		
6,900.00	5,821.00	6,811.21	5,718.00	25.19	26.39	-84.06	1,097.58	-898.26	995.65	945.30	50.35	19.776		
7,000.00	5,821.00	6,911.21	5,718.00	26.23	27.32	-84.06	1,197.58	-898.25	995.63	943.27	52.37	19.013		
7,100.00	5,821.00	7,011.21	5,718.00	27.30	28.31	-84.06	1,297.58	-898.25	995.62	941.16	54.47	18.279		
7,200.00	5,821.00	7,111.21	5,718.00	28.41	29.35	-84.06	1,397.58	-898.24	995.61	938.97	56.64	17.577		
7,300.00	5,821.00	7,211.21	5,718.00	29.55	30.42	-84.06	1,497.58	-898.24	995.60	936.72	58.88	16.908		
7,400.00	5,821.00	7,311.21	5,718.00	30.72	31.53	-84.06	1,597.58	-898.23	995.59	934.41	61.18	16.272		
7,500.00	5,821.00	7,411.21	5,718.00	31.91	32.66	-84.06	1,697.58	-898.23	995.58	932.05	63.53	15.670		
7,600.00	5,821.00	7,511.21	5,718.00	33.13	33.83	-84.06	1,797.58	-898.23	995.57	929.64	65.93	15.100		
7,700.00	5,821.00	7,611.21	5,718.00	34.36	35.01	-84.06	1,897.58	-898.22	995.56	927.19	68.37	14.561		
7,800.00	5,821.00	7,711.21	5,718.00	35.62	36.22	-84.06	1,997.58	-898.22	995.55	924.70	70.85	14.052		
7,900.00	5,821.00	7,811.21	5,718.00	36.89	37.45	-84.06	2,097.58	-898.21	995.54	922.18	73.36	13.571		
8,000.00	5,821.00	7,911.21	5,718.00	38.17	38.69	-84.06	2,197.58	-898.21	995.53	919.64	75.89	13.117		
8,100.00	5,821.00	8,011.21	5,718.00	39.47	39.95	-84.06	2,297.58	-898.20	995.52	917.06	78.46	12.688		
8,200.00	5,821.00	8,111.21	5,718.00	40.78	41.22	-84.06	2,397.58	-898.20	995.51	914.46	81.05	12.282		
8,300.00	5,821.00	8,211.21	5,718.00	42.10	42.51	-84.06	2,497.58	-898.20	995.50	911.83	83.67	11.899		
8,400.00	5,821.00	8,311.21	5,718.00	43.43	43.81	-84.06	2,597.58	-898.19	995.49	909.19	86.30	11.535		
8,500.00	5,821.00	8,411.21	5,718.00	44.77	45.11	-84.06	2,697.58	-898.19	995.48	906.53	88.95	11.191		
8,600.00	5,821.00	8,511.21	5,718.00	46.11	46.43	-84.06	2,797.58	-898.18	995.47	903.85	91.62	10.865		
8,700.00	5,821.00	8,611.21	5,718.00	47.47	47.76	-84.06	2,897.58	-898.18	995.46	901.15	94.30	10.556		
8,800.00	5,821.00	8,711.21	5,718.00	48.83	49.10	-84.06	2,997.58	-898.17	995.45	898.44	97.00	10.262		
8,900.00	5,821.00	8,811.21	5,718.00	50.19	50.44	-84.06	3,097.58	-898.17	995.43	895.72	99.71	9.983		
9,000.00	5,821.00	8,911.21	5,718.00	51.57	51.79	-84.06	3,197.58	-898.17	995.42	892.99	102.44	9.717		
9,100.00	5,821.00	9,011.21	5,718.00	52.95	53.14	-84.06	3,297.58	-898.16	995.41	890.24	105.17	9.465		
9,200.00	5,821.00	9,111.21	5,718.00	54.33	54.51	-84.06	3,397.58	-898.16	995.40	887.49	107.92	9.224		
9,300.00	5,821.00	9,211.21	5,718.00	55.72	55.87	-84.06	3,497.58	-898.15	995.39	884.72	110.67	8.994		
9,400.00	5,821.00	9,311.21	5,718.00	57.11	57.25	-84.06	3,597.58	-898.15	995.38	881.95	113.44	8.775		
9,500.00	5,821.00	9,411.21	5,718.00	58.50	58.62	-84.06	3,697.58	-898.14	995.37	879.17	116.21	8.566		
9,600.00	5,821.00	9,511.21	5,718.00	59.90	60.01	-84.06	3,797.58	-898.14	995.36	876.38	118.98	8.365		
9,700.00	5,821.00	9,611.21	5,718.00	61.31	61.39	-84.06	3,897.58	-898.14	995.35	873.58	121.77	8.174		
9,800.00	5,821.00	9,711.21	5,718.00	62.71	62.78	-84.06	3,997.58	-898.13	995.34	870.78	124.56	7.991		
9,900.00	5,821.00	9,811.21	5,718.00	64.12	64.18	-84.06	4,097.58	-898.13	995.33	867.97	127.36	7.815		
10,000.00	5,821.00	9,911.21	5,718.00	65.53	65.57	-84.06	4,197.58	-898.12	995.32	865.15	130.17	7.647		
10,100.00	5,821.00	10,011.21	5,718.00	66.95	66.97	-84.06	4,297.58	-898.12	995.31	862.33	132.98	7.485		
10,200.00	5,821.00	10,111.21	5,718.00	68.36	68.38	-84.06	4,397.58	-898.11	995.30	859.51	135.79	7.330		
10,300.00	5,821.00	10,211.21	5,718.00	69.78	69.78	-84.06	4,497.58	-898.11	995.29	856.68	138.61	7.181		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.00	5,821.00	10,311.21	5,718.00	71.21	71.19	-84.06	4,597.58	-898.11	995.28	853.84	141.43	7.037		
10,500.00	5,821.00	10,411.21	5,718.00	72.63	72.60	-84.06	4,697.58	-898.10	995.27	851.01	144.26	6.899		
10,600.00	5,821.00	10,511.21	5,718.00	74.05	74.02	-84.06	4,797.58	-898.10	995.26	848.16	147.09	6.766		
10,700.00	5,821.00	10,611.21	5,718.00	75.48	75.43	-84.06	4,897.58	-898.09	995.25	845.32	149.93	6.638		
10,800.00	5,821.00	10,711.21	5,718.00	76.91	76.85	-84.06	4,997.58	-898.09	995.23	842.47	152.77	6.515		
10,900.00	5,821.00	10,811.21	5,718.00	78.34	78.27	-84.06	5,097.58	-898.08	995.22	839.61	155.61	6.396		
11,000.00	5,821.00	10,911.21	5,718.00	79.77	79.69	-84.06	5,197.58	-898.08	995.21	836.76	158.46	6.281		
11,100.00	5,821.00	11,011.21	5,718.00	81.20	81.11	-84.06	5,297.58	-898.07	995.20	833.90	161.31	6.170		
11,200.00	5,821.00	11,111.21	5,718.00	82.64	82.54	-84.06	5,397.58	-898.07	995.19	831.04	164.16	6.062		
11,300.00	5,821.00	11,211.21	5,718.00	84.07	83.97	-84.06	5,497.58	-898.07	995.18	828.17	167.01	5.959		
11,400.00	5,821.00	11,311.21	5,718.00	85.51	85.39	-84.06	5,597.58	-898.06	995.17	825.30	169.87	5.859		
11,500.00	5,821.00	11,411.21	5,718.00	86.95	86.82	-84.06	5,697.58	-898.06	995.16	822.43	172.73	5.761		
11,600.00	5,821.00	11,511.21	5,718.00	88.39	88.26	-84.06	5,797.58	-898.05	995.15	819.56	175.59	5.668		
11,700.00	5,821.00	11,611.21	5,718.00	89.83	89.69	-84.06	5,897.58	-898.05	995.14	816.69	178.45	5.577		
11,800.00	5,821.00	11,711.21	5,718.00	91.27	91.12	-84.06	5,997.58	-898.04	995.13	813.81	181.32	5.488		
11,900.00	5,821.00	11,811.21	5,718.00	92.71	92.56	-84.06	6,097.58	-898.04	995.12	810.93	184.19	5.403		
12,000.00	5,821.00	11,911.21	5,718.00	94.16	93.99	-84.06	6,197.58	-898.04	995.11	808.05	187.06	5.320		
12,100.00	5,821.00	12,011.21	5,718.00	95.60	95.43	-84.06	6,297.58	-898.03	995.10	805.17	189.93	5.239		
12,200.00	5,821.00	12,111.21	5,718.00	97.04	96.87	-84.06	6,397.58	-898.03	995.09	802.29	192.80	5.161		
12,300.00	5,821.00	12,211.21	5,718.00	98.49	98.31	-84.06	6,497.58	-898.02	995.08	799.40	195.67	5.085		
12,400.00	5,821.00	12,311.21	5,718.00	99.94	99.75	-84.06	6,597.58	-898.02	995.07	796.52	198.55	5.012		
12,500.00	5,821.00	12,411.21	5,718.00	101.38	101.19	-84.06	6,697.58	-898.01	995.06	793.63	201.43	4.940		
12,600.00	5,821.00	12,511.21	5,718.00	102.83	102.63	-84.06	6,797.58	-898.01	995.05	790.74	204.31	4.870		
12,700.00	5,821.00	12,611.21	5,718.00	104.28	104.07	-84.06	6,897.58	-898.01	995.03	787.85	207.19	4.803		
12,800.00	5,821.00	12,711.21	5,718.00	105.73	105.51	-84.06	6,997.58	-898.00	995.02	784.95	210.07	4.737		
12,900.00	5,821.00	12,811.21	5,718.00	107.18	106.96	-84.06	7,097.58	-898.00	995.01	782.06	212.95	4.672		
13,000.00	5,821.00	12,911.21	5,718.00	108.63	108.40	-84.06	7,197.58	-897.99	995.00	779.16	215.84	4.610		
13,100.00	5,821.00	13,011.21	5,718.00	110.08	109.85	-84.06	7,297.58	-897.99	994.99	776.27	218.73	4.549		
13,200.00	5,821.00	13,111.21	5,718.00	111.53	111.29	-84.06	7,397.58	-897.98	994.98	773.37	221.61	4.490		
13,300.00	5,821.00	13,211.21	5,718.00	112.98	112.74	-84.06	7,497.58	-897.98	994.97	770.47	224.50	4.432		
13,400.00	5,821.00	13,311.21	5,718.00	114.44	114.19	-84.06	7,597.58	-897.98	994.96	767.57	227.39	4.376		
13,500.00	5,821.00	13,411.21	5,718.00	115.89	115.64	-84.06	7,697.58	-897.97	994.95	764.67	230.28	4.321		
13,600.00	5,821.00	13,511.21	5,718.00	117.34	117.09	-84.06	7,797.58	-897.97	994.94	761.77	233.17	4.267		
13,700.00	5,821.00	13,611.21	5,718.00	118.80	118.54	-84.06	7,897.58	-897.96	994.93	758.87	236.06	4.215		
13,800.00	5,821.00	13,711.21	5,718.00	120.25	119.99	-84.06	7,997.58	-897.96	994.92	755.96	238.96	4.164		
13,900.00	5,821.00	13,811.21	5,718.00	121.70	121.44	-84.06	8,097.58	-897.95	994.91	753.06	241.85	4.114		
14,000.00	5,821.00	13,911.21	5,718.00	123.16	122.89	-84.06	8,197.58	-897.95	994.90	750.15	244.74	4.065		
14,100.00	5,821.00	14,011.21	5,718.00	124.62	124.34	-84.06	8,297.58	-897.94	994.89	747.25	247.64	4.017		
14,200.00	5,821.00	14,111.21	5,718.00	126.07	125.79	-84.06	8,397.58	-897.94	994.88	744.34	250.54	3.971		
14,300.00	5,821.00	14,211.21	5,718.00	127.53	127.24	-84.06	8,497.58	-897.94	994.87	741.43	253.43	3.926		
14,400.00	5,821.00	14,311.21	5,718.00	128.98	128.69	-84.06	8,597.58	-897.93	994.86	738.53	256.33	3.881		
14,500.00	5,821.00	14,411.21	5,718.00	130.44	130.15	-84.06	8,697.58	-897.93	994.85	735.62	259.23	3.838		
14,600.00	5,821.00	14,511.21	5,718.00	131.90	131.60	-84.06	8,797.58	-897.92	994.83	732.71	262.13	3.795		
14,700.00	5,821.00	14,611.21	5,718.00	133.36	133.06	-84.06	8,897.58	-897.92	994.82	729.80	265.03	3.754		
14,800.00	5,821.00	14,711.21	5,718.00	134.81	134.51	-84.06	8,997.58	-897.91	994.81	726.89	267.93	3.713		
14,900.00	5,821.00	14,811.21	5,718.00	136.27	135.96	-84.06	9,097.58	-897.91	994.80	723.97	270.83	3.673		
15,000.00	5,821.00	14,911.21	5,718.00	137.73	137.42	-84.06	9,197.58	-897.91	994.79	721.06	273.73	3.634		
15,100.00	5,821.00	15,011.21	5,718.00	139.19	138.87	-84.06	9,297.58	-897.90	994.78	718.15	276.63	3.596		
15,200.00	5,821.00	15,111.21	5,718.00	140.65	140.33	-84.06	9,397.58	-897.90	994.77	715.24	279.53	3.559		
15,300.00	5,821.00	15,211.21	5,718.00	142.11	141.79	-84.06	9,497.58	-897.89	994.76	712.32	282.44	3.522		
15,400.00	5,821.00	15,311.21	5,718.00	143.57	143.24	-84.06	9,597.58	-897.89	994.75	709.41	285.34	3.486		
15,500.00	5,821.00	15,411.21	5,718.00	145.03	144.70	-84.06	9,697.58	-897.88	994.74	706.49	288.25	3.451		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2437 - Hz - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,600.00	5,821.00	15,511.21	5,718.00	146.49	146.16	-84.06	9,797.58	-897.88	994.73	703.58	291.15	3.417	
15,700.00	5,821.00	15,611.21	5,718.00	147.95	147.61	-84.06	9,897.58	-897.88	994.72	700.66	294.06	3.383	
15,800.00	5,821.00	15,711.21	5,718.00	149.41	149.07	-84.06	9,997.58	-897.87	994.71	697.75	296.96	3.350	
15,900.00	5,821.00	15,811.21	5,718.00	150.87	150.53	-84.06	10,097.58	-897.87	994.70	694.83	299.87	3.317	
16,000.00	5,821.00	15,911.21	5,718.00	152.33	151.99	-84.06	10,197.58	-897.86	994.69	691.91	302.77	3.285	
16,006.93	5,821.00	15,918.14	5,718.00	152.43	152.09	-84.06	10,204.51	-897.86	994.69	691.71	302.98	3.283	
16,011.07	5,821.00	15,918.20	5,718.00	152.49	152.09	-84.06	10,204.58	-897.86	994.69	691.66	303.04	3.282 SF	



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.97	-1.01	-59.98	59.99					
100.00	100.00	100.00	100.00	0.13	0.13	-90.97	-1.01	-59.98	59.99	59.73	0.27	225.245		
200.00	200.00	200.00	200.00	0.47	0.47	-90.97	-1.01	-59.98	59.99	59.05	0.94	63.779		
300.00	300.00	300.00	300.00	0.81	0.81	-90.97	-1.01	-59.98	59.99	58.38	1.61	37.149 CC, ES		
400.00	399.98	398.00	397.98	1.11	1.12	114.93	-1.59	-61.56	62.33	60.10	2.23	27.996		
500.00	499.84	495.61	495.46	1.41	1.42	117.22	-3.30	-66.26	69.41	66.57	2.84	24.465		
600.00	599.59	592.63	592.13	1.72	1.75	119.28	-6.12	-74.02	80.53	77.05	3.48	23.161		
700.00	699.35	690.11	688.94	2.05	2.08	120.04	-9.99	-84.64	94.50	90.35	4.14	22.824		
800.00	799.11	789.05	787.14	2.38	2.44	120.48	-14.11	-95.97	109.01	104.21	4.80	22.718		
900.00	898.86	887.99	885.34	2.73	2.80	120.82	-18.24	-107.31	123.52	118.05	5.47	22.596		
1,000.00	998.62	986.93	983.54	3.07	3.17	121.08	-22.36	-118.64	138.04	131.89	6.14	22.472		
1,100.00	1,098.38	1,085.86	1,081.75	3.42	3.54	121.29	-26.48	-129.97	152.56	145.73	6.82	22.355		
1,200.00	1,198.13	1,184.80	1,179.95	3.77	3.92	121.47	-30.61	-141.30	167.08	159.57	7.51	22.246		
1,300.00	1,297.89	1,283.74	1,278.15	4.12	4.29	121.62	-34.73	-152.63	181.60	173.40	8.20	22.148		
1,400.00	1,397.65	1,382.68	1,376.35	4.48	4.67	121.75	-38.85	-163.96	196.13	187.24	8.89	22.060		
1,500.00	1,497.40	1,481.62	1,474.55	4.83	5.05	121.85	-42.98	-175.29	210.65	201.07	9.58	21.979		
1,600.00	1,597.16	1,580.56	1,572.75	5.18	5.42	121.95	-47.10	-186.62	225.18	214.90	10.28	21.907		
1,700.00	1,696.91	1,679.50	1,670.95	5.54	5.80	122.03	-51.23	-197.95	239.70	228.73	10.97	21.841		
1,800.00	1,796.67	1,778.44	1,769.15	5.89	6.18	122.11	-55.35	-209.28	254.23	242.56	11.67	21.781		
1,900.00	1,896.43	1,877.37	1,867.36	6.25	6.56	122.17	-59.47	-220.61	268.76	256.39	12.37	21.727		
2,000.00	1,996.18	1,976.31	1,965.56	6.60	6.94	122.23	-63.60	-231.94	283.29	270.22	13.07	21.677		
2,100.00	2,095.94	2,075.25	2,063.76	6.96	7.32	122.29	-67.72	-243.27	297.81	284.05	13.77	21.632		
2,200.00	2,195.70	2,174.19	2,161.96	7.31	7.70	122.33	-71.85	-254.60	312.34	297.87	14.47	21.590		
2,300.00	2,295.45	2,273.13	2,260.16	7.67	8.08	122.38	-75.97	-265.93	326.87	311.70	15.17	21.551		
2,400.00	2,395.21	2,372.07	2,358.36	8.03	8.46	122.42	-80.09	-277.26	341.40	325.53	15.87	21.515		
2,500.00	2,494.97	2,471.01	2,456.56	8.38	8.84	122.46	-84.22	-288.59	355.93	339.36	16.57	21.482		
2,600.00	2,594.72	2,569.95	2,554.76	8.74	9.22	122.49	-88.34	-299.92	370.45	353.18	17.27	21.451		
2,700.00	2,694.48	2,668.88	2,652.97	9.10	9.60	122.52	-92.47	-311.25	384.98	367.01	17.97	21.422		
2,800.00	2,794.23	2,767.82	2,751.17	9.45	9.98	122.55	-96.59	-322.58	399.51	380.84	18.67	21.395		
2,900.00	2,893.99	2,866.76	2,849.37	9.81	10.36	122.58	-100.71	-333.91	414.04	394.67	19.38	21.370		
3,000.00	2,993.75	2,965.70	2,947.57	10.17	10.74	122.60	-104.84	-345.24	428.57	408.49	20.08	21.346		
3,100.00	3,093.50	3,064.64	3,045.77	10.52	11.12	122.63	-108.96	-356.58	443.10	422.32	20.78	21.324		
3,200.00	3,193.26	3,163.58	3,143.97	10.88	11.51	122.65	-113.09	-367.91	457.63	436.15	21.48	21.303		
3,300.00	3,293.02	3,262.52	3,242.17	11.24	11.89	122.67	-117.21	-379.24	472.16	449.97	22.19	21.283		
3,400.00	3,392.77	3,361.46	3,340.38	11.59	12.27	122.69	-121.33	-390.57	486.69	463.80	22.89	21.264		
3,500.00	3,492.59	3,460.46	3,438.65	11.91	12.65	122.79	-125.46	-401.90	500.69	477.12	23.57	21.246		
3,600.00	3,592.55	3,559.65	3,537.09	12.16	13.03	122.60	-129.59	-413.26	512.89	488.71	24.18	21.213		
3,700.00	3,692.55	3,658.91	3,635.61	12.45	13.41	-82.96	-133.73	-424.63	523.79	498.98	24.81	21.109		
3,800.00	3,792.55	3,758.16	3,734.12	12.71	13.80	-83.55	-137.87	-436.00	534.69	509.28	25.41	21.039		
3,900.00	3,892.55	3,857.41	3,832.64	12.97	14.18	-84.12	-142.01	-447.36	545.65	519.63	26.02	20.972		
4,000.00	3,992.55	3,956.67	3,931.15	13.23	14.56	-84.67	-146.14	-458.73	556.65	530.03	26.62	20.908		
4,100.00	4,092.55	4,055.92	4,029.67	13.50	14.94	-85.19	-150.28	-470.10	567.70	540.47	27.23	20.846		
4,200.00	4,192.55	4,155.18	4,128.18	13.77	15.33	-85.70	-154.42	-481.46	578.80	550.96	27.84	20.787		
4,300.00	4,292.55	4,254.43	4,226.70	14.04	15.71	-86.18	-158.55	-492.83	589.95	561.49	28.46	20.730		
4,400.00	4,392.55	4,353.69	4,325.21	14.32	16.09	-86.65	-162.69	-504.20	601.13	572.05	29.08	20.675		
4,500.00	4,492.55	4,452.94	4,423.73	14.60	16.48	-87.10	-166.83	-515.56	612.35	582.65	29.69	20.621		
4,600.00	4,592.55	4,552.20	4,522.24	14.88	16.86	-87.54	-170.96	-526.93	623.61	593.29	30.32	20.570		
4,700.00	4,692.55	4,651.45	4,620.76	15.16	17.24	-87.96	-175.10	-538.30	634.90	603.96	30.94	20.521		
4,800.00	4,792.55	4,754.88	4,723.42	15.45	17.63	-88.38	-179.39	-550.08	646.17	614.60	31.57	20.469		
4,900.00	4,892.55	4,881.16	4,849.14	15.74	17.98	-88.76	-183.41	-561.12	654.84	622.65	32.19	20.345		
5,000.00	4,992.55	5,008.24	4,976.06	16.03	18.29	-88.95	-185.54	-566.96	659.41	626.62	32.79	20.109		
5,100.00	5,092.55	5,124.74	5,092.55	16.32	18.59	-88.99	-185.89	-567.93	660.16	626.76	33.41	19.762		

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





# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 25-T10N-R58W - Razor #25N-2438 - Hz - APD		Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance								Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
5,200.00	5,192.55	5,224.74	5,192.55	16.61	18.85	-88.99	-185.89	-567.93	660.16	626.19	33.98	19.430				
5,299.99	5,292.54	5,324.73	5,292.54	16.91	19.12	-88.99	-185.89	-567.93	660.16	625.61	34.55	19.107				
5,400.00	5,392.07	5,422.72	5,390.08	17.19	19.38	-89.00	-178.06	-567.93	660.16	625.06	35.10	18.810				
5,500.00	5,488.20	5,520.60	5,484.34	17.45	19.61	-89.05	-152.23	-567.93	660.15	624.57	35.58	18.554				
5,600.00	5,577.43	5,618.63	5,572.24	17.69	19.81	-89.14	-109.16	-567.93	660.13	624.11	36.02	18.327				
5,700.00	5,656.47	5,716.87	5,650.69	17.91	19.98	-89.25	-50.26	-567.93	660.11	623.66	36.45	18.112				
5,800.00	5,722.41	5,815.38	5,716.86	18.14	20.10	-89.40	22.51	-567.93	660.08	623.18	36.91	17.885				
5,900.00	5,772.83	5,914.23	5,768.32	18.40	20.18	-89.56	106.73	-567.93	660.06	622.62	37.45	17.626				
6,000.00	5,805.89	6,013.45	5,803.07	18.73	20.23	-89.75	199.51	-567.94	660.05	621.95	38.10	17.325				
6,100.00	5,820.36	6,113.08	5,819.66	19.13	20.29	-89.94	297.59	-567.94	660.04	621.16	38.87	16.980				
6,200.00	5,821.00	6,213.05	5,821.00	19.60	20.51	-90.00	397.53	-567.94	660.03	620.25	39.78	16.590				
6,300.00	5,821.00	6,313.05	5,821.00	20.18	20.99	-90.00	497.53	-567.94	660.03	619.13	40.90	16.139				
6,400.00	5,821.00	6,413.05	5,821.00	20.84	21.61	-90.00	597.53	-567.94	660.02	617.84	42.18	15.647				
6,500.00	5,821.00	6,513.05	5,821.00	21.58	22.32	-90.00	697.53	-567.94	660.02	616.39	43.63	15.128				
6,600.00	5,821.00	6,613.05	5,821.00	22.39	23.10	-90.00	797.53	-567.94	660.01	614.79	45.22	14.595				
6,700.00	5,821.00	6,713.05	5,821.00	23.27	23.95	-90.00	897.53	-567.95	660.01	613.06	46.95	14.059				
6,800.00	5,821.00	6,813.05	5,821.00	24.21	24.85	-90.00	997.53	-567.95	660.00	611.21	48.79	13.528				
6,900.00	5,821.00	6,913.05	5,821.00	25.19	25.81	-90.00	1,097.53	-567.95	660.00	609.27	50.73	13.010				
7,000.00	5,821.00	7,013.05	5,821.00	26.23	26.81	-90.00	1,197.53	-567.95	659.99	607.22	52.77	12.507				
7,100.00	5,821.00	7,113.05	5,821.00	27.30	27.86	-90.00	1,297.53	-567.95	659.99	605.10	54.89	12.024				
7,200.00	5,821.00	7,213.05	5,821.00	28.41	28.94	-90.00	1,397.53	-567.95	659.98	602.90	57.08	11.562				
7,300.00	5,821.00	7,313.05	5,821.00	29.55	30.05	-90.00	1,497.53	-567.95	659.98	600.64	59.34	11.122				
7,400.00	5,821.00	7,413.05	5,821.00	30.72	31.19	-90.00	1,597.53	-567.96	659.97	598.32	61.65	10.705				
7,500.00	5,821.00	7,513.05	5,821.00	31.91	32.36	-90.00	1,697.53	-567.96	659.97	595.95	64.02	10.309				
7,600.00	5,821.00	7,613.05	5,821.00	33.13	33.55	-90.00	1,797.53	-567.96	659.96	593.53	66.43	9.934				
7,700.00	5,821.00	7,713.05	5,821.00	34.36	34.77	-90.00	1,897.53	-567.96	659.96	591.07	68.89	9.580				
7,800.00	5,821.00	7,813.05	5,821.00	35.62	36.00	-90.00	1,997.53	-567.96	659.95	588.57	71.38	9.246				
7,900.00	5,821.00	7,913.05	5,821.00	36.89	37.25	-90.00	2,097.53	-567.96	659.95	586.04	73.90	8.930				
8,000.00	5,821.00	8,013.05	5,821.00	38.17	38.51	-90.00	2,197.53	-567.97	659.94	583.48	76.46	8.631				
8,100.00	5,821.00	8,113.05	5,821.00	39.47	39.79	-90.00	2,297.53	-567.97	659.94	580.90	79.04	8.349				
8,200.00	5,821.00	8,213.05	5,821.00	40.78	41.08	-90.00	2,397.53	-567.97	659.93	578.29	81.65	8.083				
8,300.00	5,821.00	8,313.05	5,821.00	42.10	42.39	-90.00	2,497.53	-567.97	659.93	575.65	84.28	7.831				
8,400.00	5,821.00	8,413.05	5,821.00	43.43	43.70	-90.00	2,597.53	-567.97	659.92	573.00	86.92	7.592				
8,500.00	5,821.00	8,513.05	5,821.00	44.77	45.03	-90.00	2,697.53	-567.97	659.92	570.33	89.59	7.366				
8,600.00	5,821.00	8,613.05	5,821.00	46.11	46.36	-90.00	2,797.53	-567.97	659.92	567.64	92.27	7.152				
8,700.00	5,821.00	8,713.05	5,821.00	47.47	47.70	-90.00	2,897.53	-567.98	659.91	564.94	94.97	6.948				
8,800.00	5,821.00	8,813.05	5,821.00	48.83	49.05	-90.00	2,997.53	-567.98	659.91	562.22	97.69	6.755				
8,900.00	5,821.00	8,913.05	5,821.00	50.19	50.40	-90.00	3,097.53	-567.98	659.90	559.49	100.41	6.572				
9,000.00	5,821.00	9,013.05	5,821.00	51.57	51.76	-90.00	3,197.53	-567.98	659.90	556.74	103.15	6.397				
9,100.00	5,821.00	9,113.05	5,821.00	52.95	53.13	-90.00	3,297.53	-567.98	659.89	553.99	105.90	6.231				
9,200.00	5,821.00	9,213.05	5,821.00	54.33	54.50	-90.00	3,397.53	-567.98	659.89	551.23	108.66	6.073				
9,300.00	5,821.00	9,313.05	5,821.00	55.72	55.88	-90.00	3,497.53	-567.98	659.88	548.45	111.43	5.922				
9,400.00	5,821.00	9,413.05	5,821.00	57.11	57.26	-90.00	3,597.53	-567.99	659.88	545.67	114.21	5.778				
9,500.00	5,821.00	9,513.05	5,821.00	58.50	58.65	-90.00	3,697.53	-567.99	659.87	542.88	116.99	5.640				
9,600.00	5,821.00	9,613.05	5,821.00	59.90	60.04	-90.00	3,797.53	-567.99	659.87	540.08	119.79	5.509				
9,700.00	5,821.00	9,713.05	5,821.00	61.31	61.43	-90.00	3,897.53	-567.99	659.86	537.28	122.59	5.383				
9,800.00	5,821.00	9,813.05	5,821.00	62.71	62.83	-90.00	3,997.53	-567.99	659.86	534.47	125.39	5.262				
9,900.00	5,821.00	9,913.05	5,821.00	64.12	64.23	-90.00	4,097.53	-567.99	659.85	531.65	128.21	5.147				
10,000.00	5,821.00	10,013.05	5,821.00	65.53	65.64	-90.00	4,197.53	-567.99	659.85	528.82	131.02	5.036				
10,100.00	5,821.00	10,113.05	5,821.00	66.95	67.04	-90.00	4,297.53	-568.00	659.84	526.00	133.85	4.930				
10,200.00	5,821.00	10,213.05	5,821.00	68.36	68.45	-90.00	4,397.53	-568.00	659.84	523.16	136.68	4.828				
10,300.00	5,821.00	10,313.05	5,821.00	69.78	69.87	-90.00	4,497.53	-568.00	659.83	520.32	139.51	4.730				

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.00	5,821.00	10,413.05	5,821.00	71.21	71.28	-90.00	4,597.53	-568.00	659.83	517.48	142.35	4.635		
10,500.00	5,821.00	10,513.05	5,821.00	72.63	72.70	-90.00	4,697.53	-568.00	659.82	514.63	145.19	4.545		
10,600.00	5,821.00	10,613.05	5,821.00	74.05	74.12	-90.00	4,797.53	-568.00	659.82	511.78	148.04	4.457		
10,700.00	5,821.00	10,713.05	5,821.00	75.48	75.54	-90.00	4,897.53	-568.00	659.81	508.93	150.89	4.373		
10,800.00	5,821.00	10,813.05	5,821.00	76.91	76.96	-90.00	4,997.53	-568.01	659.81	506.07	153.74	4.292		
10,900.00	5,821.00	10,913.05	5,821.00	78.34	78.39	-90.00	5,097.53	-568.01	659.80	503.21	156.60	4.213		
11,000.00	5,821.00	11,013.05	5,821.00	79.77	79.81	-90.00	5,197.53	-568.01	659.80	500.34	159.46	4.138		
11,100.00	5,821.00	11,113.05	5,821.00	81.20	81.24	-90.00	5,297.53	-568.01	659.80	497.47	162.32	4.065		
11,200.00	5,821.00	11,213.05	5,821.00	82.64	82.67	-90.00	5,397.53	-568.01	659.79	494.60	165.19	3.994		
11,300.00	5,821.00	11,313.05	5,821.00	84.07	84.10	-90.00	5,497.53	-568.01	659.79	491.73	168.06	3.926		
11,400.00	5,821.00	11,413.05	5,821.00	85.51	85.53	-90.00	5,597.53	-568.01	659.78	488.85	170.93	3.860		
11,500.00	5,821.00	11,513.05	5,821.00	86.95	86.97	-90.00	5,697.53	-568.02	659.78	485.98	173.80	3.796		
11,600.00	5,821.00	11,613.05	5,821.00	88.39	88.40	-90.00	5,797.53	-568.02	659.77	483.09	176.68	3.734		
11,700.00	5,821.00	11,713.05	5,821.00	89.83	89.84	-90.00	5,897.53	-568.02	659.77	480.21	179.55	3.674		
11,800.00	5,821.00	11,813.05	5,821.00	91.27	91.28	-90.00	5,997.53	-568.02	659.76	477.33	182.43	3.616		
11,900.00	5,821.00	11,913.05	5,821.00	92.71	92.71	-90.00	6,097.53	-568.02	659.76	474.44	185.32	3.560		
12,000.00	5,821.00	12,013.05	5,821.00	94.16	94.15	-90.00	6,197.53	-568.02	659.75	471.55	188.20	3.506		
12,100.00	5,821.00	12,113.05	5,821.00	95.60	95.59	-90.00	6,297.53	-568.03	659.75	468.66	191.09	3.453		
12,200.00	5,821.00	12,213.05	5,821.00	97.04	97.03	-90.00	6,397.53	-568.03	659.74	465.77	193.97	3.401		
12,300.00	5,821.00	12,313.05	5,821.00	98.49	98.48	-90.00	6,497.53	-568.03	659.74	462.87	196.86	3.351		
12,400.00	5,821.00	12,413.05	5,821.00	99.94	99.92	-90.00	6,597.53	-568.03	659.73	459.98	199.75	3.303		
12,500.00	5,821.00	12,513.05	5,821.00	101.38	101.36	-90.00	6,697.53	-568.03	659.73	457.08	202.65	3.256		
12,600.00	5,821.00	12,613.05	5,821.00	102.83	102.81	-90.00	6,797.53	-568.03	659.72	454.18	205.54	3.210		
12,700.00	5,821.00	12,713.05	5,821.00	104.28	104.25	-90.00	6,897.53	-568.03	659.72	451.28	208.44	3.165		
12,800.00	5,821.00	12,813.05	5,821.00	105.73	105.70	-90.00	6,997.53	-568.04	659.71	448.38	211.33	3.122		
12,900.00	5,821.00	12,913.05	5,821.00	107.18	107.15	-90.00	7,097.53	-568.04	659.71	445.48	214.23	3.079		
13,000.00	5,821.00	13,013.05	5,821.00	108.63	108.59	-90.00	7,197.53	-568.04	659.70	442.58	217.13	3.038		
13,100.00	5,821.00	13,113.05	5,821.00	110.08	110.04	-90.00	7,297.53	-568.04	659.70	439.67	220.03	2.998		
13,200.00	5,821.00	13,213.05	5,821.00	111.53	111.49	-90.00	7,397.53	-568.04	659.69	436.76	222.93	2.959		
13,300.00	5,821.00	13,313.05	5,821.00	112.98	112.94	-90.00	7,497.53	-568.04	659.69	433.86	225.83	2.921		
13,400.00	5,821.00	13,413.05	5,821.00	114.44	114.39	-90.00	7,597.53	-568.04	659.69	430.95	228.74	2.884		
13,500.00	5,821.00	13,513.05	5,821.00	115.89	115.84	-90.00	7,697.53	-568.05	659.68	428.04	231.64	2.848		
13,600.00	5,821.00	13,613.05	5,821.00	117.34	117.29	-90.00	7,797.53	-568.05	659.68	425.13	234.55	2.813		
13,700.00	5,821.00	13,713.05	5,821.00	118.80	118.74	-90.00	7,897.53	-568.05	659.67	422.22	237.45	2.778		
13,800.00	5,821.00	13,813.05	5,821.00	120.25	120.19	-90.00	7,997.53	-568.05	659.67	419.31	240.36	2.744		
13,900.00	5,821.00	13,913.05	5,821.00	121.70	121.65	-90.00	8,097.53	-568.05	659.66	416.39	243.27	2.712		
14,000.00	5,821.00	14,013.05	5,821.00	123.16	123.10	-90.00	8,197.53	-568.05	659.66	413.48	246.18	2.680		
14,100.00	5,821.00	14,113.05	5,821.00	124.62	124.55	-90.00	8,297.53	-568.05	659.65	410.57	249.09	2.648		
14,200.00	5,821.00	14,213.05	5,821.00	126.07	126.01	-90.00	8,397.53	-568.06	659.65	407.65	252.00	2.618		
14,300.00	5,821.00	14,313.05	5,821.00	127.53	127.46	-90.00	8,497.53	-568.06	659.64	404.73	254.91	2.588		
14,400.00	5,821.00	14,413.05	5,821.00	128.98	128.92	-90.00	8,597.53	-568.06	659.64	401.82	257.82	2.559		
14,500.00	5,821.00	14,513.05	5,821.00	130.44	130.37	-90.00	8,697.53	-568.06	659.63	398.90	260.73	2.530		
14,600.00	5,821.00	14,613.05	5,821.00	131.90	131.83	-90.00	8,797.53	-568.06	659.63	395.98	263.65	2.502		
14,700.00	5,821.00	14,713.05	5,821.00	133.36	133.28	-90.00	8,897.53	-568.06	659.62	393.06	266.56	2.475		
14,800.00	5,821.00	14,813.05	5,821.00	134.81	134.74	-90.00	8,997.53	-568.06	659.62	390.14	269.48	2.448		
14,900.00	5,821.00	14,913.05	5,821.00	136.27	136.19	-90.00	9,097.53	-568.07	659.61	387.22	272.39	2.422		
15,000.00	5,821.00	15,013.05	5,821.00	137.73	137.65	-90.00	9,197.53	-568.07	659.61	384.30	275.31	2.396		
15,100.00	5,821.00	15,113.05	5,821.00	139.19	139.11	-90.00	9,297.53	-568.07	659.60	381.38	278.22	2.371		
15,200.00	5,821.00	15,213.05	5,821.00	140.65	140.57	-90.00	9,397.53	-568.07	659.60	378.46	281.14	2.346		
15,300.00	5,821.00	15,313.05	5,821.00	142.11	142.02	-90.00	9,497.53	-568.07	659.59	375.54	284.06	2.322		
15,400.00	5,821.00	15,413.05	5,821.00	143.57	143.48	-90.00	9,597.53	-568.07	659.59	372.61	286.98	2.298		
15,500.00	5,821.00	15,513.05	5,821.00	145.03	144.94	-90.00	9,697.53	-568.08	659.58	369.69	289.89	2.275		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2438 - Hz - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,600.00	5,821.00	15,613.05	5,821.00	146.49	146.40	-90.00	9,797.53	-568.08	659.58	366.77	292.81	2.253	
15,700.00	5,821.00	15,713.05	5,821.00	147.95	147.86	-90.00	9,897.53	-568.08	659.57	363.84	295.73	2.230	
15,800.00	5,821.00	15,813.05	5,821.00	149.41	149.32	-90.00	9,997.53	-568.08	659.57	360.92	298.65	2.208	
15,900.00	5,821.00	15,913.05	5,821.00	150.87	150.77	-90.00	10,097.53	-568.08	659.57	357.99	301.57	2.187	
16,000.00	5,821.00	16,013.05	5,821.00	152.33	152.23	-90.00	10,197.53	-568.08	659.56	355.07	304.49	2.166	
16,009.08	5,821.00	16,022.11	5,821.00	152.46	152.37	-90.00	10,206.59	-568.08	659.56	354.80	304.76	2.164	
16,011.07	5,821.00	16,022.11	5,821.00	152.49	152.37	-90.00	10,206.59	-568.08	659.56	354.77	304.79	2.164 SF	



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.01	0.00	-29.99	29.99					
100.00	100.00	100.00	100.00	0.13	0.13	-90.01	0.00	-29.99	29.99	29.73	0.27	112.606		
200.00	200.00	200.00	200.00	0.47	0.47	-90.01	0.00	-29.99	29.99	29.05	0.94	31.885		
300.00	300.00	300.00	300.00	0.81	0.81	-90.01	0.00	-29.99	29.99	28.38	1.61	18.572 CC, ES		
400.00	399.98	399.05	399.03	1.11	1.12	116.22	-0.86	-31.48	32.23	30.01	2.23	14.480		
500.00	499.84	498.30	498.17	1.41	1.42	119.38	-3.23	-35.58	38.69	35.86	2.84	13.647		
600.00	599.59	597.96	597.68	1.72	1.73	123.22	-5.84	-40.10	46.54	43.08	3.46	13.454		
700.00	699.35	697.61	697.20	2.05	2.06	125.94	-8.45	-44.62	54.53	50.42	4.11	13.283		
800.00	799.11	797.26	796.71	2.38	2.40	127.96	-11.05	-49.13	62.61	57.85	4.77	13.140		
900.00	898.86	896.91	896.23	2.73	2.74	129.52	-13.66	-53.65	70.76	65.32	5.43	13.022		
1,000.00	998.62	996.56	995.74	3.07	3.08	130.76	-16.27	-58.17	78.94	72.83	6.11	12.925		
1,100.00	1,098.38	1,096.21	1,095.26	3.42	3.42	131.77	-18.88	-62.68	87.15	80.37	6.79	12.844		
1,200.00	1,198.13	1,195.87	1,194.77	3.77	3.76	132.60	-21.48	-67.20	95.39	87.92	7.47	12.776		
1,300.00	1,297.89	1,295.52	1,294.29	4.12	4.10	133.30	-24.09	-71.72	103.64	95.49	8.15	12.717		
1,400.00	1,397.65	1,395.17	1,393.80	4.48	4.45	133.89	-26.70	-76.23	111.91	103.08	8.83	12.667		
1,500.00	1,497.40	1,494.82	1,493.32	4.83	4.79	134.40	-29.31	-80.75	120.19	110.67	9.52	12.624		
1,600.00	1,597.16	1,594.47	1,592.83	5.18	5.14	134.85	-31.92	-85.26	128.47	118.26	10.21	12.586		
1,700.00	1,696.91	1,694.12	1,692.35	5.54	5.48	135.25	-34.52	-89.78	136.76	125.87	10.90	12.552		
1,800.00	1,796.67	1,793.77	1,791.86	5.89	5.83	135.59	-37.13	-94.30	145.06	133.48	11.58	12.522		
1,900.00	1,896.43	1,893.43	1,891.38	6.25	6.17	135.90	-39.74	-98.81	153.36	141.09	12.27	12.496		
2,000.00	1,996.18	1,993.08	1,990.89	6.60	6.52	136.18	-42.35	-103.33	161.67	148.71	12.96	12.472		
2,100.00	2,095.94	2,092.73	2,090.41	6.96	6.87	136.43	-44.95	-107.85	169.98	156.33	13.65	12.450		
2,200.00	2,195.70	2,192.38	2,189.92	7.31	7.21	136.66	-47.56	-112.36	178.29	163.95	14.34	12.430		
2,300.00	2,295.45	2,292.03	2,289.44	7.67	7.56	136.87	-50.17	-116.88	186.61	171.57	15.03	12.412		
2,400.00	2,395.21	2,391.68	2,388.95	8.03	7.91	137.06	-52.78	-121.40	194.92	179.20	15.73	12.396		
2,500.00	2,494.97	2,491.33	2,488.47	8.38	8.25	137.23	-55.38	-125.91	203.24	186.83	16.42	12.381		
2,600.00	2,594.72	2,590.99	2,587.98	8.74	8.60	137.40	-57.99	-130.43	211.57	194.46	17.11	12.367		
2,700.00	2,694.48	2,690.64	2,687.50	9.10	8.95	137.54	-60.60	-134.95	219.89	202.09	17.80	12.354		
2,800.00	2,794.23	2,790.29	2,787.01	9.45	9.30	137.68	-63.21	-139.46	228.21	209.72	18.49	12.342		
2,900.00	2,893.99	2,889.94	2,886.53	9.81	9.64	137.81	-65.82	-143.98	236.54	217.35	19.18	12.331		
3,000.00	2,993.75	2,989.59	2,986.04	10.17	9.99	137.93	-68.42	-148.50	244.86	224.99	19.87	12.320		
3,100.00	3,093.50	3,089.24	3,085.56	10.52	10.34	138.04	-71.03	-153.01	253.19	232.62	20.57	12.311		
3,200.00	3,193.26	3,188.90	3,185.07	10.88	10.68	138.14	-73.64	-157.53	261.52	240.26	21.26	12.301		
3,300.00	3,293.02	3,288.55	3,284.59	11.24	11.03	138.24	-76.25	-162.05	269.85	247.90	21.95	12.293		
3,400.00	3,392.77	3,388.20	3,384.10	11.59	11.38	138.33	-78.85	-166.56	278.18	255.53	22.64	12.285		
3,500.00	3,492.59	3,487.91	3,483.67	11.91	11.73	138.36	-81.46	-171.08	285.78	262.47	23.31	12.260		
3,600.00	3,592.55	3,587.74	3,583.37	12.16	12.07	137.95	-84.08	-175.61	290.86	266.95	23.92	12.162		
3,700.00	3,692.55	3,687.60	3,683.10	12.45	12.42	-67.84	-86.69	-180.13	294.13	269.57	24.56	11.978		
3,800.00	3,792.55	3,787.47	3,782.82	12.71	12.77	-68.64	-89.30	-184.66	297.37	272.20	25.17	11.816		
3,900.00	3,892.55	3,887.33	3,882.55	12.97	13.12	-69.42	-91.91	-189.19	300.67	274.89	25.78	11.663		
4,000.00	3,992.55	3,987.19	3,982.28	13.23	13.47	-70.18	-94.53	-193.71	304.02	277.63	26.39	11.518		
4,100.00	4,092.55	4,087.06	4,082.00	13.50	13.82	-70.92	-97.14	-198.24	307.43	280.41	27.01	11.381		
4,200.00	4,192.55	4,186.92	4,181.73	13.77	14.16	-71.65	-99.75	-202.77	310.88	283.25	27.63	11.251		
4,300.00	4,292.55	4,286.78	4,281.46	14.04	14.51	-72.36	-102.37	-207.29	314.39	286.13	28.25	11.127		
4,400.00	4,392.55	4,386.64	4,381.18	14.32	14.86	-73.06	-104.98	-211.82	317.94	289.06	28.88	11.009		
4,500.00	4,492.55	4,486.51	4,480.91	14.60	15.21	-73.74	-107.59	-216.34	321.54	292.03	29.51	10.898		
4,600.00	4,592.55	4,586.37	4,580.63	14.88	15.56	-74.40	-110.21	-220.87	325.18	295.05	30.13	10.791		
4,700.00	4,692.55	4,686.23	4,680.36	15.16	15.91	-75.06	-112.82	-225.40	328.87	298.10	30.76	10.690		
4,800.00	4,792.55	4,786.10	4,780.09	15.45	16.25	-75.69	-115.43	-229.92	332.59	301.20	31.39	10.594		
4,900.00	4,892.55	4,885.96	4,879.81	15.74	16.60	-76.31	-118.05	-234.45	336.36	304.33	32.03	10.502		
5,000.00	4,992.55	4,986.95	4,980.71	16.03	16.93	-76.79	-120.10	-238.01	339.14	306.50	32.64	10.389		
5,100.00	5,092.55	5,086.79	5,080.55	16.32	17.20	-76.86	-120.38	-238.49	339.51	306.30	33.21	10.224		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,192.55	5,198.79	5,192.55	16.61	17.47	-76.86	-120.38	-238.49	339.51	305.73	33.78	10.052		
5,299.99	5,292.54	5,285.77	5,279.19	16.91	17.71	-75.79	-113.87	-238.49	341.31	307.00	34.31	9.948		
5,400.00	5,392.07	5,369.61	5,360.57	17.19	17.93	-73.27	-94.07	-238.49	345.52	310.73	34.79	9.933		
5,500.00	5,488.20	5,450.00	5,434.65	17.45	18.14	-71.28	-63.07	-238.48	349.35	314.21	35.13	9.943		
5,600.00	5,577.43	5,533.18	5,505.34	17.69	18.33	-69.82	-19.40	-238.48	352.34	316.98	35.37	9.963		
5,700.00	5,656.47	5,613.73	5,566.34	17.91	18.50	-68.97	33.08	-238.48	354.21	318.68	35.53	9.970		
5,800.00	5,722.41	5,693.96	5,618.34	18.14	18.65	-68.73	94.08	-238.48	354.76	319.04	35.72	9.931		
5,900.00	5,772.83	5,774.22	5,660.38	18.40	18.81	-69.08	162.36	-238.48	353.95	317.88	36.06	9.815		
6,000.00	5,805.89	5,854.88	5,691.56	18.73	19.05	-70.04	236.65	-238.48	351.84	315.21	36.63	9.604		
6,100.00	5,820.36	5,936.29	5,711.04	19.13	19.38	-71.58	315.61	-238.48	348.65	311.18	37.47	9.304		
6,200.00	5,821.00	6,019.09	5,718.00	19.60	19.77	-72.69	398.03	-238.48	346.24	307.83	38.42	9.012		
6,237.34	5,821.00	6,055.94	5,718.00	19.82	19.97	-72.69	434.88	-238.48	346.24	307.43	38.81	8.921		
6,300.00	5,821.00	6,118.60	5,718.00	20.18	20.33	-72.69	497.55	-238.47	346.23	306.75	39.49	8.768		
6,400.00	5,821.00	6,218.60	5,718.00	20.84	20.97	-72.69	597.55	-238.47	346.23	305.50	40.72	8.502		
6,500.00	5,821.00	6,318.60	5,718.00	21.58	21.70	-72.69	697.55	-238.47	346.22	304.10	42.12	8.221		
6,600.00	5,821.00	6,418.60	5,718.00	22.39	22.50	-72.69	797.55	-238.47	346.21	302.57	43.64	7.933		
6,700.00	5,821.00	6,518.60	5,718.00	23.27	23.36	-72.69	897.55	-238.47	346.20	300.90	45.30	7.643		
6,800.00	5,821.00	6,618.60	5,718.00	24.21	24.28	-72.69	997.55	-238.47	346.20	299.13	47.06	7.356		
6,900.00	5,821.00	6,718.60	5,718.00	25.19	25.25	-72.69	1,097.55	-238.46	346.19	297.26	48.93	7.075		
7,000.00	5,821.00	6,818.60	5,718.00	26.23	26.27	-72.69	1,197.55	-238.46	346.18	295.30	50.88	6.803		
7,100.00	5,821.00	6,918.60	5,718.00	27.30	27.33	-72.69	1,297.55	-238.46	346.17	293.26	52.92	6.542		
7,200.00	5,821.00	7,018.60	5,718.00	28.41	28.43	-72.69	1,397.55	-238.46	346.16	291.15	55.02	6.292		
7,300.00	5,821.00	7,118.60	5,718.00	29.55	29.56	-72.69	1,497.55	-238.46	346.16	288.97	57.18	6.053		
7,400.00	5,821.00	7,218.60	5,718.00	30.72	30.72	-72.69	1,597.55	-238.46	346.15	286.74	59.41	5.827		
7,500.00	5,821.00	7,318.60	5,718.00	31.91	31.91	-72.69	1,697.55	-238.45	346.14	284.47	61.68	5.612		
7,600.00	5,821.00	7,418.60	5,718.00	33.13	33.11	-72.69	1,797.55	-238.45	346.13	282.14	63.99	5.409		
7,700.00	5,821.00	7,518.60	5,718.00	34.36	34.34	-72.69	1,897.55	-238.45	346.13	279.78	66.35	5.217		
7,800.00	5,821.00	7,618.60	5,718.00	35.62	35.59	-72.69	1,997.55	-238.45	346.12	277.38	68.74	5.036		
7,900.00	5,821.00	7,718.60	5,718.00	36.89	36.85	-72.69	2,097.55	-238.45	346.11	274.95	71.16	4.864		
8,000.00	5,821.00	7,818.60	5,718.00	38.17	38.13	-72.69	2,197.55	-238.44	346.10	272.50	73.61	4.702		
8,100.00	5,821.00	7,918.60	5,718.00	39.47	39.42	-72.69	2,297.55	-238.44	346.10	270.01	76.08	4.549		
8,200.00	5,821.00	8,018.60	5,718.00	40.78	40.72	-72.69	2,397.55	-238.44	346.09	267.50	78.59	4.404		
8,300.00	5,821.00	8,118.60	5,718.00	42.10	42.04	-72.69	2,497.55	-238.44	346.08	264.97	81.11	4.267		
8,400.00	5,821.00	8,218.60	5,718.00	43.43	43.36	-72.69	2,597.55	-238.44	346.07	262.42	83.65	4.137		
8,500.00	5,821.00	8,318.60	5,718.00	44.77	44.70	-72.69	2,697.55	-238.44	346.07	259.86	86.21	4.014		
8,600.00	5,821.00	8,418.60	5,718.00	46.11	46.04	-72.68	2,797.55	-238.43	346.06	257.28	88.78	3.898		
8,700.00	5,821.00	8,518.60	5,718.00	47.47	47.39	-72.68	2,897.55	-238.43	346.05	254.68	91.37	3.787		
8,800.00	5,821.00	8,618.60	5,718.00	48.83	48.75	-72.68	2,997.55	-238.43	346.04	252.07	93.98	3.682		
8,900.00	5,821.00	8,718.60	5,718.00	50.19	50.11	-72.68	3,097.55	-238.43	346.03	249.44	96.59	3.582		
9,000.00	5,821.00	8,818.60	5,718.00	51.57	51.48	-72.68	3,197.55	-238.43	346.03	246.81	99.22	3.487		
9,100.00	5,821.00	8,918.60	5,718.00	52.95	52.86	-72.68	3,297.55	-238.43	346.02	244.16	101.86	3.397		
9,200.00	5,821.00	9,018.60	5,718.00	54.33	54.24	-72.68	3,397.55	-238.42	346.01	241.51	104.51	3.311		
9,300.00	5,821.00	9,118.60	5,718.00	55.72	55.62	-72.68	3,497.55	-238.42	346.00	238.84	107.16	3.229		
9,400.00	5,821.00	9,218.60	5,718.00	57.11	57.01	-72.68	3,597.55	-238.42	346.00	236.17	109.83	3.150		
9,500.00	5,821.00	9,318.60	5,718.00	58.50	58.41	-72.68	3,697.55	-238.42	345.99	233.49	112.50	3.075		
9,600.00	5,821.00	9,418.60	5,718.00	59.90	59.80	-72.68	3,797.55	-238.42	345.98	230.80	115.18	3.004		
9,700.00	5,821.00	9,518.60	5,718.00	61.31	61.20	-72.68	3,897.55	-238.41	345.97	228.10	117.87	2.935		
9,800.00	5,821.00	9,618.60	5,718.00	62.71	62.61	-72.68	3,997.55	-238.41	345.97	225.40	120.56	2.870		
9,900.00	5,821.00	9,718.60	5,718.00	64.12	64.01	-72.68	4,097.55	-238.41	345.96	222.69	123.26	2.807		
10,000.00	5,821.00	9,818.60	5,718.00	65.53	65.42	-72.68	4,197.55	-238.41	345.95	219.98	125.97	2.746		
10,100.00	5,821.00	9,918.60	5,718.00	66.95	66.84	-72.68	4,297.55	-238.41	345.94	217.26	128.68	2.688		
10,200.00	5,821.00	10,018.60	5,718.00	68.36	68.25	-72.68	4,397.55	-238.41	345.93	214.54	131.39	2.633		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.00	5,821.00	10,118.60	5,718.00	69.78	69.67	-72.68	4,497.55	-238.40	345.93	211.81	134.11	2.579		
10,400.00	5,821.00	10,218.60	5,718.00	71.21	71.09	-72.68	4,597.55	-238.40	345.92	209.08	136.84	2.528		
10,500.00	5,821.00	10,318.60	5,718.00	72.63	72.51	-72.68	4,697.55	-238.40	345.91	206.35	139.57	2.478		
10,600.00	5,821.00	10,418.60	5,718.00	74.05	73.93	-72.68	4,797.55	-238.40	345.90	203.61	142.30	2.431		
10,700.00	5,821.00	10,518.60	5,718.00	75.48	75.36	-72.68	4,897.55	-238.40	345.90	200.86	145.03	2.385		
10,800.00	5,821.00	10,618.60	5,718.00	76.91	76.78	-72.68	4,997.55	-238.39	345.89	198.12	147.77	2.341		
10,900.00	5,821.00	10,718.60	5,718.00	78.34	78.21	-72.68	5,097.55	-238.39	345.88	195.37	150.51	2.298		
11,000.00	5,821.00	10,818.60	5,718.00	79.77	79.64	-72.68	5,197.55	-238.39	345.87	192.61	153.26	2.257		
11,100.00	5,821.00	10,918.60	5,718.00	81.20	81.08	-72.68	5,297.55	-238.39	345.87	189.86	156.01	2.217		
11,200.00	5,821.00	11,018.60	5,718.00	82.64	82.51	-72.67	5,397.55	-238.39	345.86	187.10	158.76	2.179		
11,300.00	5,821.00	11,118.60	5,718.00	84.07	83.94	-72.67	5,497.55	-238.39	345.85	184.34	161.51	2.141		
11,400.00	5,821.00	11,218.60	5,718.00	85.51	85.38	-72.67	5,597.55	-238.38	345.84	181.58	164.27	2.105		
11,500.00	5,821.00	11,318.60	5,718.00	86.95	86.82	-72.67	5,697.55	-238.38	345.84	178.81	167.03	2.071		
11,600.00	5,821.00	11,418.60	5,718.00	88.39	88.25	-72.67	5,797.55	-238.38	345.83	176.04	169.79	2.037		
11,700.00	5,821.00	11,518.60	5,718.00	89.83	89.69	-72.67	5,897.55	-238.38	345.82	173.27	172.55	2.004		
11,800.00	5,821.00	11,618.60	5,718.00	91.27	91.13	-72.67	5,997.55	-238.38	345.81	170.50	175.31	1.973		
11,900.00	5,821.00	11,718.60	5,718.00	92.71	92.57	-72.67	6,097.55	-238.38	345.80	167.73	178.08	1.942		
12,000.00	5,821.00	11,818.60	5,718.00	94.16	94.02	-72.67	6,197.55	-238.37	345.80	164.95	180.85	1.912		
12,100.00	5,821.00	11,918.60	5,718.00	95.60	95.46	-72.67	6,297.55	-238.37	345.79	162.17	183.62	1.883		
12,200.00	5,821.00	12,018.60	5,718.00	97.04	96.90	-72.67	6,397.55	-238.37	345.78	159.39	186.39	1.855		
12,300.00	5,821.00	12,118.60	5,718.00	98.49	98.35	-72.67	6,497.55	-238.37	345.77	156.61	189.16	1.828		
12,400.00	5,821.00	12,218.60	5,718.00	99.94	99.79	-72.67	6,597.55	-238.37	345.77	153.83	191.94	1.801		
12,500.00	5,821.00	12,318.60	5,718.00	101.38	101.24	-72.67	6,697.55	-238.36	345.76	151.05	194.71	1.776		
12,600.00	5,821.00	12,418.60	5,718.00	102.83	102.69	-72.67	6,797.55	-238.36	345.75	148.26	197.49	1.751		
12,700.00	5,821.00	12,518.60	5,718.00	104.28	104.13	-72.67	6,897.55	-238.36	345.74	145.47	200.27	1.726		
12,800.00	5,821.00	12,618.60	5,718.00	105.73	105.58	-72.67	6,997.55	-238.36	345.74	142.69	203.05	1.703		
12,900.00	5,821.00	12,718.60	5,718.00	107.18	107.03	-72.67	7,097.55	-238.36	345.73	139.90	205.83	1.680		
13,000.00	5,821.00	12,818.60	5,718.00	108.63	108.48	-72.67	7,197.55	-238.36	345.72	137.11	208.61	1.657		
13,100.00	5,821.00	12,918.60	5,718.00	110.08	109.93	-72.67	7,297.55	-238.35	345.71	134.32	211.40	1.635		
13,200.00	5,821.00	13,018.60	5,718.00	111.53	111.38	-72.67	7,397.55	-238.35	345.70	131.52	214.18	1.614		
13,300.00	5,821.00	13,118.60	5,718.00	112.98	112.83	-72.67	7,497.55	-238.35	345.70	128.73	216.97	1.593		
13,400.00	5,821.00	13,218.60	5,718.00	114.44	114.29	-72.67	7,597.55	-238.35	345.69	125.93	219.75	1.573		
13,500.00	5,821.00	13,318.60	5,718.00	115.89	115.74	-72.67	7,697.55	-238.35	345.68	123.14	222.54	1.553		
13,600.00	5,821.00	13,418.60	5,718.00	117.34	117.19	-72.67	7,797.55	-238.35	345.67	120.34	225.33	1.534		
13,700.00	5,821.00	13,518.60	5,718.00	118.80	118.64	-72.66	7,897.55	-238.34	345.67	117.55	228.12	1.515		
13,800.00	5,821.00	13,618.60	5,718.00	120.25	120.10	-72.66	7,997.55	-238.34	345.66	114.75	230.91	1.497 Level 3		
13,900.00	5,821.00	13,718.60	5,718.00	121.70	121.55	-72.66	8,097.55	-238.34	345.65	111.95	233.70	1.479 Level 3		
14,000.00	5,821.00	13,818.60	5,718.00	123.16	123.01	-72.66	8,197.55	-238.34	345.64	109.15	236.49	1.462 Level 3		
14,100.00	5,821.00	13,918.60	5,718.00	124.62	124.46	-72.66	8,297.55	-238.34	345.64	106.35	239.29	1.444 Level 3		
14,200.00	5,821.00	14,018.60	5,718.00	126.07	125.92	-72.66	8,397.55	-238.33	345.63	103.55	242.08	1.428 Level 3		
14,300.00	5,821.00	14,118.60	5,718.00	127.53	127.37	-72.66	8,497.55	-238.33	345.62	100.74	244.88	1.411 Level 3		
14,400.00	5,821.00	14,218.60	5,718.00	128.98	128.83	-72.66	8,597.55	-238.33	345.61	97.94	247.67	1.395 Level 3		
14,500.00	5,821.00	14,318.60	5,718.00	130.44	130.29	-72.66	8,697.55	-238.33	345.61	95.14	250.47	1.380 Level 3		
14,600.00	5,821.00	14,418.60	5,718.00	131.90	131.74	-72.66	8,797.55	-238.33	345.60	92.33	253.26	1.365 Level 3		
14,700.00	5,821.00	14,518.60	5,718.00	133.36	133.20	-72.66	8,897.55	-238.33	345.59	89.53	256.06	1.350 Level 3		
14,800.00	5,821.00	14,618.60	5,718.00	134.81	134.66	-72.66	8,997.55	-238.32	345.58	86.72	258.86	1.335 Level 3		
14,900.00	5,821.00	14,718.60	5,718.00	136.27	136.11	-72.66	9,097.55	-238.32	345.57	83.92	261.66	1.321 Level 3		
15,000.00	5,821.00	14,818.60	5,718.00	137.73	137.57	-72.66	9,197.55	-238.32	345.57	81.11	264.45	1.307 Level 3		
15,100.00	5,821.00	14,918.60	5,718.00	139.19	139.03	-72.66	9,297.55	-238.32	345.56	78.31	267.25	1.293 Level 3		
15,200.00	5,821.00	15,018.60	5,718.00	140.65	140.49	-72.66	9,397.55	-238.32	345.55	75.50	270.05	1.280 Level 3		
15,300.00	5,821.00	15,118.60	5,718.00	142.11	141.95	-72.66	9,497.55	-238.32	345.54	72.69	272.85	1.266 Level 3		
15,400.00	5,821.00	15,218.60	5,718.00	143.57	143.41	-72.66	9,597.55	-238.31	345.54	69.88	275.65	1.254 Level 3		

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



# WOG

## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 25-T10N-R58W - Razor #25N-2439 - Hz - APD												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS+sag												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.00	5,821.00	15,318.60	5,718.00	145.03	144.87	-72.66	9,697.55	-238.31	345.53	67.07	278.46	1.241	Level 2
15,600.00	5,821.00	15,418.60	5,718.00	146.49	146.33	-72.66	9,797.55	-238.31	345.52	64.26	281.26	1.228	Level 2
15,700.00	5,821.00	15,518.60	5,718.00	147.95	147.79	-72.66	9,897.55	-238.31	345.51	61.45	284.06	1.216	Level 2
15,800.00	5,821.00	15,618.60	5,718.00	149.41	149.25	-72.66	9,997.55	-238.31	345.51	58.64	286.86	1.204	Level 2
15,900.00	5,821.00	15,718.60	5,718.00	150.87	150.71	-72.66	10,097.55	-238.30	345.50	55.83	289.67	1.193	Level 2
16,000.00	5,821.00	15,818.60	5,718.00	152.33	152.17	-72.66	10,197.55	-238.30	345.49	53.02	292.47	1.181	Level 2
16,010.12	5,821.00	15,828.65	5,718.00	152.48	152.31	-72.66	10,207.60	-238.30	345.49	52.74	292.75	1.180	Level 2
16,011.07	5,821.00	15,828.65	5,718.00	152.49	152.31	-72.66	10,207.60	-238.30	345.49	52.73	292.77	1.180	Level 2, SF





# WOG

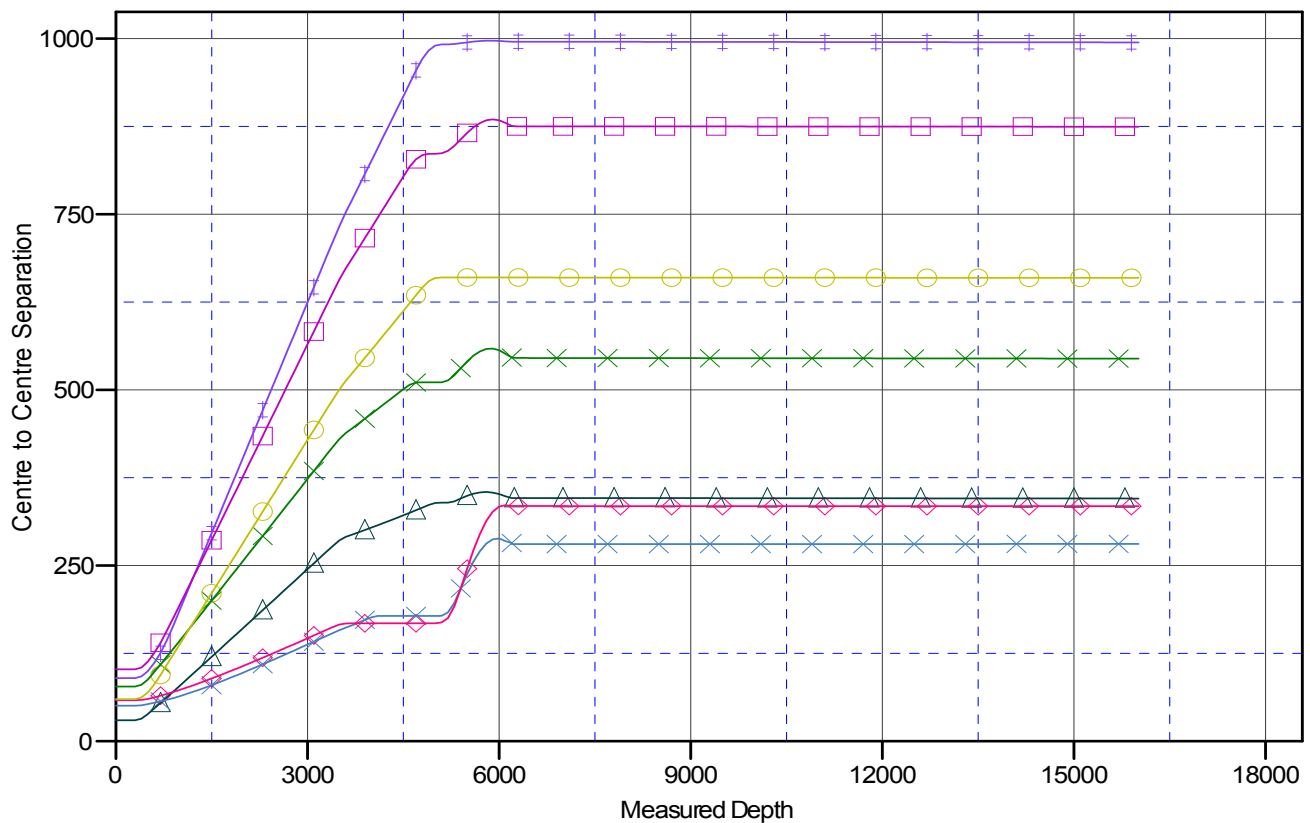
## Anticollision Report

<b>Company:</b>	Whiting Petroleum Corp.	<b>Local Co-ordinate Reference:</b>	Well Razor #25N-2440
<b>Project:</b>	Weld County, CO	<b>TVD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec 25-T10N-R58W	<b>MD Reference:</b>	KBE @ 4722.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Razor #25N-2440	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	3.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	LandmarkEDM
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KBE @ 4722.00usft (Original Well Ele)  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25N-2440  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 1.09°

### Ladder Plot



### LEGEND

- ✕ Razor #25N-2406, Hz, APDV0
- △ Razor #25N-2439, Hz, APDV0
- + Razor #25N-2437, Hz, APDV0
- ◻ Razor #25N-2405, Hz, APDV0
- ✕ Razor #25N-2408, Hz, APDV0
- ◻ Razor #25N-2407, Hz, APDV0
- Razor #25N-2438, Hz, APDV0



# WOG

## Anticollision Report

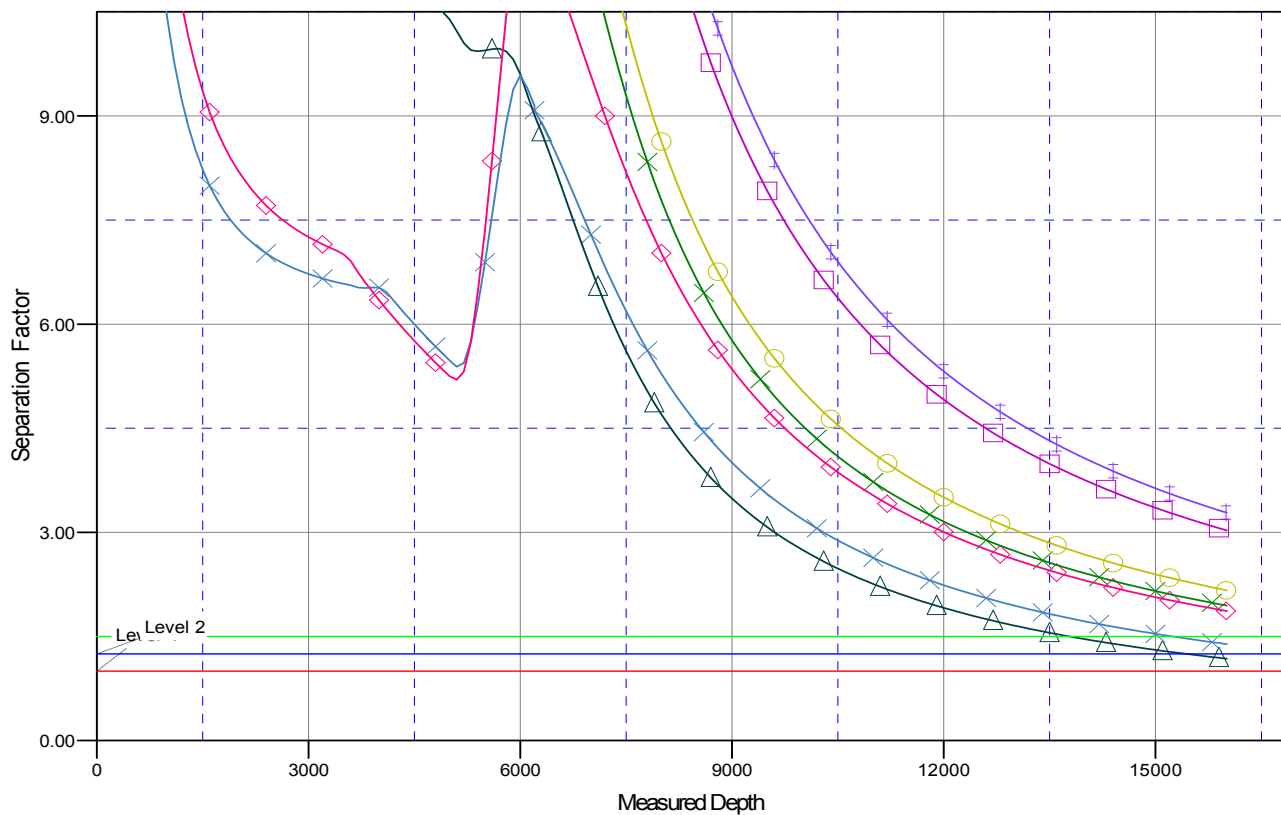
**Company:** Whiting Petroleum Corp.  
**Project:** Weld County, CO  
**Reference Site:** Sec 25-T10N-R58W  
**Site Error:** 0.00 usft  
**Reference Well:** Razor #25N-2440  
**Well Error:** 0.00 usft  
**Reference Wellbore:** Hz  
**Reference Design:** APD

**Local Co-ordinate Reference:** Well Razor #25N-2440  
**TVD Reference:** KBE @ 4722.00usft (Original Well Elev)  
**MD Reference:** KBE @ 4722.00usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 3.00 sigma  
**Database:** LandmarkEDM  
**Offset TVD Reference:** Offset Datum

Reference Depths are relative to KBE @ 4722.00usft (Original Well Ele)  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25N-2440  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 1.09°

### Separation Factor Plot



### LEGEND

- Razor #25N-2406, Hz, APD V0
- Razor #25N-2405, Hz, APD V0
- Razor #25N-2438, Hz, APD V0
- Razor #25N-2439, Hz, APD V0
- Razor #25N-2408, Hz, APD V0
- Razor #25N-2437, Hz, APD V0
- Razor #25N-2407, Hz, APD V0