



Whiting Petroleum Corp.

Weld County, CO

Sec 25-T10N-R58W

Razor #25O-2444

Hz

APD

Anticollision Report

22 May, 2015



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	Hz	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	5/22/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	16,004.19	APD (Hz)	MWD+IFR1+MS+sag	Fixed:v2:crustal dec & 3-axis correction + sag	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
Sec 25-T10N-R58W						
Razor #25O-2410 - Hz - APD	300.00	300.00	58.36	56.74	36.135	CC, ES
Razor #25O-2410 - Hz - APD	16,004.19	15,801.18	544.62	264.09	1.941	SF
Razor #25O-2411 - Hz - APD	1,024.70	1,028.01	37.92	31.68	6.081	CC
Razor #25O-2411 - Hz - APD	1,100.00	1,103.18	38.17	31.40	5.643	ES
Razor #25O-2411 - Hz - APD	16,004.19	15,657.65	344.26	168.65	1.960	SF
Razor #25O-2412 - Hz - APD	300.00	300.00	57.56	55.95	35.642	CC
Razor #25O-2412 - Hz - APD	16,004.19	15,751.26	280.34	-25.35	0.917	Level 1, ES, SF
Razor #25O-2443 - Hz - APD	300.00	300.00	30.01	28.39	18.582	CC, ES
Razor #25O-2443 - Hz - APD	16,004.19	15,874.95	346.23	53.66	1.183	Level 2, SF

Offset Design												Sec 25-T10N-R58W - Razor #25O-2410 - 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	-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, ES				
400.00	399.98	400.23	400.21	1.11	1.12	-173.71	48.46	-32.10	59.87	57.63	2.23	26.806					
500.00	499.84	500.10	499.94	1.42	1.43	-178.82	45.10	-36.11	64.64	61.81	2.83	22.808					
600.00	599.66	599.43	598.89	1.73	1.75	174.07	39.54	-42.74	71.12	67.65	3.47	20.520					
700.00	699.47	698.70	697.61	2.05	2.08	166.99	32.87	-50.69	78.87	74.75	4.13	19.114					
800.00	799.29	797.97	796.33	2.39	2.43	161.23	26.20	-58.64	87.62	82.82	4.80	18.254					
900.00	899.10	897.23	895.06	2.73	2.79	156.55	19.53	-66.58	97.08	91.60	5.48	17.712					
1,000.00	998.91	996.50	993.78	3.07	3.15	152.72	12.86	-74.53	107.07	100.91	6.17	17.362					
1,100.00	1,098.73	1,095.77	1,092.50	3.42	3.51	149.55	6.19	-82.48	117.46	110.61	6.86	17.132					
1,200.00	1,198.54	1,195.03	1,191.23	3.77	3.88	146.90	-0.48	-90.43	128.15	120.60	7.55	16.978					
1,300.00	1,298.35	1,294.30	1,289.95	4.11	4.25	144.66	-7.15	-98.38	139.07	130.82	8.24	16.875					
1,400.00	1,398.17	1,393.57	1,388.67	4.46	4.62	142.75	-13.82	-106.33	150.16	141.23	8.93	16.806					
1,500.00	1,497.98	1,492.83	1,487.39	4.81	4.99	141.10	-20.49	-114.28	161.40	151.77	9.63	16.760					
1,600.00	1,597.79	1,592.10	1,586.12	5.16	5.35	139.67	-27.16	-122.22	172.75	162.43	10.33	16.730					
1,700.00	1,697.61	1,691.37	1,684.84	5.51	5.73	138.41	-33.83	-130.17	184.20	173.18	11.02	16.712					

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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		
1,800.00	1,797.42	1,790.63	1,783.56	5.86	6.10	137.30	-40.50	-138.12	195.72	184.00	11.72	16.702		
1,900.00	1,897.23	1,889.90	1,882.29	6.21	6.47	136.32	-47.16	-146.07	207.31	194.90	12.42	16.697		
2,000.00	1,997.05	1,989.17	1,981.01	6.56	6.84	135.44	-53.83	-154.02	218.95	205.84	13.11	16.697		
2,100.00	2,096.86	2,088.43	2,079.73	6.91	7.21	134.65	-60.50	-161.97	230.64	216.83	13.81	16.700		
2,200.00	2,196.67	2,187.70	2,178.45	7.26	7.58	133.93	-67.17	-169.92	242.37	227.86	14.51	16.705		
2,300.00	2,296.49	2,286.97	2,277.18	7.62	7.96	133.28	-73.84	-177.86	254.13	238.92	15.21	16.712		
2,400.00	2,396.30	2,386.23	2,375.90	7.97	8.33	132.69	-80.51	-185.81	265.92	250.02	15.90	16.719		
2,500.00	2,496.11	2,485.50	2,474.62	8.32	8.70	132.15	-87.18	-193.76	277.74	261.13	16.60	16.728		
2,600.00	2,595.93	2,584.77	2,573.35	8.67	9.07	131.65	-93.85	-201.71	289.58	272.27	17.30	16.737		
2,700.00	2,695.74	2,684.03	2,672.07	9.02	9.45	131.19	-100.52	-209.66	301.43	283.43	18.00	16.746		
2,800.00	2,795.55	2,783.30	2,770.79	9.37	9.82	130.77	-107.19	-217.61	313.31	294.61	18.70	16.755		
2,900.00	2,895.37	2,882.57	2,869.52	9.73	10.19	130.38	-113.86	-225.56	325.20	305.80	19.40	16.764		
3,000.00	2,995.18	2,981.83	2,968.24	10.08	10.56	130.01	-120.53	-233.51	337.11	317.01	20.10	16.774		
3,100.00	3,095.00	3,081.10	3,066.96	10.43	10.94	129.67	-127.20	-241.45	349.02	328.23	20.80	16.783		
3,200.00	3,194.81	3,180.37	3,165.68	10.78	11.31	129.36	-133.87	-249.40	360.95	339.46	21.50	16.792		
3,300.00	3,294.62	3,279.63	3,264.41	11.13	11.68	129.06	-140.54	-257.35	372.89	350.70	22.19	16.801		
3,400.00	3,394.44	3,378.90	3,363.13	11.49	12.06	128.78	-147.21	-265.30	384.84	361.95	22.89	16.810		
3,500.00	3,494.25	3,478.17	3,461.85	11.84	12.43	128.52	-153.88	-273.25	396.80	373.21	23.59	16.818		
3,600.00	3,594.06	3,577.43	3,560.58	12.19	12.80	128.27	-160.55	-281.20	408.77	384.47	24.29	16.826		
3,700.00	3,693.88	3,676.70	3,659.30	12.54	13.18	128.04	-167.22	-289.15	420.74	395.74	24.99	16.834		
3,800.00	3,793.69	3,775.97	3,758.02	12.90	13.55	127.82	-173.89	-297.09	432.72	407.02	25.69	16.842		
3,900.00	3,893.50	3,875.23	3,856.74	13.25	13.92	127.61	-180.56	-305.04	444.70	418.31	26.39	16.850		
4,000.00	3,993.32	3,974.50	3,955.47	13.60	14.30	127.41	-187.23	-312.99	456.69	429.60	27.09	16.857		
4,100.00	4,093.13	4,073.77	4,054.19	13.95	14.67	127.23	-193.90	-320.94	468.69	440.89	27.79	16.864		
4,200.00	4,192.94	4,185.81	4,165.77	14.31	14.98	127.14	-200.40	-328.69	479.58	451.14	28.44	16.861		
4,300.00	4,292.76	4,300.94	4,280.74	14.66	15.27	127.38	-204.19	-333.20	487.34	458.26	29.08	16.757		
4,400.00	4,392.57	4,412.78	4,392.57	15.01	15.57	127.92	-205.08	-334.26	492.03	462.28	29.75	16.539		
4,500.00	4,492.47	4,512.68	4,492.47	15.31	15.82	128.36	-205.08	-334.26	494.72	464.39	30.34	16.309		
4,600.00	4,592.46	4,612.68	4,592.46	15.59	16.08	-91.54	-205.08	-334.26	495.33	464.44	30.90	16.032		
4,700.00	4,692.46	4,712.68	4,692.46	15.85	16.34	-91.54	-205.08	-334.26	495.33	463.91	31.43	15.762		
4,800.00	4,792.46	4,812.68	4,792.46	16.12	16.61	-91.54	-205.08	-334.26	495.33	463.37	31.96	15.498		
4,900.00	4,892.46	4,912.68	4,892.46	16.38	16.88	-91.54	-205.08	-334.26	495.33	462.83	32.50	15.241		
5,000.00	4,992.46	5,012.68	4,992.46	16.65	17.15	-91.54	-205.08	-334.26	495.33	462.29	33.05	14.989		
5,100.00	5,092.46	5,112.89	5,092.68	16.92	17.42	-91.53	-205.01	-334.26	495.33	461.74	33.60	14.744		
5,200.00	5,192.46	5,213.88	5,192.86	17.20	17.68	-90.22	-193.60	-334.26	495.16	461.02	34.14	14.504		
5,208.94	5,201.40	5,222.62	5,201.40	17.22	17.70	-90.00	-191.71	-334.26	495.15	460.97	34.19	14.484		
5,300.00	5,292.46	5,307.24	5,281.93	17.47	17.89	-87.03	-166.06	-334.26	495.93	461.28	34.65	14.313		
5,400.00	5,392.13	5,391.38	5,356.85	17.74	18.06	-82.84	-127.97	-334.26	499.72	464.61	35.11	14.233		
5,500.00	5,488.82	5,471.21	5,421.41	17.99	18.19	-78.85	-81.13	-334.25	505.98	470.49	35.48	14.260		
5,600.00	5,578.98	5,550.00	5,477.37	18.23	18.30	-75.18	-25.78	-334.25	513.74	478.00	35.74	14.375		
5,700.00	5,659.30	5,622.19	5,520.79	18.44	18.37	-72.14	31.83	-334.25	521.99	486.13	35.86	14.557		
5,800.00	5,726.82	5,700.00	5,558.19	18.65	18.44	-69.45	99.97	-334.24	529.89	493.99	35.90	14.761		
5,900.00	5,779.07	5,765.97	5,581.65	18.89	18.49	-67.58	161.58	-334.24	536.56	500.61	35.94	14.929		
6,000.00	5,814.13	5,836.33	5,597.89	19.21	18.58	-66.22	229.99	-334.24	541.51	505.39	36.12	14.992		
6,100.00	5,830.70	5,906.17	5,604.75	19.61	18.77	-65.48	299.44	-334.23	544.31	507.78	36.53	14.898		
6,200.00	5,832.00	5,999.04	5,605.00	20.08	19.18	-65.37	392.31	-334.23	544.70	507.38	37.32	14.596		
6,300.00	5,832.00	6,099.04	5,605.00	20.65	19.73	-65.37	492.31	-334.22	544.70	506.38	38.32	14.214		
6,400.00	5,832.00	6,199.04	5,605.00	21.31	20.38	-65.37	592.31	-334.21	544.70	505.21	39.49	13.795		
6,500.00	5,832.00	6,299.04	5,605.00	22.04	21.11	-65.37	692.31	-334.21	544.70	503.90	40.80	13.351		
6,600.00	5,832.00	6,399.04	5,605.00	22.85	21.91	-65.37	792.31	-334.20	544.70	502.45	42.24	12.895		
6,700.00	5,832.00	6,499.04	5,605.00	23.72	22.77	-65.37	892.31	-334.19	544.70	500.89	43.81	12.434		
6,800.00	5,832.00	6,599.04	5,605.00	24.65	23.70	-65.37	992.31	-334.19	544.69	499.22	45.48	11.977		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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		
6,900.00	5,832.00	6,699.04	5,605.00	25.63	24.68	-65.37	1,092.31	-334.18	544.69	497.45	47.25	11.528		
7,000.00	5,832.00	6,799.04	5,605.00	26.65	25.71	-65.37	1,192.31	-334.18	544.69	495.59	49.10	11.093		
7,100.00	5,832.00	6,899.04	5,605.00	27.72	26.77	-65.37	1,292.31	-334.17	544.69	493.66	51.03	10.673		
7,200.00	5,832.00	6,999.04	5,605.00	28.82	27.87	-65.37	1,392.31	-334.16	544.69	491.66	53.03	10.271		
7,300.00	5,832.00	7,099.04	5,605.00	29.95	29.01	-65.37	1,492.31	-334.16	544.69	489.60	55.10	9.886		
7,400.00	5,832.00	7,199.04	5,605.00	31.11	30.17	-65.37	1,592.31	-334.15	544.69	487.48	57.21	9.521		
7,500.00	5,832.00	7,299.04	5,605.00	32.30	31.36	-65.37	1,692.31	-334.15	544.69	485.32	59.37	9.174		
7,600.00	5,832.00	7,399.04	5,605.00	33.50	32.58	-65.37	1,792.31	-334.14	544.69	483.11	61.58	8.845		
7,700.00	5,832.00	7,499.04	5,605.00	34.73	33.81	-65.37	1,892.31	-334.13	544.69	480.86	63.82	8.534		
7,800.00	5,832.00	7,599.04	5,605.00	35.98	35.06	-65.37	1,992.31	-334.13	544.69	478.58	66.10	8.240		
7,900.00	5,832.00	7,699.04	5,605.00	37.24	36.33	-65.37	2,092.31	-334.12	544.69	476.27	68.42	7.961		
8,000.00	5,832.00	7,799.04	5,605.00	38.52	37.61	-65.37	2,192.31	-334.11	544.68	473.93	70.76	7.698		
8,100.00	5,832.00	7,899.04	5,605.00	39.81	38.91	-65.37	2,292.31	-334.11	544.68	471.56	73.12	7.449		
8,200.00	5,832.00	7,999.04	5,605.00	41.12	40.21	-65.37	2,392.31	-334.10	544.68	469.17	75.51	7.213		
8,300.00	5,832.00	8,099.04	5,605.00	42.43	41.53	-65.37	2,492.31	-334.10	544.68	466.76	77.92	6.990		
8,400.00	5,832.00	8,199.04	5,605.00	43.76	42.86	-65.37	2,592.31	-334.09	544.68	464.33	80.35	6.779		
8,500.00	5,832.00	8,299.04	5,605.00	45.09	44.20	-65.37	2,692.31	-334.08	544.68	461.89	82.79	6.579		
8,600.00	5,832.00	8,399.04	5,605.00	46.43	45.54	-65.37	2,792.31	-334.08	544.68	459.42	85.26	6.389		
8,700.00	5,832.00	8,499.04	5,605.00	47.78	46.90	-65.37	2,892.31	-334.07	544.68	456.95	87.73	6.208		
8,800.00	5,832.00	8,599.04	5,605.00	49.14	48.26	-65.37	2,992.31	-334.07	544.68	454.45	90.22	6.037		
8,900.00	5,832.00	8,699.04	5,605.00	50.50	49.63	-65.37	3,092.31	-334.06	544.68	451.95	92.73	5.874		
9,000.00	5,832.00	8,799.04	5,605.00	51.87	51.00	-65.37	3,192.31	-334.05	544.68	449.44	95.24	5.719		
9,100.00	5,832.00	8,899.04	5,605.00	53.25	52.38	-65.37	3,292.31	-334.05	544.67	446.91	97.76	5.571		
9,200.00	5,832.00	8,999.04	5,605.00	54.63	53.76	-65.37	3,392.31	-334.04	544.67	444.38	100.30	5.431		
9,300.00	5,832.00	9,099.04	5,605.00	56.01	55.15	-65.37	3,492.31	-334.04	544.67	441.83	102.84	5.296		
9,400.00	5,832.00	9,199.04	5,605.00	57.40	56.54	-65.37	3,592.31	-334.03	544.67	439.28	105.39	5.168		
9,500.00	5,832.00	9,299.04	5,605.00	58.79	57.93	-65.37	3,692.31	-334.02	544.67	436.72	107.95	5.046		
9,600.00	5,832.00	9,399.04	5,605.00	60.19	59.33	-65.37	3,792.31	-334.02	544.67	434.15	110.52	4.928		
9,700.00	5,832.00	9,499.04	5,605.00	61.59	60.73	-65.37	3,892.31	-334.01	544.67	431.58	113.09	4.816		
9,800.00	5,832.00	9,599.04	5,605.00	62.99	62.14	-65.37	3,992.31	-334.00	544.67	429.00	115.67	4.709		
9,900.00	5,832.00	9,699.04	5,605.00	64.40	63.55	-65.37	4,092.31	-334.00	544.67	426.41	118.25	4.606		
10,000.00	5,832.00	9,799.04	5,605.00	65.81	64.96	-65.37	4,192.31	-333.99	544.67	423.82	120.85	4.507		
10,100.00	5,832.00	9,899.04	5,605.00	67.22	66.37	-65.37	4,292.31	-333.99	544.67	421.23	123.44	4.412		
10,200.00	5,832.00	9,999.04	5,605.00	68.63	67.79	-65.37	4,392.31	-333.98	544.67	418.62	126.04	4.321		
10,300.00	5,832.00	10,099.04	5,605.00	70.05	69.21	-65.37	4,492.31	-333.97	544.66	416.02	128.65	4.234		
10,400.00	5,832.00	10,199.04	5,605.00	71.47	70.63	-65.37	4,592.31	-333.97	544.66	413.41	131.26	4.150		
10,500.00	5,832.00	10,299.04	5,605.00	72.89	72.05	-65.37	4,692.31	-333.96	544.66	410.79	133.87	4.069		
10,600.00	5,832.00	10,399.04	5,605.00	74.31	73.48	-65.37	4,792.31	-333.96	544.66	408.18	136.49	3.991		
10,700.00	5,832.00	10,499.04	5,605.00	75.74	74.91	-65.37	4,892.31	-333.95	544.66	405.55	139.11	3.915		
10,800.00	5,832.00	10,599.04	5,605.00	77.16	76.33	-65.37	4,992.31	-333.94	544.66	402.93	141.73	3.843		
10,900.00	5,832.00	10,699.04	5,605.00	78.59	77.76	-65.37	5,092.31	-333.94	544.66	400.30	144.36	3.773		
11,000.00	5,832.00	10,799.04	5,605.00	80.02	79.20	-65.37	5,192.31	-333.93	544.66	397.67	146.99	3.705		
11,100.00	5,832.00	10,899.04	5,605.00	81.45	80.63	-65.37	5,292.31	-333.92	544.66	395.04	149.62	3.640		
11,200.00	5,832.00	10,999.04	5,605.00	82.89	82.06	-65.37	5,392.31	-333.92	544.66	392.40	152.26	3.577		
11,300.00	5,832.00	11,099.04	5,605.00	84.32	83.50	-65.37	5,492.31	-333.91	544.66	389.76	154.90	3.516		
11,400.00	5,832.00	11,199.04	5,605.00	85.76	84.94	-65.37	5,592.31	-333.91	544.66	387.12	157.54	3.457		
11,500.00	5,832.00	11,299.04	5,605.00	87.19	86.37	-65.37	5,692.31	-333.90	544.65	384.48	160.18	3.400		
11,600.00	5,832.00	11,399.04	5,605.00	88.63	87.81	-65.37	5,792.31	-333.89	544.65	381.83	162.82	3.345		
11,700.00	5,832.00	11,499.04	5,605.00	90.07	89.25	-65.37	5,892.31	-333.89	544.65	379.18	165.47	3.292		
11,800.00	5,832.00	11,599.04	5,605.00	91.51	90.70	-65.37	5,992.31	-333.88	544.65	376.53	168.12	3.240		
11,900.00	5,832.00	11,699.04	5,605.00	92.95	92.14	-65.37	6,092.31	-333.88	544.65	373.88	170.77	3.189		
12,000.00	5,832.00	11,799.04	5,605.00	94.39	93.58	-65.37	6,192.31	-333.87	544.65	371.22	173.43	3.141		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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		
12,100.00	5,832.00	11,899.04	5,605.00	95.83	95.02	-65.37	6,292.31	-333.86	544.65	368.57	176.08	3.093		
12,200.00	5,832.00	11,999.04	5,605.00	97.28	96.47	-65.37	6,392.31	-333.86	544.65	365.91	178.74	3.047		
12,300.00	5,832.00	12,099.04	5,605.00	98.72	97.92	-65.37	6,492.31	-333.85	544.65	363.25	181.39	3.003		
12,400.00	5,832.00	12,199.04	5,605.00	100.17	99.36	-65.37	6,592.31	-333.84	544.65	360.59	184.05	2.959		
12,500.00	5,832.00	12,299.04	5,605.00	101.61	100.81	-65.37	6,692.31	-333.84	544.65	357.93	186.71	2.917		
12,600.00	5,832.00	12,399.04	5,605.00	103.06	102.26	-65.37	6,792.31	-333.83	544.64	355.27	189.38	2.876		
12,700.00	5,832.00	12,499.04	5,605.00	104.51	103.71	-65.37	6,892.31	-333.83	544.64	352.60	192.04	2.836		
12,800.00	5,832.00	12,599.04	5,605.00	105.95	105.15	-65.37	6,992.31	-333.82	544.64	349.94	194.71	2.797		
12,900.00	5,832.00	12,699.04	5,605.00	107.40	106.60	-65.37	7,092.31	-333.81	544.64	347.27	197.37	2.759		
13,000.00	5,832.00	12,799.04	5,605.00	108.85	108.05	-65.37	7,192.31	-333.81	544.64	344.60	200.04	2.723		
13,100.00	5,832.00	12,899.04	5,605.00	110.30	109.51	-65.37	7,292.31	-333.80	544.64	341.93	202.71	2.687		
13,200.00	5,832.00	12,999.04	5,605.00	111.75	110.96	-65.37	7,392.31	-333.80	544.64	339.26	205.38	2.652		
13,300.00	5,832.00	13,099.04	5,605.00	113.20	112.41	-65.37	7,492.31	-333.79	544.64	336.59	208.05	2.618		
13,400.00	5,832.00	13,199.04	5,605.00	114.66	113.86	-65.37	7,592.31	-333.78	544.64	333.92	210.72	2.585		
13,500.00	5,832.00	13,299.04	5,605.00	116.11	115.31	-65.37	7,692.31	-333.78	544.64	331.24	213.39	2.552		
13,600.00	5,832.00	13,399.04	5,605.00	117.56	116.77	-65.37	7,792.31	-333.77	544.64	328.57	216.07	2.521		
13,700.00	5,832.00	13,499.04	5,605.00	119.01	118.22	-65.37	7,892.31	-333.76	544.64	325.89	218.74	2.490		
13,800.00	5,832.00	13,599.04	5,605.00	120.47	119.68	-65.37	7,992.31	-333.76	544.63	323.22	221.42	2.460		
13,900.00	5,832.00	13,699.04	5,605.00	121.92	121.13	-65.37	8,092.31	-333.75	544.63	320.54	224.09	2.430		
14,000.00	5,832.00	13,799.04	5,605.00	123.38	122.59	-65.37	8,192.31	-333.75	544.63	317.86	226.77	2.402		
14,100.00	5,832.00	13,899.04	5,605.00	124.83	124.04	-65.37	8,292.31	-333.74	544.63	315.18	229.45	2.374		
14,200.00	5,832.00	13,999.04	5,605.00	126.28	125.50	-65.37	8,392.31	-333.73	544.63	312.51	232.13	2.346		
14,300.00	5,832.00	14,099.04	5,605.00	127.74	126.95	-65.37	8,492.31	-333.73	544.63	309.83	234.80	2.320		
14,400.00	5,832.00	14,199.04	5,605.00	129.20	128.41	-65.37	8,592.31	-333.72	544.63	307.14	237.48	2.293		
14,500.00	5,832.00	14,299.04	5,605.00	130.65	129.87	-65.37	8,692.31	-333.72	544.63	304.46	240.17	2.268		
14,600.00	5,832.00	14,399.04	5,605.00	132.11	131.32	-65.37	8,792.31	-333.71	544.63	301.78	242.85	2.243		
14,700.00	5,832.00	14,499.04	5,605.00	133.57	132.78	-65.37	8,892.31	-333.70	544.63	299.10	245.53	2.218		
14,800.00	5,832.00	14,599.04	5,605.00	135.02	134.24	-65.37	8,992.31	-333.70	544.63	296.42	248.21	2.194		
14,900.00	5,832.00	14,699.04	5,605.00	136.48	135.70	-65.37	9,092.31	-333.69	544.62	293.73	250.89	2.171		
15,000.00	5,832.00	14,799.04	5,605.00	137.94	137.16	-65.37	9,192.31	-333.69	544.62	291.05	253.58	2.148		
15,100.00	5,832.00	14,899.04	5,605.00	139.40	138.62	-65.37	9,292.31	-333.68	544.62	288.36	256.26	2.125		
15,200.00	5,832.00	14,999.04	5,605.00	140.86	140.08	-65.37	9,392.31	-333.67	544.62	285.68	258.95	2.103		
15,300.00	5,832.00	15,099.04	5,605.00	142.31	141.53	-65.37	9,492.31	-333.67	544.62	282.99	261.63	2.082		
15,400.00	5,832.00	15,199.04	5,605.00	143.77	142.99	-65.37	9,592.31	-333.66	544.62	280.30	264.32	2.060		
15,500.00	5,832.00	15,299.04	5,605.00	145.23	144.45	-65.37	9,692.31	-333.65	544.62	277.62	267.00	2.040		
15,600.00	5,832.00	15,399.04	5,605.00	146.69	145.91	-65.37	9,792.31	-333.65	544.62	274.93	269.69	2.019		
15,700.00	5,832.00	15,499.04	5,605.00	148.15	147.37	-65.37	9,892.31	-333.64	544.62	272.24	272.38	1.999		
15,800.00	5,832.00	15,599.04	5,605.00	149.61	148.83	-65.37	9,992.31	-333.64	544.62	269.55	275.06	1.980		
15,900.00	5,832.00	15,699.04	5,605.00	151.07	150.30	-65.37	10,092.31	-333.63	544.62	266.86	277.75	1.961		
15,999.97	5,832.00	15,799.01	5,605.00	152.53	151.76	-65.37	10,192.28	-333.62	544.62	264.17	280.44	1.942		
16,001.87	5,832.00	15,800.91	5,605.00	152.56	151.78	-65.37	10,194.17	-333.62	544.62	264.12	280.49	1.942		
16,004.19	5,832.00	15,801.18	5,605.00	152.59	151.79	-65.37	10,194.44	-333.62	544.62	264.09	280.53	1.941 SF		



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	-0.89	49.59	-0.77	49.60					
100.00	100.00	100.00	100.00	0.13	0.13	-0.89	49.59	-0.77	49.60	49.33	0.27	186.209		
200.00	200.00	200.00	200.00	0.47	0.47	-0.89	49.59	-0.77	49.60	48.66	0.94	52.726		
300.00	300.00	300.00	300.00	0.81	0.81	-0.89	49.59	-0.77	49.60	47.98	1.61	30.711		
400.00	399.98	401.74	401.72	1.11	1.11	-142.27	47.78	-0.80	49.19	46.96	2.23	22.094		
500.00	499.84	503.40	503.23	1.42	1.42	-146.45	42.37	-0.89	48.05	45.24	2.82	17.066		
600.00	599.66	604.01	603.49	1.73	1.74	-152.15	33.98	-1.04	45.08	41.64	3.44	13.115		
700.00	699.47	703.84	702.94	2.05	2.06	-158.71	25.28	-1.19	42.25	38.18	4.07	10.381		
800.00	799.29	803.68	802.40	2.39	2.40	-166.09	16.58	-1.35	40.05	35.33	4.72	8.488		
900.00	899.10	903.51	901.85	2.73	2.75	-174.17	7.88	-1.50	38.59	33.21	5.38	7.168		
1,000.00	998.91	1,003.35	1,001.31	3.07	3.10	177.30	-0.82	-1.65	37.95	31.88	6.07	6.257		
1,024.70	1,023.57	1,028.01	1,025.87	3.16	3.19	175.16	-2.96	-1.69	37.92	31.68	6.24	6.081 CC		
1,100.00	1,098.73	1,103.18	1,100.76	3.42	3.46	168.67	-9.52	-1.80	38.17	31.40	6.76	5.643 ES		
1,200.00	1,198.54	1,203.02	1,200.22	3.77	3.82	160.33	-18.22	-1.95	39.23	31.76	7.47	5.249		
1,300.00	1,298.35	1,302.86	1,299.67	4.11	4.18	152.58	-26.91	-2.10	41.08	32.89	8.19	5.013		
1,400.00	1,398.17	1,402.69	1,399.13	4.46	4.54	145.61	-35.61	-2.26	43.61	34.69	8.92	4.890		
1,500.00	1,497.98	1,502.53	1,498.58	4.81	4.90	139.48	-44.31	-2.41	46.71	37.07	9.64	4.844		
1,600.00	1,597.79	1,602.36	1,598.04	5.16	5.26	134.17	-53.01	-2.56	50.28	39.91	10.37	4.850		
1,700.00	1,697.61	1,702.20	1,697.49	5.51	5.63	129.59	-61.71	-2.71	54.22	43.13	11.09	4.890		
1,800.00	1,797.42	1,802.03	1,796.95	5.86	5.99	125.65	-70.41	-2.86	58.46	46.65	11.80	4.952		
1,900.00	1,897.23	1,901.87	1,896.41	6.21	6.35	122.26	-79.11	-3.02	62.93	50.42	12.52	5.027		
2,000.00	1,997.05	2,001.70	1,995.86	6.56	6.72	119.33	-87.81	-3.17	67.60	54.37	13.23	5.109		
2,100.00	2,096.86	2,101.54	2,095.32	6.91	7.08	116.78	-96.51	-3.32	72.43	58.48	13.94	5.195		
2,200.00	2,196.67	2,201.37	2,194.77	7.26	7.45	114.55	-105.21	-3.47	77.37	62.72	14.65	5.281		
2,300.00	2,296.49	2,301.21	2,294.23	7.62	7.81	112.59	-113.91	-3.62	82.42	67.06	15.36	5.366		
2,400.00	2,396.30	2,401.04	2,393.68	7.97	8.18	110.86	-122.61	-3.77	87.56	71.49	16.07	5.450		
2,500.00	2,496.11	2,500.88	2,493.14	8.32	8.54	109.33	-131.31	-3.93	92.76	75.99	16.77	5.531		
2,600.00	2,595.93	2,601.39	2,593.31	8.67	8.88	108.19	-139.61	-4.07	97.85	80.40	17.45	5.606		
2,700.00	2,695.74	2,702.66	2,694.44	9.02	9.14	108.79	-144.84	-4.16	101.76	83.69	18.07	5.631		
2,800.00	2,795.55	2,803.80	2,795.55	9.37	9.44	111.16	-146.49	-4.19	104.44	85.71	18.73	5.577		
2,900.00	2,895.37	2,903.61	2,895.37	9.73	9.72	114.21	-146.49	-4.19	106.80	87.43	19.37	5.513		
3,000.00	2,995.18	3,003.43	2,995.18	10.08	9.98	117.12	-146.49	-4.19	109.45	89.46	19.98	5.477		
3,100.00	3,095.00	3,103.24	3,095.00	10.43	10.24	119.89	-146.49	-4.19	112.36	91.77	20.59	5.457		
3,200.00	3,194.81	3,203.05	3,194.81	10.78	10.50	122.51	-146.49	-4.19	115.53	94.33	21.20	5.449		
3,300.00	3,294.62	3,302.87	3,294.62	11.13	10.77	124.99	-146.49	-4.19	118.93	97.12	21.81	5.452		
3,400.00	3,394.44	3,402.68	3,394.44	11.49	11.04	127.32	-146.49	-4.19	122.54	100.11	22.42	5.464		
3,500.00	3,494.25	3,502.49	3,494.25	11.84	11.32	129.52	-146.49	-4.19	126.33	103.30	23.04	5.484		
3,600.00	3,594.06	3,602.31	3,594.06	12.19	11.60	131.59	-146.49	-4.19	130.31	106.66	23.65	5.510		
3,700.00	3,693.88	3,702.12	3,693.88	12.54	11.88	133.54	-146.49	-4.19	134.44	110.18	24.27	5.540		
3,800.00	3,793.69	3,801.93	3,793.69	12.90	12.16	135.36	-146.49	-4.19	138.72	113.84	24.88	5.575		
3,900.00	3,893.50	3,901.75	3,893.50	13.25	12.45	137.08	-146.49	-4.19	143.14	117.63	25.50	5.613		
4,000.00	3,993.32	4,001.56	3,993.32	13.60	12.74	138.69	-146.49	-4.19	147.67	121.55	26.12	5.653		
4,100.00	4,093.13	4,101.37	4,093.13	13.95	13.03	140.21	-146.49	-4.19	152.31	125.56	26.75	5.695		
4,200.00	4,192.94	4,201.19	4,192.94	14.31	13.33	141.63	-146.49	-4.19	157.05	129.68	27.37	5.738		
4,300.00	4,292.76	4,301.00	4,292.76	14.66	13.62	142.97	-146.49	-4.19	161.89	133.89	28.00	5.782		
4,400.00	4,392.57	4,400.81	4,392.57	15.01	13.92	144.23	-146.49	-4.19	166.81	138.18	28.63	5.827		
4,500.00	4,492.47	4,500.72	4,492.47	15.31	14.22	145.13	-146.49	-4.19	170.37	141.15	29.22	5.831		
4,600.00	4,592.46	4,600.71	4,592.46	15.59	14.52	-74.67	-146.49	-4.19	171.17	141.38	29.80	5.745		
4,700.00	4,692.46	4,700.71	4,692.46	15.85	14.83	-74.67	-146.49	-4.19	171.17	140.81	30.36	5.637		
4,800.00	4,792.46	4,800.71	4,792.46	16.12	15.13	-74.67	-146.49	-4.19	171.17	140.24	30.94	5.533		
4,900.00	4,892.46	4,900.71	4,892.46	16.38	15.44	-74.67	-146.49	-4.19	171.17	139.66	31.51	5.432		
5,000.00	4,992.46	5,000.71	4,992.46	16.65	15.74	-74.67	-146.49	-4.19	171.17	139.08	32.09	5.334		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	5,092.46	5,093.50	5,084.98	16.92	16.02	-72.90	-140.94	-4.19	172.88	140.26	32.62	5.300		
5,200.00	5,192.46	5,180.50	5,169.61	17.20	16.25	-66.85	-121.16	-4.19	180.99	147.92	33.07	5.473		
5,300.00	5,292.46	5,259.08	5,242.25	17.47	16.43	-58.71	-91.41	-4.19	199.60	166.12	33.47	5.963		
5,400.00	5,392.13	5,329.92	5,303.26	17.74	16.59	-49.27	-55.50	-4.19	228.09	194.41	33.68	6.773		
5,500.00	5,488.82	5,400.00	5,358.26	17.99	16.75	-41.90	-12.17	-4.19	257.49	224.05	33.43	7.702		
5,600.00	5,578.98	5,464.61	5,403.40	18.23	16.90	-36.85	33.99	-4.19	284.71	252.05	32.66	8.717		
5,700.00	5,659.30	5,529.73	5,442.77	18.44	17.07	-33.24	85.82	-4.18	308.06	276.60	31.46	9.792		
5,800.00	5,726.82	5,600.00	5,477.64	18.65	17.27	-30.70	146.76	-4.18	326.55	296.50	30.05	10.868		
5,900.00	5,779.07	5,650.00	5,497.30	18.89	17.43	-29.34	192.72	-4.18	339.38	310.66	28.72	11.815		
6,000.00	5,814.13	5,720.65	5,517.38	19.21	17.68	-28.52	260.40	-4.18	346.04	318.20	27.84	12.431		
6,100.00	5,830.70	5,783.70	5,527.42	19.61	17.94	-28.45	322.61	-4.18	346.62	318.95	27.67	12.527		
6,199.99	5,834.23	5,853.40	5,530.00	20.08	18.25	-28.49	392.22	-4.17	346.14	318.11	28.03	12.348		
6,200.00	5,832.00	5,853.47	5,530.00	20.08	18.25	-28.66	392.28	-4.17	344.18	316.11	28.07	12.261		
6,300.00	5,832.00	5,953.47	5,530.00	20.65	18.79	-28.66	492.28	-4.17	344.18	315.61	28.57	12.048		
6,400.00	5,832.00	6,053.47	5,530.00	21.31	19.41	-28.67	592.28	-4.17	344.18	315.03	29.15	11.807		
6,500.00	5,832.00	6,153.47	5,530.00	22.04	20.13	-28.67	692.28	-4.16	344.18	314.36	29.82	11.542		
6,600.00	5,832.00	6,253.47	5,530.00	22.85	20.93	-28.67	792.28	-4.16	344.18	313.61	30.57	11.260		
6,700.00	5,832.00	6,353.47	5,530.00	23.72	21.79	-28.67	892.28	-4.16	344.18	312.79	31.39	10.965		
6,800.00	5,832.00	6,453.47	5,530.00	24.65	22.72	-28.67	992.28	-4.15	344.18	311.91	32.28	10.663		
6,900.00	5,832.00	6,553.47	5,530.00	25.63	23.70	-28.67	1,092.28	-4.15	344.18	310.95	33.23	10.358		
7,000.00	5,832.00	6,653.47	5,530.00	26.65	24.73	-28.67	1,192.28	-4.15	344.18	309.95	34.24	10.052		
7,100.00	5,832.00	6,753.47	5,530.00	27.72	25.81	-28.67	1,292.28	-4.14	344.19	308.88	35.30	9.750		
7,200.00	5,832.00	6,853.47	5,530.00	28.82	26.92	-28.67	1,392.28	-4.14	344.19	307.78	36.41	9.453		
7,300.00	5,832.00	6,953.47	5,530.00	29.95	28.06	-28.67	1,492.28	-4.14	344.19	306.62	37.57	9.162		
7,400.00	5,832.00	7,053.47	5,530.00	31.11	29.24	-28.67	1,592.28	-4.13	344.19	305.43	38.76	8.880		
7,500.00	5,832.00	7,153.47	5,530.00	32.30	30.44	-28.67	1,692.28	-4.13	344.19	304.20	39.99	8.607		
7,600.00	5,832.00	7,253.47	5,530.00	33.50	31.66	-28.67	1,792.28	-4.13	344.19	302.94	41.25	8.344		
7,700.00	5,832.00	7,353.47	5,530.00	34.73	32.91	-28.67	1,892.28	-4.12	344.19	301.65	42.54	8.091		
7,800.00	5,832.00	7,453.47	5,530.00	35.98	34.17	-28.67	1,992.28	-4.12	344.19	300.33	43.86	7.847		
7,900.00	5,832.00	7,553.47	5,530.00	37.24	35.45	-28.67	2,092.28	-4.12	344.19	298.99	45.21	7.614		
8,000.00	5,832.00	7,653.47	5,530.00	38.52	36.74	-28.67	2,192.28	-4.11	344.19	297.62	46.57	7.390		
8,100.00	5,832.00	7,753.47	5,530.00	39.81	38.04	-28.67	2,292.28	-4.11	344.19	296.23	47.96	7.176		
8,200.00	5,832.00	7,853.47	5,530.00	41.12	39.36	-28.67	2,392.28	-4.11	344.20	294.83	49.37	6.972		
8,300.00	5,832.00	7,953.47	5,530.00	42.43	40.69	-28.67	2,492.28	-4.10	344.20	293.40	50.79	6.776		
8,400.00	5,832.00	8,053.47	5,530.00	43.76	42.03	-28.67	2,592.28	-4.10	344.20	291.96	52.24	6.589		
8,500.00	5,832.00	8,153.47	5,530.00	45.09	43.37	-28.67	2,692.28	-4.10	344.20	290.51	53.69	6.411		
8,600.00	5,832.00	8,253.47	5,530.00	46.43	44.73	-28.67	2,792.28	-4.09	344.20	289.04	55.16	6.240		
8,700.00	5,832.00	8,353.47	5,530.00	47.78	46.09	-28.67	2,892.28	-4.09	344.20	287.56	56.64	6.077		
8,800.00	5,832.00	8,453.47	5,530.00	49.14	47.46	-28.67	2,992.28	-4.09	344.20	286.07	58.14	5.921		
8,900.00	5,832.00	8,553.47	5,530.00	50.50	48.83	-28.67	3,092.28	-4.08	344.20	284.56	59.64	5.771		
9,000.00	5,832.00	8,653.47	5,530.00	51.87	50.21	-28.67	3,192.28	-4.08	344.20	283.05	61.15	5.628		
9,100.00	5,832.00	8,753.47	5,530.00	53.25	51.59	-28.67	3,292.28	-4.08	344.20	281.53	62.68	5.492		
9,200.00	5,832.00	8,853.47	5,530.00	54.63	52.98	-28.67	3,392.28	-4.07	344.20	280.00	64.21	5.361		
9,300.00	5,832.00	8,953.47	5,530.00	56.01	54.38	-28.67	3,492.28	-4.07	344.21	278.46	65.75	5.235		
9,400.00	5,832.00	9,053.47	5,530.00	57.40	55.77	-28.67	3,592.28	-4.07	344.21	276.91	67.30	5.115		
9,500.00	5,832.00	9,153.47	5,530.00	58.79	57.18	-28.67	3,692.28	-4.06	344.21	275.36	68.85	4.999		
9,600.00	5,832.00	9,253.47	5,530.00	60.19	58.58	-28.67	3,792.28	-4.06	344.21	273.80	70.41	4.889		
9,700.00	5,832.00	9,353.47	5,530.00	61.59	59.99	-28.67	3,892.28	-4.06	344.21	272.23	71.98	4.782		
9,800.00	5,832.00	9,453.47	5,530.00	62.99	61.40	-28.67	3,992.28	-4.05	344.21	270.66	73.55	4.680		
9,900.00	5,832.00	9,553.47	5,530.00	64.40	62.81	-28.67	4,092.28	-4.05	344.21	269.08	75.13	4.582		
10,000.00	5,832.00	9,653.47	5,530.00	65.81	64.23	-28.67	4,192.28	-4.05	344.21	267.50	76.71	4.487		
10,100.00	5,832.00	9,753.47	5,530.00	67.22	65.65	-28.67	4,292.28	-4.04	344.21	265.91	78.30	4.396		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	5,832.00	9,853.47	5,530.00	68.63	67.07	-28.68	4,392.28	-4.04	344.21	264.32	79.89	4.309		
10,300.00	5,832.00	9,953.47	5,530.00	70.05	68.49	-28.68	4,492.28	-4.04	344.21	262.73	81.48	4.224		
10,400.00	5,832.00	10,053.47	5,530.00	71.47	69.92	-28.68	4,592.28	-4.03	344.21	261.13	83.08	4.143		
10,500.00	5,832.00	10,153.47	5,530.00	72.89	71.34	-28.68	4,692.28	-4.03	344.22	259.53	84.69	4.065		
10,600.00	5,832.00	10,253.47	5,530.00	74.31	72.77	-28.68	4,792.28	-4.03	344.22	257.92	86.29	3.989		
10,700.00	5,832.00	10,353.47	5,530.00	75.74	74.20	-28.68	4,892.28	-4.02	344.22	256.31	87.90	3.916		
10,800.00	5,832.00	10,453.47	5,530.00	77.16	75.64	-28.68	4,992.28	-4.02	344.22	254.70	89.52	3.845		
10,900.00	5,832.00	10,553.47	5,530.00	78.59	77.07	-28.68	5,092.28	-4.02	344.22	253.08	91.13	3.777		
11,000.00	5,832.00	10,653.47	5,530.00	80.02	78.51	-28.68	5,192.28	-4.01	344.22	251.47	92.75	3.711		
11,100.00	5,832.00	10,753.47	5,530.00	81.45	79.94	-28.68	5,292.28	-4.01	344.22	249.85	94.38	3.647		
11,200.00	5,832.00	10,853.47	5,530.00	82.89	81.38	-28.68	5,392.28	-4.01	344.22	248.22	96.00	3.586		
11,300.00	5,832.00	10,953.47	5,530.00	84.32	82.82	-28.68	5,492.28	-4.00	344.22	246.60	97.63	3.526		
11,400.00	5,832.00	11,053.47	5,530.00	85.76	84.26	-28.68	5,592.28	-4.00	344.22	244.97	99.25	3.468		
11,500.00	5,832.00	11,153.47	5,530.00	87.19	85.70	-28.68	5,692.28	-4.00	344.22	243.34	100.89	3.412		
11,600.00	5,832.00	11,253.47	5,530.00	88.63	87.14	-28.68	5,792.28	-3.99	344.23	241.71	102.52	3.358		
11,700.00	5,832.00	11,353.47	5,530.00	90.07	88.58	-28.68	5,892.28	-3.99	344.23	240.07	104.15	3.305		
11,800.00	5,832.00	11,453.47	5,530.00	91.51	90.03	-28.68	5,992.28	-3.99	344.23	238.44	105.79	3.254		
11,900.00	5,832.00	11,553.47	5,530.00	92.95	91.47	-28.68	6,092.28	-3.98	344.23	236.80	107.43	3.204		
12,000.00	5,832.00	11,653.47	5,530.00	94.39	92.92	-28.68	6,192.28	-3.98	344.23	235.16	109.07	3.156		
12,100.00	5,832.00	11,753.47	5,530.00	95.83	94.37	-28.68	6,292.28	-3.97	344.23	233.52	110.71	3.109		
12,200.00	5,832.00	11,853.47	5,530.00	97.28	95.81	-28.68	6,392.28	-3.97	344.23	231.87	112.36	3.064		
12,300.00	5,832.00	11,953.47	5,530.00	98.72	97.26	-28.68	6,492.28	-3.97	344.23	230.23	114.00	3.020		
12,400.00	5,832.00	12,053.47	5,530.00	100.17	98.71	-28.68	6,592.28	-3.96	344.23	228.58	115.65	2.977		
12,500.00	5,832.00	12,153.47	5,530.00	101.61	100.16	-28.68	6,692.28	-3.96	344.23	226.94	117.30	2.935		
12,600.00	5,832.00	12,253.47	5,530.00	103.06	101.61	-28.68	6,792.28	-3.96	344.23	225.29	118.95	2.894		
12,700.00	5,832.00	12,353.47	5,530.00	104.51	103.06	-28.68	6,892.28	-3.95	344.23	223.64	120.60	2.854		
12,800.00	5,832.00	12,453.47	5,530.00	105.95	104.51	-28.68	6,992.28	-3.95	344.24	221.99	122.25	2.816		
12,900.00	5,832.00	12,553.47	5,530.00	107.40	105.96	-28.68	7,092.28	-3.95	344.24	220.34	123.90	2.778		
13,000.00	5,832.00	12,653.47	5,530.00	108.85	107.41	-28.68	7,192.28	-3.94	344.24	218.68	125.55	2.742		
13,100.00	5,832.00	12,753.47	5,530.00	110.30	108.87	-28.68	7,292.28	-3.94	344.24	217.03	127.21	2.706		
13,200.00	5,832.00	12,853.47	5,530.00	111.75	110.32	-28.68	7,392.28	-3.94	344.24	215.37	128.87	2.671		
13,300.00	5,832.00	12,953.47	5,530.00	113.20	111.77	-28.68	7,492.28	-3.93	344.24	213.72	130.52	2.637		
13,400.00	5,832.00	13,053.47	5,530.00	114.66	113.23	-28.68	7,592.28	-3.93	344.24	212.06	132.18	2.604		
13,500.00	5,832.00	13,153.47	5,530.00	116.11	114.68	-28.68	7,692.28	-3.93	344.24	210.40	133.84	2.572		
13,600.00	5,832.00	13,253.47	5,530.00	117.56	116.14	-28.68	7,792.28	-3.92	344.24	208.74	135.50	2.541		
13,700.00	5,832.00	13,353.47	5,530.00	119.01	117.59	-28.68	7,892.28	-3.92	344.24	207.08	137.16	2.510		
13,800.00	5,832.00	13,453.47	5,530.00	120.47	119.05	-28.68	7,992.28	-3.92	344.24	205.42	138.82	2.480		
13,900.00	5,832.00	13,553.47	5,530.00	121.92	120.51	-28.69	8,092.28	-3.91	344.25	203.76	140.49	2.450		
14,000.00	5,832.00	13,653.47	5,530.00	123.38	121.96	-28.69	8,192.28	-3.91	344.25	202.10	142.15	2.422		
14,100.00	5,832.00	13,753.47	5,530.00	124.83	123.42	-28.69	8,292.28	-3.91	344.25	200.43	143.81	2.394		
14,200.00	5,832.00	13,853.47	5,530.00	126.28	124.88	-28.69	8,392.28	-3.90	344.25	198.77	145.48	2.366		
14,300.00	5,832.00	13,953.47	5,530.00	127.74	126.34	-28.69	8,492.28	-3.90	344.25	197.11	147.14	2.340		
14,400.00	5,832.00	14,053.47	5,530.00	129.20	127.79	-28.69	8,592.28	-3.90	344.25	195.44	148.81	2.313		
14,500.00	5,832.00	14,153.47	5,530.00	130.65	129.25	-28.69	8,692.28	-3.89	344.25	193.77	150.48	2.288		
14,600.00	5,832.00	14,253.47	5,530.00	132.11	130.71	-28.69	8,792.28	-3.89	344.25	192.11	152.14	2.263		
14,700.00	5,832.00	14,353.47	5,530.00	133.57	132.17	-28.69	8,892.28	-3.89	344.25	190.44	153.81	2.238		
14,800.00	5,832.00	14,453.47	5,530.00	135.02	133.63	-28.69	8,992.28	-3.88	344.25	188.77	155.48	2.214		
14,900.00	5,832.00	14,553.47	5,530.00	136.48	135.09	-28.69	9,092.28	-3.88	344.25	187.10	157.15	2.191		
15,000.00	5,832.00	14,653.47	5,530.00	137.94	136.55	-28.69	9,192.28	-3.88	344.26	185.44	158.82	2.168		
15,100.00	5,832.00	14,753.47	5,530.00	139.40	138.01	-28.69	9,292.28	-3.87	344.26	183.77	160.49	2.145		
15,200.00	5,832.00	14,853.47	5,530.00	140.86	139.47	-28.69	9,392.28	-3.87	344.26	182.10	162.16	2.123		
15,300.00	5,832.00	14,953.47	5,530.00	142.31	140.93	-28.69	9,492.28	-3.87	344.26	180.43	163.83	2.101		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design Sec 25-T10N-R58W - Razor #25O-2411 - 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	
15,400.00	5,832.00	15,053.47	5,530.00	143.77	142.39	-28.69	9,592.28	-3.86	344.26	178.75	165.50	2.080	
15,500.00	5,832.00	15,153.47	5,530.00	145.23	143.85	-28.69	9,692.28	-3.86	344.26	177.08	167.18	2.059	
15,600.00	5,832.00	15,253.47	5,530.00	146.69	145.31	-28.69	9,792.28	-3.86	344.26	175.41	168.85	2.039	
15,700.00	5,832.00	15,353.47	5,530.00	148.15	146.77	-28.69	9,892.28	-3.85	344.26	173.74	170.52	2.019	
15,800.00	5,832.00	15,453.47	5,530.00	149.61	148.23	-28.69	9,992.28	-3.85	344.26	172.07	172.20	1.999	
15,900.00	5,832.00	15,553.47	5,530.00	151.07	149.70	-28.69	10,092.28	-3.85	344.26	170.39	173.87	1.980	
15,999.97	5,832.00	15,653.43	5,530.00	152.53	151.16	-28.69	10,192.25	-3.84	344.26	168.72	175.54	1.961	
16,004.19	5,832.00	15,657.65	5,530.00	152.59	151.22	-28.69	10,196.46	-3.84	344.26	168.65	175.61	1.960 SF	



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												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	30.51	49.59	29.22	57.56				
100.00	100.00	100.00	100.00	0.13	0.13	30.51	49.59	29.22	57.56	57.29	0.27	216.110	
200.00	200.00	200.00	200.00	0.47	0.47	30.51	49.59	29.22	57.56	56.62	0.94	61.193	
300.00	300.00	300.00	300.00	0.81	0.81	30.51	49.59	29.22	57.56	55.95	1.61	35.642 CC	
400.00	399.98	400.16	400.14	1.11	1.12	-109.38	48.59	30.66	58.01	55.78	2.23	26.020	
500.00	499.84	500.30	500.13	1.42	1.43	-108.99	45.58	34.96	59.31	56.47	2.84	20.886	
600.00	599.66	600.32	599.81	1.73	1.79	-106.63	40.82	41.75	60.77	57.25	3.52	17.287	
700.00	699.47	700.27	699.38	2.05	2.17	-103.99	35.83	48.88	62.33	58.10	4.23	14.742	
800.00	799.29	800.22	798.95	2.39	2.56	-101.49	30.83	56.02	64.02	59.06	4.96	12.905	
900.00	899.10	900.16	898.51	2.73	2.96	-99.12	25.83	63.15	65.83	60.12	5.71	11.538	
1,000.00	998.91	1,000.11	998.08	3.07	3.37	-96.88	20.84	70.29	67.74	61.28	6.46	10.492	
1,100.00	1,098.73	1,100.06	1,097.65	3.42	3.78	-94.76	15.84	77.42	69.75	62.54	7.21	9.672	
1,200.00	1,198.54	1,200.01	1,197.21	3.77	4.19	-92.77	10.84	84.56	71.85	63.88	7.97	9.016	
1,300.00	1,298.35	1,299.95	1,296.78	4.11	4.61	-90.89	5.85	91.70	74.03	65.30	8.73	8.483	
1,400.00	1,398.17	1,399.90	1,396.35	4.46	5.02	-89.12	0.85	98.83	76.28	66.80	9.48	8.043	
1,500.00	1,497.98	1,499.85	1,495.92	4.81	5.44	-87.45	-4.15	105.97	78.61	68.37	10.24	7.676	
1,600.00	1,597.79	1,599.80	1,595.48	5.16	5.86	-85.88	-9.14	113.10	81.00	70.00	11.00	7.366	
1,700.00	1,697.61	1,699.74	1,695.05	5.51	6.28	-84.41	-14.14	120.24	83.44	71.69	11.75	7.101	
1,800.00	1,797.42	1,799.69	1,794.62	5.86	6.70	-83.01	-19.13	127.37	85.94	73.44	12.50	6.873	
1,900.00	1,897.23	1,899.64	1,894.19	6.21	7.12	-81.70	-24.13	134.51	88.48	75.23	13.26	6.675	
2,000.00	1,997.05	1,999.59	1,993.75	6.56	7.54	-80.46	-29.13	141.64	91.07	77.07	14.01	6.503	
2,100.00	2,096.86	2,099.53	2,093.32	6.91	7.96	-79.29	-34.12	148.78	93.70	78.95	14.75	6.351	
2,200.00	2,196.67	2,199.48	2,192.89	7.26	8.38	-78.18	-39.12	155.92	96.37	80.87	15.50	6.217	
2,300.00	2,296.49	2,299.43	2,292.45	7.62	8.80	-77.13	-44.12	163.05	99.07	82.83	16.24	6.099	
2,400.00	2,396.30	2,399.38	2,392.02	7.97	9.22	-76.14	-49.11	170.19	101.80	84.81	16.99	5.992	
2,500.00	2,496.11	2,499.32	2,491.59	8.32	9.64	-75.20	-54.11	177.32	104.56	86.83	17.73	5.897	
2,600.00	2,595.93	2,599.27	2,591.16	8.67	10.06	-74.31	-59.11	184.46	107.35	88.88	18.47	5.812	
2,700.00	2,695.74	2,699.22	2,690.72	9.02	10.48	-73.47	-64.10	191.59	110.16	90.95	19.21	5.734	
2,800.00	2,795.55	2,799.17	2,790.29	9.37	10.91	-72.67	-69.10	198.73	113.00	93.05	19.95	5.664	
2,900.00	2,895.37	2,899.11	2,889.86	9.73	11.33	-71.90	-74.10	205.87	115.85	95.17	20.69	5.601	
3,000.00	2,995.18	2,999.06	2,989.43	10.08	11.75	-71.18	-79.09	213.00	118.73	97.30	21.42	5.542	
3,100.00	3,095.00	3,099.01	3,088.99	10.43	12.17	-70.48	-84.09	220.14	121.62	99.46	22.16	5.489	
3,200.00	3,194.81	3,198.96	3,188.56	10.78	12.59	-69.82	-89.08	227.27	124.53	101.64	22.89	5.440	
3,300.00	3,294.62	3,298.91	3,288.13	11.13	13.02	-69.19	-94.08	234.41	127.46	103.83	23.62	5.395	
3,400.00	3,394.44	3,398.85	3,387.69	11.49	13.44	-68.59	-99.08	241.54	130.40	106.04	24.35	5.354	
3,500.00	3,494.25	3,498.80	3,487.26	11.84	13.86	-68.02	-104.07	248.68	133.35	108.26	25.09	5.316	
3,600.00	3,594.06	3,598.75	3,586.83	12.19	14.28	-67.47	-109.07	255.82	136.32	110.50	25.82	5.280	
3,700.00	3,693.88	3,698.70	3,686.40	12.54	14.70	-66.94	-114.07	262.95	139.30	112.75	26.55	5.247	
3,800.00	3,793.69	3,798.64	3,785.96	12.90	15.13	-66.44	-119.06	270.09	142.29	115.01	27.28	5.217	
3,900.00	3,893.50	3,898.59	3,885.53	13.25	15.55	-65.95	-124.06	277.22	145.29	117.28	28.00	5.188	
4,000.00	3,993.32	3,998.54	3,985.10	13.60	15.97	-65.49	-129.06	284.36	148.30	119.57	28.73	5.162	
4,100.00	4,093.13	4,098.49	4,084.67	13.95	16.39	-65.05	-134.05	291.49	151.32	121.86	29.46	5.137	
4,200.00	4,192.94	4,198.43	4,184.23	14.31	16.82	-64.62	-139.05	298.63	154.35	124.16	30.19	5.113	
4,300.00	4,292.76	4,298.38	4,283.80	14.66	17.24	-64.21	-144.05	305.76	157.39	126.47	30.91	5.092	
4,400.00	4,392.57	4,398.33	4,383.37	15.01	17.66	-63.81	-149.04	312.90	160.43	128.79	31.64	5.071	
4,500.00	4,492.47	4,500.14	4,484.82	15.31	18.06	-63.04	-153.88	319.81	163.99	131.77	32.22	5.090	
4,600.00	4,592.46	4,604.11	4,588.65	15.59	18.33	77.98	-156.96	324.20	167.02	134.31	32.71	5.107	
4,700.00	4,692.46	4,707.94	4,692.46	15.85	18.60	78.38	-157.88	325.52	168.08	134.86	33.22	5.060	
4,800.00	4,792.46	4,807.94	4,792.46	16.12	18.84	78.38	-157.88	325.52	168.08	134.33	33.74	4.981	
4,900.00	4,892.46	4,907.94	4,892.46	16.38	19.08	78.38	-157.88	325.52	168.08	133.82	34.25	4.907	
5,000.00	4,992.46	5,007.94	4,992.46	16.65	19.32	78.38	-157.88	325.52	168.08	133.30	34.77	4.834	
5,063.64	5,056.10	5,071.58	5,056.10	16.82	19.47	78.38	-157.88	325.52	168.08	132.97	35.10	4.788	

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													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	5,092.46	5,107.43	5,091.95	16.92	19.56	78.36	-157.82	325.52	168.09	132.80	35.29	4.763		
5,200.00	5,192.46	5,200.00	5,183.90	17.20	19.73	75.20	-148.23	325.52	170.50	134.61	35.88	4.751		
5,300.00	5,292.46	5,286.73	5,267.25	17.47	19.80	67.82	-124.63	325.52	179.56	143.03	36.53	4.915		
5,400.00	5,392.13	5,366.15	5,339.19	17.74	19.82	58.38	-91.15	325.52	196.95	159.57	37.38	5.269		
5,500.00	5,488.82	5,442.39	5,402.70	17.99	19.81	50.83	-49.10	325.52	216.63	178.88	37.75	5.739		
5,600.00	5,578.98	5,516.31	5,457.79	18.23	19.79	45.24	0.10	325.53	235.89	198.52	37.37	6.312		
5,700.00	5,659.30	5,588.51	5,504.34	18.44	19.76	41.21	55.21	325.53	252.97	216.62	36.35	6.959		
5,800.00	5,726.82	5,659.47	5,542.25	18.65	19.74	38.43	115.13	325.53	266.72	231.77	34.96	7.630		
5,900.00	5,779.07	5,729.58	5,571.37	18.89	19.80	36.67	178.85	325.53	276.41	242.70	33.71	8.200		
6,000.00	5,814.13	5,800.00	5,591.74	19.21	20.35	35.79	246.20	325.54	281.60	248.61	32.99	8.537		
6,100.00	5,830.70	5,868.62	5,602.68	19.61	21.18	35.71	313.89	325.54	282.06	248.68	33.37	8.451		
6,200.00	5,832.00	5,947.07	5,605.00	20.08	22.32	35.95	392.27	325.54	280.41	245.79	34.62	8.100		
6,300.00	5,832.00	6,047.07	5,605.00	20.65	23.97	35.95	492.27	325.55	280.40	244.24	36.17	7.753		
6,400.00	5,832.00	6,147.07	5,605.00	21.31	25.82	35.95	592.27	325.55	280.40	242.51	37.89	7.400		
6,500.00	5,832.00	6,247.07	5,605.00	22.04	27.84	35.95	692.27	325.55	280.40	240.64	39.77	7.051		
6,600.00	5,832.00	6,347.07	5,605.00	22.85	30.00	35.95	792.27	325.56	280.40	238.64	41.77	6.714		
6,700.00	5,832.00	6,447.07	5,605.00	23.72	32.26	35.95	892.27	325.56	280.40	236.53	43.87	6.391		
6,800.00	5,832.00	6,547.07	5,605.00	24.65	34.61	35.95	992.27	325.57	280.40	234.34	46.07	6.087		
6,900.00	5,832.00	6,647.07	5,605.00	25.63	37.04	35.95	1,092.27	325.57	280.40	232.06	48.34	5.801		
7,000.00	5,832.00	6,747.07	5,605.00	26.65	39.52	35.95	1,192.27	325.57	280.40	229.73	50.67	5.533		
7,100.00	5,832.00	6,847.07	5,605.00	27.72	42.05	35.95	1,292.27	325.58	280.40	227.33	53.07	5.284		
7,200.00	5,832.00	6,947.07	5,605.00	28.82	44.63	35.95	1,392.27	325.58	280.40	224.89	55.51	5.051		
7,300.00	5,832.00	7,047.07	5,605.00	29.95	47.24	35.95	1,492.27	325.59	280.40	222.40	58.00	4.835		
7,400.00	5,832.00	7,147.07	5,605.00	31.11	49.88	35.95	1,592.27	325.59	280.40	219.88	60.52	4.633		
7,500.00	5,832.00	7,247.07	5,605.00	32.30	52.54	35.95	1,692.27	325.59	280.40	217.32	63.08	4.445		
7,600.00	5,832.00	7,347.07	5,605.00	33.50	55.23	35.95	1,792.27	325.60	280.40	214.73	65.67	4.270		
7,700.00	5,832.00	7,447.07	5,605.00	34.73	57.93	35.95	1,892.27	325.60	280.40	212.12	68.28	4.107		
7,800.00	5,832.00	7,547.07	5,605.00	35.98	60.65	35.95	1,992.27	325.61	280.39	209.48	70.92	3.954		
7,900.00	5,832.00	7,647.07	5,605.00	37.24	63.39	35.95	2,092.27	325.61	280.39	206.82	73.58	3.811		
8,000.00	5,832.00	7,747.07	5,605.00	38.52	66.13	35.95	2,192.27	325.61	280.39	204.14	76.25	3.677		
8,100.00	5,832.00	7,847.07	5,605.00	39.81	68.89	35.95	2,292.27	325.62	280.39	201.44	78.95	3.552		
8,200.00	5,832.00	7,947.07	5,605.00	41.12	71.65	35.95	2,392.27	325.62	280.39	198.73	81.66	3.434		
8,300.00	5,832.00	8,047.07	5,605.00	42.43	74.43	35.95	2,492.27	325.63	280.39	196.01	84.38	3.323		
8,400.00	5,832.00	8,147.07	5,605.00	43.76	77.21	35.95	2,592.27	325.63	280.39	193.27	87.12	3.218		
8,500.00	5,832.00	8,247.07	5,605.00	45.09	80.00	35.95	2,692.27	325.63	280.39	190.52	89.87	3.120		
8,600.00	5,832.00	8,347.07	5,605.00	46.43	82.80	35.95	2,792.27	325.64	280.39	187.76	92.63	3.027		
8,700.00	5,832.00	8,447.07	5,605.00	47.78	85.60	35.95	2,892.27	325.64	280.39	184.99	95.40	2.939		
8,800.00	5,832.00	8,547.07	5,605.00	49.14	88.41	35.94	2,992.27	325.65	280.39	182.21	98.18	2.856		
8,900.00	5,832.00	8,647.07	5,605.00	50.50	91.22	35.94	3,092.27	325.65	280.39	179.43	100.96	2.777		
9,000.00	5,832.00	8,747.07	5,605.00	51.87	94.03	35.94	3,192.27	325.65	280.39	176.63	103.76	2.702		
9,100.00	5,832.00	8,847.07	5,605.00	53.25	96.85	35.94	3,292.27	325.66	280.39	173.83	106.56	2.631		
9,200.00	5,832.00	8,947.07	5,605.00	54.63	99.67	35.94	3,392.27	325.66	280.38	171.02	109.36	2.564		
9,300.00	5,832.00	9,047.07	5,605.00	56.01	102.50	35.94	3,492.27	325.67	280.38	168.21	112.18	2.499		
9,400.00	5,832.00	9,147.07	5,605.00	57.40	105.33	35.94	3,592.27	325.67	280.38	165.39	115.00	2.438		
9,500.00	5,832.00	9,247.07	5,605.00	58.79	108.16	35.94	3,692.27	325.67	280.38	162.56	117.82	2.380		
9,600.00	5,832.00	9,347.07	5,605.00	60.19	110.99	35.94	3,792.27	325.68	280.38	159.73	120.65	2.324		
9,700.00	5,832.00	9,447.07	5,605.00	61.59	113.83	35.94	3,892.27	325.68	280.38	156.90	123.49	2.271		
9,800.00	5,832.00	9,547.07	5,605.00	62.99	116.67	35.94	3,992.27	325.69	280.38	154.06	126.32	2.220		
9,900.00	5,832.00	9,647.07	5,605.00	64.40	119.51	35.94	4,092.27	325.69	280.38	151.21	129.17	2.171		
10,000.00	5,832.00	9,747.07	5,605.00	65.81	122.35	35.94	4,192.27	325.69	280.38	148.37	132.01	2.124		
10,100.00	5,832.00	9,847.07	5,605.00	67.22	125.19	35.94	4,292.27	325.70	280.38	145.52	134.86	2.079		
10,200.00	5,832.00	9,947.07	5,605.00	68.63	128.04	35.94	4,392.27	325.70	280.38	142.66	137.71	2.036		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													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	5,832.00	10,047.07	5,605.00	70.05	130.89	35.94	4,492.27	325.71	280.38	139.81	140.57	1.995		
10,400.00	5,832.00	10,147.07	5,605.00	71.47	133.73	35.94	4,592.27	325.71	280.38	136.95	143.43	1.955		
10,500.00	5,832.00	10,247.07	5,605.00	72.89	136.58	35.94	4,692.27	325.71	280.38	134.09	146.29	1.917		
10,600.00	5,832.00	10,347.07	5,605.00	74.31	139.43	35.94	4,792.27	325.72	280.38	131.22	149.15	1.880		
10,700.00	5,832.00	10,447.07	5,605.00	75.74	142.29	35.94	4,892.27	325.72	280.37	128.36	152.02	1.844		
10,800.00	5,832.00	10,547.07	5,605.00	77.16	145.14	35.94	4,992.27	325.73	280.37	125.49	154.89	1.810		
10,900.00	5,832.00	10,647.07	5,605.00	78.59	147.99	35.94	5,092.27	325.73	280.37	122.62	157.76	1.777		
11,000.00	5,832.00	10,747.07	5,605.00	80.02	150.85	35.94	5,192.27	325.73	280.37	119.74	160.63	1.745		
11,100.00	5,832.00	10,847.07	5,605.00	81.45	153.71	35.94	5,292.27	325.74	280.37	116.87	163.50	1.715		
11,200.00	5,832.00	10,947.07	5,605.00	82.89	156.56	35.94	5,392.27	325.74	280.37	113.99	166.38	1.685		
11,300.00	5,832.00	11,047.07	5,605.00	84.32	159.42	35.94	5,492.27	325.75	280.37	111.11	169.26	1.656		
11,400.00	5,832.00	11,147.07	5,605.00	85.76	162.28	35.94	5,592.27	325.75	280.37	108.23	172.14	1.629		
11,500.00	5,832.00	11,247.07	5,605.00	87.19	165.14	35.94	5,692.27	325.75	280.37	105.35	175.02	1.602		
11,600.00	5,832.00	11,347.07	5,605.00	88.63	168.00	35.94	5,792.27	325.76	280.37	102.47	177.90	1.576		
11,700.00	5,832.00	11,447.07	5,605.00	90.07	170.86	35.94	5,892.27	325.76	280.37	99.58	180.78	1.551		
11,800.00	5,832.00	11,547.07	5,605.00	91.51	173.72	35.94	5,992.27	325.77	280.37	96.70	183.67	1.526		
11,900.00	5,832.00	11,647.07	5,605.00	92.95	176.58	35.94	6,092.27	325.77	280.37	93.81	186.56	1.503		
12,000.00	5,832.00	11,747.07	5,605.00	94.39	179.45	35.94	6,192.27	325.77	280.37	90.92	189.44	1.480 Level 3		
12,100.00	5,832.00	11,847.07	5,605.00	95.83	182.31	35.94	6,292.27	325.78	280.37	88.03	192.33	1.458 Level 3		
12,200.00	5,832.00	11,947.07	5,605.00	97.28	185.17	35.94	6,392.27	325.78	280.36	85.14	195.22	1.436 Level 3		
12,300.00	5,832.00	12,047.07	5,605.00	98.72	188.04	35.94	6,492.27	325.79	280.36	82.25	198.12	1.415 Level 3		
12,400.00	5,832.00	12,147.07	5,605.00	100.17	190.90	35.94	6,592.27	325.79	280.36	79.36	201.01	1.395 Level 3		
12,500.00	5,832.00	12,247.07	5,605.00	101.61	193.77	35.94	6,692.27	325.80	280.36	76.46	203.90	1.375 Level 3		
12,600.00	5,832.00	12,347.07	5,605.00	103.06	196.63	35.94	6,792.27	325.80	280.36	73.57	206.80	1.356 Level 3		
12,700.00	5,832.00	12,447.07	5,605.00	104.51	199.50	35.94	6,892.27	325.80	280.36	70.67	209.69	1.337 Level 3		
12,800.00	5,832.00	12,547.07	5,605.00	105.95	202.37	35.94	6,992.27	325.81	280.36	67.77	212.59	1.319 Level 3		
12,900.00	5,832.00	12,647.07	5,605.00	107.40	205.23	35.94	7,092.27	325.81	280.36	64.88	215.48	1.301 Level 3		
13,000.00	5,832.00	12,747.07	5,605.00	108.85	208.10	35.94	7,192.27	325.82	280.36	61.98	218.38	1.284 Level 3		
13,100.00	5,832.00	12,847.07	5,605.00	110.30	210.97	35.94	7,292.27	325.82	280.36	59.08	221.28	1.267 Level 3		
13,200.00	5,832.00	12,947.07	5,605.00	111.75	213.84	35.94	7,392.27	325.82	280.36	56.18	224.18	1.251 Level 3		
13,300.00	5,832.00	13,047.07	5,605.00	113.20	216.70	35.94	7,492.27	325.83	280.36	53.28	227.08	1.235 Level 2		
13,400.00	5,832.00	13,147.07	5,605.00	114.66	219.57	35.94	7,592.27	325.83	280.36	50.38	229.98	1.219 Level 2		
13,500.00	5,832.00	13,247.07	5,605.00	116.11	222.44	35.94	7,692.27	325.84	280.36	47.48	232.88	1.204 Level 2		
13,600.00	5,832.00	13,347.07	5,605.00	117.56	225.31	35.94	7,792.27	325.84	280.35	44.57	235.78	1.189 Level 2		
13,700.00	5,832.00	13,447.07	5,605.00	119.01	228.18	35.94	7,892.27	325.84	280.35	41.67	238.68	1.175 Level 2		
13,800.00	5,832.00	13,547.07	5,605.00	120.47	231.05	35.94	7,992.27	325.85	280.35	38.77	241.59	1.160 Level 2		
13,900.00	5,832.00	13,647.07	5,605.00	121.92	233.92	35.94	8,092.27	325.85	280.35	35.86	244.49	1.147 Level 2		
14,000.00	5,832.00	13,747.07	5,605.00	123.38	236.79	35.93	8,192.27	325.86	280.35	32.96	247.39	1.133 Level 2		
14,100.00	5,832.00	13,847.07	5,605.00	124.83	239.66	35.93	8,292.27	325.86	280.35	30.05	250.30	1.120 Level 2		
14,200.00	5,832.00	13,947.07	5,605.00	126.28	242.53	35.93	8,392.27	325.86	280.35	27.15	253.20	1.107 Level 2		
14,300.00	5,832.00	14,047.07	5,605.00	127.74	245.40	35.93	8,492.27	325.87	280.35	24.24	256.11	1.095 Level 2		
14,400.00	5,832.00	14,147.07	5,605.00	129.20	248.27	35.93	8,592.27	325.87	280.35	21.33	259.01	1.082 Level 2		
14,500.00	5,832.00	14,247.07	5,605.00	130.65	251.15	35.93	8,692.27	325.88	280.35	18.43	261.92	1.070 Level 2		
14,600.00	5,832.00	14,347.07	5,605.00	132.11	254.02	35.93	8,792.27	325.88	280.35	15.52	264.83	1.059 Level 2		
14,700.00	5,832.00	14,447.07	5,605.00	133.57	256.89	35.93	8,892.27	325.88	280.35	12.61	267.74	1.047 Level 2		
14,800.00	5,832.00	14,547.07	5,605.00	135.02	259.76	35.93	8,992.27	325.89	280.35	9.70	270.64	1.036 Level 2		
14,900.00	5,832.00	14,647.07	5,605.00	136.48	262.63	35.93	9,092.27	325.89	280.35	6.80	273.55	1.025 Level 2		
15,000.00	5,832.00	14,747.07	5,605.00	137.94	265.50	35.93	9,192.27	325.90	280.35	3.89	276.46	1.014 Level 2		
15,100.00	5,832.00	14,847.07	5,605.00	139.40	268.38	35.93	9,292.27	325.90	280.34	0.98	279.37	1.003 Level 2		
15,200.00	5,832.00	14,947.07	5,605.00	140.86	271.25	35.93	9,392.27	325.90	280.34	-1.93	282.28	0.993 Level 1		
15,300.00	5,832.00	15,047.07	5,605.00	142.31	274.12	35.93	9,492.27	325.91	280.34	-4.84	285.19	0.983 Level 1		
15,400.00	5,832.00	15,147.07	5,605.00	143.77	277.00	35.93	9,592.27	325.91	280.34	-7.75	288.10	0.973 Level 1		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design Sec 25-T10N-R58W - Razor #25O-2412 - HZ - APD												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												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	
15,500.00	5,832.00	15,247.07	5,605.00	145.23	279.87	35.93	9,692.27	325.92	280.34	-10.66	291.01	0.963	Level 1
15,600.00	5,832.00	15,347.07	5,605.00	146.69	282.74	35.93	9,792.27	325.92	280.34	-13.58	293.92	0.954	Level 1
15,700.00	5,832.00	15,447.07	5,605.00	148.15	285.62	35.93	9,892.27	325.92	280.34	-16.49	296.83	0.944	Level 1
15,800.00	5,832.00	15,547.07	5,605.00	149.61	288.49	35.93	9,992.27	325.93	280.34	-19.40	299.74	0.935	Level 1
15,900.00	5,832.00	15,647.07	5,605.00	151.07	291.36	35.93	10,092.27	325.93	280.34	-22.31	302.65	0.926	Level 1
15,999.97	5,832.00	15,747.04	5,605.00	152.53	294.24	35.93	10,192.24	325.94	280.34	-25.22	305.56	0.917	Level 1
16,004.19	5,832.00	15,751.26	5,605.00	152.59	294.36	35.93	10,196.46	325.94	280.34	-25.35	305.68	0.917	Level 1, ES, SF



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	-91.93	-1.01	-29.99	30.01					
100.00	100.00	100.00	100.00	0.13	0.13	-91.93	-1.01	-29.99	30.01	29.74	0.27	112.670		
200.00	200.00	200.00	200.00	0.47	0.47	-91.93	-1.01	-29.99	30.01	29.07	0.94	31.903		
300.00	300.00	300.00	300.00	0.81	0.81	-91.93	-1.01	-29.99	30.01	28.39	1.61	18.582 CC, ES		
400.00	399.98	399.26	399.24	1.11	1.11	128.18	-2.33	-31.10	32.24	30.02	2.23	14.489		
500.00	499.84	498.22	498.06	1.42	1.41	128.34	-6.26	-34.40	38.87	36.04	2.83	13.750		
600.00	599.66	597.85	597.45	1.73	1.73	127.82	-11.59	-38.87	47.29	43.83	3.46	13.685		
700.00	699.47	697.49	696.85	2.05	2.05	127.45	-16.91	-43.33	55.71	51.61	4.10	13.583		
800.00	799.29	797.14	796.25	2.39	2.39	127.18	-22.24	-47.80	64.13	59.37	4.76	13.468		
900.00	899.10	896.78	895.65	2.73	2.73	126.97	-27.56	-52.27	72.55	67.12	5.43	13.358		
1,000.00	998.91	996.43	995.05	3.07	3.08	126.81	-32.89	-56.74	80.98	74.87	6.11	13.258		
1,100.00	1,098.73	1,096.07	1,094.46	3.42	3.42	126.68	-38.21	-61.21	89.40	82.61	6.79	13.170		
1,200.00	1,198.54	1,195.71	1,193.86	3.77	3.77	126.57	-43.53	-65.67	97.83	90.35	7.47	13.092		
1,300.00	1,298.35	1,295.36	1,293.26	4.11	4.13	126.47	-48.86	-70.14	106.25	98.09	8.16	13.023		
1,400.00	1,398.17	1,395.00	1,392.66	4.46	4.48	126.39	-54.18	-74.61	114.68	105.83	8.85	12.962		
1,500.00	1,497.98	1,494.65	1,492.06	4.81	4.83	126.33	-59.51	-79.08	123.10	113.57	9.54	12.908		
1,600.00	1,597.79	1,594.29	1,591.46	5.16	5.18	126.27	-64.83	-83.54	131.53	121.30	10.23	12.860		
1,700.00	1,697.61	1,693.94	1,690.87	5.51	5.54	126.21	-70.16	-88.01	139.96	129.04	10.92	12.817		
1,800.00	1,797.42	1,793.58	1,790.27	5.86	5.89	126.17	-75.48	-92.48	148.38	136.77	11.61	12.778		
1,900.00	1,897.23	1,893.22	1,889.67	6.21	6.24	126.13	-80.81	-96.95	156.81	144.50	12.31	12.743		
2,000.00	1,997.05	1,992.87	1,989.07	6.56	6.60	126.09	-86.13	-101.42	165.24	152.24	13.00	12.711		
2,100.00	2,096.86	2,092.51	2,088.47	6.91	6.95	126.05	-91.46	-105.88	173.66	159.97	13.69	12.682		
2,200.00	2,196.67	2,192.16	2,187.87	7.26	7.31	126.02	-96.78	-110.35	182.09	167.70	14.39	12.655		
2,300.00	2,296.49	2,291.80	2,287.27	7.62	7.66	126.00	-102.11	-114.82	190.51	175.43	15.08	12.631		
2,400.00	2,396.30	2,391.45	2,386.68	7.97	8.02	125.97	-107.43	-119.29	198.94	183.16	15.78	12.608		
2,500.00	2,496.11	2,491.09	2,486.08	8.32	8.37	125.95	-112.75	-123.76	207.37	190.89	16.47	12.588		
2,600.00	2,595.93	2,590.73	2,585.48	8.67	8.73	125.93	-118.08	-128.22	215.79	198.63	17.17	12.568		
2,700.00	2,695.74	2,690.38	2,684.88	9.02	9.08	125.91	-123.40	-132.69	224.22	206.36	17.87	12.550		
2,800.00	2,795.55	2,790.02	2,784.28	9.37	9.44	125.89	-128.73	-137.16	232.65	214.09	18.56	12.534		
2,900.00	2,895.37	2,889.67	2,883.68	9.73	9.79	125.87	-134.05	-141.63	241.08	221.82	19.26	12.518		
3,000.00	2,995.18	2,989.31	2,983.09	10.08	10.15	125.85	-139.38	-146.10	249.50	229.55	19.95	12.503		
3,100.00	3,095.00	3,088.96	3,082.49	10.43	10.50	125.84	-144.70	-150.56	257.93	237.28	20.65	12.490		
3,200.00	3,194.81	3,188.60	3,181.89	10.78	10.86	125.82	-150.03	-155.03	266.36	245.01	21.35	12.477		
3,300.00	3,294.62	3,288.24	3,281.29	11.13	11.22	125.81	-155.35	-159.50	274.78	252.74	22.05	12.465		
3,400.00	3,394.44	3,387.89	3,380.69	11.49	11.57	125.80	-160.68	-163.97	283.21	260.47	22.74	12.453		
3,500.00	3,494.25	3,484.17	3,486.81	11.84	11.90	126.01	-165.17	-167.74	290.64	267.22	23.42	12.412		
3,600.00	3,594.06	3,601.45	3,594.06	12.19	12.20	126.76	-166.67	-169.00	295.52	271.44	24.07	12.275		
3,700.00	3,693.88	3,701.27	3,693.88	12.54	12.49	127.70	-166.67	-169.00	299.21	274.50	24.71	12.107		
3,800.00	3,793.69	3,801.08	3,793.69	12.90	12.75	128.61	-166.67	-169.00	302.99	277.66	25.33	11.962		
3,900.00	3,893.50	3,900.89	3,893.50	13.25	13.02	129.50	-166.67	-169.00	306.84	280.90	25.94	11.827		
4,000.00	3,993.32	4,000.71	3,993.32	13.60	13.28	130.37	-166.67	-169.00	310.76	284.20	26.56	11.699		
4,100.00	4,093.13	4,100.52	4,093.13	13.95	13.56	131.21	-166.67	-169.00	314.76	287.57	27.18	11.579		
4,200.00	4,192.94	4,200.33	4,192.94	14.31	13.83	132.04	-166.67	-169.00	318.82	291.01	27.81	11.465		
4,300.00	4,292.76	4,300.15	4,292.76	14.66	14.11	132.84	-166.67	-169.00	322.94	294.51	28.43	11.358		
4,400.00	4,392.57	4,399.96	4,392.57	15.01	14.39	133.62	-166.67	-169.00	327.13	298.07	29.06	11.257		
4,500.00	4,492.47	4,499.86	4,492.47	15.31	14.67	134.21	-166.67	-169.00	330.15	300.50	29.65	11.135		
4,600.00	4,592.46	4,599.85	4,592.46	15.59	14.95	-85.65	-166.67	-169.00	330.84	300.62	30.22	10.947		
4,700.00	4,692.46	4,699.85	4,692.46	15.85	15.24	-85.65	-166.67	-169.00	330.84	300.07	30.77	10.752		
4,800.00	4,792.46	4,799.85	4,792.46	16.12	15.53	-85.65	-166.67	-169.00	330.84	299.51	31.33	10.561		
4,900.00	4,892.46	4,899.85	4,892.46	16.38	15.82	-85.65	-166.67	-169.00	330.84	298.96	31.88	10.376		
5,000.00	4,992.46	4,999.85	4,992.46	16.65	16.11	-85.65	-166.67	-169.00	330.84	298.39	32.45	10.196		
5,100.00	5,092.46	5,099.85	5,092.46	16.92	16.41	-85.65	-166.67	-169.00	330.84	297.83	33.01	10.021		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	5,192.46	5,199.85	5,192.46	17.20	16.70	-85.65	-166.67	-169.00	330.84	297.25	33.58	9.851		
5,300.00	5,292.46	5,295.35	5,287.64	17.47	16.98	-84.60	-160.56	-169.00	331.39	297.26	34.13	9.709		
5,400.00	5,392.13	5,386.69	5,376.24	17.74	17.23	-81.64	-138.80	-169.00	333.54	298.92	34.63	9.633		
5,500.00	5,488.82	5,475.57	5,457.51	17.99	17.46	-78.92	-103.09	-169.00	336.31	301.27	35.04	9.599		
5,600.00	5,578.98	5,562.51	5,530.02	18.23	17.66	-76.60	-55.31	-169.00	339.27	303.91	35.36	9.595		
5,700.00	5,659.30	5,650.00	5,593.95	18.44	17.85	-74.71	4.27	-169.00	342.07	306.45	35.62	9.603		
5,800.00	5,726.82	5,732.23	5,644.16	18.65	18.01	-73.38	69.28	-169.00	344.36	308.49	35.87	9.600		
5,900.00	5,779.07	5,815.79	5,684.08	18.89	18.20	-72.52	142.59	-169.00	345.90	309.70	36.20	9.556		
6,000.00	5,814.13	5,900.00	5,711.93	19.21	18.48	-72.19	221.96	-169.00	346.52	309.84	36.68	9.446		
6,100.00	5,830.70	5,982.08	5,726.44	19.61	18.82	-72.39	302.67	-169.00	346.15	308.78	37.37	9.262		
6,199.58	5,834.23	6,071.31	5,729.00	20.08	19.24	-72.31	391.81	-169.00	346.30	308.10	38.20	9.064		
6,200.00	5,832.00	6,071.77	5,729.00	20.08	19.24	-72.66	392.27	-169.00	345.63	307.38	38.25	9.036		
6,300.00	5,832.00	6,171.77	5,729.00	20.65	19.81	-72.66	492.27	-169.00	345.63	306.31	39.32	8.789		
6,400.00	5,832.00	6,271.77	5,729.00	21.31	20.46	-72.66	592.27	-169.00	345.64	305.08	40.56	8.521		
6,500.00	5,832.00	6,371.77	5,729.00	22.04	21.19	-72.66	692.27	-169.01	345.65	303.69	41.96	8.238		
6,600.00	5,832.00	6,471.77	5,729.00	22.85	22.00	-72.66	792.27	-169.01	345.65	302.17	43.49	7.948		
6,700.00	5,832.00	6,571.77	5,729.00	23.72	22.88	-72.66	892.27	-169.01	345.66	300.51	45.14	7.657		
6,800.00	5,832.00	6,671.77	5,729.00	24.65	23.81	-72.66	992.27	-169.01	345.66	298.75	46.91	7.368		
6,900.00	5,832.00	6,771.77	5,729.00	25.63	24.79	-72.66	1,092.27	-169.01	345.67	296.89	48.78	7.086		
7,000.00	5,832.00	6,871.77	5,729.00	26.65	25.83	-72.66	1,192.27	-169.01	345.68	294.94	50.74	6.813		
7,100.00	5,832.00	6,971.77	5,729.00	27.72	26.90	-72.66	1,292.27	-169.01	345.68	292.91	52.78	6.550		
7,200.00	5,832.00	7,071.77	5,729.00	28.82	28.01	-72.67	1,392.27	-169.01	345.69	290.81	54.88	6.299		
7,300.00	5,832.00	7,171.77	5,729.00	29.95	29.15	-72.67	1,492.27	-169.02	345.70	288.64	57.05	6.059		
7,400.00	5,832.00	7,271.77	5,729.00	31.11	30.32	-72.67	1,592.27	-169.02	345.70	286.43	59.28	5.832		
7,500.00	5,832.00	7,371.77	5,729.00	32.30	31.51	-72.67	1,692.27	-169.02	345.71	284.16	61.55	5.617		
7,600.00	5,832.00	7,471.77	5,729.00	33.50	32.73	-72.67	1,792.27	-169.02	345.71	281.85	63.87	5.413		
7,700.00	5,832.00	7,571.77	5,729.00	34.73	33.97	-72.67	1,892.27	-169.02	345.72	279.50	66.22	5.220		
7,800.00	5,832.00	7,671.77	5,729.00	35.98	35.22	-72.67	1,992.27	-169.02	345.73	277.11	68.62	5.039		
7,900.00	5,832.00	7,771.77	5,729.00	37.24	36.49	-72.67	2,092.27	-169.02	345.73	274.69	71.04	4.867		
8,000.00	5,832.00	7,871.77	5,729.00	38.52	37.78	-72.67	2,192.27	-169.02	345.74	272.24	73.49	4.704		
8,100.00	5,832.00	7,971.77	5,729.00	39.81	39.08	-72.67	2,292.27	-169.02	345.74	269.77	75.97	4.551		
8,200.00	5,832.00	8,071.77	5,729.00	41.12	40.39	-72.67	2,392.27	-169.03	345.75	267.27	78.48	4.406		
8,300.00	5,832.00	8,171.77	5,729.00	42.43	41.71	-72.67	2,492.27	-169.03	345.76	264.76	81.00	4.269		
8,400.00	5,832.00	8,271.77	5,729.00	43.76	43.04	-72.67	2,592.27	-169.03	345.76	262.22	83.54	4.139		
8,500.00	5,832.00	8,371.77	5,729.00	45.09	44.38	-72.67	2,692.27	-169.03	345.77	259.66	86.10	4.016		
8,600.00	5,832.00	8,471.77	5,729.00	46.43	45.73	-72.67	2,792.27	-169.03	345.77	257.09	88.68	3.899		
8,700.00	5,832.00	8,571.77	5,729.00	47.78	47.09	-72.67	2,892.27	-169.03	345.78	254.51	91.27	3.788		
8,800.00	5,832.00	8,671.77	5,729.00	49.14	48.45	-72.67	2,992.27	-169.03	345.79	251.91	93.88	3.683		
8,900.00	5,832.00	8,771.77	5,729.00	50.50	49.82	-72.67	3,092.27	-169.03	345.79	249.30	96.50	3.584		
9,000.00	5,832.00	8,871.77	5,729.00	51.87	51.19	-72.67	3,192.27	-169.04	345.80	246.67	99.12	3.489		
9,100.00	5,832.00	8,971.77	5,729.00	53.25	52.57	-72.67	3,292.27	-169.04	345.80	244.04	101.76	3.398		
9,200.00	5,832.00	9,071.77	5,729.00	54.63	53.96	-72.67	3,392.27	-169.04	345.81	241.40	104.41	3.312		
9,300.00	5,832.00	9,171.77	5,729.00	56.01	55.35	-72.67	3,492.27	-169.04	345.82	238.74	107.07	3.230		
9,400.00	5,832.00	9,271.77	5,729.00	57.40	56.74	-72.67	3,592.27	-169.04	345.82	236.08	109.74	3.151		
9,500.00	5,832.00	9,371.77	5,729.00	58.79	58.14	-72.67	3,692.27	-169.04	345.83	233.41	112.41	3.076		
9,600.00	5,832.00	9,471.77	5,729.00	60.19	59.54	-72.67	3,792.27	-169.04	345.84	230.74	115.10	3.005		
9,700.00	5,832.00	9,571.77	5,729.00	61.59	60.94	-72.67	3,892.27	-169.04	345.84	228.06	117.79	2.936		
9,800.00	5,832.00	9,671.77	5,729.00	62.99	62.35	-72.67	3,992.27	-169.04	345.85	225.37	120.48	2.871		
9,900.00	5,832.00	9,771.77	5,729.00	64.40	63.76	-72.67	4,092.27	-169.05	345.85	222.67	123.18	2.808		
10,000.00	5,832.00	9,871.77	5,729.00	65.81	65.17	-72.67	4,192.27	-169.05	345.86	219.97	125.89	2.747		
10,100.00	5,832.00	9,971.77	5,729.00	67.22	66.59	-72.67	4,292.27	-169.05	345.87	217.27	128.60	2.689		
10,200.00	5,832.00	10,071.77	5,729.00	68.63	68.01	-72.67	4,392.27	-169.05	345.87	214.56	131.32	2.634		

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	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	5,832.00	10,171.77	5,729.00	70.05	69.43	-72.67	4,492.27	-169.05	345.88	211.84	134.04	2.580		
10,400.00	5,832.00	10,271.77	5,729.00	71.47	70.85	-72.68	4,592.27	-169.05	345.88	209.12	136.76	2.529		
10,500.00	5,832.00	10,371.77	5,729.00	72.89	72.27	-72.68	4,692.27	-169.05	345.89	206.40	139.49	2.480		
10,600.00	5,832.00	10,471.77	5,729.00	74.31	73.70	-72.68	4,792.27	-169.05	345.90	203.67	142.22	2.432		
10,700.00	5,832.00	10,571.77	5,729.00	75.74	75.13	-72.68	4,892.27	-169.06	345.90	200.94	144.96	2.386		
10,800.00	5,832.00	10,671.77	5,729.00	77.16	76.55	-72.68	4,992.27	-169.06	345.91	198.21	147.70	2.342		
10,900.00	5,832.00	10,771.77	5,729.00	78.59	77.99	-72.68	5,092.27	-169.06	345.91	195.47	150.44	2.299		
11,000.00	5,832.00	10,871.77	5,729.00	80.02	79.42	-72.68	5,192.27	-169.06	345.92	192.73	153.19	2.258		
11,100.00	5,832.00	10,971.77	5,729.00	81.45	80.85	-72.68	5,292.27	-169.06	345.93	189.99	155.94	2.218		
11,200.00	5,832.00	11,071.77	5,729.00	82.89	82.29	-72.68	5,392.27	-169.06	345.93	187.24	158.69	2.180		
11,300.00	5,832.00	11,171.77	5,729.00	84.32	83.72	-72.68	5,492.27	-169.06	345.94	184.49	161.45	2.143		
11,400.00	5,832.00	11,271.77	5,729.00	85.76	85.16	-72.68	5,592.27	-169.06	345.94	181.74	164.20	2.107		
11,500.00	5,832.00	11,371.77	5,729.00	87.19	86.60	-72.68	5,692.27	-169.06	345.95	178.99	166.96	2.072		
11,600.00	5,832.00	11,471.77	5,729.00	88.63	88.04	-72.68	5,792.27	-169.07	345.96	176.23	169.72	2.038		
11,700.00	5,832.00	11,571.77	5,729.00	90.07	89.48	-72.68	5,892.27	-169.07	345.96	173.48	172.49	2.006		
11,800.00	5,832.00	11,671.77	5,729.00	91.51	90.92	-72.68	5,992.27	-169.07	345.97	170.72	175.25	1.974		
11,900.00	5,832.00	11,771.77	5,729.00	92.95	92.37	-72.68	6,092.27	-169.07	345.98	167.95	178.02	1.943		
12,000.00	5,832.00	11,871.77	5,729.00	94.39	93.81	-72.68	6,192.27	-169.07	345.98	165.19	180.79	1.914		
12,100.00	5,832.00	11,971.77	5,729.00	95.83	95.25	-72.68	6,292.27	-169.07	345.99	162.43	183.56	1.885		
12,200.00	5,832.00	12,071.77	5,729.00	97.28	96.70	-72.68	6,392.27	-169.07	345.99	159.66	186.33	1.857		
12,300.00	5,832.00	12,171.77	5,729.00	98.72	98.15	-72.68	6,492.27	-169.07	346.00	156.89	189.11	1.830		
12,400.00	5,832.00	12,271.77	5,729.00	100.17	99.59	-72.68	6,592.27	-169.08	346.01	154.12	191.88	1.803		
12,500.00	5,832.00	12,371.77	5,729.00	101.61	101.04	-72.68	6,692.27	-169.08	346.01	151.35	194.66	1.778		
12,600.00	5,832.00	12,471.77	5,729.00	103.06	102.49	-72.68	6,792.27	-169.08	346.02	148.58	197.44	1.753		
12,700.00	5,832.00	12,571.77	5,729.00	104.51	103.94	-72.68	6,892.27	-169.08	346.02	145.80	200.22	1.728		
12,800.00	5,832.00	12,671.77	5,729.00	105.95	105.39	-72.68	6,992.27	-169.08	346.03	143.03	203.00	1.705		
12,900.00	5,832.00	12,771.77	5,729.00	107.40	106.84	-72.68	7,092.27	-169.08	346.04	140.25	205.78	1.682		
13,000.00	5,832.00	12,871.77	5,729.00	108.85	108.29	-72.68	7,192.27	-169.08	346.04	137.47	208.57	1.659		
13,100.00	5,832.00	12,971.77	5,729.00	110.30	109.74	-72.68	7,292.27	-169.08	346.05	134.70	211.35	1.637		
13,200.00	5,832.00	13,071.77	5,729.00	111.75	111.19	-72.68	7,392.27	-169.08	346.05	131.92	214.14	1.616		
13,300.00	5,832.00	13,171.77	5,729.00	113.20	112.64	-72.68	7,492.27	-169.09	346.06	129.13	216.93	1.595		
13,400.00	5,832.00	13,271.77	5,729.00	114.66	114.10	-72.68	7,592.27	-169.09	346.07	126.35	219.71	1.575		
13,500.00	5,832.00	13,371.77	5,729.00	116.11	115.55	-72.68	7,692.27	-169.09	346.07	123.57	222.50	1.555		
13,600.00	5,832.00	13,471.77	5,729.00	117.56	117.00	-72.69	7,792.27	-169.09	346.08	120.79	225.29	1.536		
13,700.00	5,832.00	13,571.77	5,729.00	119.01	118.46	-72.69	7,892.27	-169.09	346.08	118.00	228.08	1.517		
13,800.00	5,832.00	13,671.77	5,729.00	120.47	119.91	-72.69	7,992.27	-169.09	346.09	115.22	230.88	1.499	Level 3	
13,900.00	5,832.00	13,771.77	5,729.00	121.92	121.37	-72.69	8,092.27	-169.09	346.10	112.43	233.67	1.481	Level 3	
14,000.00	5,832.00	13,871.77	5,729.00	123.38	122.82	-72.69	8,192.27	-169.09	346.10	109.64	236.46	1.464	Level 3	
14,100.00	5,832.00	13,971.77	5,729.00	124.83	124.28	-72.69	8,292.27	-169.10	346.11	106.85	239.26	1.447	Level 3	
14,200.00	5,832.00	14,071.77	5,729.00	126.28	125.74	-72.69	8,392.27	-169.10	346.11	104.06	242.05	1.430	Level 3	
14,300.00	5,832.00	14,171.77	5,729.00	127.74	127.19	-72.69	8,492.27	-169.10	346.12	101.27	244.85	1.414	Level 3	
14,400.00	5,832.00	14,271.77	5,729.00	129.20	128.65	-72.69	8,592.27	-169.10	346.13	98.48	247.64	1.398	Level 3	
14,500.00	5,832.00	14,371.77	5,729.00	130.65	130.11	-72.69	8,692.27	-169.10	346.13	95.69	250.44	1.382	Level 3	
14,600.00	5,832.00	14,471.77	5,729.00	132.11	131.57	-72.69	8,792.27	-169.10	346.14	92.90	253.24	1.367	Level 3	
14,700.00	5,832.00	14,571.77	5,729.00	133.57	133.02	-72.69	8,892.27	-169.10	346.15	90.11	256.04	1.352	Level 3	
14,800.00	5,832.00	14,671.77	5,729.00	135.02	134.48	-72.69	8,992.27	-169.10	346.15	87.32	258.84	1.337	Level 3	
14,900.00	5,832.00	14,771.77	5,729.00	136.48	135.94	-72.69	9,092.27	-169.10	346.16	84.52	261.64	1.323	Level 3	
15,000.00	5,832.00	14,871.77	5,729.00	137.94	137.40	-72.69	9,192.27	-169.11	346.16	81.73	264.44	1.309	Level 3	
15,100.00	5,832.00	14,971.77	5,729.00	139.40	138.86	-72.69	9,292.27	-169.11	346.17	78.93	267.24	1.295	Level 3	
15,200.00	5,832.00	15,071.77	5,729.00	140.86	140.32	-72.69	9,392.27	-169.11	346.18	76.14	270.04	1.282	Level 3	
15,300.00	5,832.00	15,171.77	5,729.00	142.31	141.78	-72.69	9,492.27	-169.11	346.18	73.34	272.84	1.269	Level 3	
15,400.00	5,832.00	15,271.77	5,729.00	143.77	143.24	-72.69	9,592.27	-169.11	346.19	70.55	275.64	1.256	Level 3	

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



WOG

Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	HZ	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design											Sec 25-T10N-R58W - Razor #250-2443 - 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			
15,500.00	5,832.00	15,371.77	5,729.00	145.23	144.70	-72.69	9,692.27	-169.11	346.19	67.75	278.44	1.243	Level 2		
15,600.00	5,832.00	15,471.77	5,729.00	146.69	146.16	-72.69	9,792.27	-169.11	346.20	64.95	281.25	1.231	Level 2		
15,700.00	5,832.00	15,571.77	5,729.00	148.15	147.62	-72.69	9,892.27	-169.11	346.21	62.15	284.05	1.219	Level 2		
15,800.00	5,832.00	15,671.77	5,729.00	149.61	149.08	-72.69	9,992.27	-169.12	346.21	59.36	286.86	1.207	Level 2		
15,900.00	5,832.00	15,771.77	5,729.00	151.07	150.54	-72.69	10,092.27	-169.12	346.22	56.56	289.66	1.195	Level 2		
15,999.97	5,832.00	15,871.74	5,729.00	152.53	152.00	-72.69	10,192.24	-169.12	346.22	53.76	292.47	1.184	Level 2		
15,999.97	5,832.00	15,871.74	5,729.00	152.53	152.00	-72.69	10,192.24	-169.12	346.22	53.76	292.47	1.184	Level 2		
16,004.19	5,832.00	15,874.95	5,729.00	152.59	152.05	-72.69	10,195.45	-169.12	346.23	53.66	292.57	1.183	Level 2, SF		



WOG

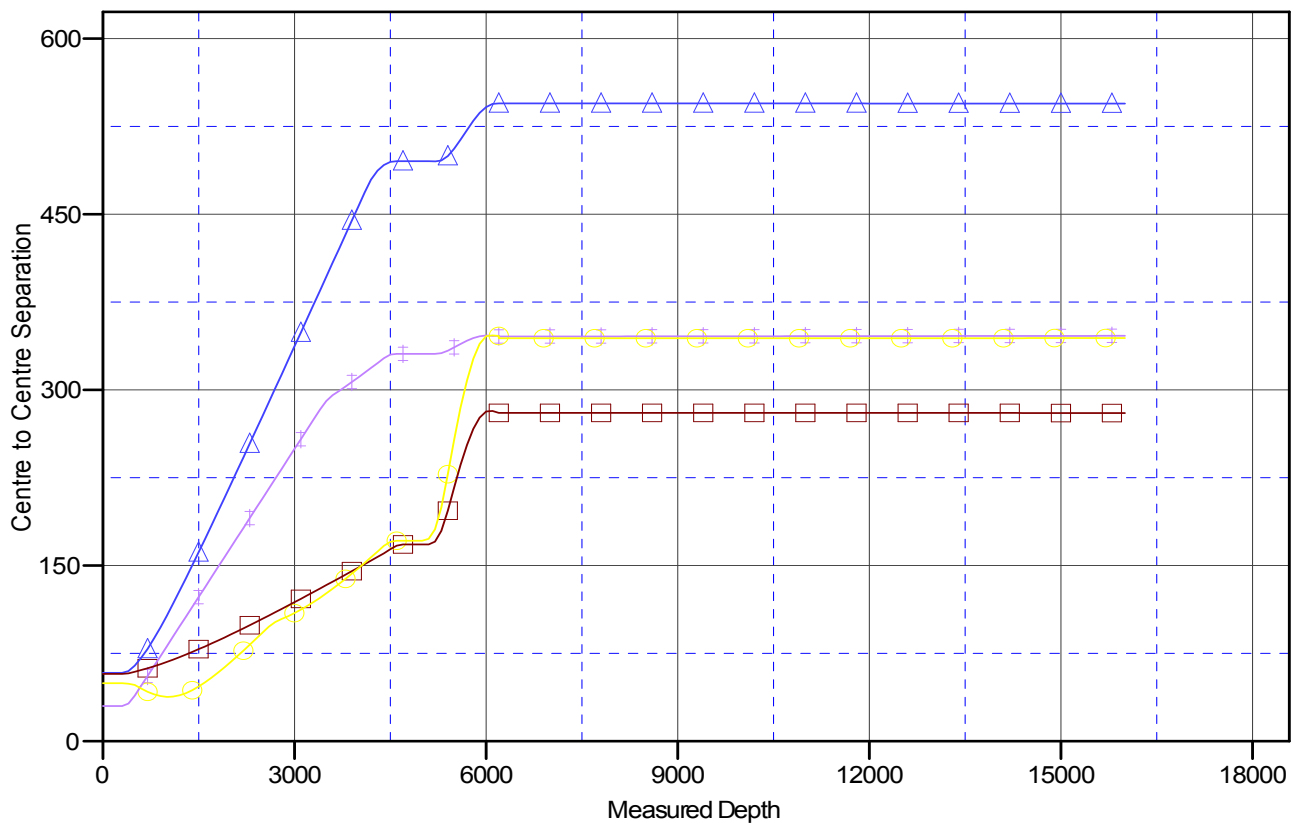
Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	Hz	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 4738.00usft (Original Well Ele)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25O-2444
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.09°

Ladder Plot



LEGEND

- ▲ Razor #25O-2410, Hz, APD V0
- Razor #25O-2412, Hz, APD V0
- + Razor #25O-2443, Hz, APD V0
- Razor #25O-2411, Hz, APD V0



WOG

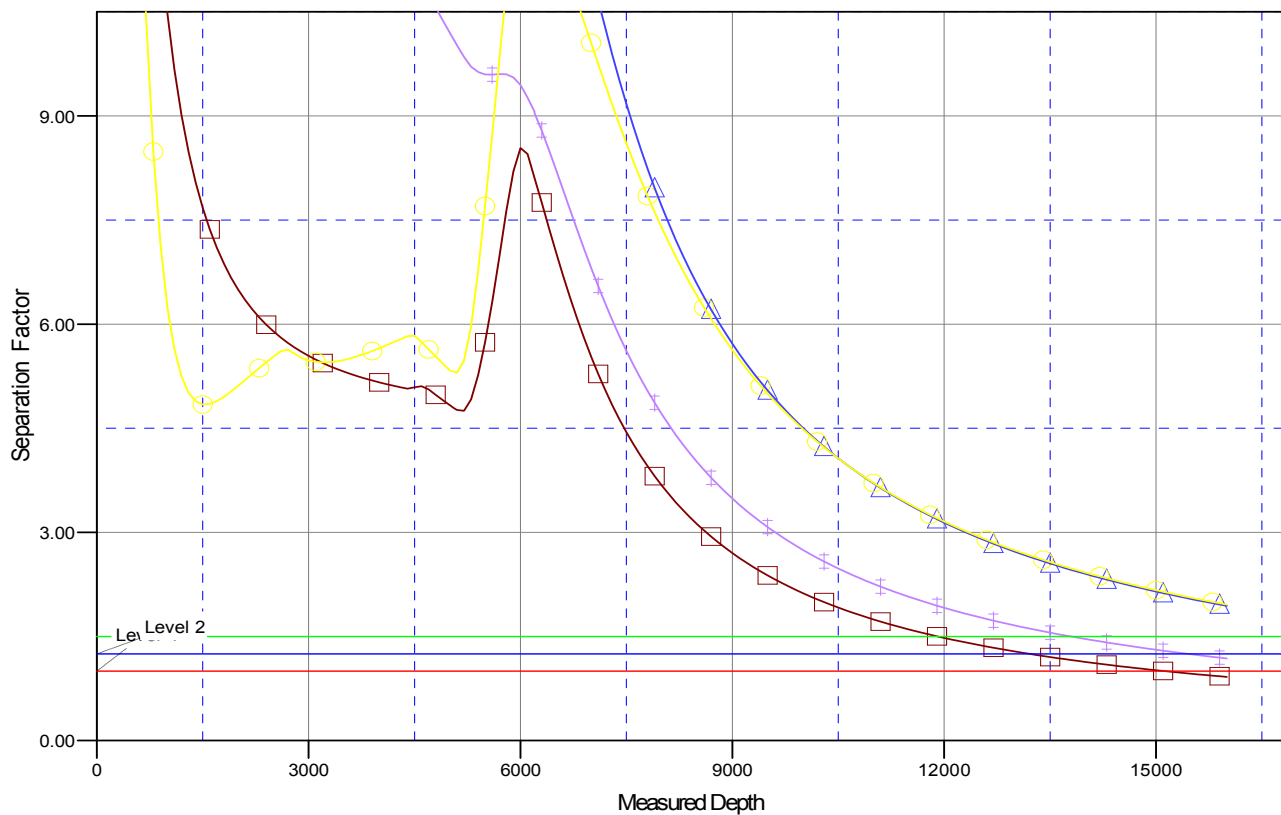
Anticollision Report

Company:	Whiting Petroleum Corp.	Local Co-ordinate Reference:	Well Razor #25O-2444
Project:	Weld County, CO	TVD Reference:	KBE @ 4738.00usft (Original Well Elev)
Reference Site:	Sec 25-T10N-R58W	MD Reference:	KBE @ 4738.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Razor #25O-2444	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	3.00 sigma
Reference Wellbore	Hz	Database:	LandmarkEDM
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 4738.00usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Razor #25O-2444
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 1.09°

Separation Factor Plot



LEGEND

- ▲ Razor #25O-2410,Hz,APDV0
- Razor #25O-2412,Hz,APDV0
- + Razor #25O-2443,Hz,APDV0
- Razor #25O-2411,Hz,APDV0