

EXTRACTION OIL & GAS

**WELD COUNTY, COLORADO (NAD 83)
SW NW SEC. 15 T5N R65W 6th P.M.
VT-GLENMERE C1-16-18**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

10 March, 2016



Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 98.4usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	10/03/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,877.6	PROPOSAL #2 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offet Well - Wellbore - Design						
SW NW SEC. 15 T5N R65W 6th P.M.						
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De:	1,100.0	1,058.0	2,595.0	2,571.9	112.208	CC
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De:	1,181.1	1,139.1	2,595.9	2,570.9	104.119	ES
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - De:	8,350.0	4,600.0	6,499.4	6,317.9	35.797	SF
CARLSON A-15-16HN - Wellbore #1 - Design #1	8,169.3	14,627.4	147.8	-143.6	0.507	Level 1, ES
CARLSON A-15-16HN - Wellbore #1 - Design #1	8,200.0	14,650.6	143.6	-142.0	0.503	Level 1, SF
CARLSON A-15-16HN - Wellbore #1 - Design #1	8,233.0	14,676.6	142.2	-133.2	0.516	Level 1, CC
CARLSON B-15-16HC - Wellbore #1 - Design #1	8,230.0	14,716.3	41.2	-233.9	0.150	Level 1, CC
CARLSON B-15-16HC - Wellbore #1 - Design #1	8,250.0	14,732.6	42.8	-254.0	0.144	Level 1, SF
CARLSON B-15-16HC - Wellbore #1 - Design #1	8,267.7	14,747.4	46.5	-258.1	0.153	Level 1, ES
CARLSON C-15-16HN - Wellbore #1 - Design #1	8,022.5	14,458.8	153.7	-114.5	0.573	Level 1, CC
CARLSON C-15-16HN - Wellbore #1 - Design #1	8,070.8	14,492.1	157.6	-125.6	0.557	Level 1, SF
CARLSON C-15-16HN - Wellbore #1 - Design #1	8,100.0	14,512.2	163.6	-125.6	0.566	Level 1, ES
CARLSON D-15-16HN - Wellbore #1 - Design #1	7,821.9	14,301.4	449.9	189.1	1.725	CC
CARLSON D-15-16HN - Wellbore #1 - Design #1	7,900.0	14,355.2	453.5	182.2	1.671	ES
CARLSON D-15-16HN - Wellbore #1 - Design #1	7,972.4	14,405.2	463.0	183.5	1.657	SF
CARLSON E-15-16HC - Wellbore #1 - Design #1	7,820.7	14,371.4	633.3	372.5	2.429	CC
CARLSON E-15-16HC - Wellbore #1 - Design #1	7,972.4	14,476.0	642.8	366.6	2.328	ES
CARLSON E-15-16HC - Wellbore #1 - Design #1	8,070.8	14,543.9	658.7	374.4	2.316	SF
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,678.3	14,194.5	701.9	443.2	2.714	CC
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,775.6	14,261.3	707.2	440.6	2.653	ES
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,900.0	14,347.1	724.1	447.4	2.617	SF
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,594.7	14,160.1	1,092.9	827.9	4.125	CC
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,600.0	14,163.1	1,092.9	827.9	4.124	ES
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,874.0	14,346.7	1,132.8	855.9	4.092	SF
CARLSON H-15-16HC - Wellbore #1 - Design #1	7,604.8	14,261.7	1,275.0	1,010.9	4.828	CC, ES
CARLSON H-15-16HC - Wellbore #1 - Design #1	8,450.0	14,883.6	1,441.3	1,128.6	4.609	SF
CARLSON I-15-16HN - Wellbore #1 - Design #1	7,486.4	14,149.0	1,454.7	1,191.2	5.522	CC
CARLSON I-15-16HN - Wellbore #1 - Design #1	7,574.0	14,196.8	1,456.5	1,189.2	5.449	ES
CARLSON I-15-16HN - Wellbore #1 - Design #1	8,464.5	14,836.2	1,663.2	1,350.9	5.325	SF
CARLSON J-15-16HN - Wellbore #1 - Design #1	7,367.4	14,148.8	1,769.3	1,509.5	6.808	CC
CARLSON J-15-16HN - Wellbore #1 - Design #1	7,480.3	14,210.4	1,771.9	1,507.5	6.701	ES
CARLSON J-15-16HN - Wellbore #1 - Design #1	8,759.8	14,901.4	2,028.0	1,709.5	6.367	SF
CARLSON K-15-16HC - Wellbore #1 - Design #1	7,399.0	14,277.9	1,950.8	1,690.2	7.487	CC
CARLSON K-15-16HC - Wellbore #1 - Design #1	7,500.0	14,333.1	1,952.6	1,688.1	7.383	ES
CARLSON K-15-16HC - Wellbore #1 - Design #1	8,800.0	15,013.6	2,192.9	1,872.7	6.847	SF
CARLSON L-15-16HN - Wellbore #1 - Design #1	7,248.6	14,159.4	2,084.2	1,827.7	8.128	CC
CARLSON L-15-16HN - Wellbore #1 - Design #1	7,381.9	14,232.2	2,087.1	1,825.7	7.983	ES

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 15 T5N R65W 6th P.M.						
CARLSON L-15-16HN - Wellbore #1 - Design #1	8,858.2	14,977.0	2,370.3	2,049.1	7.378	SF
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	12,644.6	7,233.5	4,554.6	4,330.8	20.347	CC
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	12,795.2	7,232.8	4,557.1	4,329.1	19.988	ES
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	15,200.0	7,221.2	5,222.5	4,927.9	17.728	SF
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	10,047.9	7,403.9	4,435.5	4,276.0	27.802	CC
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	10,137.8	7,402.6	4,436.4	4,274.5	27.395	ES
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	13,484.2	7,357.1	5,610.7	5,357.4	22.150	SF
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	13,368.8	7,358.7	5,064.1	4,814.2	20.264	CC
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	13,500.0	7,358.6	5,065.8	4,812.2	19.981	ES
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	16,240.1	7,357.4	5,821.5	5,491.8	17.659	SF
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	11,966.1	7,059.9	5,067.6	4,872.3	25.955	CC
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	12,106.3	7,059.4	5,069.5	4,870.4	25.463	ES
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	15,649.6	7,047.3	6,264.8	5,967.7	21.083	SF
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	10,650.1	7,950.0	3,528.4	3,360.3	20.998	CC
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	10,728.3	7,950.0	3,529.2	3,359.1	20.742	ES
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	12,696.8	7,950.0	4,079.0	3,855.1	18.214	SF
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	13,979.7	7,894.3	3,129.4	2,846.3	11.051	CC
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	14,074.8	7,897.0	3,130.9	2,845.1	10.954	ES
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	14,960.6	7,922.0	3,279.5	2,969.1	10.565	SF
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	10,834.9	7,905.1	2,438.6	2,259.6	13.622	CC
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	10,900.0	7,907.1	2,439.5	2,258.7	13.494	ES
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	11,712.6	7,941.0	2,591.6	2,388.6	12.766	SF
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	10,006.7	7,850.0	3,108.2	2,946.9	19.274	CC
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	10,100.0	7,850.0	3,109.6	2,945.8	18.990	ES
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	11,614.1	7,850.0	3,499.2	3,294.5	17.094	SF
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	12,773.7	8,191.1	1,857.6	1,623.5	7.937	CC
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	12,800.0	8,191.7	1,857.7	1,623.0	7.913	ES
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	13,188.9	8,211.0	1,903.4	1,657.8	7.750	SF
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	13,221.6	7,358.4	3,851.3	3,604.6	15.613	CC
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	13,300.0	7,353.9	3,852.1	3,603.2	15.481	ES
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	14,862.2	7,255.2	4,184.9	3,893.3	14.349	SF
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	14,601.4	7,771.8	5,085.1	4,776.7	16.490	CC
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	14,763.7	7,795.0	5,087.7	4,774.7	16.258	ES
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	16,929.1	7,840.0	5,589.1	5,215.8	14.973	SF
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	14,049.2	7,699.0	4,387.8	4,105.5	15.540	CC
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	14,173.2	7,699.0	4,389.6	4,103.8	15.360	ES
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	15,944.8	7,699.0	4,779.8	4,444.8	14.268	SF
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	12,752.5	7,750.0	3,237.3	3,005.6	13.969	CC
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	12,800.0	7,750.0	3,237.7	3,004.6	13.893	ES
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	14,000.0	7,750.0	3,469.4	3,203.2	13.035	SF
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	10,625.7	7,094.7	5,156.0	4,990.7	31.189	CC
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	10,800.0	7,094.7	5,159.0	4,988.9	30.341	ES
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	15,157.4	7,095.2	6,864.5	6,574.4	23.664	SF
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	7,048.5	6,699.0	5,134.2	5,026.4	47.604	CC
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	9,547.2	7,455.1	5,140.7	4,981.8	32.359	ES
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	14,200.0	7,416.0	7,029.6	6,743.8	24.596	SF
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	11,260.8	7,131.3	4,480.5	4,303.1	25.255	CC
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	11,400.0	7,130.9	4,482.6	4,301.4	24.738	ES
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	14,400.0	7,122.6	5,470.7	5,206.9	20.733	SF
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	11,494.7	8,004.7	3,059.7	2,871.1	16.222	CC
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	11,600.0	8,004.6	3,061.5	2,870.0	15.992	ES
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	12,800.0	8,002.7	3,326.5	3,102.6	14.857	SF
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,341.7	8,092.0	1,902.1	1,710.9	9.948	CC

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Anticollision Report



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Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 15 T5N R65W 6th P.M.						
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,400.0	8,092.0	1,903.0	1,710.2	9.871	ES
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,900.0	8,092.0	1,982.4	1,775.9	9.602	SF
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	4,089.5	4,327.4	1,529.2	1,492.1	41.233	CC
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	4,133.8	4,359.0	1,529.5	1,491.8	40.628	ES
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	8,592.7	7,190.7	3,685.9	3,577.9	34.138	SF
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	2,858.9	3,117.6	2,059.5	2,035.3	85.197	CC
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	2,900.0	3,137.6	2,059.9	2,035.1	83.212	ES
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	13,400.0	7,325.0	9,951.3	9,706.6	40.663	SF
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	3,130.7	3,448.1	1,657.3	1,629.6	59.744	CC
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	3,200.0	3,501.9	1,658.0	1,629.2	57.476	ES
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	14,074.8	7,213.9	9,981.3	9,724.7	38.898	SF
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	8,865.4	8,140.0	2,966.3	2,814.4	19.540	CC
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	8,956.7	8,140.0	2,967.7	2,813.5	19.251	ES
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	10,433.0	8,140.0	3,355.0	3,161.9	17.368	SF
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	7,341.3	7,596.0	4,233.2	4,109.6	34.241	CC
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	7,400.0	7,617.8	4,233.5	4,109.0	33.992	ES
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	12,106.3	7,215.0	5,540.5	5,302.7	23.297	SF
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	9,460.3	7,752.0	3,887.2	3,732.5	25.129	CC
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	9,547.2	7,752.0	3,888.2	3,731.2	24.768	ES
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	12,106.3	7,560.5	4,697.4	4,471.9	20.832	SF
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	7,802.6	7,000.8	1,841.9	1,733.7	17.022	CC
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	7,874.0	7,051.3	1,842.7	1,733.0	16.801	ES
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	9,448.8	7,321.0	2,002.9	1,860.9	14.100	SF
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	12,073.8	7,793.7	2,481.5	2,273.9	11.954	CC
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	12,106.3	7,794.9	2,481.7	2,273.2	11.903	ES
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	12,900.0	7,827.3	2,615.2	2,384.7	11.346	SF
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	14,630.4	8,027.0	3,831.4	3,517.2	12.194	CC
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	14,763.7	8,027.0	3,833.7	3,515.8	12.059	ES
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	15,944.8	8,027.0	4,050.6	3,699.8	11.548	SF
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	15,426.3	8,199.0	4,460.3	4,108.3	12.671	CC
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	15,551.1	8,199.0	4,462.0	4,106.6	12.552	ES
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	17,000.0	8,199.0	4,729.8	4,333.9	11.949	SF
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	13,327.3	7,931.1	2,524.6	2,269.9	9.911	CC
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	13,400.0	7,931.1	2,525.7	2,269.0	9.837	ES
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	14,000.0	7,931.1	2,612.7	2,339.4	9.558	SF
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	15,251.7	8,343.8	3,250.2	2,903.8	9.384	CC
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	15,354.3	8,346.6	3,251.8	2,902.6	9.312	ES
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	16,100.0	8,365.6	3,359.0	2,989.0	9.080	SF
EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor	1,112.4	1,100.6	1,487.1	1,484.0	490.154	CC, ES
EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor	13,100.0	6,600.0	9,987.4	9,779.1	47.946	SF
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,013.7	5,282.9	1,226.5	1,066.1	7.649	CC
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,102.3	5,353.7	1,227.6	1,064.6	7.533	ES
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,594.5	5,746.8	1,275.3	1,099.8	7.266	SF
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	1,100.0	1,062.0	1,277.9	1,254.7	55.157	CC
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	1,300.0	1,261.8	1,280.1	1,252.5	46.349	ES
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	8,563.0	7,021.3	4,665.4	4,434.2	20.182	SF
EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #	1,781.1	1,761.7	98.6	93.6	19.937	CC, ES
EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #	1,900.0	1,877.0	102.9	97.5	19.134	SF
VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2	98.6	99.6	261.0	260.8	1,397.149	CC
VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2	100.0	100.0	261.0	260.8	1,382.140	ES
VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2	14,074.8	15,072.1	2,500.4	2,025.5	5.265	SF
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	197.5	198.5	237.6	237.0	377.695	CC
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	200.0	200.0	237.6	237.0	372.277	ES

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 15 T5N R65W 6th P.M.						
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	14,100.0	15,280.6	2,677.2	2,200.0	5.610	SF
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	296.0	297.0	217.1	216.0	202.454	CC
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	300.0	300.0	217.1	216.0	199.530	ES
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	14,173.2	15,100.4	2,857.5	2,379.2	5.974	SF
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	394.5	395.5	194.7	193.2	128.540	CC
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	400.0	400.0	194.7	193.2	126.664	ES
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	14,300.0	15,171.7	3,206.4	2,723.1	6.634	SF
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	493.0	494.0	177.7	175.8	90.786	CC
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	500.0	500.0	177.7	175.7	89.451	ES
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	14,370.0	15,409.8	3,375.1	2,888.6	6.938	SF
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	591.5	592.5	157.5	155.1	65.594	CC
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	600.0	600.0	157.5	155.0	64.625	ES
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	14,400.0	15,284.8	3,547.4	3,060.5	7.286	SF
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	691.0	692.0	140.5	137.6	49.333	CC
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	700.0	700.0	140.5	137.6	48.678	ES
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	14,566.9	15,420.3	3,907.3	3,415.6	7.947	SF
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	790.4	791.4	124.0	120.7	37.635	CC
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	800.0	800.0	124.0	120.6	37.176	ES
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	14,600.0	15,682.9	4,069.9	3,576.4	8.246	SF
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	889.9	890.9	111.7	107.9	29.845	CC
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	900.0	900.0	111.7	107.9	29.506	ES
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	14,700.0	15,616.6	4,257.4	3,761.1	8.579	SF
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	989.4	990.4	102.6	98.4	24.494	CC
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	1,000.0	1,000.0	102.6	98.4	24.232	ES
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	14,862.2	15,843.4	4,619.6	4,118.7	9.221	SF
VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2	1,093.9	1,094.9	99.0	94.3	21.248	CC
VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2	1,100.0	1,100.0	99.0	94.3	21.134	ES
VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2	14,960.6	16,129.6	4,799.8	4,295.5	9.518	SF
VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2	1,100.0	1,101.0	101.4	96.7	21.640	CC, ES
VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2	15,059.0	16,069.4	4,989.3	4,482.1	9.838	SF
VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2	1,100.0	1,101.0	111.3	106.6	23.754	CC, ES
VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2	15,255.9	16,281.8	5,363.8	4,850.9	10.459	SF
VT-ALLES 1-16-18 - ORIGINAL WELLBORE - PROPOS	100.0	100.0	241.8	241.6	1,280.468	CC, ES
VT-ALLES 1-16-18 - ORIGINAL WELLBORE - PROPOS	20,877.6	20,226.0	2,176.5	1,333.8	2.583	SF
VT-GLENMERE 3-16-18 - ORIGINAL WELLBORE - PRC	1,000.0	1,000.0	25.3	21.1	5.981	CC
VT-GLENMERE 3-16-18 - ORIGINAL WELLBORE - PRC	20,877.6	20,703.3	255.5	-315.2	0.448	Level 1, ES, SF
VT-LDS 1-16-18 - ORIGINAL WELLBORE - PROPOSAL	889.9	890.9	50.7	46.9	13.538	CC
VT-LDS 1-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,550.2	532.8	-265.3	0.668	Level 1, ES, SF
VT-LDS 2-16-18 - ORIGINAL WELLBORE - PROPOSAL	691.0	692.0	98.6	95.7	34.613	CC
VT-LDS 2-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,471.3	846.4	15.3	1.018	Level 2, ES, SF
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	591.5	592.5	121.1	118.7	50.467	CC
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	600.0	600.0	121.1	118.7	49.721	ES
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,403.6	1,171.4	330.9	1.394	Level 3, SF
VT-LDS 4-16-18 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	168.5	167.0	109.622	CC, ES
VT-LDS 4-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,287.9	1,517.3	674.6	1.801	SF
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	296.0	297.0	193.9	192.8	180.815	CC
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	300.0	300.0	193.9	192.8	178.204	ES
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,298.7	1,846.6	1,002.7	2.188	SF
VT-LDS C2-16-18 - ORIGINAL WELLBORE - PROPOSAL	800.0	800.0	73.2	69.9	21.956	CC
VT-LDS C2-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,658.8	659.4	-194.9	0.772	Level 1, ES, SF
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	493.0	494.0	146.0	144.0	74.562	CC
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	146.0	144.0	73.466	ES
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,877.6	20,510.3	1,344.3	493.7	1.580	SF

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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	
0.0	0.0	0.0	0.0	0.0	0.0	78.80	858.0	4,334.1	4,418.3				
98.4	98.4	78.9	78.9	0.1	0.1	78.80	858.0	4,334.1	4,418.2	4,418.1	0.14	N/A	
100.0	100.0	80.5	80.5	0.1	0.1	78.80	858.0	4,334.1	4,418.2	4,418.1	0.15	N/A	
196.8	196.8	177.3	177.3	0.3	0.2	78.80	858.0	4,334.1	4,418.2	4,417.7	0.55	8,041.306	
200.0	200.0	180.5	180.5	0.3	0.2	78.80	858.0	4,334.1	4,418.2	4,417.7	0.56	7,839.271	
295.3	295.3	252.3	252.3	0.5	0.4	78.80	858.3	4,334.2	4,418.4	4,417.5	0.94	4,702.676	
300.0	300.0	255.6	255.6	0.5	0.4	78.80	858.4	4,334.2	4,418.4	4,417.5	0.96	4,614.443	
393.7	393.7	320.3	320.3	0.8	0.6	78.78	859.8	4,334.5	4,419.3	4,418.0	1.31	3,361.283	
400.0	400.0	324.7	324.6	0.8	0.6	78.78	860.0	4,334.5	4,419.4	4,418.0	1.34	3,300.704	
492.1	492.1	400.0	399.9	1.0	0.7	78.74	863.1	4,335.2	4,420.8	4,419.1	1.72	2,571.593	
500.0	500.0	400.0	399.9	1.0	0.7	78.74	863.1	4,335.2	4,421.0	4,419.2	1.74	2,545.464	
590.5	590.5	456.0	455.8	1.2	0.9	78.70	866.4	4,335.8	4,423.0	4,421.0	2.07	2,133.555	
600.0	600.0	462.5	462.3	1.2	0.9	78.69	866.8	4,335.9	4,423.3	4,421.2	2.11	2,096.696	
689.0	689.0	523.6	523.2	1.4	1.0	78.64	871.4	4,336.9	4,426.0	4,423.5	2.46	1,801.841	
700.0	700.0	531.1	530.7	1.4	1.1	78.63	872.0	4,337.0	4,426.3	4,423.8	2.50	1,770.665	
787.4	787.4	600.0	599.3	1.6	1.2	78.55	878.5	4,338.3	4,429.6	4,426.7	2.87	1,544.747	
800.0	800.0	600.0	599.3	1.7	1.2	78.55	878.5	4,338.3	4,430.1	4,427.2	2.90	1,529.811	
885.8	885.8	658.1	657.0	1.9	1.4	78.48	884.9	4,339.6	4,433.9	4,430.6	3.24	1,367.856	
900.0	900.0	667.8	666.6	1.9	1.4	78.46	886.0	4,339.8	4,434.5	4,431.2	3.30	1,344.293	
984.2	984.2	725.0	723.4	2.1	1.6	78.37	893.3	4,341.3	4,438.8	4,435.2	3.64	1,218.226	
1,000.0	1,000.0	735.7	733.9	2.1	1.6	78.36	894.7	4,341.6	4,439.7	4,436.0	3.71	1,196.945	
1,082.7	1,082.7	800.0	797.5	2.3	1.8	78.24	904.0	4,343.5	4,444.6	4,440.5	4.08	1,090.092	
1,100.0	1,100.0	800.0	797.5	2.3	1.8	78.24	904.0	4,343.5	4,445.6	4,441.5	4.12	1,080.039	
1,181.1	1,181.1	857.8	854.5	2.5	2.0	143.56	913.3	4,345.4	4,451.9	4,447.4	4.52	984.730	
1,200.0	1,200.0	870.5	867.0	2.6	2.1	143.52	915.5	4,345.9	4,453.7	4,449.1	4.60	967.338	
1,279.5	1,279.4	923.6	919.3	2.7	2.3	143.32	924.9	4,347.8	4,462.6	4,457.7	4.96	900.407	
1,300.0	1,299.8	937.3	932.7	2.8	2.3	143.26	927.5	4,348.3	4,465.3	4,460.3	5.05	884.463	
1,377.9	1,377.5	1,000.0	994.2	3.0	2.6	143.01	939.7	4,350.8	4,476.8	4,471.4	5.44	822.705	
1,400.0	1,399.5	1,000.0	994.2	3.0	2.6	142.97	939.7	4,350.8	4,480.4	4,474.9	5.49	816.370	
1,476.4	1,475.3	1,053.9	1,046.9	3.2	2.8	142.71	951.1	4,353.2	4,494.3	4,488.4	5.87	765.983	
1,500.0	1,498.7	1,069.4	1,061.9	3.2	2.9	142.63	954.5	4,353.9	4,499.0	4,493.0	5.98	752.448	
1,574.8	1,572.6	1,125.2	1,116.2	3.5	3.1	142.34	967.1	4,356.4	4,515.1	4,508.7	6.37	708.788	
1,602.6	1,600.0	1,152.0	1,142.3	3.5	3.2	142.22	973.3	4,357.7	4,521.5	4,515.0	6.54	691.088	
1,667.6	1,664.0	1,214.8	1,203.3	3.7	3.5	142.13	987.7	4,360.7	4,536.8	4,529.8	6.96	651.508	
1,673.2	1,669.6	1,220.3	1,208.6	3.7	3.5	142.11	989.0	4,360.9	4,538.1	4,531.1	7.00	648.342	
1,700.0	1,695.9	1,246.1	1,233.8	3.8	3.7	141.99	994.9	4,362.1	4,544.5	4,537.4	7.17	633.818	
1,771.6	1,766.1	1,315.2	1,300.9	4.1	4.0	141.67	1,010.8	4,365.4	4,562.7	4,555.0	7.63	597.799	
1,800.0	1,793.8	1,342.4	1,327.3	4.2	4.1	141.55	1,017.0	4,366.7	4,570.2	4,562.4	7.82	584.755	
1,870.1	1,862.0	1,409.5	1,392.6	4.4	4.4	141.23	1,032.5	4,369.8	4,589.8	4,581.5	8.28	554.361	
1,900.0	1,891.0	1,438.1	1,420.4	4.5	4.6	141.10	1,039.0	4,371.2	4,598.6	4,590.1	8.48	542.469	
1,968.5	1,957.0	1,503.2	1,483.7	4.9	4.9	140.78	1,054.0	4,374.2	4,619.5	4,610.5	8.94	516.497	
2,000.0	1,987.2	1,533.1	1,512.7	5.0	5.0	140.63	1,060.9	4,375.6	4,629.5	4,620.3	9.16	505.559	
2,066.9	2,051.1	1,596.2	1,574.1	5.3	5.3	140.31	1,075.4	4,378.6	4,651.6	4,642.0	9.63	483.159	
2,100.0	2,082.5	1,627.3	1,604.3	5.5	5.4	140.16	1,082.5	4,380.0	4,663.0	4,653.1	9.86	472.872	
2,165.3	2,144.1	1,688.4	1,663.7	5.9	5.7	139.84	1,096.5	4,382.9	4,686.2	4,675.9	10.34	453.253	
2,200.0	2,176.6	1,720.6	1,695.0	6.1	5.9	139.66	1,103.9	4,384.4	4,699.0	4,688.4	10.59	443.588	
2,263.8	2,236.0	1,779.5	1,752.3	6.5	6.2	139.34	1,117.5	4,387.2	4,723.2	4,712.2	11.08	426.238	
2,300.0	2,269.5	1,812.8	1,784.7	6.7	6.3	139.16	1,125.1	4,388.8	4,737.5	4,726.1	11.36	417.091	
2,362.2	2,326.7	1,869.7	1,839.9	7.2	6.6	138.83	1,138.2	4,391.4	4,762.6	4,750.8	11.86	401.640	
2,400.0	2,361.1	1,904.0	1,873.2	7.5	6.8	138.63	1,146.0	4,393.0	4,778.4	4,766.2	12.16	392.918	
2,460.6	2,415.9	11,472.8	6,878.5	8.0	131.7	132.88	1,728.8	-281.9	4,760.7	4,689.3	71.41	66.668	
2,500.0	2,451.2	11,488.6	6,878.5	8.3	132.1	133.98	1,728.7	-297.7	4,725.0	4,655.0	69.96	67.538	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON A-15-16HN - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
2,559.0	2,503.7	11,513.2	6,878.5	8.8	132.8	135.53	1,728.5	-322.3	4,671.7	4,603.8	67.96	68.740	
2,600.0	2,539.7	11,530.8	6,878.5	9.2	133.3	136.55	1,728.4	-339.9	4,635.1	4,568.4	66.68	69.515	
2,657.5	2,589.9	11,556.3	6,878.5	9.8	134.0	137.92	1,728.3	-365.4	4,583.9	4,518.9	65.04	70.481	
2,700.0	2,626.6	11,575.8	6,878.5	10.2	134.5	138.88	1,728.2	-384.8	4,546.3	4,482.4	63.92	71.124	
2,755.9	2,674.4	11,602.1	6,878.5	10.8	135.3	140.08	1,728.0	-411.2	4,497.3	4,434.7	62.60	71.838	
2,800.0	2,711.7	11,623.4	6,878.5	11.2	135.8	140.98	1,727.9	-432.5	4,458.8	4,397.2	61.66	72.318	
2,854.3	2,757.1	11,650.5	6,878.5	11.9	136.6	142.05	1,727.7	-459.5	4,411.9	4,351.3	60.62	72.774	
2,900.0	2,794.9	11,673.8	6,878.5	12.4	137.2	142.90	1,727.6	-482.9	4,372.7	4,312.9	59.85	73.067	
2,952.7	2,838.0	11,701.4	6,878.5	13.0	138.0	143.84	1,727.4	-510.5	4,327.9	4,268.8	59.07	73.271	
3,000.0	2,876.1	11,726.7	6,878.5	13.6	138.7	144.65	1,727.3	-535.8	4,288.0	4,229.6	58.45	73.361	
3,015.0	2,888.1	11,734.9	6,878.5	13.8	138.9	144.90	1,727.2	-544.0	4,275.5	4,217.2	58.28	73.366	
3,051.2	2,917.0	11,754.7	6,878.5	14.3	139.5	144.87	1,727.1	-563.7	4,245.2	4,186.4	58.78	72.224	
3,100.0	2,956.0	11,781.3	6,878.5	14.9	140.2	144.82	1,727.0	-590.4	4,204.4	4,144.9	59.46	70.708	
3,149.6	2,995.6	11,808.4	6,878.5	15.6	141.0	144.77	1,726.8	-617.5	4,162.9	4,102.7	60.16	69.192	
3,200.0	3,035.8	11,835.9	6,878.5	16.3	141.8	144.72	1,726.6	-645.0	4,120.7	4,059.8	60.88	67.682	
3,248.0	3,074.2	11,862.2	6,878.5	16.9	142.5	144.67	1,726.5	-671.2	4,080.5	4,018.9	61.58	66.267	
3,300.0	3,115.7	11,890.6	6,878.5	17.6	143.3	144.61	1,726.3	-699.6	4,037.0	3,974.7	62.33	64.766	
3,346.4	3,152.8	11,915.9	6,878.5	18.2	144.0	144.56	1,726.2	-725.0	3,998.2	3,935.2	63.02	63.447	
3,400.0	3,195.6	11,945.2	6,878.5	18.9	144.8	144.50	1,726.0	-754.2	3,953.4	3,889.6	63.81	61.956	
3,444.9	3,231.4	11,969.7	6,878.5	19.5	145.5	144.45	1,725.8	-778.7	3,915.8	3,851.3	64.48	60.728	
3,500.0	3,275.4	11,999.8	6,878.5	20.3	146.3	144.38	1,725.7	-808.9	3,869.7	3,804.4	65.31	59.249	
3,543.3	3,310.0	12,023.4	6,878.5	20.9	147.0	144.33	1,725.5	-832.5	3,833.5	3,767.5	65.97	58.108	
3,600.0	3,355.3	12,054.4	6,878.5	21.6	147.8	144.26	1,725.3	-863.5	3,786.1	3,719.2	66.84	56.642	
3,641.7	3,388.6	12,077.2	6,878.5	22.2	148.5	144.21	1,725.2	-886.3	3,751.2	3,683.7	67.49	55.582	
3,700.0	3,435.1	12,109.0	6,878.5	23.0	149.4	144.13	1,725.0	-918.1	3,702.4	3,634.0	68.40	54.130	
3,740.1	3,467.2	12,130.9	6,878.5	23.5	150.0	144.08	1,724.9	-940.0	3,668.8	3,599.8	69.03	53.147	
3,800.0	3,515.0	12,163.6	6,878.5	24.4	150.9	144.00	1,724.7	-972.7	3,618.8	3,548.8	69.98	51.710	
3,838.6	3,545.8	12,184.7	6,878.5	24.9	151.5	143.95	1,724.6	-993.8	3,586.5	3,515.9	70.60	50.799	
3,900.0	3,594.9	12,218.2	6,878.5	25.7	152.4	143.86	1,724.4	-1,027.3	3,535.1	3,463.6	71.60	49.377	
3,937.0	3,624.4	12,238.4	6,878.5	26.2	153.0	143.81	1,724.3	-1,047.5	3,504.2	3,432.0	72.20	48.535	
4,000.0	3,674.7	12,272.9	6,878.5	27.1	153.9	143.71	1,724.1	-1,081.9	3,451.5	3,378.3	73.24	47.127	
4,035.4	3,703.0	12,292.2	6,878.5	27.6	154.5	143.66	1,723.9	-1,101.3	3,421.9	3,348.1	73.83	46.350	
4,100.0	3,754.6	12,327.5	6,878.5	28.5	155.4	143.56	1,723.7	-1,136.5	3,367.9	3,293.0	74.91	44.958	
4,133.8	3,781.6	12,346.0	6,878.5	28.9	156.0	143.51	1,723.6	-1,155.0	3,339.6	3,264.1	75.49	44.241	
4,200.0	3,834.5	12,382.1	6,878.5	29.8	157.0	143.40	1,723.4	-1,191.1	3,284.3	3,207.7	76.62	42.865	
4,232.3	3,860.2	12,399.7	6,878.5	30.3	157.5	143.35	1,723.3	-1,208.8	3,257.3	3,180.1	77.18	42.205	
4,300.0	3,914.3	12,436.7	6,878.5	31.2	158.5	143.23	1,723.1	-1,245.8	3,200.7	3,122.3	78.36	40.845	
4,330.7	3,938.8	12,453.5	6,878.5	31.6	159.0	143.18	1,723.0	-1,262.5	3,175.0	3,096.1	78.91	40.238	
4,400.0	3,994.2	12,491.3	6,878.5	32.6	160.0	143.05	1,722.8	-1,300.4	3,117.1	3,037.0	80.14	38.894	
4,429.1	4,017.4	12,507.2	6,878.5	33.0	160.5	143.00	1,722.7	-1,316.3	3,092.8	3,012.1	80.67	38.338	
4,500.0	4,074.0	12,545.9	6,878.5	34.0	161.5	142.87	1,722.5	-1,355.0	3,033.5	2,951.6	81.96	37.010	
4,527.5	4,096.1	12,561.0	6,878.5	34.4	162.0	142.81	1,722.4	-1,370.0	3,010.5	2,928.0	82.47	36.502	
4,600.0	4,153.9	12,600.5	6,878.5	35.4	163.1	142.67	1,722.1	-1,409.6	2,949.9	2,866.1	83.83	35.190	
4,626.0	4,174.7	12,614.7	6,878.5	35.7	163.5	142.61	1,722.0	-1,423.8	2,928.2	2,843.9	84.32	34.727	
4,700.0	4,233.8	12,655.2	6,878.5	36.8	164.6	142.46	1,721.8	-1,464.2	2,866.4	2,780.6	85.74	33.431	
4,724.4	4,253.3	12,668.5	6,878.5	37.1	165.0	142.41	1,721.7	-1,477.5	2,846.0	2,759.8	86.22	33.010	
4,800.0	4,313.6	12,709.8	6,878.5	38.1	166.1	142.24	1,721.5	-1,518.8	2,782.8	2,695.1	87.70	31.730	
4,822.8	4,331.9	12,722.2	6,878.5	38.5	166.5	142.18	1,721.4	-1,531.3	2,763.8	2,675.6	88.16	31.349	
4,900.0	4,393.5	12,764.4	6,878.5	39.5	167.6	142.00	1,721.2	-1,573.4	2,699.3	2,609.6	89.72	30.085	
4,921.2	4,410.5	12,776.0	6,878.5	39.8	168.0	141.95	1,721.1	-1,585.0	2,681.5	2,591.4	90.16	29.742	
5,000.0	4,473.4	12,819.0	6,878.5	40.9	169.2	141.75	1,720.8	-1,628.1	2,615.8	2,524.0	91.80	28.494	
5,019.7	4,489.1	12,829.7	6,878.5	41.2	169.5	141.70	1,720.8	-1,638.8	2,599.3	2,507.1	92.22	28.187	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 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	
5,100.0	4,553.2	12,873.6	6,878.5	42.3	170.7	141.48	1,720.5	-1,682.7	2,532.3	2,438.3	93.95	26.955	
5,118.1	4,567.7	12,883.5	6,878.5	42.5	171.0	141.43	1,720.5	-1,692.6	2,517.2	2,422.8	94.34	26.681	
5,200.0	4,633.1	12,928.2	6,878.5	43.7	172.2	141.20	1,720.2	-1,737.3	2,448.8	2,352.6	96.16	25.465	
5,216.5	4,646.3	12,937.3	6,878.5	43.9	172.5	141.15	1,720.2	-1,746.3	2,435.0	2,338.5	96.54	25.224	
5,300.0	4,713.0	12,982.8	6,878.5	45.1	173.7	140.89	1,719.9	-1,791.9	2,365.3	2,266.9	98.46	24.023	
5,314.9	4,724.9	12,991.0	6,878.5	45.3	174.0	140.85	1,719.8	-1,800.1	2,352.8	2,254.0	98.81	23.812	
5,400.0	4,792.8	13,037.5	6,878.5	46.5	175.3	140.57	1,719.6	-1,846.5	2,281.9	2,181.0	100.84	22.628	
5,413.4	4,803.5	13,044.8	6,878.5	46.6	175.5	140.52	1,719.5	-1,853.8	2,270.7	2,169.5	101.17	22.445	
5,500.0	4,872.7	13,092.1	6,878.5	47.9	176.8	140.22	1,719.2	-1,901.1	2,198.5	2,095.1	103.33	21.277	
5,511.8	4,882.1	13,098.5	6,878.5	48.0	177.0	140.17	1,719.2	-1,907.6	2,188.6	2,085.0	103.63	21.120	
5,600.0	4,952.5	13,146.7	6,878.5	49.2	178.3	139.84	1,718.9	-1,955.7	2,115.1	2,009.1	105.92	19.969	
5,610.2	4,960.7	13,152.3	6,878.5	49.4	178.5	139.80	1,718.9	-1,961.3	2,106.5	2,000.3	106.19	19.838	
5,700.0	5,032.4	13,201.3	6,878.5	50.6	179.8	139.43	1,718.6	-2,010.4	2,031.7	1,923.1	108.63	18.703	
5,708.6	5,039.3	13,206.0	6,878.5	50.8	180.0	139.39	1,718.6	-2,015.1	2,024.5	1,915.6	108.87	18.596	
5,800.0	5,112.3	13,255.9	6,878.5	52.0	181.4	138.99	1,718.3	-2,065.0	1,948.4	1,836.9	111.47	17.478	
5,807.1	5,117.9	13,259.8	6,878.5	52.1	181.5	138.96	1,718.3	-2,068.8	1,942.5	1,830.8	111.68	17.393	
5,900.0	5,192.1	13,310.5	6,878.5	53.4	182.9	138.51	1,718.0	-2,119.6	1,865.1	1,750.6	114.47	16.293	
5,905.5	5,196.5	13,313.5	6,878.5	53.5	183.0	138.48	1,717.9	-2,122.6	1,860.5	1,745.9	114.64	16.229	
6,000.0	5,272.0	13,365.1	6,878.5	54.8	184.4	137.98	1,717.6	-2,174.2	1,781.8	1,664.2	117.64	15.146	
6,003.9	5,275.1	13,367.3	6,878.5	54.9	184.5	137.96	1,717.6	-2,176.3	1,778.6	1,660.8	117.77	15.102	
6,100.0	5,351.9	13,419.8	6,878.5	56.2	185.9	137.41	1,717.3	-2,228.8	1,698.7	1,577.6	121.01	14.037	
6,102.3	5,353.7	13,421.0	6,878.5	56.2	186.0	137.40	1,717.3	-2,230.1	1,696.7	1,575.6	121.09	14.012	
6,200.0	5,431.7	13,474.4	6,878.5	57.6	187.5	136.78	1,717.0	-2,283.4	1,615.5	1,490.9	124.60	12.966	
6,200.8	5,432.3	13,474.8	6,878.5	57.6	187.5	136.77	1,717.0	-2,283.8	1,614.9	1,490.3	124.63	12.958	
6,299.2	5,511.0	13,528.6	6,878.5	59.0	189.0	136.09	1,716.7	-2,337.6	1,533.1	1,404.7	128.41	11.939	
6,300.0	5,511.6	13,529.0	6,878.5	59.0	189.0	136.08	1,716.7	-2,338.0	1,532.5	1,404.0	128.44	11.931	
6,397.6	5,589.6	13,582.3	6,878.5	60.3	190.5	135.33	1,716.4	-2,391.4	1,451.5	1,319.0	132.48	10.956	
6,400.0	5,591.5	13,583.6	6,878.5	60.4	190.5	135.31	1,716.4	-2,392.7	1,449.5	1,316.9	132.58	10.933	
6,496.0	5,668.2	13,636.1	6,878.5	61.7	192.0	134.48	1,716.1	-2,445.1	1,369.9	1,233.0	136.88	10.008	
6,500.0	5,671.3	13,638.2	6,878.5	61.8	192.0	134.44	1,716.0	-2,447.3	1,366.6	1,229.5	137.06	9.971	
6,594.5	5,746.8	13,689.8	6,878.5	63.1	193.5	133.53	1,715.7	-2,498.9	1,288.4	1,146.7	141.65	9.095	
6,600.0	5,751.2	13,692.8	6,878.5	63.2	193.6	133.48	1,715.7	-2,501.9	1,283.8	1,141.9	141.94	9.045	
6,692.9	5,825.4	13,743.6	6,878.5	64.5	195.0	132.46	1,715.4	-2,552.6	1,207.1	1,060.2	146.88	8.218	
6,700.0	5,831.0	13,747.5	6,878.5	64.6	195.1	132.38	1,715.4	-2,556.5	1,201.2	1,053.9	147.27	8.156	
6,791.3	5,904.0	13,797.3	6,878.5	65.8	196.5	131.25	1,715.1	-2,606.4	1,125.9	973.3	152.63	7.377	
6,800.0	5,910.9	13,802.1	6,878.5	66.0	196.6	131.14	1,715.1	-2,611.1	1,118.7	965.6	153.16	7.304	
6,889.7	5,982.6	13,851.1	6,878.5	67.2	198.0	129.87	1,714.8	-2,660.1	1,044.9	885.9	158.99	6.572	
6,900.0	5,990.8	13,856.7	6,878.5	67.4	198.2	129.71	1,714.8	-2,665.7	1,036.5	876.8	159.69	6.491	
6,988.2	6,061.2	13,904.8	6,878.5	68.6	199.5	128.27	1,714.5	-2,713.9	964.2	798.1	166.09	5.805	
7,000.0	6,070.6	13,911.3	6,878.5	68.7	199.7	128.06	1,714.4	-2,720.3	954.5	787.5	166.99	5.716	
7,086.6	6,139.8	13,958.6	6,878.5	70.0	201.0	126.41	1,714.2	-2,767.6	883.8	709.7	174.05	5.078	
7,100.0	6,150.5	13,965.9	6,878.5	70.1	201.2	126.14	1,714.1	-2,775.0	872.9	697.7	175.21	4.982	
7,185.0	6,218.4	14,012.4	6,878.5	71.3	202.5	124.23	1,713.8	-2,821.4	803.8	620.7	183.05	4.391	
7,200.0	6,230.4	14,020.5	6,878.5	71.5	202.7	123.86	1,713.8	-2,829.6	791.7	607.1	184.52	4.290	
7,283.4	6,297.0	14,066.1	6,878.5	72.7	204.0	121.63	1,713.5	-2,875.1	724.3	531.1	193.26	3.748	
7,300.0	6,310.2	14,075.1	6,878.5	72.9	204.3	121.15	1,713.5	-2,884.2	711.1	515.9	195.11	3.644	
7,381.9	6,375.6	14,119.9	6,878.5	74.1	205.5	118.51	1,713.2	-2,928.9	645.7	440.8	204.88	3.151	
7,400.0	6,390.1	14,129.8	6,878.5	74.3	205.8	117.87	1,713.2	-2,938.8	631.3	424.1	207.19	3.047	
7,480.3	6,454.2	14,173.6	6,878.5	75.4	207.0	114.72	1,712.9	-2,982.7	568.0	350.0	218.09	2.605	
7,500.0	6,470.0	14,184.4	6,878.5	75.7	207.3	113.86	1,712.8	-2,993.4	552.7	331.7	220.93	2.502	
7,574.0	6,529.1	14,224.8	6,878.5	76.8	208.4	110.29	1,712.6	-3,033.8	495.6	263.4	232.17	2.135	
7,578.7	6,532.8	14,227.4	6,878.5	76.8	208.5	110.57	1,712.6	-3,036.4	492.0	260.3	231.73	2.123	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON A-15-16HN - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
7,600.0	6,549.5	14,239.4	6,878.5	77.1	208.9	111.74	1,712.5	-3,048.4	476.0	246.1	229.89	2.070	
7,650.0	6,586.5	14,269.8	6,878.5	77.9	209.7	114.12	1,712.3	-3,078.9	439.5	212.7	226.74	1.938	
7,677.1	6,605.4	14,287.5	6,878.5	78.4	210.2	115.24	1,712.2	-3,096.6	420.4	194.7	225.64	1.863	
7,698.4	6,619.5	14,301.9	6,878.5	78.8	210.6	116.05	1,712.1	-3,111.0	405.8	180.8	225.00	1.804	
7,700.0	6,620.6	14,303.1	6,878.5	78.8	210.6	115.97	1,712.1	-3,112.1	404.7	179.5	225.26	1.797	
7,775.6	6,669.7	14,355.2	6,878.5	80.2	212.1	112.06	1,711.8	-3,164.2	354.0	116.1	237.90	1.488	Level 3
7,800.0	6,685.6	14,372.0	6,878.5	80.7	212.6	110.59	1,711.7	-3,181.0	337.9	95.5	242.34	1.394	Level 3
7,874.0	6,733.7	14,423.0	6,878.5	82.1	214.0	105.32	1,711.4	-3,232.0	290.2	33.4	256.74	1.130	Level 2
7,900.0	6,750.6	14,440.9	6,878.5	82.6	214.5	103.14	1,711.3	-3,250.0	273.9	11.8	262.05	1.045	Level 2
7,972.4	6,797.7	14,490.9	6,878.5	83.9	215.9	95.88	1,711.0	-3,299.9	230.7	-46.1	276.85	0.833	Level 1
8,000.0	6,815.7	14,509.9	6,878.5	84.4	216.4	92.60	1,710.9	-3,318.9	215.3	-66.8	282.09	0.763	Level 1
8,070.8	6,861.7	14,558.7	6,878.5	85.8	217.8	82.66	1,710.6	-3,367.8	180.1	-112.3	292.34	0.616	Level 1
8,100.0	6,880.7	14,578.8	6,878.5	86.3	218.4	77.91	1,710.5	-3,387.9	168.0	-126.3	294.22	0.571	Level 1
8,132.2	6,901.6	14,601.0	6,878.5	86.9	219.0	72.24	1,710.4	-3,410.1	156.8	-137.1	293.90	0.534	Level 1
8,150.0	6,913.0	14,613.5	6,878.5	87.2	219.3	70.26	1,710.3	-3,422.5	151.9	-141.3	293.25	0.518	Level 1
8,169.3	6,925.0	14,627.4	6,878.5	87.6	219.7	67.84	1,710.2	-3,436.5	147.8	-143.6	291.39	0.507	Level 1, ES
8,200.0	6,943.1	14,650.6	6,878.5	88.2	220.4	63.47	1,710.1	-3,459.6	143.6	-142.0	285.60	0.503	Level 1, SF
8,233.0	6,961.3	14,676.6	6,878.5	88.9	221.1	58.32	1,710.0	-3,485.6	142.2	-133.2	275.46	0.516	Level 1, CC
8,250.0	6,970.1	14,690.4	6,878.5	89.3	221.5	55.57	1,709.9	-3,499.4	142.6	-126.2	268.78	0.530	Level 1
8,267.7	6,978.9	14,705.1	6,878.5	89.7	221.9	52.70	1,709.8	-3,514.2	143.5	-117.4	260.96	0.550	Level 1
8,300.0	6,993.9	14,732.7	6,878.5	90.4	222.7	47.60	1,709.6	-3,541.8	146.7	-98.3	245.07	0.599	Level 1
8,350.0	7,014.3	14,777.2	6,878.5	91.6	223.9	40.47	1,709.4	-3,586.2	153.8	-65.5	219.32	0.701	Level 1
8,366.1	7,020.1	14,792.0	6,878.5	92.0	224.3	38.44	1,709.3	-3,601.0	156.4	-55.0	211.38	0.740	Level 1
8,400.0	7,031.0	14,823.5	6,878.5	92.8	225.2	34.66	1,709.1	-3,632.5	161.8	-34.3	196.07	0.825	Level 1
8,450.0	7,044.0	14,862.7	6,878.5	94.0	226.3	30.95	1,708.9	-3,671.7	169.3	-11.1	180.42	0.938	Level 1
8,464.5	7,047.1	14,862.7	6,878.5	94.3	226.3	30.82	1,708.9	-3,671.7	172.4	-7.2	179.58	0.960	Level 1
8,500.0	7,053.2	14,862.7	6,878.5	95.2	226.3	30.07	1,708.9	-3,671.7	183.9	7.6	176.25	1.043	Level 2
8,550.0	7,058.6	14,862.7	6,878.5	96.4	226.3	28.09	1,708.9	-3,671.7	207.7	39.0	168.66	1.232	Level 2
8,563.0	7,059.3	14,862.7	6,878.5	96.7	226.3	27.41	1,708.9	-3,671.7	215.0	48.8	166.21	1.294	Level 3
8,592.7	7,060.0	14,862.7	6,878.5	97.4	226.3	25.63	1,708.9	-3,671.7	233.2	73.2	159.95	1.458	Level 3
8,600.0	7,060.0	14,862.7	6,878.5	97.6	226.3	25.63	1,708.9	-3,671.7	237.9	77.8	160.04	1.486	Level 3
8,661.4	7,060.0	14,862.7	6,878.5	99.0	226.3	25.63	1,708.9	-3,671.7	281.9	121.1	160.81	1.753	
8,700.0	7,060.0	14,862.7	6,878.5	100.0	226.3	25.63	1,708.9	-3,671.7	312.6	151.4	161.29	1.938	
8,759.8	7,060.0	14,862.7	6,878.5	101.4	226.3	25.63	1,708.9	-3,671.7	363.2	201.2	162.04	2.242	
8,800.0	7,060.0	14,862.7	6,878.5	102.3	226.3	25.63	1,708.9	-3,671.7	398.6	236.1	162.55	2.453	
8,858.2	7,060.0	14,862.7	6,878.5	103.7	226.3	25.63	1,708.9	-3,671.7	451.4	288.1	163.28	2.765	
8,900.0	7,060.0	14,862.7	6,878.5	104.8	226.3	25.63	1,708.9	-3,671.7	490.0	326.2	163.81	2.991	
8,956.7	7,060.0	14,862.7	6,878.5	106.1	226.3	25.63	1,708.9	-3,671.7	543.1	378.6	164.53	3.301	
9,000.0	7,060.0	14,862.7	6,878.5	107.2	226.3	25.63	1,708.9	-3,671.7	584.2	419.1	165.08	3.539	
9,055.1	7,060.0	14,862.7	6,878.5	108.5	226.3	25.63	1,708.9	-3,671.7	636.8	471.0	165.78	3.841	
9,100.0	7,060.0	14,862.7	6,878.5	109.6	226.3	25.63	1,708.9	-3,671.7	680.0	513.7	166.36	4.088	
9,153.5	7,060.0	14,862.7	6,878.5	111.0	226.3	25.63	1,708.9	-3,671.7	731.8	564.7	167.04	4.381	
9,200.0	7,060.0	14,862.7	6,878.5	112.1	226.3	25.63	1,708.9	-3,671.7	776.9	609.3	167.64	4.635	
9,251.9	7,060.0	14,862.7	6,878.5	113.4	226.3	25.63	1,708.9	-3,671.7	827.5	659.2	168.31	4.917	
9,300.0	7,060.0	14,862.7	6,878.5	114.6	226.3	25.63	1,708.9	-3,671.7	874.5	705.6	168.92	5.177	
9,350.4	7,060.0	14,862.7	6,878.5	115.8	226.3	25.63	1,708.9	-3,671.7	923.9	754.3	169.58	5.448	
9,400.0	7,060.0	14,862.7	6,878.5	117.1	226.3	25.63	1,708.9	-3,671.7	972.6	802.4	170.22	5.714	
9,448.8	7,060.0	14,862.7	6,878.5	118.3	226.3	25.63	1,708.9	-3,671.7	1,020.6	849.7	170.85	5.974	
9,500.0	7,060.0	14,862.7	6,878.5	119.6	226.3	25.63	1,708.9	-3,671.7	1,071.0	899.5	171.51	6.245	
9,547.2	7,060.0	14,862.7	6,878.5	120.8	226.3	25.63	1,708.9	-3,671.7	1,117.6	945.5	172.13	6.493	
9,600.0	7,060.0	14,862.7	6,878.5	122.1	226.3	25.63	1,708.9	-3,671.7	1,169.7	996.9	172.81	6.769	
9,645.6	7,060.0	14,862.7	6,878.5	123.3	226.3	25.63	1,708.9	-3,671.7	1,214.9	1,041.5	173.41	7.006	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
9,700.0	7,060.0	14,862.7	6,878.5	124.6	226.3	25.63	1,708.9	-3,671.7	1,268.6	1,094.5	174.12	7.286	
9,744.1	7,060.0	14,862.7	6,878.5	125.8	226.3	25.63	1,708.9	-3,671.7	1,312.3	1,137.6	174.69	7.512	
9,800.0	7,060.0	14,862.7	6,878.5	127.2	226.3	25.63	1,708.9	-3,671.7	1,367.7	1,192.3	175.43	7.796	
9,842.5	7,060.0	14,862.7	6,878.5	128.3	226.3	25.63	1,708.9	-3,671.7	1,409.9	1,233.9	175.98	8.011	
9,900.0	7,060.0	14,862.7	6,878.5	129.7	226.3	25.63	1,708.9	-3,671.7	1,466.9	1,290.2	176.74	8.300	
9,940.9	7,060.0	14,862.7	6,878.5	130.8	226.3	25.63	1,708.9	-3,671.7	1,507.5	1,330.3	177.28	8.504	
10,000.0	7,060.0	14,862.7	6,878.5	132.3	226.3	25.63	1,708.9	-3,671.7	1,566.2	1,388.1	178.05	8.796	
10,039.3	7,060.0	14,862.7	6,878.5	133.3	226.3	25.63	1,708.9	-3,671.7	1,605.3	1,426.7	178.57	8.990	
10,100.0	7,060.0	14,862.7	6,878.5	134.9	226.3	25.63	1,708.9	-3,671.7	1,665.6	1,486.2	179.37	9.286	
10,137.8	7,060.0	14,862.7	6,878.5	135.9	226.3	25.63	1,708.9	-3,671.7	1,703.1	1,523.3	179.87	9.469	
10,200.0	7,060.0	14,862.7	6,878.5	137.5	226.3	25.63	1,708.9	-3,671.7	1,765.0	1,584.3	180.69	9.768	
10,236.2	7,060.0	14,862.7	6,878.5	138.4	226.3	25.63	1,708.9	-3,671.7	1,801.0	1,619.9	181.17	9.941	
10,300.0	7,060.0	14,862.7	6,878.5	140.1	226.3	25.63	1,708.9	-3,671.7	1,864.5	1,682.5	182.02	10.244	
10,334.6	7,060.0	14,862.7	6,878.5	141.0	226.3	25.63	1,708.9	-3,671.7	1,899.0	1,716.5	182.48	10.407	
10,400.0	7,060.0	14,862.7	6,878.5	142.7	226.3	25.63	1,708.9	-3,671.7	1,964.1	1,780.7	183.34	10.713	
10,433.0	7,060.0	14,862.7	6,878.5	143.5	226.3	25.63	1,708.9	-3,671.7	1,997.0	1,813.2	183.78	10.866	
10,500.0	7,060.0	14,862.7	6,878.5	145.3	226.3	25.63	1,708.9	-3,671.7	2,063.7	1,879.0	184.67	11.175	
10,531.5	7,060.0	14,862.7	6,878.5	146.1	226.3	25.63	1,708.9	-3,671.7	2,095.0	1,910.0	185.09	11.319	
10,600.0	7,060.0	14,862.7	6,878.5	147.9	226.3	25.63	1,708.9	-3,671.7	2,163.3	1,977.3	186.00	11.631	
10,629.9	7,060.0	14,862.7	6,878.5	148.7	226.3	25.63	1,708.9	-3,671.7	2,193.1	2,006.7	186.40	11.766	
10,700.0	7,060.0	14,862.7	6,878.5	150.5	226.3	25.63	1,708.9	-3,671.7	2,263.0	2,075.7	187.34	12.080	
10,728.3	7,060.0	14,862.7	6,878.5	151.3	226.3	25.63	1,708.9	-3,671.7	2,291.2	2,103.5	187.71	12.206	
10,800.0	7,060.0	14,862.7	6,878.5	153.1	226.3	25.63	1,708.9	-3,671.7	2,362.7	2,174.0	188.67	12.523	
10,826.7	7,060.0	14,862.7	6,878.5	153.9	226.3	25.63	1,708.9	-3,671.7	2,389.4	2,200.3	189.03	12.640	
10,900.0	7,060.0	14,862.7	6,878.5	155.8	226.3	25.63	1,708.9	-3,671.7	2,462.4	2,272.4	190.01	12.960	
10,925.2	7,060.0	14,862.7	6,878.5	156.5	226.3	25.63	1,708.9	-3,671.7	2,487.5	2,297.2	190.34	13.069	
11,000.0	7,060.0	14,862.7	6,878.5	158.4	226.3	25.63	1,708.9	-3,671.7	2,562.2	2,370.8	191.35	13.390	
11,023.6	7,060.0	14,862.7	6,878.5	159.1	226.3	25.63	1,708.9	-3,671.7	2,585.7	2,394.0	191.66	13.491	
11,100.0	7,060.0	14,862.7	6,878.5	161.1	226.3	25.63	1,708.9	-3,671.7	2,661.9	2,469.2	192.69	13.815	
11,122.0	7,060.0	14,862.7	6,878.5	161.7	226.3	25.63	1,708.9	-3,671.7	2,683.9	2,490.9	192.98	13.907	
11,200.0	7,060.0	14,862.7	6,878.5	163.7	226.3	25.63	1,708.9	-3,671.7	2,761.7	2,567.7	194.03	14.233	
11,220.4	7,060.0	14,862.7	6,878.5	164.3	226.3	25.63	1,708.9	-3,671.7	2,782.1	2,587.8	194.30	14.318	
11,300.0	7,060.0	14,862.7	6,878.5	166.4	226.3	25.63	1,708.9	-3,671.7	2,861.5	2,666.1	195.37	14.646	
11,318.9	7,060.0	14,862.7	6,878.5	166.9	226.3	25.63	1,708.9	-3,671.7	2,880.3	2,684.7	195.63	14.724	
11,400.0	7,060.0	14,862.7	6,878.5	169.1	226.3	25.63	1,708.9	-3,671.7	2,961.3	2,764.6	196.72	15.054	
11,417.3	7,060.0	14,862.7	6,878.5	169.5	226.3	25.63	1,708.9	-3,671.7	2,978.6	2,781.6	196.95	15.123	
11,500.0	7,060.0	14,862.7	6,878.5	171.7	226.3	25.63	1,708.9	-3,671.7	3,061.1	2,863.1	198.07	15.455	
11,515.7	7,060.0	14,862.7	6,878.5	172.2	226.3	25.63	1,708.9	-3,671.7	3,076.8	2,878.6	198.28	15.518	
11,600.0	7,060.0	14,862.7	6,878.5	174.4	226.3	25.63	1,708.9	-3,671.7	3,161.0	2,961.6	199.41	15.851	
11,614.1	7,060.0	14,862.7	6,878.5	174.8	226.3	25.63	1,708.9	-3,671.7	3,175.1	2,975.5	199.60	15.907	
11,700.0	7,060.0	14,862.7	6,878.5	177.1	226.3	25.63	1,708.9	-3,671.7	3,260.8	3,060.0	200.76	16.242	
11,712.6	7,060.0	14,862.7	6,878.5	177.4	226.3	25.63	1,708.9	-3,671.7	3,273.4	3,072.4	200.93	16.291	
11,800.0	7,060.0	14,862.7	6,878.5	179.8	226.3	25.63	1,708.9	-3,671.7	3,360.7	3,158.5	202.11	16.628	
11,811.0	7,060.0	14,862.7	6,878.5	180.1	226.3	25.63	1,708.9	-3,671.7	3,371.6	3,169.4	202.26	16.670	
11,900.0	7,060.0	14,862.7	6,878.5	182.5	226.3	25.63	1,708.9	-3,671.7	3,460.5	3,257.1	203.47	17.008	
11,909.4	7,060.0	14,862.7	6,878.5	182.7	226.3	25.63	1,708.9	-3,671.7	3,469.9	3,266.3	203.59	17.044	
12,000.0	7,060.0	14,862.7	6,878.5	185.1	226.3	25.63	1,708.9	-3,671.7	3,560.4	3,355.6	204.82	17.383	
12,007.8	7,060.0	14,862.7	6,878.5	185.4	226.3	25.63	1,708.9	-3,671.7	3,568.2	3,363.3	204.92	17.412	
12,100.0	7,060.0	14,862.7	6,878.5	187.8	226.3	25.63	1,708.9	-3,671.7	3,660.3	3,454.1	206.17	17.753	
12,106.3	7,060.0	14,862.7	6,878.5	188.0	226.3	25.63	1,708.9	-3,671.7	3,666.5	3,460.3	206.26	17.777	
12,200.0	7,060.0	14,862.7	6,878.5	190.5	226.3	25.63	1,708.9	-3,671.7	3,760.2	3,552.6	207.53	18.119	
12,204.7	7,060.0	14,862.7	6,878.5	190.7	226.3	25.63	1,708.9	-3,671.7	3,764.8	3,557.3	207.59	18.136	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON A-15-16HN - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 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		
12,300.0	7,060.0	14,862.7	6,878.5	193.2	226.3	25.63	1,708.9	-3,671.7	3,860.0	3,651.2	208.88	18.479		
12,303.1	7,060.0	14,862.7	6,878.5	193.3	226.3	25.63	1,708.9	-3,671.7	3,863.2	3,654.2	208.93	18.491		
12,400.0	7,060.0	14,862.7	6,878.5	195.9	226.3	25.63	1,708.9	-3,671.7	3,959.9	3,749.7	210.24	18.835		
12,401.5	7,060.0	14,862.7	6,878.5	196.0	226.3	25.63	1,708.9	-3,671.7	3,961.5	3,751.2	210.26	18.841		
12,500.0	7,060.0	14,862.7	6,878.5	198.6	226.3	25.63	1,708.9	-3,671.7	4,059.8	3,848.2	211.60	19.187		
12,598.4	7,060.0	14,862.7	6,878.5	201.3	226.3	25.63	1,708.9	-3,671.7	4,158.1	3,945.2	212.94	19.528		
12,600.0	7,060.0	14,862.7	6,878.5	201.4	226.3	25.63	1,708.9	-3,671.7	4,159.7	3,946.8	212.96	19.533		
12,696.8	7,060.0	14,862.7	6,878.5	204.0	226.3	25.63	1,708.9	-3,671.7	4,256.5	4,042.2	214.27	19.865		
12,700.0	7,060.0	14,862.7	6,878.5	204.1	226.3	25.63	1,708.9	-3,671.7	4,259.6	4,045.3	214.32	19.875		
12,795.2	7,060.0	14,862.7	6,878.5	206.7	226.3	25.63	1,708.9	-3,671.7	4,354.8	4,139.2	215.61	20.197		
12,800.0	7,060.0	14,862.7	6,878.5	206.8	226.3	25.63	1,708.9	-3,671.7	4,359.6	4,143.9	215.68	20.213		
12,893.7	7,060.0	14,862.7	6,878.5	209.3	226.3	25.63	1,708.9	-3,671.7	4,453.2	4,236.2	216.95	20.526		
12,900.0	7,060.0	14,862.7	6,878.5	209.5	226.3	25.63	1,708.9	-3,671.7	4,459.5	4,242.4	217.04	20.547		
12,992.1	7,060.0	14,862.7	6,878.5	212.0	226.3	25.63	1,708.9	-3,671.7	4,551.5	4,333.2	218.29	20.851		
13,000.0	7,060.0	14,862.7	6,878.5	212.2	226.3	25.63	1,708.9	-3,671.7	4,559.4	4,341.0	218.40	20.876		
13,090.5	7,060.0	14,862.7	6,878.5	214.7	226.3	25.63	1,708.9	-3,671.7	4,649.9	4,430.2	219.63	21.171		
13,100.0	7,060.0	14,862.7	6,878.5	214.9	226.3	25.63	1,708.9	-3,671.7	4,659.3	4,439.6	219.76	21.202		
13,188.9	7,060.0	14,862.7	6,878.5	217.4	226.3	25.63	1,708.9	-3,671.7	4,748.2	4,527.2	220.97	21.488		
13,200.0	7,060.0	14,862.7	6,878.5	217.7	226.3	25.63	1,708.9	-3,671.7	4,759.2	4,538.1	221.13	21.523		
13,287.4	7,060.0	14,862.7	6,878.5	220.1	226.3	25.63	1,708.9	-3,671.7	4,846.6	4,624.2	222.32	21.800		
13,300.0	7,060.0	14,862.7	6,878.5	220.4	226.3	25.63	1,708.9	-3,671.7	4,859.2	4,636.7	222.49	21.840		
13,385.8	7,060.0	14,862.7	6,878.5	222.7	226.3	25.63	1,708.9	-3,671.7	4,944.9	4,721.3	223.66	22.109		
13,400.0	7,060.0	14,862.7	6,878.5	223.1	226.3	25.63	1,708.9	-3,671.7	4,959.1	4,735.3	223.85	22.153		
13,484.2	7,060.0	14,862.7	6,878.5	225.4	226.3	25.63	1,708.9	-3,671.7	5,043.3	4,818.3	225.00	22.414		
13,500.0	7,060.0	14,862.7	6,878.5	225.9	226.3	25.63	1,708.9	-3,671.7	5,059.0	4,833.8	225.22	22.463		
13,582.6	7,060.0	14,862.7	6,878.5	228.1	226.3	25.63	1,708.9	-3,671.7	5,141.6	4,915.3	226.35	22.716		
13,600.0	7,060.0	14,862.7	6,878.5	228.6	226.3	25.63	1,708.9	-3,671.7	5,159.0	4,932.4	226.58	22.768		
13,681.1	7,060.0	14,862.7	6,878.5	230.8	226.3	25.63	1,708.9	-3,671.7	5,240.0	5,012.3	227.69	23.014		
13,700.0	7,060.0	14,862.7	6,878.5	231.3	226.3	25.63	1,708.9	-3,671.7	5,258.9	5,031.0	227.95	23.070		
13,779.5	7,060.0	14,862.7	6,878.5	233.5	226.3	25.63	1,708.9	-3,671.7	5,338.4	5,109.3	229.04	23.308		
13,800.0	7,060.0	14,862.7	6,878.5	234.1	226.3	25.63	1,708.9	-3,671.7	5,358.9	5,129.6	229.32	23.369		
13,877.9	7,060.0	14,862.7	6,878.5	236.2	226.3	25.63	1,708.9	-3,671.7	5,436.7	5,206.4	230.38	23.599		
13,900.0	7,060.0	14,862.7	6,878.5	236.8	226.3	25.63	1,708.9	-3,671.7	5,458.8	5,228.1	230.69	23.663		
13,976.3	7,060.0	14,862.7	6,878.5	238.9	226.3	25.63	1,708.9	-3,671.7	5,535.1	5,303.4	231.73	23.886		
14,000.0	7,060.0	14,862.7	6,878.5	239.5	226.3	25.63	1,708.9	-3,671.7	5,558.8	5,326.7	232.05	23.955		
14,074.8	7,060.0	14,862.7	6,878.5	241.6	226.3	25.63	1,708.9	-3,671.7	5,633.5	5,400.4	233.08	24.170		
14,100.0	7,060.0	14,862.7	6,878.5	242.3	226.3	25.63	1,708.9	-3,671.7	5,658.7	5,425.3	233.42	24.242		
14,173.2	7,060.0	14,862.7	6,878.5	244.3	226.3	25.63	1,708.9	-3,671.7	5,731.9	5,497.4	234.42	24.451		
14,200.0	7,060.0	14,862.7	6,878.5	245.0	226.3	25.63	1,708.9	-3,671.7	5,758.7	5,523.9	234.79	24.527		
14,271.6	7,060.0	14,862.7	6,878.5	247.0	226.3	25.63	1,708.9	-3,671.7	5,830.2	5,594.5	235.77	24.728		
14,300.0	7,060.0	14,862.7	6,878.5	247.8	226.3	25.63	1,708.9	-3,671.7	5,858.6	5,622.5	236.16	24.808		
14,370.0	7,060.0	14,862.7	6,878.5	249.7	226.3	25.63	1,708.9	-3,671.7	5,928.6	5,691.5	237.12	25.003		
14,400.0	7,060.0	14,862.7	6,878.5	250.5	226.3	25.63	1,708.9	-3,671.7	5,958.6	5,721.0	237.53	25.086		
14,468.5	7,060.0	14,862.7	6,878.5	252.4	226.3	25.63	1,708.9	-3,671.7	6,027.0	5,788.5	238.47	25.274		
14,500.0	7,060.0	14,862.7	6,878.5	253.3	226.3	25.63	1,708.9	-3,671.7	6,058.5	5,819.6	238.90	25.360		
14,566.9	7,060.0	14,862.7	6,878.5	255.1	226.3	25.63	1,708.9	-3,671.7	6,125.4	5,885.6	239.82	25.542		
14,600.0	7,060.0	14,862.7	6,878.5	256.0	226.3	25.63	1,708.9	-3,671.7	6,158.5	5,918.2	240.27	25.631		
14,665.3	7,060.0	14,862.7	6,878.5	257.8	226.3	25.63	1,708.9	-3,671.7	6,223.8	5,982.6	241.17	25.807		
14,700.0	7,060.0	14,862.7	6,878.5	258.8	226.3	25.63	1,708.9	-3,671.7	6,258.4	6,016.8	241.64	25.900		
14,763.7	7,060.0	14,862.7	6,878.5	260.5	226.3	25.63	1,708.9	-3,671.7	6,322.2	6,079.6	242.52	26.069		
14,800.0	7,060.0	14,862.7	6,878.5	261.5	226.3	25.63	1,708.9	-3,671.7	6,358.4	6,115.4	243.01	26.165		
14,862.2	7,060.0	14,862.7	6,878.5	263.2	226.3	25.63	1,708.9	-3,671.7	6,420.5	6,176.7	243.87	26.328		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON A-15-16HN - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 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		
14,900.0	7,060.0	14,862.7	6,878.5	264.3	226.3	25.63	1,708.9	-3,671.7	6,458.4	6,214.0	244.38	26.427		
14,960.6	7,060.0	14,862.7	6,878.5	266.0	226.3	25.63	1,708.9	-3,671.7	6,518.9	6,273.7	245.22	26.585		
15,000.0	7,060.0	14,862.7	6,878.5	267.0	226.3	25.63	1,708.9	-3,671.7	6,558.3	6,312.6	245.76	26.686		
15,059.0	7,060.0	14,862.7	6,878.5	268.7	226.3	25.63	1,708.9	-3,671.7	6,617.3	6,370.8	246.57	26.838		
15,100.0	7,060.0	14,862.7	6,878.5	269.8	226.3	25.63	1,708.9	-3,671.7	6,658.3	6,411.2	247.13	26.943		
15,157.4	7,060.0	14,862.7	6,878.5	271.4	226.3	25.63	1,708.9	-3,671.7	6,715.7	6,467.8	247.92	27.089		
15,200.0	7,060.0	14,862.7	6,878.5	272.5	226.3	25.63	1,708.9	-3,671.7	6,758.2	6,509.7	248.50	27.196		
15,255.9	7,060.0	14,862.7	6,878.5	274.1	226.3	25.63	1,708.9	-3,671.7	6,814.1	6,564.8	249.27	27.336		
15,300.0	7,060.0	14,862.7	6,878.5	275.3	226.3	25.63	1,708.9	-3,671.7	6,858.2	6,608.3	249.87	27.447		
15,354.3	7,060.0	14,862.7	6,878.5	276.8	226.3	25.63	1,708.9	-3,671.7	6,912.5	6,661.9	250.62	27.582		
15,400.0	7,060.0	14,862.7	6,878.5	278.1	226.3	25.63	1,708.9	-3,671.7	6,958.2	6,706.9	251.25	27.694		
15,452.7	7,060.0	14,862.7	6,878.5	279.5	226.3	25.63	1,708.9	-3,671.7	7,010.9	6,758.9	251.97	27.824		
15,500.0	7,060.0	14,862.7	6,878.5	280.8	226.3	25.63	1,708.9	-3,671.7	7,058.1	6,805.5	252.62	27.940		
15,551.1	7,060.0	14,862.7	6,878.5	282.2	226.3	25.63	1,708.9	-3,671.7	7,109.3	6,856.0	253.32	28.064		
15,600.0	7,060.0	14,862.7	6,878.5	283.6	226.3	25.63	1,708.9	-3,671.7	7,158.1	6,904.1	254.00	28.182		
15,649.6	7,060.0	14,862.7	6,878.5	285.0	226.3	25.63	1,708.9	-3,671.7	7,207.7	6,953.0	254.68	28.301		
15,700.0	7,060.0	14,862.7	6,878.5	286.4	226.3	25.63	1,708.9	-3,671.7	7,258.1	7,002.7	255.37	28.422		
15,748.0	7,060.0	14,862.7	6,878.5	287.7	226.3	25.63	1,708.9	-3,671.7	7,306.1	7,050.0	256.03	28.536		
15,800.0	7,060.0	14,862.7	6,878.5	289.1	226.3	25.63	1,708.9	-3,671.7	7,358.0	7,101.3	256.74	28.659		
15,846.4	7,060.0	14,862.7	6,878.5	290.4	226.3	25.63	1,708.9	-3,671.7	7,404.5	7,147.1	257.38	28.768		
15,900.0	7,060.0	14,862.7	6,878.5	291.9	226.3	25.63	1,708.9	-3,671.7	7,458.0	7,199.9	258.12	28.894		
15,944.8	7,060.0	14,862.7	6,878.5	293.1	226.3	25.63	1,708.9	-3,671.7	7,502.9	7,244.1	258.74	28.998		
16,000.0	7,060.0	14,862.7	6,878.5	294.6	226.3	25.63	1,708.9	-3,671.7	7,558.0	7,298.5	259.49	29.126		
16,043.3	7,060.0	14,862.7	6,878.5	295.8	226.3	25.63	1,708.9	-3,671.7	7,601.3	7,341.2	260.09	29.226		
16,100.0	7,060.0	14,862.7	6,878.5	297.4	226.3	25.63	1,708.9	-3,671.7	7,658.0	7,397.1	260.87	29.356		
16,141.7	7,060.0	14,862.7	6,878.5	298.6	226.3	25.63	1,708.9	-3,671.7	7,699.7	7,438.2	261.44	29.451		
16,200.0	7,060.0	14,862.7	6,878.5	300.2	226.3	25.63	1,708.9	-3,671.7	7,757.9	7,495.7	262.25	29.583		
16,240.1	7,060.0	14,862.7	6,878.5	301.3	226.3	25.63	1,708.9	-3,671.7	7,798.1	7,535.3	262.80	29.673		
16,300.0	7,060.0	14,862.7	6,878.5	302.9	226.3	25.63	1,708.9	-3,671.7	7,857.9	7,594.3	263.62	29.808		
16,338.5	7,060.0	14,862.7	6,878.5	304.0	226.3	25.63	1,708.9	-3,671.7	7,896.4	7,632.3	264.15	29.894		
16,400.0	7,060.0	14,862.7	6,878.5	305.7	226.3	25.63	1,708.9	-3,671.7	7,957.9	7,692.9	265.00	30.030		
16,437.0	7,060.0	14,862.7	6,878.5	306.7	226.3	25.63	1,708.9	-3,671.7	7,994.8	7,729.3	265.51	30.112		
16,500.0	7,060.0	14,862.7	6,878.5	308.5	226.3	25.63	1,708.9	-3,671.7	8,057.9	7,791.5	266.37	30.250		
16,535.4	7,060.0	14,862.7	6,878.5	309.5	226.3	25.63	1,708.9	-3,671.7	8,093.2	7,826.4	266.86	30.328		
16,600.0	7,060.0	14,862.7	6,878.5	311.3	226.3	25.63	1,708.9	-3,671.7	8,157.8	7,890.1	267.75	30.468		
16,633.8	7,060.0	14,862.7	6,878.5	312.2	226.3	25.63	1,708.9	-3,671.7	8,191.7	7,923.4	268.22	30.541		
16,700.0	7,060.0	14,862.7	6,878.5	314.0	226.3	25.63	1,708.9	-3,671.7	8,257.8	7,988.7	269.13	30.684		
16,732.2	7,060.0	14,862.7	6,878.5	314.9	226.3	25.63	1,708.9	-3,671.7	8,290.1	8,020.5	269.57	30.753		
16,800.0	7,060.0	14,862.7	6,878.5	316.8	226.3	25.63	1,708.9	-3,671.7	8,357.8	8,087.3	270.50	30.897		
16,830.7	7,060.0	14,862.7	6,878.5	317.7	226.3	25.63	1,708.9	-3,671.7	8,388.5	8,117.5	270.93	30.962		
16,900.0	7,060.0	14,862.7	6,878.5	319.6	226.3	25.63	1,708.9	-3,671.7	8,457.8	8,185.9	271.88	31.108		
16,929.1	7,060.0	14,862.7	6,878.5	320.4	226.3	25.63	1,708.9	-3,671.7	8,486.9	8,214.6	272.28	31.169		
17,000.0	7,060.0	14,862.7	6,878.5	322.3	226.3	25.63	1,708.9	-3,671.7	8,557.7	8,284.5	273.26	31.317		
17,027.5	7,060.0	14,862.7	6,878.5	323.1	226.3	25.63	1,708.9	-3,671.7	8,585.3	8,311.6	273.64	31.374		
17,100.0	7,060.0	14,862.7	6,878.5	325.1	226.3	25.63	1,708.9	-3,671.7	8,657.7	8,383.1	274.64	31.524		
17,125.9	7,060.0	14,862.7	6,878.5	325.8	226.3	25.63	1,708.9	-3,671.7	8,683.7	8,408.7	274.99	31.578		
17,200.0	7,060.0	14,862.7	6,878.5	327.9	226.3	25.63	1,708.9	-3,671.7	8,757.7	8,481.7	276.01	31.729		
17,224.4	7,060.0	14,862.7	6,878.5	328.6	226.3	25.63	1,708.9	-3,671.7	8,782.1	8,505.7	276.35	31.779		
17,300.0	7,060.0	14,862.7	6,878.5	330.7	226.3	25.63	1,708.9	-3,671.7	8,857.7	8,580.3	277.39	31.932		
17,322.8	7,060.0	14,862.7	6,878.5	331.3	226.3	25.63	1,708.9	-3,671.7	8,880.5	8,602.8	277.71	31.978		
17,400.0	7,060.0	14,862.7	6,878.5	333.4	226.3	25.63	1,708.9	-3,671.7	8,957.7	8,678.9	278.77	32.133		
17,421.2	7,060.0	14,862.7	6,878.5	334.0	226.3	25.63	1,708.9	-3,671.7	8,978.9	8,699.8	279.06	32.175		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON A-15-16HN - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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
17,500.0	7,060.0	14,862.7	6,878.5	336.2	226.3	25.63	1,708.9	-3,671.7	9,057.6	8,777.5	280.15	32.331	
17,519.6	7,060.0	14,862.7	6,878.5	336.8	226.3	25.63	1,708.9	-3,671.7	9,077.3	8,796.9	280.42	32.370	
17,600.0	7,060.0	14,862.7	6,878.5	339.0	226.3	25.63	1,708.9	-3,671.7	9,157.6	8,876.1	281.53	32.528	
17,618.1	7,060.0	14,862.7	6,878.5	339.5	226.3	25.63	1,708.9	-3,671.7	9,175.7	8,893.9	281.78	32.564	
17,700.0	7,060.0	14,862.7	6,878.5	341.8	226.3	25.63	1,708.9	-3,671.7	9,257.6	8,974.7	282.91	32.723	
17,716.5	7,060.0	14,862.7	6,878.5	342.2	226.3	25.63	1,708.9	-3,671.7	9,274.1	8,991.0	283.13	32.755	
17,800.0	7,060.0	14,862.7	6,878.5	344.6	226.3	25.63	1,708.9	-3,671.7	9,357.6	9,073.3	284.29	32.916	
17,814.9	7,060.0	14,862.7	6,878.5	345.0	226.3	25.63	1,708.9	-3,671.7	9,372.5	9,088.0	284.49	32.945	
17,900.0	7,060.0	14,862.7	6,878.5	347.3	226.3	25.63	1,708.9	-3,671.7	9,457.6	9,171.9	285.66	33.107	
17,913.3	7,060.0	14,862.7	6,878.5	347.7	226.3	25.63	1,708.9	-3,671.7	9,470.9	9,185.1	285.85	33.133	
18,000.0	7,060.0	14,862.7	6,878.5	350.1	226.3	25.63	1,708.9	-3,671.7	9,557.5	9,270.5	287.04	33.296	
18,011.8	7,060.0	14,862.7	6,878.5	350.4	226.3	25.63	1,708.9	-3,671.7	9,569.3	9,282.1	287.21	33.319	
18,100.0	7,060.0	14,862.7	6,878.5	352.9	226.3	25.63	1,708.9	-3,671.7	9,657.5	9,369.1	288.42	33.484	
18,110.2	7,060.0	14,862.7	6,878.5	353.2	226.3	25.63	1,708.9	-3,671.7	9,667.7	9,379.2	288.56	33.503	
18,200.0	7,060.0	14,862.7	6,878.5	355.7	226.3	25.63	1,708.9	-3,671.7	9,757.5	9,467.7	289.80	33.669	
18,208.6	7,060.0	14,862.7	6,878.5	355.9	226.3	25.63	1,708.9	-3,671.7	9,766.1	9,476.2	289.92	33.685	
18,300.0	7,060.0	14,862.7	6,878.5	358.5	226.3	25.63	1,708.9	-3,671.7	9,857.5	9,566.3	291.18	33.853	
18,307.0	7,060.0	14,862.7	6,878.5	358.7	226.3	25.63	1,708.9	-3,671.7	9,864.5	9,573.3	291.28	33.866	
18,400.0	7,060.0	14,862.7	6,878.5	361.2	226.3	25.63	1,708.9	-3,671.7	9,957.5	9,664.9	292.56	34.035	
18,405.5	7,060.0	14,862.7	6,878.5	361.4	226.3	25.63	1,708.9	-3,671.7	9,963.0	9,670.3	292.64	34.045	

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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	
0.0	0.0	0.0	0.0	0.0	0.0	78.76	858.0	4,319.1	4,403.5				
98.4	98.4	78.9	78.9	0.1	0.1	78.76	858.0	4,319.1	4,403.5	4,403.3	0.14	N/A	
100.0	100.0	80.5	80.5	0.1	0.1	78.76	858.0	4,319.1	4,403.5	4,403.3	0.15	N/A	
196.8	196.8	177.3	177.3	0.3	0.2	78.76	858.0	4,319.1	4,403.5	4,402.9	0.55	8,014.451	
200.0	200.0	180.5	180.5	0.3	0.2	78.76	858.0	4,319.1	4,403.5	4,402.9	0.56	7,813.091	
295.3	295.3	275.8	275.8	0.5	0.5	78.76	858.0	4,319.1	4,403.5	4,402.5	0.99	4,439.458	
300.0	300.0	280.5	280.5	0.5	0.5	78.76	858.0	4,319.1	4,403.5	4,402.5	1.01	4,346.385	
393.7	393.7	374.2	374.2	0.8	0.7	78.76	858.0	4,319.1	4,403.5	4,402.0	1.43	3,070.020	
400.0	400.0	380.5	380.5	0.8	0.7	78.76	858.0	4,319.1	4,403.5	4,402.0	1.46	3,010.577	
492.1	492.1	448.0	448.0	1.0	0.8	78.76	858.3	4,319.2	4,403.7	4,401.8	1.82	2,417.748	
500.0	500.0	453.2	453.2	1.0	0.9	78.76	858.3	4,319.2	4,403.7	4,401.9	1.85	2,379.385	
590.5	590.5	500.0	500.0	1.2	1.0	78.75	859.2	4,319.4	4,404.6	4,402.5	2.16	2,039.866	
600.0	600.0	519.3	519.3	1.2	1.0	78.74	859.8	4,319.6	4,404.7	4,402.5	2.22	1,980.246	
689.0	689.0	578.0	578.0	1.4	1.1	78.72	862.0	4,320.2	4,406.3	4,403.7	2.56	1,722.799	
700.0	700.0	600.0	599.9	1.4	1.2	78.70	863.0	4,320.4	4,406.5	4,403.9	2.63	1,674.069	
787.4	787.4	642.9	642.7	1.6	1.3	78.67	865.4	4,321.1	4,408.7	4,405.8	2.93	1,505.286	
800.0	800.0	651.2	651.0	1.7	1.3	78.67	865.9	4,321.2	4,409.0	4,406.1	2.98	1,481.337	
885.8	885.8	700.0	699.7	1.9	1.4	78.63	869.3	4,322.2	4,411.9	4,408.6	3.28	1,344.014	
900.0	900.0	700.0	699.7	1.9	1.4	78.63	869.3	4,322.2	4,412.4	4,409.1	3.31	1,331.263	
984.2	984.2	772.2	771.6	2.1	1.6	78.55	875.5	4,323.8	4,415.8	4,412.1	3.68	1,200.397	
1,000.0	1,000.0	782.5	781.9	2.1	1.6	78.54	876.4	4,324.1	4,416.5	4,412.7	3.74	1,181.144	
1,082.7	1,082.7	836.6	835.6	2.3	1.8	78.48	882.0	4,325.6	4,420.5	4,416.4	4.06	1,088.447	
1,100.0	1,100.0	847.9	846.8	2.3	1.8	78.46	883.3	4,325.9	4,421.4	4,417.2	4.13	1,070.749	
1,181.1	1,181.1	900.0	898.6	2.5	1.9	143.83	889.5	4,327.6	4,426.8	4,422.4	4.45	995.799	
1,200.0	1,200.0	900.0	898.6	2.6	1.9	143.81	889.5	4,327.6	4,428.5	4,424.0	4.49	987.006	
1,279.5	1,279.4	964.5	962.4	2.7	2.1	143.63	898.1	4,330.0	4,436.7	4,431.8	4.84	916.843	
1,300.0	1,299.8	977.7	975.5	2.8	2.2	143.58	900.1	4,330.5	4,439.1	4,434.2	4.92	902.349	
1,377.9	1,377.5	1,027.9	1,025.1	3.0	2.3	143.39	907.7	4,332.5	4,449.9	4,444.7	5.24	849.922	
1,400.0	1,399.5	1,042.1	1,039.1	3.0	2.4	143.33	909.9	4,333.2	4,453.4	4,448.1	5.33	836.143	
1,476.4	1,475.3	1,094.6	1,090.8	3.2	2.5	143.12	918.7	4,335.5	4,466.6	4,461.0	5.66	789.698	
1,500.0	1,498.7	1,117.7	1,113.5	3.2	2.6	143.04	922.7	4,336.6	4,471.1	4,465.3	5.78	773.314	
1,574.8	1,572.6	1,190.8	1,185.4	3.5	2.9	142.79	935.3	4,340.0	4,486.3	4,480.1	6.18	725.477	
1,602.6	1,600.0	1,217.9	1,212.1	3.5	3.0	142.69	939.9	4,341.3	4,492.3	4,486.0	6.33	709.268	
1,667.6	1,664.0	1,281.2	1,274.4	3.7	3.2	142.65	950.8	4,344.2	4,506.7	4,500.0	6.70	672.519	
1,673.2	1,669.6	1,286.7	1,279.8	3.7	3.2	142.63	951.8	4,344.5	4,507.9	4,501.2	6.73	669.568	
1,700.0	1,695.9	1,312.7	1,305.4	3.8	3.3	142.54	956.2	4,345.7	4,514.0	4,507.1	6.88	655.929	
1,771.6	1,766.1	1,382.2	1,373.8	4.1	3.6	142.29	968.2	4,348.9	4,531.1	4,523.8	7.29	621.621	
1,800.0	1,793.8	1,409.7	1,400.8	4.2	3.7	142.19	972.9	4,350.2	4,538.3	4,530.8	7.45	609.207	
1,870.1	1,862.0	1,477.2	1,467.3	4.4	3.9	141.94	984.5	4,353.4	4,556.9	4,549.1	7.86	579.659	
1,900.0	1,891.0	1,505.9	1,495.5	4.5	4.0	141.83	989.5	4,354.7	4,565.3	4,557.2	8.04	568.148	
1,968.5	1,957.0	1,571.5	1,560.0	4.9	4.3	141.57	1,000.7	4,357.8	4,585.3	4,576.8	8.45	542.485	
2,000.0	1,987.2	1,601.5	1,589.5	5.0	4.4	141.45	1,005.9	4,359.2	4,594.9	4,586.2	8.64	531.717	
2,066.9	2,051.1	1,664.9	1,651.9	5.3	4.6	141.20	1,016.8	4,362.1	4,616.1	4,607.1	9.06	509.280	
2,100.0	2,082.5	1,696.1	1,682.6	5.5	4.8	141.07	1,022.1	4,363.6	4,627.1	4,617.8	9.27	498.971	
2,165.3	2,144.1	1,757.4	1,742.9	5.9	5.0	140.81	1,032.7	4,366.4	4,649.5	4,639.8	9.71	479.071	
2,200.0	2,176.6	1,789.7	1,774.7	6.1	5.1	140.67	1,038.2	4,367.9	4,661.8	4,651.9	9.93	469.246	
2,263.8	2,236.0	1,848.8	1,832.9	6.5	5.3	140.41	1,048.4	4,370.7	4,685.3	4,674.9	10.38	451.445	
2,300.0	2,269.5	1,882.2	1,865.8	6.7	5.5	140.25	1,054.1	4,372.2	4,699.1	4,688.5	10.63	442.033	
2,362.2	2,326.7	1,939.1	1,921.8	7.2	5.7	139.99	1,063.9	4,374.9	4,723.6	4,712.5	11.09	426.020	
2,400.0	2,361.1	1,973.4	1,955.6	7.5	5.8	139.82	1,069.8	4,376.5	4,738.9	4,727.5	11.37	416.948	
2,460.6	2,415.9	2,028.1	2,009.4	8.0	6.0	139.55	1,079.2	4,379.0	4,764.2	4,752.4	11.84	402.476	
2,500.0	2,451.2	11,530.7	6,958.5	8.3	131.8	139.03	1,563.4	-296.6	4,747.9	4,689.5	58.42	81.269	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
2,559.0	2,503.7	11,555.3	6,958.5	8.8	132.5	140.52	1,563.2	-321.2	4,694.4	4,637.9	56.51	83.075	
2,600.0	2,539.7	11,572.9	6,958.5	9.2	133.0	141.49	1,563.1	-338.8	4,657.6	4,602.3	55.30	84.222	
2,657.5	2,589.9	11,598.4	6,958.5	9.8	133.7	142.79	1,563.0	-364.3	4,606.3	4,552.5	53.79	85.633	
2,700.0	2,626.6	11,617.9	6,958.5	10.2	134.2	143.69	1,562.9	-383.8	4,568.5	4,515.7	52.79	86.547	
2,755.9	2,674.4	11,644.2	6,958.5	10.8	135.0	144.83	1,562.7	-410.1	4,519.3	4,467.7	51.63	87.532	
2,800.0	2,711.7	11,665.6	6,958.5	11.2	135.6	145.68	1,562.6	-431.5	4,480.8	4,430.0	50.82	88.163	
2,854.3	2,757.1	11,692.6	6,958.5	11.9	136.3	146.68	1,562.4	-458.5	4,433.7	4,383.7	49.98	88.717	
2,900.0	2,794.9	11,715.9	6,958.5	12.4	137.0	147.48	1,562.3	-481.8	4,394.4	4,345.1	49.36	89.027	
2,952.7	2,838.0	11,743.5	6,958.5	13.0	137.7	148.37	1,562.1	-509.4	4,349.5	4,300.7	48.78	89.169	
3,000.0	2,876.1	11,768.9	6,958.5	13.6	138.4	149.12	1,562.0	-534.8	4,309.6	4,261.3	48.35	89.141	
3,015.0	2,888.1	11,777.0	6,958.5	13.8	138.7	149.36	1,561.9	-542.9	4,297.1	4,248.8	48.23	89.096	
3,051.2	2,917.0	11,796.8	6,958.5	14.3	139.2	149.36	1,561.8	-562.7	4,266.8	4,218.1	48.61	87.772	
3,100.0	2,956.0	11,823.5	6,958.5	14.9	140.0	149.35	1,561.7	-589.3	4,225.9	4,176.7	49.13	86.016	
3,149.6	2,995.6	11,850.5	6,958.5	15.6	140.7	149.34	1,561.5	-616.4	4,184.3	4,134.6	49.66	84.260	
3,200.0	3,035.8	11,878.1	6,958.5	16.3	141.5	149.34	1,561.4	-644.0	4,142.1	4,091.9	50.20	82.512	
3,248.0	3,074.2	11,904.3	6,958.5	16.9	142.2	149.33	1,561.2	-670.2	4,101.9	4,051.1	50.72	80.873	
3,300.0	3,115.7	11,932.7	6,958.5	17.6	143.0	149.33	1,561.0	-698.6	4,058.3	4,007.0	51.28	79.135	
3,346.4	3,152.8	11,958.1	6,958.5	18.2	143.7	149.32	1,560.9	-723.9	4,019.4	3,967.6	51.79	77.608	
3,400.0	3,195.6	11,987.3	6,958.5	18.9	144.5	149.31	1,560.7	-753.2	3,974.6	3,922.2	52.38	75.882	
3,444.9	3,231.4	12,011.8	6,958.5	19.5	145.2	149.31	1,560.6	-777.7	3,937.0	3,884.1	52.87	74.461	
3,500.0	3,275.4	12,041.9	6,958.5	20.3	146.0	149.30	1,560.4	-807.8	3,890.8	3,837.3	53.48	72.749	
3,543.3	3,310.0	12,065.6	6,958.5	20.9	146.7	149.30	1,560.3	-831.4	3,854.5	3,800.6	53.96	71.429	
3,600.0	3,355.3	12,096.5	6,958.5	21.6	147.6	149.29	1,560.1	-862.4	3,807.0	3,752.4	54.59	69.733	
3,641.7	3,388.6	12,119.3	6,958.5	22.2	148.2	149.28	1,559.9	-885.2	3,772.1	3,717.0	55.06	68.507	
3,700.0	3,435.1	12,151.1	6,958.5	23.0	149.1	149.27	1,559.8	-917.0	3,723.3	3,667.5	55.71	66.828	
3,740.1	3,467.2	12,173.1	6,958.5	23.5	149.7	149.27	1,559.6	-939.0	3,689.6	3,633.5	56.17	65.691	
3,800.0	3,515.0	12,205.8	6,958.5	24.4	150.6	149.26	1,559.4	-971.6	3,639.5	3,582.7	56.84	64.030	
3,838.6	3,545.8	12,226.8	6,958.5	24.9	151.2	149.25	1,559.3	-992.7	3,607.2	3,549.9	57.28	62.977	
3,900.0	3,594.9	12,260.4	6,958.5	25.7	152.1	149.24	1,559.1	-1,026.3	3,555.7	3,497.8	57.97	61.333	
3,937.0	3,624.4	12,280.6	6,958.5	26.2	152.7	149.24	1,559.0	-1,046.5	3,524.7	3,466.3	58.39	60.360	
4,000.0	3,674.7	12,315.0	6,958.5	27.1	153.7	149.23	1,558.8	-1,080.9	3,472.0	3,412.8	59.11	58.734	
4,035.4	3,703.0	12,334.3	6,958.5	27.6	154.2	149.22	1,558.7	-1,100.2	3,442.3	3,382.8	59.52	57.836	
4,100.0	3,754.6	12,369.6	6,958.5	28.5	155.2	149.21	1,558.5	-1,135.5	3,388.2	3,327.9	60.26	56.228	
4,133.8	3,781.6	12,388.1	6,958.5	28.9	155.7	149.21	1,558.4	-1,154.0	3,359.8	3,299.2	60.65	55.400	
4,200.0	3,834.5	12,424.2	6,958.5	29.8	156.7	149.19	1,558.2	-1,190.1	3,304.4	3,243.0	61.41	53.810	
4,232.3	3,860.2	12,441.8	6,958.5	30.3	157.2	149.19	1,558.1	-1,207.7	3,277.4	3,215.6	61.78	53.048	
4,300.0	3,914.3	12,478.8	6,958.5	31.2	158.2	149.17	1,557.9	-1,244.7	3,220.7	3,158.1	62.57	51.477	
4,330.7	3,938.8	12,495.6	6,958.5	31.6	158.7	149.17	1,557.8	-1,261.5	3,194.9	3,132.0	62.92	50.777	
4,400.0	3,994.2	12,533.5	6,958.5	32.6	159.8	149.16	1,557.5	-1,299.3	3,136.9	3,073.2	63.73	49.224	
4,429.1	4,017.4	12,549.4	6,958.5	33.0	160.2	149.15	1,557.5	-1,315.2	3,112.5	3,048.4	64.07	48.582	
4,500.0	4,074.0	12,588.1	6,958.5	34.0	161.3	149.13	1,557.2	-1,353.9	3,053.1	2,988.2	64.90	47.047	
4,527.5	4,096.1	12,603.1	6,958.5	34.4	161.7	149.13	1,557.1	-1,369.0	3,030.1	2,964.8	65.22	46.460	
4,600.0	4,153.9	12,642.7	6,958.5	35.4	162.8	149.11	1,556.9	-1,408.6	2,969.4	2,903.3	66.07	44.943	
4,626.0	4,174.7	12,656.9	6,958.5	35.7	163.2	149.11	1,556.8	-1,422.7	2,947.6	2,881.2	66.38	44.408	
4,700.0	4,233.8	12,697.3	6,958.5	36.8	164.3	149.09	1,556.6	-1,463.2	2,885.6	2,818.4	67.25	42.909	
4,724.4	4,253.3	12,710.6	6,958.5	37.1	164.7	149.08	1,556.5	-1,476.5	2,865.2	2,797.6	67.54	42.422	
4,800.0	4,313.6	12,751.9	6,958.5	38.1	165.8	149.06	1,556.3	-1,517.8	2,801.8	2,733.4	68.44	40.940	
4,822.8	4,331.9	12,764.4	6,958.5	38.5	166.2	149.06	1,556.2	-1,530.3	2,782.7	2,714.0	68.71	40.500	
4,900.0	4,393.5	12,806.5	6,958.5	39.5	167.4	149.04	1,556.0	-1,572.4	2,718.1	2,648.4	69.63	39.036	
4,921.2	4,410.5	12,818.1	6,958.5	39.8	167.7	149.03	1,555.9	-1,584.0	2,700.3	2,630.4	69.89	38.639	
5,000.0	4,473.4	12,861.1	6,958.5	40.9	168.9	149.01	1,555.6	-1,627.0	2,634.3	2,563.5	70.83	37.191	
5,019.7	4,489.1	12,871.9	6,958.5	41.2	169.2	149.01	1,555.6	-1,637.8	2,617.8	2,546.8	71.07	36.835	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													Offset Well Error:	0.0 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		
5,100.0	4,553.2	12,915.8	6,958.5	42.3	170.4	148.98	1,555.3	-1,681.6	2,550.5	2,478.5	72.04	35.404		
5,118.1	4,567.7	12,925.6	6,958.5	42.5	170.7	148.98	1,555.3	-1,691.5	2,535.4	2,463.1	72.26	35.087		
5,200.0	4,633.1	12,970.4	6,958.5	43.7	172.0	148.95	1,555.0	-1,736.2	2,466.8	2,393.5	73.26	33.673		
5,216.5	4,646.3	12,979.4	6,958.5	43.9	172.2	148.94	1,555.0	-1,745.3	2,452.9	2,379.5	73.46	33.392		
5,300.0	4,713.0	13,025.0	6,958.5	45.1	173.5	148.92	1,554.7	-1,790.9	2,383.0	2,308.5	74.48	31.994		
5,314.9	4,724.9	13,033.2	6,958.5	45.3	173.7	148.91	1,554.7	-1,799.0	2,370.5	2,295.8	74.67	31.747		
5,400.0	4,792.8	13,079.6	6,958.5	46.5	175.0	148.88	1,554.4	-1,845.5	2,299.3	2,223.5	75.72	30.365		
5,413.4	4,803.5	13,086.9	6,958.5	46.6	175.2	148.87	1,554.3	-1,852.8	2,288.1	2,212.2	75.89	30.151		
5,500.0	4,872.7	13,134.2	6,958.5	47.9	176.5	148.84	1,554.1	-1,900.1	2,215.5	2,138.5	76.97	28.785		
5,511.8	4,882.1	13,140.7	6,958.5	48.0	176.7	148.84	1,554.0	-1,906.5	2,205.6	2,128.5	77.11	28.602		
5,600.0	4,952.5	13,188.8	6,958.5	49.2	178.1	148.80	1,553.8	-1,954.7	2,131.7	2,053.5	78.23	27.251		
5,610.2	4,960.7	13,194.4	6,958.5	49.4	178.2	148.79	1,553.7	-1,960.3	2,123.2	2,044.8	78.36	27.096		
5,700.0	5,032.4	13,243.5	6,958.5	50.6	179.6	148.75	1,553.4	-2,009.3	2,048.0	1,968.5	79.50	25.761		
5,708.6	5,039.3	13,248.2	6,958.5	50.8	179.7	148.75	1,553.4	-2,014.1	2,040.7	1,961.1	79.61	25.634		
5,800.0	5,112.3	13,298.1	6,958.5	52.0	181.1	148.70	1,553.1	-2,063.9	1,964.2	1,883.4	80.79	24.314		
5,807.1	5,117.9	13,301.9	6,958.5	52.1	181.2	148.70	1,553.1	-2,067.8	1,958.3	1,877.4	80.88	24.213		
5,900.0	5,192.1	13,352.7	6,958.5	53.4	182.6	148.65	1,552.8	-2,118.6	1,880.4	1,798.4	82.09	22.907		
5,905.5	5,196.5	13,355.7	6,958.5	53.5	182.7	148.65	1,552.8	-2,121.6	1,875.8	1,793.7	82.16	22.831		
6,000.0	5,272.0	13,407.3	6,958.5	54.8	184.2	148.59	1,552.5	-2,173.2	1,796.7	1,713.3	83.41	21.539		
6,003.9	5,275.1	13,409.5	6,958.5	54.9	184.2	148.59	1,552.5	-2,175.3	1,793.4	1,709.9	83.47	21.486		
6,100.0	5,351.9	13,461.9	6,958.5	56.2	185.7	148.53	1,552.2	-2,227.8	1,712.9	1,628.2	84.76	20.209		
6,102.3	5,353.7	13,463.2	6,958.5	56.2	185.7	148.52	1,552.2	-2,229.1	1,711.0	1,626.2	84.79	20.178		
6,200.0	5,431.7	13,516.5	6,958.5	57.6	187.2	148.45	1,551.9	-2,282.4	1,629.2	1,543.0	86.13	18.915		
6,200.8	5,432.3	13,517.0	6,958.5	57.6	187.2	148.45	1,551.9	-2,282.8	1,628.5	1,542.4	86.14	18.905		
6,299.2	5,511.0	13,570.7	6,958.5	59.0	188.7	148.38	1,551.5	-2,336.6	1,546.1	1,458.6	87.52	17.666		
6,300.0	5,511.6	13,571.2	6,958.5	59.0	188.7	148.38	1,551.5	-2,337.0	1,545.4	1,457.9	87.53	17.656		
6,397.6	5,589.6	13,624.5	6,958.5	60.3	190.2	148.29	1,551.2	-2,390.3	1,463.6	1,374.7	88.93	16.458		
6,400.0	5,591.5	13,625.8	6,958.5	60.4	190.3	148.29	1,551.2	-2,391.6	1,461.7	1,372.7	88.97	16.429		
6,496.0	5,668.2	13,678.2	6,958.5	61.7	191.7	148.19	1,550.9	-2,444.1	1,381.2	1,290.8	90.38	15.282		
6,500.0	5,671.3	13,680.4	6,958.5	61.8	191.8	148.19	1,550.9	-2,446.3	1,377.9	1,287.5	90.44	15.236		
6,594.5	5,746.8	13,732.0	6,958.5	63.1	193.2	148.08	1,550.6	-2,497.9	1,298.8	1,206.9	91.88	14.136		
6,600.0	5,751.2	13,735.0	6,958.5	63.2	193.3	148.08	1,550.6	-2,500.9	1,294.1	1,202.2	91.96	14.072		
6,692.9	5,825.4	13,785.8	6,958.5	64.5	194.7	147.96	1,550.3	-2,551.6	1,216.3	1,122.9	93.43	13.019		
6,700.0	5,831.0	13,789.6	6,958.5	64.6	194.9	147.95	1,550.3	-2,555.5	1,210.4	1,116.8	93.54	12.939		
6,791.3	5,904.0	13,839.5	6,958.5	65.8	196.2	147.82	1,550.0	-2,605.4	1,133.9	1,038.9	95.05	11.930		
6,800.0	5,910.9	13,844.3	6,958.5	66.0	196.4	147.80	1,550.0	-2,610.1	1,126.6	1,031.4	95.20	11.835		
6,889.7	5,982.6	13,893.3	6,958.5	67.2	197.7	147.65	1,549.7	-2,659.1	1,051.5	954.7	96.75	10.867		
6,900.0	5,990.8	13,898.9	6,958.5	67.4	197.9	147.64	1,549.7	-2,664.7	1,042.9	945.9	96.94	10.758		
6,988.2	6,061.2	13,947.0	6,958.5	68.6	199.3	147.46	1,549.4	-2,712.9	969.0	870.5	98.57	9.831		
7,000.0	6,070.6	13,953.5	6,958.5	68.7	199.4	147.44	1,549.3	-2,719.3	959.1	860.4	98.79	9.709		
7,086.6	6,139.8	14,000.8	6,958.5	70.0	200.8	147.23	1,549.1	-2,766.6	886.6	786.1	100.51	8.821		
7,100.0	6,150.5	14,008.1	6,958.5	70.1	201.0	147.20	1,549.0	-2,774.0	875.4	774.6	100.79	8.685		
7,185.0	6,218.4	14,054.5	6,958.5	71.3	202.3	146.96	1,548.8	-2,820.4	804.2	701.6	102.64	7.835		
7,200.0	6,230.4	14,062.7	6,958.5	71.5	202.5	146.91	1,548.7	-2,828.6	791.7	688.7	102.98	7.687		
7,283.4	6,297.0	14,108.3	6,958.5	72.7	203.8	146.62	1,548.4	-2,874.2	721.8	616.8	105.00	6.874		
7,300.0	6,310.2	14,117.3	6,958.5	72.9	204.0	146.56	1,548.4	-2,883.2	707.9	602.5	105.43	6.715		
7,381.9	6,375.6	14,162.1	6,958.5	74.1	205.3	146.20	1,548.1	-2,927.9	639.4	531.7	107.71	5.936		
7,400.0	6,390.1	14,172.0	6,958.5	74.3	205.5	146.11	1,548.1	-2,937.8	624.2	516.0	108.25	5.766		
7,480.3	6,454.2	14,215.8	6,958.5	75.4	206.8	145.65	1,547.8	-2,981.7	557.0	446.1	110.90	5.023		
7,500.0	6,470.0	14,226.6	6,958.5	75.7	207.1	145.52	1,547.8	-2,992.4	540.5	428.9	111.61	4.843		
7,574.0	6,529.1	14,267.0	6,958.5	76.8	208.2	144.95	1,547.5	-3,032.8	478.6	364.0	114.62	4.176		
7,578.7	6,532.8	14,269.6	6,958.5	76.8	208.3	145.33	1,547.5	-3,035.4	474.6	360.9	113.71	4.174		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 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	
7,600.0	6,549.5	14,281.6	6,958.5	77.1	208.6	146.93	1,547.4	-3,047.5	457.1	347.1	110.00	4.156	
7,650.0	6,586.5	14,312.0	6,958.5	77.9	209.5	150.39	1,547.3	-3,077.9	417.4	314.2	103.25	4.043	
7,677.1	6,605.4	14,329.7	6,958.5	78.4	210.0	152.15	1,547.2	-3,095.6	396.9	296.5	100.45	3.951	
7,698.4	6,619.5	14,344.1	6,958.5	78.8	210.4	153.49	1,547.1	-3,110.0	381.4	282.8	98.55	3.870	
7,700.0	6,620.6	14,345.3	6,958.5	78.8	210.4	153.52	1,547.1	-3,111.1	380.2	281.7	98.49	3.860	
7,775.6	6,669.7	14,397.4	6,958.5	80.2	211.9	155.00	1,546.8	-3,163.2	325.8	230.6	95.21	3.422	
7,800.0	6,685.6	14,414.2	6,958.5	80.7	212.3	155.59	1,546.7	-3,180.1	308.3	214.4	93.90	3.283	
7,874.0	6,733.7	14,465.2	6,958.5	82.1	213.8	157.86	1,546.4	-3,231.1	255.3	166.2	89.07	2.866	
7,900.0	6,750.6	14,483.2	6,958.5	82.6	214.3	158.89	1,546.3	-3,249.0	236.7	149.6	87.09	2.718	
7,972.4	6,797.7	14,533.1	6,958.5	83.9	215.7	162.80	1,546.0	-3,298.9	185.3	103.6	81.65	2.269	
8,000.0	6,815.7	14,552.1	6,958.5	84.4	216.2	164.89	1,545.9	-3,317.9	165.8	85.4	80.40	2.063	
8,070.8	6,861.7	14,601.0	6,958.5	85.8	217.6	173.12	1,545.6	-3,366.8	116.8	29.8	87.05	1.342 Level 3	
8,100.0	6,880.7	14,621.1	6,958.5	86.3	218.1	178.56	1,545.5	-3,386.9	97.3	-1.8	99.08	0.982 Level 1	
8,132.2	6,901.6	14,643.3	6,958.5	86.9	218.7	-172.93	1,545.4	-3,409.1	76.8	-48.2	125.01	0.614 Level 1	
8,150.0	6,913.0	14,655.7	6,958.5	87.2	219.1	-166.76	1,545.3	-3,421.6	66.4	-76.4	142.79	0.465 Level 1	
8,169.3	6,925.0	14,669.7	6,958.5	87.6	219.5	-158.62	1,545.2	-3,435.5	56.6	-112.2	168.80	0.335 Level 1	
8,200.0	6,943.1	14,692.8	6,958.5	88.2	220.1	-141.87	1,545.1	-3,458.6	45.1	-177.8	222.96	0.202 Level 1	
8,230.0	6,959.7	14,716.3	6,958.5	88.9	220.8	-121.76	1,545.0	-3,482.2	41.2	-233.9	275.06	0.150 Level 1, CC	
8,250.0	6,970.1	14,732.6	6,958.5	89.3	221.2	-108.01	1,544.9	-3,498.5	42.8	-254.0	296.81	0.144 Level 1, SF	
8,267.7	6,978.9	14,747.4	6,958.5	89.7	221.7	-96.95	1,544.8	-3,513.2	46.5	-258.1	304.62	0.153 Level 1, ES	
8,300.0	6,993.9	14,775.0	6,958.5	90.4	222.4	-80.91	1,544.6	-3,540.8	56.3	-243.9	300.19	0.187 Level 1	
8,350.0	7,014.3	14,819.4	6,958.5	91.6	223.7	-65.42	1,544.4	-3,585.3	73.8	-206.0	279.76	0.264 Level 1	
8,366.1	7,020.1	14,834.2	6,958.5	92.0	224.1	-62.09	1,544.3	-3,600.0	79.3	-194.4	273.67	0.290 Level 1	
8,400.0	7,031.0	14,865.7	6,958.5	92.8	225.0	-56.81	1,544.1	-3,631.6	90.1	-172.9	263.04	0.343 Level 1	
8,450.0	7,044.0	14,905.1	6,958.5	94.0	226.1	-52.33	1,543.9	-3,670.9	103.9	-149.5	253.42	0.410 Level 1	
8,464.5	7,047.1	14,905.1	6,958.5	94.3	226.1	-51.95	1,543.9	-3,670.9	109.2	-143.6	252.74	0.432 Level 1	
8,500.0	7,053.2	14,905.1	6,958.5	95.2	226.1	-50.78	1,543.9	-3,670.9	127.1	-122.7	249.78	0.509 Level 1	
8,550.0	7,058.6	14,905.1	6,958.5	96.4	226.1	-48.72	1,543.9	-3,670.9	160.2	-82.5	242.74	0.660 Level 1	
8,563.0	7,059.3	14,905.1	6,958.5	96.7	226.1	-48.14	1,543.9	-3,670.9	169.8	-70.7	240.45	0.706 Level 1	
8,592.7	7,060.0	14,905.1	6,958.5	97.4	226.1	-46.78	1,543.9	-3,670.9	192.6	-42.0	234.57	0.821 Level 1	
8,600.0	7,060.0	14,905.1	6,958.5	97.6	226.1	-46.78	1,543.9	-3,670.9	198.3	-36.4	234.71	0.845 Level 1	
8,661.4	7,060.0	14,905.1	6,958.5	99.0	226.1	-46.78	1,543.9	-3,670.9	250.0	14.1	235.87	1.060 Level 2	
8,700.0	7,060.0	14,905.1	6,958.5	100.0	226.1	-46.78	1,543.9	-3,670.9	284.5	47.9	236.60	1.202 Level 2	
8,759.8	7,060.0	14,905.1	6,958.5	101.4	226.1	-46.78	1,543.9	-3,670.9	339.7	102.0	237.74	1.429 Level 3	
8,800.0	7,060.0	14,905.1	6,958.5	102.3	226.1	-46.78	1,543.9	-3,670.9	377.6	139.1	238.51	1.583	
8,858.2	7,060.0	14,905.1	6,958.5	103.7	226.1	-46.78	1,543.9	-3,670.9	433.2	193.6	239.63	1.808	
8,900.0	7,060.0	14,905.1	6,958.5	104.8	226.1	-46.78	1,543.9	-3,670.9	473.5	233.0	240.43	1.969	
8,956.7	7,060.0	14,905.1	6,958.5	106.1	226.1	-46.78	1,543.9	-3,670.9	528.5	287.0	241.52	2.188	
9,000.0	7,060.0	14,905.1	6,958.5	107.2	226.1	-46.78	1,543.9	-3,670.9	570.8	328.4	242.36	2.355	
9,055.1	7,060.0	14,905.1	6,958.5	108.5	226.1	-46.78	1,543.9	-3,670.9	624.8	381.3	243.42	2.567	
9,100.0	7,060.0	14,905.1	6,958.5	109.6	226.1	-46.78	1,543.9	-3,670.9	668.9	424.6	244.29	2.738	
9,153.5	7,060.0	14,905.1	6,958.5	111.0	226.1	-46.78	1,543.9	-3,670.9	721.6	476.3	245.33	2.941	
9,200.0	7,060.0	14,905.1	6,958.5	112.1	226.1	-46.78	1,543.9	-3,670.9	767.5	521.2	246.24	3.117	
9,251.9	7,060.0	14,905.1	6,958.5	113.4	226.1	-46.78	1,543.9	-3,670.9	818.8	571.6	247.25	3.312	
9,300.0	7,060.0	14,905.1	6,958.5	114.6	226.1	-46.78	1,543.9	-3,670.9	866.4	618.2	248.19	3.491	
9,350.4	7,060.0	14,905.1	6,958.5	115.8	226.1	-46.78	1,543.9	-3,670.9	916.3	667.1	249.18	3.677	
9,400.0	7,060.0	14,905.1	6,958.5	117.1	226.1	-46.78	1,543.9	-3,670.9	965.5	715.4	250.15	3.860	
9,448.8	7,060.0	14,905.1	6,958.5	118.3	226.1	-46.78	1,543.9	-3,670.9	1,014.0	762.9	251.12	4.038	
9,500.0	7,060.0	14,905.1	6,958.5	119.6	226.1	-46.78	1,543.9	-3,670.9	1,064.8	812.7	252.12	4.223	
9,547.2	7,060.0	14,905.1	6,958.5	120.8	226.1	-46.78	1,543.9	-3,670.9	1,111.8	858.7	253.06	4.393	
9,600.0	7,060.0	14,905.1	6,958.5	122.1	226.1	-46.78	1,543.9	-3,670.9	1,164.3	910.2	254.10	4.582	
9,645.6	7,060.0	14,905.1	6,958.5	123.3	226.1	-46.78	1,543.9	-3,670.9	1,209.7	954.7	255.00	4.744	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
9,700.0	7,060.0	14,905.1	6,958.5	124.6	226.1	-46.78	1,543.9	-3,670.9	1,263.8	1,007.7	256.08	4.935	
9,744.1	7,060.0	14,905.1	6,958.5	125.8	226.1	-46.78	1,543.9	-3,670.9	1,307.6	1,050.7	256.96	5.089	
9,800.0	7,060.0	14,905.1	6,958.5	127.2	226.1	-46.78	1,543.9	-3,670.9	1,363.3	1,105.3	258.07	5.283	
9,842.5	7,060.0	14,905.1	6,958.5	128.3	226.1	-46.78	1,543.9	-3,670.9	1,405.7	1,146.8	258.91	5.429	
9,900.0	7,060.0	14,905.1	6,958.5	129.7	226.1	-46.78	1,543.9	-3,670.9	1,463.0	1,202.9	260.06	5.626	
9,940.9	7,060.0	14,905.1	6,958.5	130.8	226.1	-46.78	1,543.9	-3,670.9	1,503.8	1,242.9	260.88	5.764	
10,000.0	7,060.0	14,905.1	6,958.5	132.3	226.1	-46.78	1,543.9	-3,670.9	1,562.7	1,300.6	262.06	5.963	
10,039.3	7,060.0	14,905.1	6,958.5	133.3	226.1	-46.78	1,543.9	-3,670.9	1,601.9	1,339.1	262.84	6.095	
10,100.0	7,060.0	14,905.1	6,958.5	134.9	226.1	-46.78	1,543.9	-3,670.9	1,662.4	1,398.3	264.06	6.296	
10,137.8	7,060.0	14,905.1	6,958.5	135.9	226.1	-46.78	1,543.9	-3,670.9	1,700.1	1,435.3	264.82	6.420	
10,200.0	7,060.0	14,905.1	6,958.5	137.5	226.1	-46.78	1,543.9	-3,670.9	1,762.2	1,496.1	266.07	6.623	
10,236.2	7,060.0	14,905.1	6,958.5	138.4	226.1	-46.78	1,543.9	-3,670.9	1,798.3	1,531.5	266.79	6.740	
10,300.0	7,060.0	14,905.1	6,958.5	140.1	226.1	-46.78	1,543.9	-3,670.9	1,861.9	1,593.9	268.08	6.946	
10,334.6	7,060.0	14,905.1	6,958.5	141.0	226.1	-46.78	1,543.9	-3,670.9	1,896.5	1,627.7	268.77	7.056	
10,400.0	7,060.0	14,905.1	6,958.5	142.7	226.1	-46.78	1,543.9	-3,670.9	1,961.7	1,691.6	270.09	7.263	
10,433.0	7,060.0	14,905.1	6,958.5	143.5	226.1	-46.78	1,543.9	-3,670.9	1,994.7	1,724.0	270.76	7.367	
10,500.0	7,060.0	14,905.1	6,958.5	145.3	226.1	-46.78	1,543.9	-3,670.9	2,061.6	1,789.5	272.11	7.576	
10,531.5	7,060.0	14,905.1	6,958.5	146.1	226.1	-46.78	1,543.9	-3,670.9	2,093.0	1,820.2	272.74	7.674	
10,600.0	7,060.0	14,905.1	6,958.5	147.9	226.1	-46.78	1,543.9	-3,670.9	2,161.4	1,887.3	274.13	7.885	
10,629.9	7,060.0	14,905.1	6,958.5	148.7	226.1	-46.78	1,543.9	-3,670.9	2,191.3	1,916.5	274.73	7.976	
10,700.0	7,060.0	14,905.1	6,958.5	150.5	226.1	-46.78	1,543.9	-3,670.9	2,261.3	1,985.1	276.15	8.188	
10,728.3	7,060.0	14,905.1	6,958.5	151.3	226.1	-46.78	1,543.9	-3,670.9	2,289.5	2,012.8	276.73	8.274	
10,800.0	7,060.0	14,905.1	6,958.5	153.1	226.1	-46.78	1,543.9	-3,670.9	2,361.1	2,082.9	278.18	8.488	
10,826.7	7,060.0	14,905.1	6,958.5	153.9	226.1	-46.78	1,543.9	-3,670.9	2,387.8	2,109.1	278.73	8.567	
10,900.0	7,060.0	14,905.1	6,958.5	155.8	226.1	-46.78	1,543.9	-3,670.9	2,461.0	2,180.8	280.21	8.783	
10,925.2	7,060.0	14,905.1	6,958.5	156.5	226.1	-46.78	1,543.9	-3,670.9	2,486.1	2,205.4	280.72	8.856	
11,000.0	7,060.0	14,905.1	6,958.5	158.4	226.1	-46.78	1,543.9	-3,670.9	2,560.9	2,278.6	282.25	9.073	
11,023.6	7,060.0	14,905.1	6,958.5	159.1	226.1	-46.78	1,543.9	-3,670.9	2,584.5	2,301.7	282.73	9.141	
11,100.0	7,060.0	14,905.1	6,958.5	161.1	226.1	-46.78	1,543.9	-3,670.9	2,660.8	2,376.5	284.28	9.360	
11,122.0	7,060.0	14,905.1	6,958.5	161.7	226.1	-46.78	1,543.9	-3,670.9	2,682.8	2,398.0	284.73	9.422	
11,200.0	7,060.0	14,905.1	6,958.5	163.7	226.1	-46.78	1,543.9	-3,670.9	2,760.7	2,474.4	286.32	9.642	
11,220.4	7,060.0	14,905.1	6,958.5	164.3	226.1	-46.78	1,543.9	-3,670.9	2,781.1	2,494.4	286.74	9.699	
11,300.0	7,060.0	14,905.1	6,958.5	166.4	226.1	-46.78	1,543.9	-3,670.9	2,860.6	2,572.2	288.36	9.920	
11,318.9	7,060.0	14,905.1	6,958.5	166.9	226.1	-46.78	1,543.9	-3,670.9	2,879.4	2,590.7	288.75	9.972	
11,400.0	7,060.0	14,905.1	6,958.5	169.1	226.1	-46.78	1,543.9	-3,670.9	2,960.5	2,670.1	290.40	10.194	
11,417.3	7,060.0	14,905.1	6,958.5	169.5	226.1	-46.78	1,543.9	-3,670.9	2,977.8	2,687.0	290.76	10.241	
11,500.0	7,060.0	14,905.1	6,958.5	171.7	226.1	-46.78	1,543.9	-3,670.9	3,060.4	2,768.0	292.45	10.465	
11,515.7	7,060.0	14,905.1	6,958.5	172.2	226.1	-46.78	1,543.9	-3,670.9	3,076.1	2,783.4	292.77	10.507	
11,600.0	7,060.0	14,905.1	6,958.5	174.4	226.1	-46.78	1,543.9	-3,670.9	3,160.3	2,865.9	294.50	10.731	
11,614.1	7,060.0	14,905.1	6,958.5	174.8	226.1	-46.78	1,543.9	-3,670.9	3,174.5	2,879.7	294.79	10.769	
11,700.0	7,060.0	14,905.1	6,958.5	177.1	226.1	-46.78	1,543.9	-3,670.9	3,260.3	2,963.7	296.55	10.994	
11,712.6	7,060.0	14,905.1	6,958.5	177.4	226.1	-46.78	1,543.9	-3,670.9	3,272.8	2,976.0	296.80	11.027	
11,800.0	7,060.0	14,905.1	6,958.5	179.8	226.1	-46.78	1,543.9	-3,670.9	3,360.2	3,061.6	298.60	11.253	
11,811.0	7,060.0	14,905.1	6,958.5	180.1	226.1	-46.78	1,543.9	-3,670.9	3,371.2	3,072.4	298.82	11.282	
11,900.0	7,060.0	14,905.1	6,958.5	182.5	226.1	-46.78	1,543.9	-3,670.9	3,460.2	3,159.5	300.65	11.509	
11,909.4	7,060.0	14,905.1	6,958.5	182.7	226.1	-46.78	1,543.9	-3,670.9	3,469.6	3,168.7	300.84	11.533	
12,000.0	7,060.0	14,905.1	6,958.5	185.1	226.1	-46.78	1,543.9	-3,670.9	3,560.1	3,257.4	302.70	11.761	
12,007.8	7,060.0	14,905.1	6,958.5	185.4	226.1	-46.78	1,543.9	-3,670.9	3,567.9	3,265.1	302.87	11.781	
12,100.0	7,060.0	14,905.1	6,958.5	187.8	226.1	-46.78	1,543.9	-3,670.9	3,660.0	3,355.3	304.76	12.010	
12,106.3	7,060.0	14,905.1	6,958.5	188.0	226.1	-46.78	1,543.9	-3,670.9	3,666.3	3,361.4	304.89	12.025	
12,200.0	7,060.0	14,905.1	6,958.5	190.5	226.1	-46.78	1,543.9	-3,670.9	3,760.0	3,453.2	306.82	12.255	
12,204.7	7,060.0	14,905.1	6,958.5	190.7	226.1	-46.78	1,543.9	-3,670.9	3,764.7	3,457.8	306.91	12.266	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 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	
12,300.0	7,060.0	14,905.1	6,958.5	193.2	226.1	-46.78	1,543.9	-3,670.9	3,859.9	3,551.1	308.88	12.497	
12,303.1	7,060.0	14,905.1	6,958.5	193.3	226.1	-46.78	1,543.9	-3,670.9	3,863.1	3,554.1	308.94	12.504	
12,400.0	7,060.0	14,905.1	6,958.5	195.9	226.1	-46.78	1,543.9	-3,670.9	3,959.9	3,649.0	310.94	12.735	
12,401.5	7,060.0	14,905.1	6,958.5	196.0	226.1	-46.78	1,543.9	-3,670.9	3,961.4	3,650.5	310.97	12.739	
12,500.0	7,060.0	14,905.1	6,958.5	198.6	226.1	-46.78	1,543.9	-3,670.9	4,059.8	3,746.8	313.00	12.971	
12,598.4	7,060.0	14,905.1	6,958.5	201.3	226.1	-46.78	1,543.9	-3,670.9	4,158.2	3,843.2	315.03	13.200	
12,600.0	7,060.0	14,905.1	6,958.5	201.4	226.1	-46.78	1,543.9	-3,670.9	4,159.8	3,844.7	315.06	13.203	
12,696.8	7,060.0	14,905.1	6,958.5	204.0	226.1	-46.78	1,543.9	-3,670.9	4,256.6	3,939.5	317.06	13.425	
12,700.0	7,060.0	14,905.1	6,958.5	204.1	226.1	-46.78	1,543.9	-3,670.9	4,259.8	3,942.6	317.12	13.432	
12,795.2	7,060.0	14,905.1	6,958.5	206.7	226.1	-46.78	1,543.9	-3,670.9	4,355.0	4,035.9	319.09	13.648	
12,800.0	7,060.0	14,905.1	6,958.5	206.8	226.1	-46.78	1,543.9	-3,670.9	4,359.7	4,040.5	319.19	13.659	
12,893.7	7,060.0	14,905.1	6,958.5	209.3	226.1	-46.78	1,543.9	-3,670.9	4,453.4	4,132.2	321.13	13.868	
12,900.0	7,060.0	14,905.1	6,958.5	209.5	226.1	-46.78	1,543.9	-3,670.9	4,459.7	4,138.4	321.26	13.882	
12,992.1	7,060.0	14,905.1	6,958.5	212.0	226.1	-46.78	1,543.9	-3,670.9	4,551.8	4,228.6	323.16	14.085	
13,000.0	7,060.0	14,905.1	6,958.5	212.2	226.1	-46.78	1,543.9	-3,670.9	4,559.7	4,236.3	323.32	14.102	
13,090.5	7,060.0	14,905.1	6,958.5	214.7	226.1	-46.78	1,543.9	-3,670.9	4,650.1	4,325.0	325.20	14.300	
13,100.0	7,060.0	14,905.1	6,958.5	214.9	226.1	-46.78	1,543.9	-3,670.9	4,659.6	4,334.2	325.39	14.320	
13,188.9	7,060.0	14,905.1	6,958.5	217.4	226.1	-46.78	1,543.9	-3,670.9	4,748.5	4,421.3	327.23	14.511	
13,200.0	7,060.0	14,905.1	6,958.5	217.7	226.1	-46.78	1,543.9	-3,670.9	4,759.6	4,432.1	327.46	14.535	
13,287.4	7,060.0	14,905.1	6,958.5	220.1	226.1	-46.78	1,543.9	-3,670.9	4,846.9	4,517.7	329.27	14.720	
13,300.0	7,060.0	14,905.1	6,958.5	220.4	226.1	-46.78	1,543.9	-3,670.9	4,859.6	4,530.0	329.53	14.747	
13,385.8	7,060.0	14,905.1	6,958.5	222.7	226.1	-46.78	1,543.9	-3,670.9	4,945.3	4,614.0	331.31	14.927	
13,400.0	7,060.0	14,905.1	6,958.5	223.1	226.1	-46.78	1,543.9	-3,670.9	4,959.5	4,627.9	331.60	14.956	
13,484.2	7,060.0	14,905.1	6,958.5	225.4	226.1	-46.78	1,543.9	-3,670.9	5,043.7	4,710.4	333.35	15.131	
13,500.0	7,060.0	14,905.1	6,958.5	225.9	226.1	-46.78	1,543.9	-3,670.9	5,059.5	4,725.8	333.67	15.163	
13,582.6	7,060.0	14,905.1	6,958.5	228.1	226.1	-46.78	1,543.9	-3,670.9	5,142.1	4,806.7	335.39	15.332	
13,600.0	7,060.0	14,905.1	6,958.5	228.6	226.1	-46.78	1,543.9	-3,670.9	5,159.5	4,823.7	335.75	15.367	
13,681.1	7,060.0	14,905.1	6,958.5	230.8	226.1	-46.78	1,543.9	-3,670.9	5,240.5	4,903.1	337.43	15.531	
13,700.0	7,060.0	14,905.1	6,958.5	231.3	226.1	-46.78	1,543.9	-3,670.9	5,259.4	4,921.6	337.82	15.569	
13,779.5	7,060.0	14,905.1	6,958.5	233.5	226.1	-46.78	1,543.9	-3,670.9	5,338.9	4,999.5	339.47	15.727	
13,800.0	7,060.0	14,905.1	6,958.5	234.1	226.1	-46.78	1,543.9	-3,670.9	5,359.4	5,019.5	339.90	15.768	
13,877.9	7,060.0	14,905.1	6,958.5	236.2	226.1	-46.78	1,543.9	-3,670.9	5,437.3	5,095.8	341.51	15.921	
13,900.0	7,060.0	14,905.1	6,958.5	236.8	226.1	-46.78	1,543.9	-3,670.9	5,459.4	5,117.4	341.97	15.964	
13,976.3	7,060.0	14,905.1	6,958.5	238.9	226.1	-46.78	1,543.9	-3,670.9	5,535.7	5,192.2	343.56	16.113	
14,000.0	7,060.0	14,905.1	6,958.5	239.5	226.1	-46.78	1,543.9	-3,670.9	5,559.4	5,215.3	344.05	16.159	
14,074.8	7,060.0	14,905.1	6,958.5	241.6	226.1	-46.78	1,543.9	-3,670.9	5,634.1	5,288.5	345.60	16.302	
14,100.0	7,060.0	14,905.1	6,958.5	242.3	226.1	-46.78	1,543.9	-3,670.9	5,659.3	5,313.2	346.12	16.351	
14,173.2	7,060.0	14,905.1	6,958.5	244.3	226.1	-46.78	1,543.9	-3,670.9	5,732.5	5,384.9	347.64	16.490	
14,200.0	7,060.0	14,905.1	6,958.5	245.0	226.1	-46.78	1,543.9	-3,670.9	5,759.3	5,411.1	348.20	16.540	
14,271.6	7,060.0	14,905.1	6,958.5	247.0	226.1	-46.78	1,543.9	-3,670.9	5,830.9	5,481.2	349.69	16.675	
14,300.0	7,060.0	14,905.1	6,958.5	247.8	226.1	-46.78	1,543.9	-3,670.9	5,859.3	5,509.0	350.28	16.728	
14,370.0	7,060.0	14,905.1	6,958.5	249.7	226.1	-46.78	1,543.9	-3,670.9	5,929.3	5,577.6	351.74	16.857	
14,400.0	7,060.0	14,905.1	6,958.5	250.5	226.1	-46.78	1,543.9	-3,670.9	5,959.3	5,606.9	352.36	16.913	
14,468.5	7,060.0	14,905.1	6,958.5	252.4	226.1	-46.78	1,543.9	-3,670.9	6,027.7	5,674.0	353.78	17.038	
14,500.0	7,060.0	14,905.1	6,958.5	253.3	226.1	-46.78	1,543.9	-3,670.9	6,059.3	5,704.8	354.44	17.095	
14,566.9	7,060.0	14,905.1	6,958.5	255.1	226.1	-46.78	1,543.9	-3,670.9	6,126.1	5,770.3	355.83	17.217	
14,600.0	7,060.0	14,905.1	6,958.5	256.0	226.1	-46.78	1,543.9	-3,670.9	6,159.2	5,802.7	356.52	17.276	
14,665.3	7,060.0	14,905.1	6,958.5	257.8	226.1	-46.78	1,543.9	-3,670.9	6,224.6	5,866.7	357.88	17.393	
14,700.0	7,060.0	14,905.1	6,958.5	258.8	226.1	-46.78	1,543.9	-3,670.9	6,259.2	5,900.6	358.60	17.455	
14,763.7	7,060.0	14,905.1	6,958.5	260.5	226.1	-46.78	1,543.9	-3,670.9	6,323.0	5,963.0	359.92	17.567	
14,800.0	7,060.0	14,905.1	6,958.5	261.5	226.1	-46.78	1,543.9	-3,670.9	6,359.2	5,998.5	360.68	17.631	
14,862.2	7,060.0	14,905.1	6,958.5	263.2	226.1	-46.78	1,543.9	-3,670.9	6,421.4	6,059.4	361.97	17.740	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 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	
14,900.0	7,060.0	14,905.1	6,958.5	264.3	226.1	-46.78	1,543.9	-3,670.9	6,459.2	6,096.4	362.76	17.806	
14,960.6	7,060.0	14,905.1	6,958.5	266.0	226.1	-46.78	1,543.9	-3,670.9	6,519.8	6,155.8	364.02	17.910	
15,000.0	7,060.0	14,905.1	6,958.5	267.0	226.1	-46.78	1,543.9	-3,670.9	6,559.2	6,194.3	364.84	17.978	
15,059.0	7,060.0	14,905.1	6,958.5	268.7	226.1	-46.78	1,543.9	-3,670.9	6,618.2	6,252.1	366.07	18.079	
15,100.0	7,060.0	14,905.1	6,958.5	269.8	226.1	-46.78	1,543.9	-3,670.9	6,659.2	6,292.2	366.93	18.149	
15,157.4	7,060.0	14,905.1	6,958.5	271.4	226.1	-46.78	1,543.9	-3,670.9	6,716.6	6,348.5	368.12	18.246	
15,200.0	7,060.0	14,905.1	6,958.5	272.5	226.1	-46.78	1,543.9	-3,670.9	6,759.1	6,390.1	369.01	18.317	
15,255.9	7,060.0	14,905.1	6,958.5	274.1	226.1	-46.78	1,543.9	-3,670.9	6,815.0	6,444.8	370.17	18.410	
15,300.0	7,060.0	14,905.1	6,958.5	275.3	226.1	-46.78	1,543.9	-3,670.9	6,859.1	6,488.0	371.09	18.484	
15,354.3	7,060.0	14,905.1	6,958.5	276.8	226.1	-46.78	1,543.9	-3,670.9	6,913.4	6,541.2	372.22	18.573	
15,400.0	7,060.0	14,905.1	6,958.5	278.1	226.1	-46.78	1,543.9	-3,670.9	6,959.1	6,585.9	373.18	18.648	
15,452.7	7,060.0	14,905.1	6,958.5	279.5	226.1	-46.78	1,543.9	-3,670.9	7,011.8	6,637.6	374.28	18.734	
15,500.0	7,060.0	14,905.1	6,958.5	280.8	226.1	-46.78	1,543.9	-3,670.9	7,059.1	6,683.8	375.26	18.811	
15,551.1	7,060.0	14,905.1	6,958.5	282.2	226.1	-46.78	1,543.9	-3,670.9	7,110.2	6,733.9	376.33	18.894	
15,600.0	7,060.0	14,905.1	6,958.5	283.6	226.1	-46.78	1,543.9	-3,670.9	7,159.1	6,781.7	377.35	18.972	
15,649.6	7,060.0	14,905.1	6,958.5	285.0	226.1	-46.78	1,543.9	-3,670.9	7,208.6	6,830.3	378.38	19.051	
15,700.0	7,060.0	14,905.1	6,958.5	286.4	226.1	-46.78	1,543.9	-3,670.9	7,259.1	6,879.6	379.43	19.131	
15,748.0	7,060.0	14,905.1	6,958.5	287.7	226.1	-46.78	1,543.9	-3,670.9	7,307.1	6,926.6	380.43	19.207	
15,800.0	7,060.0	14,905.1	6,958.5	289.1	226.1	-46.78	1,543.9	-3,670.9	7,359.1	6,977.5	381.52	19.289	
15,846.4	7,060.0	14,905.1	6,958.5	290.4	226.1	-46.78	1,543.9	-3,670.9	7,405.5	7,023.0	382.49	19.361	
15,900.0	7,060.0	14,905.1	6,958.5	291.9	226.1	-46.78	1,543.9	-3,670.9	7,459.0	7,075.4	383.60	19.445	
15,944.8	7,060.0	14,905.1	6,958.5	293.1	226.1	-46.78	1,543.9	-3,670.9	7,503.9	7,119.3	384.54	19.514	
16,000.0	7,060.0	14,905.1	6,958.5	294.6	226.1	-46.78	1,543.9	-3,670.9	7,559.0	7,173.3	385.69	19.599	
16,043.3	7,060.0	14,905.1	6,958.5	295.8	226.1	-46.78	1,543.9	-3,670.9	7,602.3	7,215.7	386.59	19.665	
16,100.0	7,060.0	14,905.1	6,958.5	297.4	226.1	-46.78	1,543.9	-3,670.9	7,659.0	7,271.2	387.78	19.751	
16,141.7	7,060.0	14,905.1	6,958.5	298.6	226.1	-46.78	1,543.9	-3,670.9	7,700.7	7,312.1	388.65	19.814	
16,200.0	7,060.0	14,905.1	6,958.5	300.2	226.1	-46.78	1,543.9	-3,670.9	7,759.0	7,369.1	389.86	19.902	
16,240.1	7,060.0	14,905.1	6,958.5	301.3	226.1	-46.78	1,543.9	-3,670.9	7,799.1	7,408.4	390.70	19.962	
16,300.0	7,060.0	14,905.1	6,958.5	302.9	226.1	-46.78	1,543.9	-3,670.9	7,859.0	7,467.0	391.95	20.051	
16,338.5	7,060.0	14,905.1	6,958.5	304.0	226.1	-46.78	1,543.9	-3,670.9	7,897.5	7,504.8	392.76	20.108	
16,400.0	7,060.0	14,905.1	6,958.5	305.7	226.1	-46.78	1,543.9	-3,670.9	7,959.0	7,564.9	394.04	20.198	
16,437.0	7,060.0	14,905.1	6,958.5	306.7	226.1	-46.78	1,543.9	-3,670.9	7,996.0	7,601.1	394.81	20.253	
16,500.0	7,060.0	14,905.1	6,958.5	308.5	226.1	-46.78	1,543.9	-3,670.9	8,059.0	7,662.8	396.13	20.344	
16,535.4	7,060.0	14,905.1	6,958.5	309.5	226.1	-46.78	1,543.9	-3,670.9	8,094.4	7,697.5	396.87	20.396	
16,600.0	7,060.0	14,905.1	6,958.5	311.3	226.1	-46.78	1,543.9	-3,670.9	8,159.0	7,760.7	398.22	20.489	
16,633.8	7,060.0	14,905.1	6,958.5	312.2	226.1	-46.78	1,543.9	-3,670.9	8,192.8	7,793.9	398.92	20.537	
16,700.0	7,060.0	14,905.1	6,958.5	314.0	226.1	-46.78	1,543.9	-3,670.9	8,258.9	7,858.6	400.31	20.632	
16,732.2	7,060.0	14,905.1	6,958.5	314.9	226.1	-46.78	1,543.9	-3,670.9	8,291.2	7,890.2	400.98	20.677	
16,800.0	7,060.0	14,905.1	6,958.5	316.8	226.1	-46.78	1,543.9	-3,670.9	8,358.9	7,956.5	402.39	20.773	
16,830.7	7,060.0	14,905.1	6,958.5	317.7	226.1	-46.78	1,543.9	-3,670.9	8,389.6	7,986.6	403.04	20.816	
16,900.0	7,060.0	14,905.1	6,958.5	319.6	226.1	-46.78	1,543.9	-3,670.9	8,458.9	8,054.4	404.48	20.913	
16,929.1	7,060.0	14,905.1	6,958.5	320.4	226.1	-46.78	1,543.9	-3,670.9	8,488.0	8,082.9	405.09	20.953	
17,000.0	7,060.0	14,905.1	6,958.5	322.3	226.1	-46.78	1,543.9	-3,670.9	8,558.9	8,152.3	406.57	21.051	
17,027.5	7,060.0	14,905.1	6,958.5	323.1	226.1	-46.78	1,543.9	-3,670.9	8,586.4	8,179.3	407.15	21.089	
17,100.0	7,060.0	14,905.1	6,958.5	325.1	226.1	-46.78	1,543.9	-3,670.9	8,658.9	8,250.2	408.66	21.188	
17,125.9	7,060.0	14,905.1	6,958.5	325.8	226.1	-46.78	1,543.9	-3,670.9	8,684.9	8,275.6	409.21	21.224	
17,200.0	7,060.0	14,905.1	6,958.5	327.9	226.1	-46.78	1,543.9	-3,670.9	8,758.9	8,348.1	410.75	21.324	
17,224.4	7,060.0	14,905.1	6,958.5	328.6	226.1	-46.78	1,543.9	-3,670.9	8,783.3	8,372.0	411.26	21.357	
17,300.0	7,060.0	14,905.1	6,958.5	330.7	226.1	-46.78	1,543.9	-3,670.9	8,858.9	8,446.0	412.85	21.458	
17,322.8	7,060.0	14,905.1	6,958.5	331.3	226.1	-46.78	1,543.9	-3,670.9	8,881.7	8,468.4	413.32	21.489	
17,400.0	7,060.0	14,905.1	6,958.5	333.4	226.1	-46.78	1,543.9	-3,670.9	8,958.9	8,543.9	414.94	21.591	
17,421.2	7,060.0	14,905.1	6,958.5	334.0	226.1	-46.78	1,543.9	-3,670.9	8,980.1	8,564.7	415.38	21.619	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON B-15-16HC - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 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
17,500.0	7,060.0	14,905.1	6,958.5	336.2	226.1	-46.78	1,543.9	-3,670.9	9,058.9	8,641.8	417.03	21.722	
17,519.6	7,060.0	14,905.1	6,958.5	336.8	226.1	-46.78	1,543.9	-3,670.9	9,078.5	8,661.1	417.44	21.748	
17,600.0	7,060.0	14,905.1	6,958.5	339.0	226.1	-46.78	1,543.9	-3,670.9	9,158.9	8,739.7	419.12	21.853	
17,618.1	7,060.0	14,905.1	6,958.5	339.5	226.1	-46.78	1,543.9	-3,670.9	9,176.9	8,757.4	419.50	21.876	
17,700.0	7,060.0	14,905.1	6,958.5	341.8	226.1	-46.78	1,543.9	-3,670.9	9,258.9	8,837.6	421.21	21.982	
17,716.5	7,060.0	14,905.1	6,958.5	342.2	226.1	-46.78	1,543.9	-3,670.9	9,275.4	8,853.8	421.56	22.003	
17,800.0	7,060.0	14,905.1	6,958.5	344.6	226.1	-46.78	1,543.9	-3,670.9	9,358.8	8,935.5	423.30	22.109	
17,814.9	7,060.0	14,905.1	6,958.5	345.0	226.1	-46.78	1,543.9	-3,670.9	9,373.8	8,950.2	423.62	22.128	
17,900.0	7,060.0	14,905.1	6,958.5	347.3	226.1	-46.78	1,543.9	-3,670.9	9,458.8	9,033.4	425.40	22.235	
17,913.3	7,060.0	14,905.1	6,958.5	347.7	226.1	-46.78	1,543.9	-3,670.9	9,472.2	9,046.5	425.67	22.252	
18,000.0	7,060.0	14,905.1	6,958.5	350.1	226.1	-46.78	1,543.9	-3,670.9	9,558.8	9,131.3	427.49	22.360	
18,011.8	7,060.0	14,905.1	6,958.5	350.4	226.1	-46.78	1,543.9	-3,670.9	9,570.6	9,142.9	427.73	22.375	
18,100.0	7,060.0	14,905.1	6,958.5	352.9	226.1	-46.78	1,543.9	-3,670.9	9,658.8	9,229.2	429.58	22.484	
18,110.2	7,060.0	14,905.1	6,958.5	353.2	226.1	-46.78	1,543.9	-3,670.9	9,669.0	9,239.2	429.79	22.497	
18,200.0	7,060.0	14,905.1	6,958.5	355.7	226.1	-46.78	1,543.9	-3,670.9	9,758.8	9,327.1	431.67	22.607	
18,208.6	7,060.0	14,905.1	6,958.5	355.9	226.1	-46.78	1,543.9	-3,670.9	9,767.4	9,335.6	431.85	22.617	
18,300.0	7,060.0	14,905.1	6,958.5	358.5	226.1	-46.78	1,543.9	-3,670.9	9,858.8	9,425.0	433.77	22.728	
18,307.0	7,060.0	14,905.1	6,958.5	358.7	226.1	-46.78	1,543.9	-3,670.9	9,865.9	9,431.9	433.91	22.737	
18,400.0	7,060.0	14,905.1	6,958.5	361.2	226.1	-46.78	1,543.9	-3,670.9	9,958.8	9,522.9	435.86	22.849	
18,405.5	7,060.0	14,905.1	6,958.5	361.4	226.1	-46.78	1,543.9	-3,670.9	9,964.3	9,528.3	435.97	22.855	

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 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	
0.0	0.0	0.0	0.0	0.0	0.0	-127.04	-69.6	-92.2	116.7				
98.4	98.4	81.7	81.7	0.1	0.0	-127.15	-69.7	-92.0	115.4	115.3	0.14	817.235	
100.0	100.0	83.3	83.3	0.1	0.0	-127.15	-69.7	-92.0	115.4	115.3	0.14	801.822	
196.8	196.8	180.1	180.1	0.3	0.2	-127.46	-70.0	-91.4	115.1	114.6	0.50	229.647	
200.0	200.0	183.3	183.3	0.3	0.2	-127.47	-70.0	-91.4	115.1	114.6	0.51	224.184	
267.8	267.8	250.9	250.8	0.5	0.3	-127.69	-70.3	-91.0	115.0	114.3	0.73	157.179	
295.3	295.3	278.1	278.1	0.5	0.3	-127.76	-70.4	-90.9	115.0	114.2	0.81	141.291	
300.0	300.0	282.8	282.8	0.5	0.3	-127.77	-70.5	-90.9	115.0	114.2	0.83	138.877	
393.7	393.7	376.1	376.1	0.8	0.3	-127.96	-71.0	-91.0	115.4	114.3	1.10	104.919	
400.0	400.0	382.3	382.3	0.8	0.4	-127.97	-71.0	-91.0	115.4	114.3	1.12	103.253	
492.1	492.1	474.3	474.3	1.0	0.4	-128.10	-71.6	-91.3	116.0	114.7	1.38	84.243	
500.0	500.0	482.2	482.2	1.0	0.4	-128.11	-71.6	-91.3	116.1	114.7	1.40	82.951	
590.5	590.5	572.7	572.7	1.2	0.5	-128.17	-72.1	-91.7	116.7	115.1	1.65	70.848	
600.0	600.0	582.2	582.2	1.2	0.5	-128.18	-72.2	-91.8	116.8	115.1	1.67	69.796	
689.0	689.0	671.1	671.1	1.4	0.5	-128.20	-72.6	-92.3	117.4	115.5	1.91	61.372	
700.0	700.0	682.1	682.1	1.4	0.5	-128.21	-72.7	-92.3	117.5	115.6	1.94	60.484	
787.4	787.4	769.5	769.5	1.6	0.6	-128.26	-73.2	-92.8	118.2	116.0	2.17	54.342	
800.0	800.0	782.1	782.0	1.7	0.6	-128.26	-73.2	-92.9	118.3	116.1	2.21	53.567	
885.8	885.8	868.0	868.0	1.9	0.6	-128.26	-73.7	-93.4	118.9	116.5	2.43	48.873	
900.0	900.0	882.2	882.2	1.9	0.6	-128.26	-73.7	-93.5	119.0	116.6	2.47	48.178	
984.2	984.2	966.4	966.4	2.1	0.6	-128.20	-74.0	-94.0	119.6	116.9	2.69	44.469	
1,000.0	1,000.0	982.2	982.2	2.1	0.7	-128.18	-74.0	-94.1	119.7	117.0	2.73	43.845	
1,082.7	1,082.7	1,064.9	1,064.8	2.3	0.7	-128.00	-74.1	-94.8	120.3	117.4	2.94	40.854	
1,100.0	1,100.0	1,082.2	1,082.2	2.3	0.7	-127.96	-74.1	-95.0	120.4	117.4	2.99	40.281	
1,181.1	1,181.1	1,163.3	1,163.3	2.5	0.7	-62.67	-74.0	-95.7	120.5	117.2	3.23	37.243	
1,200.0	1,200.0	1,182.2	1,182.1	2.6	0.7	-62.85	-73.9	-95.9	120.3	117.0	3.28	36.651	
1,279.5	1,279.4	1,261.8	1,261.8	2.7	0.8	-64.15	-73.6	-96.8	119.1	115.6	3.48	34.206	
1,300.0	1,299.8	1,282.3	1,282.3	2.8	0.8	-64.63	-73.5	-97.1	118.6	115.1	3.53	33.576	
1,377.9	1,377.5	1,360.7	1,360.6	3.0	0.8	-67.02	-72.7	-98.0	116.1	112.4	3.73	31.128	
1,400.0	1,399.5	1,382.8	1,382.8	3.0	0.8	-67.86	-72.4	-98.2	115.2	111.4	3.79	30.428	
1,476.4	1,475.3	1,459.8	1,459.7	3.2	0.8	-71.45	-70.9	-98.9	111.5	107.5	3.99	27.942	
1,500.0	1,498.7	1,483.5	1,483.5	3.2	0.8	-72.82	-70.3	-99.0	110.2	106.1	4.05	27.178	
1,574.8	1,572.6	1,558.0	1,557.9	3.5	0.8	-78.02	-68.4	-99.1	105.8	101.5	4.27	24.774	
1,602.6	1,600.0	1,585.5	1,585.4	3.5	0.8	-80.35	-67.6	-99.1	104.3	99.9	4.35	23.960	
1,667.6	1,664.0	1,650.0	1,649.8	3.7	0.8	-86.20	-65.9	-98.9	101.2	96.7	4.56	22.224	
1,673.2	1,669.6	1,655.6	1,655.4	3.7	0.9	-86.73	-65.7	-98.8	101.0	96.4	4.57	22.085	
1,700.0	1,695.9	1,682.1	1,681.9	3.8	0.9	-89.38	-64.9	-98.6	100.1	95.4	4.66	21.464	
1,771.6	1,766.1	1,752.4	1,752.2	4.1	0.9	-97.34	-62.8	-98.0	98.6	93.7	4.91	20.074	
1,781.1	1,775.4	1,761.7	1,761.5	4.1	0.9	-98.47	-62.5	-97.9	98.6	93.6	4.94	19.937 CC, ES	
1,800.0	1,793.8	1,780.1	1,779.9	4.2	0.9	-100.80	-62.0	-97.7	98.7	93.7	5.01	19.698	
1,870.1	1,862.0	1,848.1	1,847.9	4.4	0.9	-109.86	-60.1	-96.7	100.9	95.6	5.27	19.140	
1,900.0	1,891.0	1,877.0	1,876.7	4.5	0.9	-113.84	-59.3	-96.2	102.9	97.5	5.38	19.134 SF	
1,968.5	1,957.0	1,942.9	1,942.6	4.9	0.9	-122.85	-57.5	-94.8	110.1	104.4	5.63	19.535	
2,000.0	1,987.2	1,973.0	1,972.7	5.0	0.9	-126.82	-56.7	-94.1	114.6	108.8	5.74	19.955	
2,066.9	2,051.1	2,036.2	2,035.8	5.3	0.9	-134.59	-54.9	-92.3	126.7	120.8	5.97	21.213	
2,100.0	2,082.5	2,066.9	2,066.6	5.5	0.9	-138.04	-54.1	-91.3	134.1	128.0	6.08	22.064	
2,165.3	2,144.1	2,127.3	2,126.9	5.9	0.9	-144.09	-52.8	-89.1	151.2	144.9	6.29	24.024	
2,200.0	2,176.6	2,159.1	2,158.7	6.1	1.0	-146.88	-52.2	-87.9	161.4	155.0	6.40	25.235	
2,263.8	2,236.0	2,217.3	2,216.7	6.5	1.0	-151.32	-51.2	-85.7	182.3	175.7	6.60	27.617	
2,300.0	2,269.5	2,250.1	2,249.5	6.7	1.0	-153.50	-50.7	-84.4	195.2	188.5	6.71	29.093	
2,362.2	2,326.7	2,306.0	2,305.4	7.2	1.0	-156.70	-49.9	-82.1	218.9	211.9	6.91	31.683	
2,400.0	2,361.1	2,339.4	2,338.8	7.5	1.0	-158.36	-49.6	-80.8	234.2	227.1	7.02	33.339	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 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
2,460.6	2,415.9	2,392.5	2,391.8	8.0	1.0	-160.67	-49.1	-78.5	260.1	252.9	7.22	36.006	
2,500.0	2,451.2	2,426.9	2,426.2	8.3	1.0	-161.99	-48.9	-77.0	277.8	270.5	7.35	37.801	
2,559.0	2,503.7	2,478.2	2,477.5	8.8	1.0	-163.72	-48.5	-74.8	305.5	297.9	7.55	40.457	
2,600.0	2,539.7	2,513.6	2,512.8	9.2	1.0	-164.78	-48.2	-73.2	325.4	317.8	7.69	42.340	
2,657.5	2,589.9	2,562.8	2,562.0	9.8	1.0	-166.11	-47.9	-71.0	354.4	346.5	7.89	44.929	
2,700.0	2,626.6	2,598.9	2,598.0	10.2	1.0	-166.98	-47.6	-69.4	376.5	368.5	8.03	46.870	
2,755.9	2,674.4	2,645.1	2,644.1	10.8	1.1	-167.99	-47.2	-67.4	406.6	398.3	8.24	49.343	
2,800.0	2,711.7	2,681.0	2,680.0	11.2	1.1	-168.69	-46.9	-65.7	431.0	422.6	8.40	51.318	
2,854.3	2,757.1	2,725.2	2,724.2	11.9	1.1	-169.48	-46.6	-63.7	462.0	453.3	8.61	53.681	
2,900.0	2,794.9	2,762.5	2,761.4	12.4	1.1	-170.09	-46.3	-62.0	488.7	479.9	8.78	55.677	
2,952.7	2,838.0	2,805.0	2,803.9	13.0	1.1	-170.72	-46.0	-60.1	520.2	511.2	8.98	57.900	
3,000.0	2,876.1	2,842.8	2,841.7	13.6	1.1	-171.23	-45.7	-58.5	549.1	540.0	9.17	59.901	
3,015.0	2,888.1	2,854.8	2,853.6	13.8	1.1	-171.38	-45.6	-58.0	558.5	549.2	9.23	60.522	
3,051.2	2,917.0	2,883.5	2,882.3	14.3	1.1	-171.81	-45.3	-56.8	581.0	571.6	9.38	61.955	
3,100.0	2,956.0	2,921.6	2,920.4	14.9	1.1	-172.33	-45.0	-55.3	611.3	601.8	9.58	63.809	
3,149.6	2,995.6	2,959.8	2,958.5	15.6	1.1	-172.80	-44.7	-53.8	642.2	632.4	9.79	65.577	
3,200.0	3,035.8	2,998.5	2,997.2	16.3	1.1	-173.22	-44.5	-52.2	673.7	663.7	10.01	67.302	
3,248.0	3,074.2	3,037.6	3,036.3	16.9	1.2	-173.60	-44.3	-50.7	703.6	693.4	10.22	68.848	
3,300.0	3,115.7	3,080.1	3,078.8	17.6	1.2	-173.99	-44.0	-49.2	736.0	725.5	10.45	70.445	
3,346.4	3,152.8	3,117.9	3,116.6	18.2	1.2	-174.30	-43.7	-47.9	764.8	754.1	10.65	71.784	
3,400.0	3,195.6	3,161.1	3,159.7	18.9	1.2	-174.62	-43.4	-46.5	798.0	787.1	10.89	73.261	
3,444.9	3,231.4	3,197.4	3,196.0	19.5	1.2	-174.87	-43.1	-45.4	825.7	814.6	11.09	74.423	
3,500.0	3,275.4	3,240.4	3,239.0	20.3	1.2	-175.13	-42.9	-44.2	859.8	848.4	11.35	75.771	
3,543.3	3,310.0	3,274.1	3,272.6	20.9	1.2	-175.31	-42.8	-43.3	886.6	875.0	11.55	76.771	
3,600.0	3,355.3	3,318.6	3,317.1	21.6	1.2	-175.53	-42.9	-42.2	921.7	909.9	11.81	78.024	
3,641.7	3,388.6	3,351.7	3,350.3	22.2	1.2	-175.67	-42.9	-41.3	947.5	935.5	12.01	78.889	
3,700.0	3,435.1	3,398.0	3,396.6	23.0	1.2	-175.86	-43.1	-40.2	983.5	971.2	12.29	80.051	
3,740.1	3,467.2	3,429.9	3,428.4	23.5	1.2	-175.97	-43.2	-39.5	1,008.3	995.9	12.48	80.807	
3,800.0	3,515.0	3,477.3	3,475.8	24.4	1.3	-176.13	-43.4	-38.5	1,045.3	1,032.6	12.76	81.890	
3,838.6	3,545.8	3,507.8	3,506.3	24.9	1.3	-176.23	-43.6	-37.8	1,069.1	1,056.2	12.95	82.552	
3,900.0	3,594.9	3,555.9	3,554.4	25.7	1.3	-176.37	-43.8	-36.8	1,107.1	1,093.8	13.25	83.564	
3,937.0	3,624.4	3,584.9	3,583.4	26.2	1.3	-176.45	-43.9	-36.2	1,130.0	1,116.5	13.43	84.145	
4,000.0	3,674.7	3,632.5	3,631.0	27.1	1.3	-176.58	-44.2	-35.2	1,168.9	1,155.2	13.74	85.094	
4,035.4	3,703.0	3,658.7	3,657.2	27.6	1.3	-176.64	-44.4	-34.6	1,190.9	1,177.0	13.91	85.606	
4,100.0	3,754.6	3,706.6	3,705.1	28.5	1.3	-176.75	-44.8	-33.4	1,231.0	1,216.8	14.23	86.510	
4,133.8	3,781.6	3,732.4	3,730.9	28.9	1.3	-176.80	-45.1	-32.8	1,252.1	1,237.7	14.40	86.960	
4,200.0	3,834.5	3,782.7	3,781.2	29.8	1.3	-176.91	-45.6	-31.5	1,293.3	1,278.5	14.73	87.815	
4,232.3	3,860.2	3,807.5	3,805.9	30.3	1.3	-176.96	-45.8	-30.8	1,313.4	1,298.5	14.89	88.216	
4,300.0	3,914.3	3,860.8	3,859.2	31.2	1.4	-177.07	-46.2	-29.3	1,355.6	1,340.4	15.23	89.031	
4,330.7	3,938.8	3,884.9	3,883.3	31.6	1.4	-177.11	-46.4	-28.7	1,374.8	1,359.4	15.38	89.385	
4,400.0	3,994.2	3,948.3	3,946.6	32.6	1.4	-177.23	-46.8	-27.1	1,417.9	1,402.1	15.73	90.147	
4,429.1	4,017.4	3,976.6	3,974.9	33.0	1.4	-177.28	-46.9	-26.5	1,435.8	1,420.0	15.88	90.444	
4,500.0	4,074.0	4,047.2	4,045.5	34.0	1.4	-177.41	-46.8	-25.4	1,479.2	1,463.0	16.23	91.145	
4,527.5	4,096.1	4,075.1	4,073.5	34.4	1.4	-177.46	-46.7	-25.2	1,495.9	1,479.5	16.37	91.400	
4,600.0	4,153.9	4,143.2	4,141.6	35.4	1.4	-177.57	-46.2	-24.9	1,539.4	1,522.7	16.73	92.033	
4,626.0	4,174.7	4,166.7	4,165.1	35.7	1.4	-177.60	-46.0	-25.0	1,555.0	1,538.1	16.86	92.247	
4,700.0	4,233.8	4,230.9	4,229.2	36.8	1.4	-177.69	-45.5	-25.2	1,599.1	1,581.9	17.23	92.818	
4,724.4	4,253.3	4,251.1	4,249.4	37.1	1.4	-177.71	-45.3	-25.3	1,613.6	1,596.3	17.35	92.996	
4,800.0	4,313.6	4,313.2	4,311.5	38.1	1.4	-177.79	-44.8	-25.6	1,658.6	1,640.8	17.73	93.525	
4,822.8	4,331.9	4,331.4	4,329.7	38.5	1.4	-177.81	-44.6	-25.7	1,672.1	1,654.3	17.85	93.675	
4,900.0	4,393.5	4,392.9	4,391.2	39.5	1.5	-177.89	-44.1	-26.1	1,718.0	1,699.8	18.24	94.172	
4,921.2	4,410.5	4,410.2	4,408.5	39.8	1.5	-177.91	-43.9	-26.1	1,730.7	1,712.3	18.35	94.302	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 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
5,000.0	4,473.4	4,475.5	4,473.9	40.9	1.5	-177.98	-43.4	-26.5	1,777.4	1,758.7	18.76	94.762	
5,019.7	4,489.1	4,491.9	4,490.2	41.2	1.5	-177.99	-43.2	-26.7	1,789.1	1,770.3	18.86	94.872	
5,100.0	4,553.2	4,554.3	4,552.6	42.3	1.5	-178.05	-42.8	-27.1	1,836.8	1,817.6	19.27	95.314	
5,118.1	4,567.7	4,568.2	4,566.5	42.5	1.5	-178.07	-42.7	-27.2	1,847.6	1,828.2	19.36	95.411	
5,200.0	4,633.1	4,631.9	4,630.2	43.7	1.5	-178.12	-42.3	-27.6	1,896.3	1,876.6	19.79	95.834	
5,216.5	4,646.3	4,644.8	4,643.2	43.9	1.5	-178.13	-42.2	-27.6	1,906.2	1,886.3	19.87	95.915	
5,300.0	4,713.0	4,710.4	4,708.8	45.1	1.5	-178.18	-41.9	-28.0	1,955.9	1,935.6	20.31	96.317	
5,314.9	4,724.9	4,722.2	4,720.5	45.3	1.5	-178.19	-41.9	-28.1	1,964.9	1,944.5	20.39	96.386	
5,400.0	4,792.8	4,788.8	4,787.2	46.5	1.5	-178.24	-41.6	-28.4	2,015.6	1,994.8	20.83	96.771	
5,413.4	4,803.5	4,800.0	4,798.3	46.6	1.5	-178.25	-41.6	-28.4	2,023.6	2,002.7	20.90	96.828	
5,500.0	4,872.7	4,865.9	4,864.2	47.9	1.5	-178.29	-41.3	-28.7	2,075.4	2,054.0	21.35	97.202	
5,511.8	4,882.1	4,874.9	4,873.2	48.0	1.5	-178.30	-41.3	-28.7	2,082.5	2,061.0	21.41	97.252	
5,600.0	4,952.5	4,941.7	4,940.0	49.2	1.5	-178.35	-41.0	-28.8	2,135.3	2,113.4	21.87	97.614	
5,610.2	4,960.7	4,949.3	4,947.7	49.4	1.5	-178.35	-41.0	-28.8	2,141.4	2,119.5	21.93	97.655	
5,700.0	5,032.4	5,016.0	5,014.3	50.6	1.5	-178.40	-40.8	-28.7	2,195.4	2,173.0	22.40	98.011	
5,708.6	5,039.3	5,022.3	5,020.6	50.8	1.5	-178.40	-40.7	-28.7	2,200.6	2,178.2	22.45	98.044	
5,800.0	5,112.3	5,088.1	5,086.4	52.0	1.5	-178.44	-40.6	-28.5	2,255.7	2,232.8	22.93	98.396	
5,807.1	5,117.9	5,093.2	5,091.5	52.1	1.5	-178.45	-40.6	-28.5	2,260.0	2,237.1	22.96	98.423	
5,900.0	5,192.1	5,164.2	5,162.5	53.4	1.6	-178.49	-40.6	-28.1	2,316.3	2,292.8	23.46	98.750	
5,905.5	5,196.5	5,168.4	5,166.8	53.5	1.6	-178.49	-40.6	-28.0	2,319.6	2,296.1	23.49	98.769	
6,000.0	5,272.0	5,239.2	5,237.5	54.8	1.6	-178.53	-40.7	-27.6	2,377.0	2,353.0	23.99	99.091	
6,003.9	5,275.1	5,242.1	5,240.4	54.9	1.6	-178.53	-40.7	-27.6	2,379.3	2,355.3	24.01	99.104	
6,100.0	5,351.9	5,314.1	5,312.4	56.2	1.6	-178.57	-40.7	-26.9	2,437.8	2,413.3	24.52	99.421	
6,102.3	5,353.7	5,316.0	5,314.3	56.2	1.6	-178.57	-40.7	-26.9	2,439.2	2,414.7	24.53	99.428	
6,200.0	5,431.7	5,397.0	5,395.3	57.6	1.6	-178.62	-40.7	-26.1	2,498.7	2,473.6	25.06	99.711	
6,200.8	5,432.3	5,397.7	5,396.0	57.6	1.6	-178.62	-40.6	-26.1	2,499.1	2,474.1	25.06	99.714	
6,299.2	5,511.0	5,481.9	5,480.2	59.0	1.6	-178.67	-40.3	-25.3	2,558.9	2,533.3	25.59	99.977	
6,300.0	5,511.6	5,482.6	5,480.9	59.0	1.6	-178.67	-40.3	-25.3	2,559.3	2,533.7	25.60	99.980	
6,397.6	5,589.6	5,562.8	5,561.1	60.3	1.7	-178.72	-39.8	-24.6	2,618.5	2,592.3	26.12	100.230	
6,400.0	5,591.5	5,564.7	5,563.0	60.4	1.7	-178.72	-39.8	-24.6	2,619.9	2,593.8	26.14	100.236	
6,496.0	5,668.2	5,631.3	5,629.6	61.7	1.7	-178.76	-39.4	-24.1	2,678.1	2,651.4	26.65	100.497	
6,500.0	5,671.3	5,633.7	5,632.0	61.8	1.7	-178.77	-39.4	-24.0	2,680.5	2,653.8	26.67	100.508	
6,594.5	5,746.8	5,700.0	5,698.3	63.1	1.7	-178.80	-39.3	-23.1	2,738.3	2,711.1	27.18	100.761	
6,600.0	5,751.2	5,700.0	5,698.3	63.2	1.7	-178.80	-39.3	-23.1	2,741.6	2,714.4	27.20	100.787	
6,692.9	5,825.4	5,762.4	5,760.7	64.5	1.7	-178.83	-39.3	-21.9	2,798.8	2,771.1	27.70	101.036	
6,700.0	5,831.0	5,768.0	5,766.2	64.6	1.7	-178.84	-39.3	-21.8	2,803.1	2,775.4	27.74	101.052	
6,791.3	5,904.0	5,840.4	5,838.7	65.8	1.7	-178.87	-39.5	-20.5	2,859.3	2,831.1	28.24	101.256	
6,800.0	5,910.9	5,847.4	5,845.7	66.0	1.7	-178.87	-39.5	-20.4	2,864.7	2,836.4	28.29	101.275	
6,889.7	5,982.6	5,920.9	5,919.1	67.2	1.7	-178.90	-39.9	-19.3	2,919.8	2,891.1	28.78	101.458	
6,900.0	5,990.8	5,929.5	5,927.8	67.4	1.7	-178.90	-40.0	-19.1	2,926.1	2,897.3	28.84	101.477	
6,988.2	6,061.2	6,004.0	6,002.2	68.6	1.8	-178.92	-40.4	-18.1	2,980.2	2,950.9	29.32	101.637	
7,000.0	6,070.6	6,013.3	6,011.6	68.7	1.8	-178.93	-40.5	-18.0	2,987.5	2,958.1	29.39	101.659	
7,086.6	6,139.8	6,081.8	6,080.0	70.0	1.8	-178.94	-40.9	-17.1	3,040.6	3,010.7	29.86	101.817	
7,100.0	6,150.5	6,092.3	6,090.6	70.1	1.8	-178.95	-40.9	-17.0	3,048.8	3,018.8	29.94	101.841	
7,185.0	6,218.4	6,165.4	6,163.7	71.3	1.8	-178.96	-41.4	-16.1	3,100.8	3,070.4	30.41	101.967	
7,200.0	6,230.4	6,178.4	6,176.7	71.5	1.8	-178.97	-41.5	-16.0	3,110.0	3,079.5	30.49	101.987	
7,283.4	6,297.0	6,247.6	6,245.9	72.7	1.8	-178.99	-41.8	-15.3	3,160.9	3,130.0	30.96	102.107	
7,300.0	6,310.2	6,261.1	6,259.3	72.9	1.8	-178.99	-41.8	-15.1	3,171.0	3,140.0	31.05	102.131	
7,381.9	6,375.6	6,327.5	6,325.7	74.1	1.8	-179.01	-41.9	-14.4	3,221.0	3,189.5	31.50	102.244	
7,400.0	6,390.1	6,342.2	6,340.4	74.3	1.8	-179.01	-41.9	-14.3	3,232.1	3,200.4	31.60	102.268	
7,480.3	6,454.2	6,407.5	6,405.7	75.4	1.9	-179.03	-42.0	-13.6	3,281.0	3,249.0	32.05	102.370	
7,500.0	6,470.0	6,423.7	6,421.9	75.7	1.9	-179.04	-42.1	-13.4	3,293.0	3,260.8	32.16	102.393	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 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		
7,574.0	6,529.1	6,484.6	6,482.9	76.8	1.9	-179.05	-42.1	-12.9	3,338.1	3,305.5	32.57	102.476		
7,578.7	6,532.8	6,488.5	6,486.7	76.8	1.9	-179.05	-42.2	-12.8	3,341.0	3,308.3	32.62	102.408		
7,600.0	6,549.5	6,505.8	6,504.0	77.1	1.9	-179.02	-42.2	-12.7	3,354.4	3,321.5	32.83	102.188		
7,650.0	6,586.5	6,544.5	6,542.7	77.9	1.9	-178.95	-42.2	-12.4	3,388.2	3,355.0	33.16	102.175		
7,677.1	6,605.4	6,564.2	6,562.4	78.4	1.9	-178.91	-42.3	-12.2	3,407.8	3,374.6	33.26	102.460		
7,698.4	6,619.5	6,578.9	6,577.1	78.8	1.9	-178.86	-42.3	-12.1	3,423.8	3,390.5	33.29	102.839		
7,700.0	6,620.6	6,580.1	6,578.3	78.8	1.9	-178.86	-42.3	-12.1	3,425.0	3,391.7	33.30	102.844		
7,775.6	6,669.7	6,629.8	6,628.0	80.2	1.9	-178.88	-42.4	-11.7	3,482.8	3,449.0	33.79	103.066		
7,800.0	6,685.6	6,645.5	6,643.7	80.7	1.9	-178.89	-42.4	-11.6	3,501.5	3,467.5	33.95	103.137		
7,874.0	6,733.7	6,693.1	6,691.3	82.1	1.9	-178.91	-42.5	-11.3	3,558.0	3,523.6	34.43	103.347		
7,900.0	6,750.6	6,700.0	6,698.2	82.6	1.9	-178.91	-42.5	-11.2	3,577.9	3,543.3	34.58	103.457		
7,972.4	6,797.7	6,700.0	6,698.2	83.9	1.9	-178.91	-42.5	-11.2	3,633.7	3,598.7	34.99	103.840		
8,000.0	6,815.7	6,700.0	6,698.2	84.4	1.9	-178.91	-42.5	-11.2	3,655.1	3,619.9	35.15	103.988		
8,070.8	6,861.7	6,700.0	6,698.2	85.8	1.9	-178.91	-42.5	-11.2	3,710.4	3,674.9	35.55	104.371		
8,100.0	6,880.7	6,700.0	6,698.2	86.3	1.9	-178.91	-42.5	-11.2	3,733.3	3,697.6	35.72	104.530		
8,132.2	6,901.6	6,700.0	6,698.2	86.9	1.9	-178.91	-42.5	-11.2	3,758.7	3,722.8	35.90	104.707		
8,150.0	6,913.0	6,700.0	6,698.2	87.2	1.9	-176.69	-42.5	-11.2	3,773.0	3,736.8	36.12	104.448		
8,169.3	6,925.0	6,700.0	6,698.2	87.6	1.9	-174.19	-42.5	-11.2	3,788.7	3,752.1	36.56	103.631		
8,200.0	6,943.1	6,700.0	6,698.2	88.2	1.9	-169.96	-42.5	-11.2	3,814.4	3,776.6	37.84	100.817		
8,250.0	6,970.1	6,700.0	6,698.2	89.3	1.9	-162.19	-42.5	-11.2	3,857.8	3,815.6	42.17	91.489		
8,267.7	6,978.9	6,700.0	6,698.2	89.7	1.9	-159.09	-42.5	-11.2	3,873.5	3,829.0	44.54	86.958		
8,300.0	6,993.9	6,700.0	6,698.2	90.4	1.9	-152.87	-42.5	-11.2	3,902.7	3,852.6	50.11	77.889		
8,350.0	7,014.3	6,700.0	6,698.2	91.6	1.9	-141.56	-42.5	-11.2	3,948.7	3,887.2	61.49	64.217		
8,366.1	7,020.1	6,700.0	6,698.2	92.0	1.9	-137.46	-42.5	-11.2	3,963.7	3,898.1	65.64	60.389		
8,400.0	7,031.0	6,700.0	6,698.2	92.8	1.9	-128.20	-42.5	-11.2	3,995.5	3,921.1	74.40	53.705		
8,450.0	7,044.0	6,700.0	6,698.2	94.0	1.9	-113.56	-42.5	-11.2	4,042.6	3,957.3	85.33	47.378		
8,464.5	7,047.1	6,700.0	6,698.2	94.3	1.9	-109.29	-42.5	-11.2	4,056.3	3,968.7	87.64	46.282		
8,500.0	7,053.2	6,700.0	6,698.2	95.2	1.9	-99.26	-42.5	-11.2	4,089.7	3,998.4	91.32	44.787		
8,550.0	7,058.6	6,700.0	6,698.2	96.4	1.9	-86.81	-42.5	-11.2	4,136.5	4,044.1	92.44	44.747		
8,563.0	7,059.3	6,700.0	6,698.2	96.7	1.9	-83.98	-42.5	-11.2	4,148.5	4,056.4	92.15	45.020		
8,592.7	7,060.0	6,700.0	6,698.2	97.4	1.9	-78.14	-42.5	-11.2	4,175.9	4,085.2	90.75	46.015		
8,600.0	7,060.0	6,700.0	6,698.2	97.6	1.9	-78.14	-42.5	-11.2	4,182.6	4,091.7	90.93	45.998		
8,661.4	7,060.0	6,700.0	6,698.2	99.0	1.9	-78.14	-42.5	-11.2	4,238.9	4,146.5	92.45	45.849		
8,700.0	7,060.0	6,700.0	6,698.2	100.0	1.9	-78.14	-42.5	-11.2	4,274.4	4,181.0	93.41	45.758		
8,759.8	7,060.0	6,700.0	6,698.2	101.4	1.9	-78.14	-42.5	-11.2	4,329.5	4,234.6	94.91	45.618		
8,800.0	7,060.0	6,700.0	6,698.2	102.3	1.9	-78.14	-42.5	-11.2	4,366.5	4,270.6	95.91	45.527		
8,858.2	7,060.0	6,700.0	6,698.2	103.7	1.9	-78.14	-42.5	-11.2	4,420.4	4,323.0	97.37	45.396		
8,900.0	7,060.0	6,700.0	6,698.2	104.8	1.9	-78.14	-42.5	-11.2	4,459.0	4,360.6	98.42	45.305		
8,956.7	7,060.0	6,700.0	6,698.2	106.1	1.9	-78.14	-42.5	-11.2	4,511.6	4,411.7	99.85	45.182		
9,000.0	7,060.0	6,700.0	6,698.2	107.2	1.9	-78.14	-42.5	-11.2	4,551.8	4,450.9	100.95	45.091		
9,055.1	7,060.0	6,700.0	6,698.2	108.5	1.9	-78.14	-42.5	-11.2	4,603.1	4,500.8	102.35	44.976		
9,100.0	7,060.0	6,700.0	6,698.2	109.6	1.9	-78.14	-42.5	-11.2	4,645.0	4,541.5	103.49	44.885		
9,153.5	7,060.0	6,700.0	6,698.2	111.0	1.9	-78.14	-42.5	-11.2	4,694.9	4,590.1	104.85	44.778		
9,200.0	7,060.0	6,700.0	6,698.2	112.1	1.9	-78.14	-42.5	-11.2	4,738.3	4,632.3	106.03	44.687		
9,251.9	7,060.0	6,700.0	6,698.2	113.4	1.9	-78.14	-42.5	-11.2	4,787.0	4,679.6	107.36	44.587		
9,300.0	7,060.0	6,700.0	6,698.2	114.6	1.9	-78.14	-42.5	-11.2	4,832.0	4,723.4	108.59	44.497		
9,350.4	7,060.0	6,700.0	6,698.2	115.8	1.9	-78.14	-42.5	-11.2	4,879.3	4,769.4	109.89	44.403		
9,400.0	7,060.0	6,700.0	6,698.2	117.1	1.9	-78.14	-42.5	-11.2	4,925.9	4,814.7	111.16	44.314		
9,448.8	7,060.0	6,700.0	6,698.2	118.3	1.9	-78.14	-42.5	-11.2	4,971.8	4,859.4	112.42	44.226		
9,500.0	7,060.0	6,700.0	6,698.2	119.6	1.9	-78.14	-42.5	-11.2	5,020.0	4,906.3	113.74	44.137		
9,547.2	7,060.0	6,700.0	6,698.2	120.8	1.9	-78.14	-42.5	-11.2	5,064.6	4,949.6	114.96	44.056		
9,600.0	7,060.0	6,700.0	6,698.2	122.1	1.9	-78.14	-42.5	-11.2	5,114.4	4,998.1	116.32	43.967		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,645.6	7,060.0	6,700.0	6,698.2	123.3	1.9	-78.14	-42.5	-11.2	5,157.5	5,040.0	117.51	43.892		
9,700.0	7,060.0	6,700.0	6,698.2	124.6	1.9	-78.14	-42.5	-11.2	5,209.0	5,090.1	118.92	43.804		
9,744.1	7,060.0	6,700.0	6,698.2	125.8	1.9	-78.14	-42.5	-11.2	5,250.7	5,130.7	120.06	43.734		
9,800.0	7,060.0	6,700.0	6,698.2	127.2	1.9	-78.14	-42.5	-11.2	5,303.7	5,182.2	121.52	43.646		
9,842.5	7,060.0	6,700.0	6,698.2	128.3	1.9	-78.14	-42.5	-11.2	5,344.1	5,221.5	122.62	43.581		
9,900.0	7,060.0	6,700.0	6,698.2	129.7	1.9	-78.14	-42.5	-11.2	5,398.7	5,274.6	124.12	43.495		
9,940.9	7,060.0	6,700.0	6,698.2	130.8	1.9	-78.14	-42.5	-11.2	5,437.6	5,312.4	125.19	43.434		
10,000.0	7,060.0	6,700.0	6,698.2	132.3	1.9	-78.14	-42.5	-11.2	5,493.8	5,367.1	126.74	43.348		
10,039.3	7,060.0	6,700.0	6,698.2	133.3	1.9	-78.14	-42.5	-11.2	5,531.3	5,403.6	127.77	43.292		
10,100.0	7,060.0	6,700.0	6,698.2	134.9	1.9	-78.14	-42.5	-11.2	5,589.1	5,459.8	129.36	43.207		
10,137.8	7,060.0	6,700.0	6,698.2	135.9	1.9	-78.14	-42.5	-11.2	5,625.2	5,494.8	130.35	43.155		
10,200.0	7,060.0	6,700.0	6,698.2	137.5	1.9	-78.14	-42.5	-11.2	5,684.6	5,552.6	131.98	43.071		
10,236.2	7,060.0	6,700.0	6,698.2	138.4	1.9	-78.14	-42.5	-11.2	5,719.2	5,586.3	132.93	43.023		
10,300.0	7,060.0	6,700.0	6,698.2	140.1	1.9	-78.14	-42.5	-11.2	5,780.2	5,645.6	134.61	42.940		
10,334.6	7,060.0	6,700.0	6,698.2	141.0	1.9	-78.14	-42.5	-11.2	5,813.4	5,677.9	135.52	42.896		
10,400.0	7,060.0	6,700.0	6,698.2	142.7	1.9	-78.14	-42.5	-11.2	5,876.0	5,738.8	137.25	42.813		
10,433.0	7,060.0	6,700.0	6,698.2	143.5	1.9	-78.14	-42.5	-11.2	5,907.7	5,769.6	138.12	42.772		
10,500.0	7,060.0	6,700.0	6,698.2	145.3	1.9	-78.14	-42.5	-11.2	5,971.9	5,832.0	139.89	42.691		
10,531.5	7,060.0	6,700.0	6,698.2	146.1	1.9	-78.14	-42.5	-11.2	6,002.1	5,861.4	140.72	42.653		
10,600.0	7,060.0	6,700.0	6,698.2	147.9	1.9	-78.14	-42.5	-11.2	6,067.9	5,925.4	142.53	42.573		
10,629.9	7,060.0	6,700.0	6,698.2	148.7	1.9	-78.14	-42.5	-11.2	6,096.7	5,953.4	143.32	42.538		
10,700.0	7,060.0	6,700.0	6,698.2	150.5	1.9	-78.14	-42.5	-11.2	6,164.1	6,018.9	145.18	42.458		
10,728.3	7,060.0	6,700.0	6,698.2	151.3	1.9	-78.14	-42.5	-11.2	6,191.4	6,045.4	145.93	42.427		
10,800.0	7,060.0	6,700.0	6,698.2	153.1	1.9	-78.14	-42.5	-11.2	6,260.4	6,112.6	147.83	42.348		
10,826.7	7,060.0	6,700.0	6,698.2	153.9	1.9	-78.14	-42.5	-11.2	6,286.2	6,137.6	148.54	42.319		
10,900.0	7,060.0	6,700.0	6,698.2	155.8	1.9	-78.14	-42.5	-11.2	6,356.8	6,206.3	150.49	42.241		
10,925.2	7,060.0	6,700.0	6,698.2	156.5	1.9	-78.14	-42.5	-11.2	6,381.1	6,229.9	151.16	42.215		
11,000.0	7,060.0	6,700.0	6,698.2	158.4	1.9	-78.14	-42.5	-11.2	6,453.3	6,300.2	153.15	42.138		
11,023.6	7,060.0	6,700.0	6,698.2	159.1	1.9	-78.14	-42.5	-11.2	6,476.1	6,322.3	153.78	42.114		
11,100.0	7,060.0	6,700.0	6,698.2	161.1	1.9	-78.14	-42.5	-11.2	6,549.9	6,394.1	155.81	42.037		
11,122.0	7,060.0	6,700.0	6,698.2	161.7	1.9	-78.14	-42.5	-11.2	6,571.2	6,414.8	156.40	42.016		
11,200.0	7,060.0	6,700.0	6,698.2	163.7	1.9	-78.14	-42.5	-11.2	6,646.6	6,488.2	158.48	41.940		
11,220.4	7,060.0	6,700.0	6,698.2	164.3	1.9	-78.14	-42.5	-11.2	6,666.4	6,507.4	159.02	41.921		
11,300.0	7,060.0	6,700.0	6,698.2	166.4	1.9	-78.14	-42.5	-11.2	6,743.4	6,582.3	161.15	41.846		
11,318.9	7,060.0	6,700.0	6,698.2	166.9	1.9	-78.14	-42.5	-11.2	6,761.7	6,600.1	161.65	41.829		
11,400.0	7,060.0	6,700.0	6,698.2	169.1	1.9	-78.14	-42.5	-11.2	6,840.3	6,676.5	163.82	41.755		
11,417.3	7,060.0	6,700.0	6,698.2	169.5	1.9	-78.14	-42.5	-11.2	6,857.1	6,692.8	164.28	41.740		
11,500.0	7,060.0	6,700.0	6,698.2	171.7	1.9	-78.14	-42.5	-11.2	6,937.3	6,770.8	166.49	41.667		
11,515.7	7,060.0	6,700.0	6,698.2	172.2	1.9	-78.14	-42.5	-11.2	6,952.6	6,785.7	166.92	41.653		
11,600.0	7,060.0	6,700.0	6,698.2	174.4	1.9	-78.14	-42.5	-11.2	7,034.4	6,865.2	169.17	41.581		
11,614.1	7,060.0	6,700.0	6,698.2	174.8	1.9	-78.14	-42.5	-11.2	7,048.1	6,878.6	169.55	41.569		
11,700.0	7,060.0	6,700.0	6,698.2	177.1	1.9	-78.14	-42.5	-11.2	7,131.6	6,959.7	171.85	41.498		
11,712.6	7,060.0	6,700.0	6,698.2	177.4	1.9	-78.14	-42.5	-11.2	7,143.8	6,971.6	172.19	41.488		
11,800.0	7,060.0	6,700.0	6,698.2	179.8	1.9	-78.14	-42.5	-11.2	7,228.8	7,054.3	174.53	41.417		
11,811.0	7,060.0	6,700.0	6,698.2	180.1	1.9	-78.14	-42.5	-11.2	7,239.5	7,064.7	174.83	41.409		
11,900.0	7,060.0	6,700.0	6,698.2	182.5	1.9	-78.14	-42.5	-11.2	7,326.1	7,148.9	177.22	41.339		
11,909.4	7,060.0	6,700.0	6,698.2	182.7	1.9	-78.14	-42.5	-11.2	7,335.3	7,157.8	177.47	41.332		
12,000.0	7,060.0	6,700.0	6,698.2	185.1	1.9	-78.14	-42.5	-11.2	7,423.5	7,243.6	179.91	41.263		
12,007.8	7,060.0	6,700.0	6,698.2	185.4	1.9	-78.14	-42.5	-11.2	7,431.1	7,251.0	180.12	41.257		
12,100.0	7,060.0	6,700.0	6,698.2	187.8	1.9	-78.14	-42.5	-11.2	7,520.9	7,338.3	182.60	41.189		
12,106.3	7,060.0	6,700.0	6,698.2	188.0	1.9	-78.14	-42.5	-11.2	7,527.0	7,344.3	182.76	41.184		
12,200.0	7,060.0	6,700.0	6,698.2	190.5	1.9	-78.14	-42.5	-11.2	7,618.4	7,433.2	185.29	41.117		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 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
12,204.7	7,060.0	6,700.0	6,698.2	190.7	1.9	-78.14	-42.5	-11.2	7,623.0	7,437.6	185.41	41.114	
12,300.0	7,060.0	6,700.0	6,698.2	193.2	1.9	-78.14	-42.5	-11.2	7,716.0	7,528.0	187.98	41.047	
12,303.1	7,060.0	6,700.0	6,698.2	193.3	1.9	-78.14	-42.5	-11.2	7,719.1	7,531.0	188.06	41.045	
12,400.0	7,060.0	6,700.0	6,698.2	195.9	1.9	-78.14	-42.5	-11.2	7,813.7	7,623.0	190.67	40.979	
12,401.5	7,060.0	6,700.0	6,698.2	196.0	1.9	-78.14	-42.5	-11.2	7,815.2	7,624.5	190.72	40.978	
12,500.0	7,060.0	6,700.0	6,698.2	198.6	1.9	-78.14	-42.5	-11.2	7,911.4	7,718.0	193.37	40.913	
12,598.4	7,060.0	6,700.0	6,698.2	201.3	1.9	-78.14	-42.5	-11.2	8,007.5	7,811.5	196.02	40.850	
12,600.0	7,060.0	6,700.0	6,698.2	201.4	1.9	-78.14	-42.5	-11.2	8,009.1	7,813.0	196.07	40.849	
12,696.8	7,060.0	6,700.0	6,698.2	204.0	1.9	-78.14	-42.5	-11.2	8,103.8	7,905.1	198.68	40.788	
12,700.0	7,060.0	6,700.0	6,698.2	204.1	1.9	-78.14	-42.5	-11.2	8,106.9	7,908.1	198.77	40.786	
12,795.2	7,060.0	6,700.0	6,698.2	206.7	1.9	-78.14	-42.5	-11.2	8,200.1	7,998.8	201.34	40.728	
12,800.0	7,060.0	6,700.0	6,698.2	206.8	1.9	-78.14	-42.5	-11.2	8,204.8	8,003.3	201.47	40.725	
12,893.7	7,060.0	6,700.0	6,698.2	209.3	1.9	-78.14	-42.5	-11.2	8,296.5	8,092.5	204.00	40.669	
12,900.0	7,060.0	6,700.0	6,698.2	209.5	1.9	-78.14	-42.5	-11.2	8,302.7	8,098.5	204.17	40.665	
12,992.1	7,060.0	6,700.0	6,698.2	212.0	1.9	-78.14	-42.5	-11.2	8,392.9	8,186.2	206.66	40.612	
13,000.0	7,060.0	6,700.0	6,698.2	212.2	1.9	-78.14	-42.5	-11.2	8,400.7	8,193.8	206.87	40.607	
13,090.5	7,060.0	6,700.0	6,698.2	214.7	1.9	-78.14	-42.5	-11.2	8,489.4	8,280.0	209.32	40.556	
13,100.0	7,060.0	6,700.0	6,698.2	214.9	1.9	-78.14	-42.5	-11.2	8,498.7	8,289.1	209.58	40.551	
13,188.9	7,060.0	6,700.0	6,698.2	217.4	1.9	-78.14	-42.5	-11.2	8,585.9	8,373.9	211.99	40.502	
13,200.0	7,060.0	6,700.0	6,698.2	217.7	1.9	-78.14	-42.5	-11.2	8,596.7	8,384.4	212.29	40.496	
13,287.4	7,060.0	6,700.0	6,698.2	220.1	1.9	-78.14	-42.5	-11.2	8,682.4	8,467.8	214.65	40.449	
13,300.0	7,060.0	6,700.0	6,698.2	220.4	1.9	-78.14	-42.5	-11.2	8,694.8	8,479.8	214.99	40.442	
13,385.8	7,060.0	6,700.0	6,698.2	222.7	1.9	-78.14	-42.5	-11.2	8,779.0	8,561.7	217.32	40.397	
13,400.0	7,060.0	6,700.0	6,698.2	223.1	1.9	-78.14	-42.5	-11.2	8,793.0	8,575.3	217.70	40.390	
13,484.2	7,060.0	6,700.0	6,698.2	225.4	1.9	-78.14	-42.5	-11.2	8,875.6	8,655.7	219.99	40.346	
13,500.0	7,060.0	6,700.0	6,698.2	225.9	1.9	-78.14	-42.5	-11.2	8,891.1	8,670.7	220.41	40.338	
13,582.6	7,060.0	6,700.0	6,698.2	228.1	1.9	-78.14	-42.5	-11.2	8,972.3	8,749.7	222.65	40.297	
13,600.0	7,060.0	6,700.0	6,698.2	228.6	1.9	-78.14	-42.5	-11.2	8,989.4	8,766.2	223.12	40.289	
13,681.1	7,060.0	6,700.0	6,698.2	230.8	1.9	-78.14	-42.5	-11.2	9,069.0	8,843.7	225.32	40.249	
13,700.0	7,060.0	6,700.0	6,698.2	231.3	1.9	-78.14	-42.5	-11.2	9,087.6	8,861.8	225.84	40.240	
13,779.5	7,060.0	6,700.0	6,698.2	233.5	1.9	-78.14	-42.5	-11.2	9,165.8	8,937.8	227.99	40.202	
13,800.0	7,060.0	6,700.0	6,698.2	234.1	1.9	-78.14	-42.5	-11.2	9,185.9	8,957.4	228.55	40.192	
13,877.9	7,060.0	6,700.0	6,698.2	236.2	1.9	-78.14	-42.5	-11.2	9,262.6	9,031.9	230.67	40.156	
13,900.0	7,060.0	6,700.0	6,698.2	236.8	1.9	-78.14	-42.5	-11.2	9,284.3	9,053.0	231.26	40.146	
13,976.3	7,060.0	6,700.0	6,698.2	238.9	1.9	-78.14	-42.5	-11.2	9,359.4	9,126.0	233.34	40.111	
14,000.0	7,060.0	6,700.0	6,698.2	239.5	1.9	-78.14	-42.5	-11.2	9,382.6	9,148.7	233.98	40.100	
14,074.8	7,060.0	6,700.0	6,698.2	241.6	1.9	-78.14	-42.5	-11.2	9,456.2	9,220.2	236.01	40.067	
14,100.0	7,060.0	6,700.0	6,698.2	242.3	1.9	-78.14	-42.5	-11.2	9,481.0	9,244.3	236.70	40.056	
14,173.2	7,060.0	6,700.0	6,698.2	244.3	1.9	-78.14	-42.5	-11.2	9,553.1	9,314.4	238.68	40.024	
14,200.0	7,060.0	6,700.0	6,698.2	245.0	1.9	-78.14	-42.5	-11.2	9,579.5	9,340.1	239.41	40.012	
14,271.6	7,060.0	6,700.0	6,698.2	247.0	1.9	-78.14	-42.5	-11.2	9,650.0	9,408.6	241.36	39.982	
14,300.0	7,060.0	6,700.0	6,698.2	247.8	1.9	-78.14	-42.5	-11.2	9,677.9	9,435.8	242.13	39.970	
14,370.0	7,060.0	6,700.0	6,698.2	249.7	1.9	-78.14	-42.5	-11.2	9,746.9	9,502.9	244.04	39.941	
14,400.0	7,060.0	6,700.0	6,698.2	250.5	1.9	-78.14	-42.5	-11.2	9,776.5	9,531.6	244.85	39.928	
14,468.5	7,060.0	6,700.0	6,698.2	252.4	1.9	-78.14	-42.5	-11.2	9,843.9	9,597.2	246.71	39.900	
14,500.0	7,060.0	6,700.0	6,698.2	253.3	1.9	-78.14	-42.5	-11.2	9,875.0	9,627.4	247.57	39.888	
14,566.9	7,060.0	6,700.0	6,698.2	255.1	1.9	-78.14	-42.5	-11.2	9,940.9	9,691.5	249.39	39.861	
14,600.0	7,060.0	6,700.0	6,698.2	256.0	1.9	-78.14	-42.5	-11.2	9,973.5	9,723.3	250.29	39.848	

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE C1-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE C1-16-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4663.0usft (Original Well ECoordinates are relative to: VT-GLENMERE C1-16-18

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.55°

Separation Factor Plot

