

EXTRACTION OIL & GAS

Weld County

Sec 35-T5N-R68W

JOHNSON CORNER EAST 5-C

ORIGINAL WELLBORE

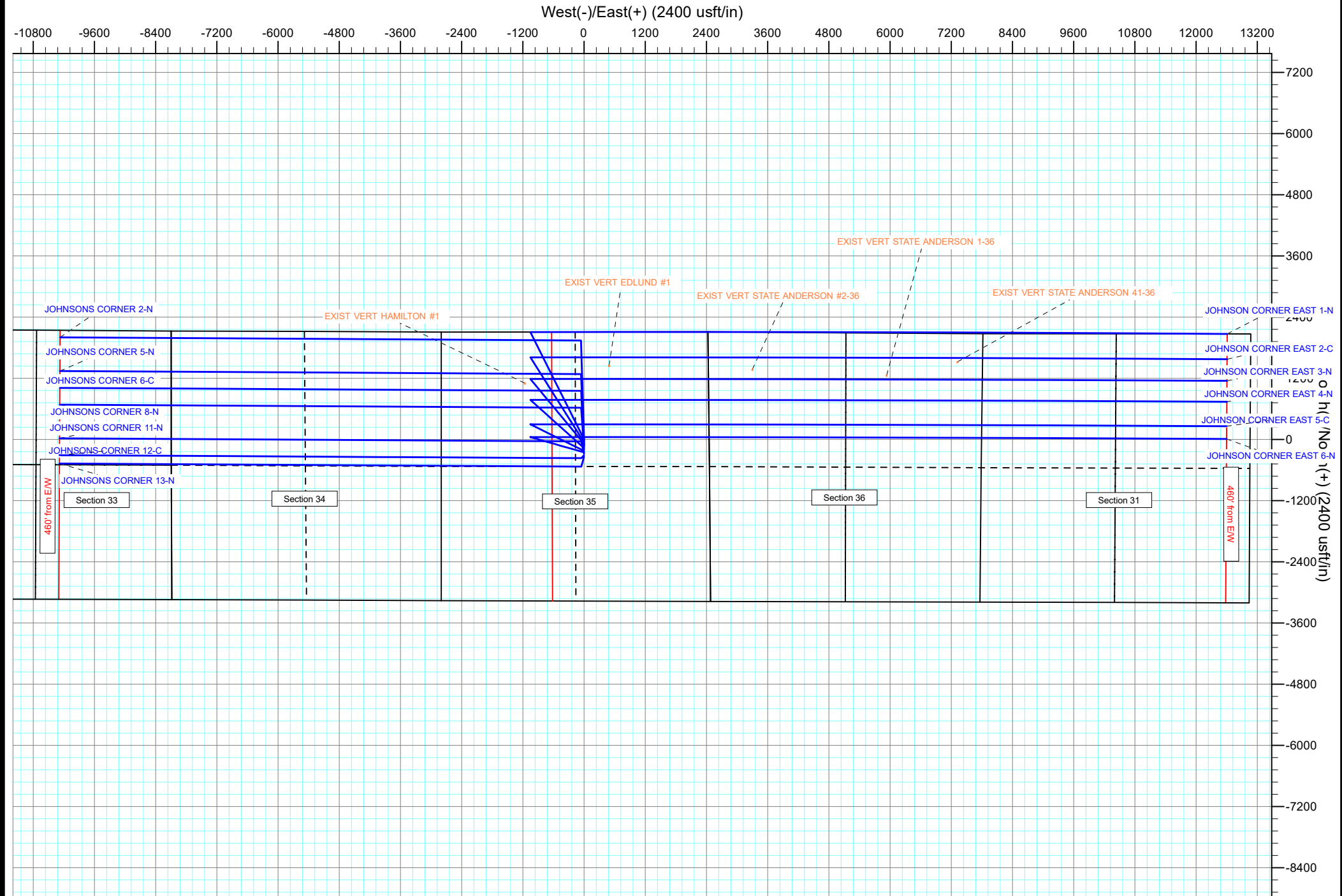
PROPOSAL 1

Anticollision Report

29 March, 2017



Project: Weld County
Site: Sec 35-T5N-R68W
Well: JOHNSON CORNER / EAST SPIDER
ORIGINAL WELLBORE
PROPOSAL 1



Anticollision Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well JOHNSON CORNER EAST 5-C
Project:	Weld County	TVD Reference:	KB 24' @ 5033.0usft
Reference Site:	Sec 35-T5N-R68W	MD Reference:	KB 24' @ 5033.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	JOHNSON CORNER EAST 5-C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/29/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,709.1	PROPOSAL 1 (ORIGINAL WELLBORE)	MWD OWSG	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 35-T5N-R68W						
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,599.9	7,102.0	1,153.2	1,090.7	18.449	CC
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,600.0	7,102.0	1,153.2	1,090.7	18.448	ES
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,900.0	7,102.1	1,191.6	1,124.2	17.667	SF
EXIST VERT HAMILTON #1 - Wellbore #1 - Design #1	6,730.2	6,529.0	815.4	654.8	5.079	CC
EXIST VERT HAMILTON #1 - Wellbore #1 - Design #1	6,800.0	6,601.4	815.9	653.8	5.033	ES
EXIST VERT HAMILTON #1 - Wellbore #1 - Design #1	6,950.0	6,743.4	822.0	657.1	4.984	SF
JOHNSON CORNER EAST 1-N - ORIGINAL WELLBOR	800.0	799.0	224.4	219.1	42.442	CC, ES
JOHNSON CORNER EAST 1-N - ORIGINAL WELLBOR	20,709.1	21,007.6	1,815.3	1,087.0	2.492	SF
JOHNSON CORNER EAST 2-C - ORIGINAL WELLBOR	1,000.0	1,000.0	168.3	161.6	25.027	CC, ES
JOHNSON CORNER EAST 2-C - ORIGINAL WELLBOR	20,709.1	20,970.8	1,315.1	584.8	1.801	SF
JOHNSON CORNER EAST 3-N - ORIGINAL WELLBOR	1,000.0	1,000.0	140.3	133.5	20.856	CC, ES
JOHNSON CORNER EAST 3-N - ORIGINAL WELLBOR	20,709.1	20,718.1	900.5	177.2	1.245	Level 2, SF
JOHNSON CORNER EAST 4-N - ORIGINAL WELLBOR	1,003.5	1,003.5	56.1	49.4	8.311	CC
JOHNSON CORNER EAST 4-N - ORIGINAL WELLBOR	20,709.1	20,641.7	499.3	-206.5	0.707	Level 1, ES, SF
JOHNSON CORNER EAST 6-N - ORIGINAL WELLBOR	1,150.0	1,150.0	27.7	19.9	3.549	CC
JOHNSON CORNER EAST 6-N - ORIGINAL WELLBOR	20,709.1	20,558.3	285.0	-361.5	0.441	Level 1, ES, SF
JOHNSONS CORNER 11-N - ORIGINAL WELLBORE -	1,150.0	1,150.0	55.7	47.9	7.147	CC
JOHNSONS CORNER 11-N - ORIGINAL WELLBORE -	1,200.0	1,200.0	55.9	47.8	6.858	ES
JOHNSONS CORNER 11-N - ORIGINAL WELLBORE -	7,222.2	7,609.3	328.7	265.3	5.183	SF
JOHNSONS CORNER 12-C - ORIGINAL WELLBORE -	1,003.4	1,003.4	83.8	77.0	12.415	CC
JOHNSONS CORNER 12-C - ORIGINAL WELLBORE -	1,100.0	1,098.9	84.1	76.7	11.321	ES
JOHNSONS CORNER 12-C - ORIGINAL WELLBORE -	1,300.0	1,305.0	93.3	84.5	10.581	SF
JOHNSONS CORNER 13-N - ORIGINAL WELLBORE -	903.3	903.3	111.8	105.8	18.541	CC
JOHNSONS CORNER 13-N - ORIGINAL WELLBORE -	1,000.0	998.2	112.2	105.5	16.730	ES
JOHNSONS CORNER 13-N - ORIGINAL WELLBORE -	7,100.0	7,680.2	828.0	764.2	12.979	SF
JOHNSONS CORNER 2-N - ORIGINAL WELLBORE - P	1,004.6	1,003.6	196.0	189.2	29.016	CC
JOHNSONS CORNER 2-N - ORIGINAL WELLBORE - P	1,100.0	1,095.9	196.4	189.0	26.443	ES
JOHNSONS CORNER 2-N - ORIGINAL WELLBORE - P	1,700.0	1,650.3	244.9	233.4	21.402	SF
JOHNSONS CORNER 5-N - ORIGINAL WELLBORE - P	1,451.1	1,446.9	107.9	98.0	10.870	CC, ES
JOHNSONS CORNER 5-N - ORIGINAL WELLBORE - P	1,600.0	1,589.6	111.6	100.6	10.175	SF
JOHNSONS CORNER 6-C - ORIGINAL WELLBORE - P	1,520.6	1,517.9	77.5	72.3	14.848	CC, ES
JOHNSONS CORNER 6-C - ORIGINAL WELLBORE - P	1,600.0	1,594.7	79.0	73.5	14.325	SF
JOHNSONS CORNER 8-N - ORIGINAL WELLBORE - P	1,414.5	1,414.1	25.3	15.6	2.608	CC, ES
JOHNSONS CORNER 8-N - ORIGINAL WELLBORE - P	1,500.0	1,500.9	26.9	16.6	2.608	SF

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	TVD Reference:	KB 24' @ 5033.0usft
Reference Site:	Sec 35-T5N-R68W	MD Reference:	KB 24' @ 5033.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	JOHNSON CORNER EAST 5-C	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC. 31 T5N R67W 6th P.M.						
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,599.9	7,102.0	1,153.2	964.7	6.119	CC
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,600.0	7,102.0	1,153.2	964.7	6.119	ES
EXIST VERT EDLUND #1 - Wellbore #1 - Design #1	8,700.0	7,102.1	1,157.5	967.2	6.082	SF
EXIST VERT STATE ANDERSON #2-36 - Wellbore #1 -	11,407.8	7,088.1	1,080.9	824.0	4.209	CC, ES
EXIST VERT STATE ANDERSON #2-36 - Wellbore #1 -	11,500.0	7,088.1	1,084.8	825.8	4.189	SF
EXIST VERT STATE ANDERSON 1-36 - Wellbore #1 - D	14,038.4	7,036.2	971.3	645.2	2.979	CC, ES
EXIST VERT STATE ANDERSON 1-36 - Wellbore #1 - D	14,100.0	7,036.2	973.2	645.8	2.972	SF
EXIST VERT STATE ANDERSON 41-36 - Wellbore #1 -	15,425.7	7,029.2	1,239.3	876.1	3.412	CC, ES
EXIST VERT STATE ANDERSON 41-36 - Wellbore #1 -	15,500.0	7,029.2	1,241.5	876.6	3.402	SF

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	16.34	1,674.3	490.7	1,745.9				
100.0	100.0	36.0	36.0	0.1	0.0	16.34	1,674.3	490.7	1,744.7	1,744.6	0.17	N/A	
200.0	200.0	136.0	136.0	0.5	0.2	16.34	1,674.3	490.7	1,744.7	1,744.1	0.68	2,573.827	
300.0	300.0	236.0	236.0	0.9	0.4	16.34	1,674.3	490.7	1,744.7	1,743.5	1.26	1,383.487	
400.0	400.0	336.0	336.0	1.2	0.6	16.34	1,674.3	490.7	1,744.7	1,742.9	1.84	945.988	
500.0	500.0	436.0	436.0	1.6	0.9	16.34	1,674.3	490.7	1,744.7	1,742.3	2.43	718.711	
600.0	600.0	536.0	536.0	1.9	1.1	16.34	1,674.3	490.7	1,744.7	1,741.7	3.01	579.487	
700.0	700.0	636.0	636.0	2.3	1.3	16.34	1,674.3	490.7	1,744.7	1,741.1	3.59	485.449	
800.0	800.0	736.0	736.0	2.6	1.5	16.34	1,674.3	490.7	1,744.7	1,740.6	4.18	417.670	
900.0	900.0	836.0	836.0	3.0	1.8	16.34	1,674.3	490.7	1,744.7	1,740.0	4.76	366.499	
1,000.0	1,000.0	936.0	936.0	3.4	2.0	16.34	1,674.3	490.7	1,744.7	1,739.4	5.34	326.498	
1,100.0	1,100.0	1,036.0	1,036.0	3.7	2.2	16.34	1,674.3	490.7	1,744.7	1,738.8	5.93	294.370	
1,150.0	1,150.0	1,086.0	1,086.0	3.9	2.3	16.34	1,674.3	490.7	1,744.7	1,738.5	6.22	280.566	
1,200.0	1,200.0	1,136.0	1,136.0	4.1	2.4	80.00	1,674.3	490.7	1,744.7	1,738.1	6.51	268.084	
1,300.0	1,299.9	1,235.9	1,235.9	4.4	2.7	80.12	1,674.3	490.7	1,744.1	1,737.0	7.08	246.223	
1,400.0	1,399.7	1,335.7	1,335.7	4.8	2.9	80.37	1,674.3	490.7	1,742.9	1,735.2	7.66	227.457	
1,500.0	1,499.1	1,435.1	1,435.1	5.1	3.1	80.74	1,674.3	490.7	1,741.1	1,732.9	8.25	211.102	
1,600.0	1,598.2	1,534.2	1,534.2	5.5	3.3	81.23	1,674.3	490.7	1,738.9	1,730.1	8.84	196.640	
1,700.0	1,696.6	1,632.6	1,632.6	5.9	3.5	81.84	1,674.3	490.7	1,736.4	1,726.9	9.45	183.679	
1,800.0	1,794.4	1,730.4	1,730.4	6.3	3.8	82.57	1,674.3	490.7	1,733.5	1,723.4	10.08	171.923	
1,850.1	1,843.1	1,779.1	1,779.1	6.5	3.9	82.97	1,674.3	490.7	1,732.0	1,721.5	10.41	166.420	
1,900.0	1,891.6	1,827.6	1,827.6	6.8	4.0	83.35	1,674.3	490.7	1,730.5	1,719.7	10.74	161.188	
2,000.0	1,988.6	1,924.6	1,924.6	7.2	4.2	84.13	1,674.3	490.7	1,727.8	1,716.3	11.41	151.466	
2,100.0	2,085.6	2,021.6	2,021.6	7.7	4.4	84.90	1,674.3	490.7	1,725.4	1,713.3	12.09	142.692	
2,200.0	2,182.7	2,118.7	2,118.7	8.1	4.6	85.68	1,674.3	490.7	1,723.3	1,710.5	12.79	134.767	
2,300.0	2,279.7	2,215.7	2,215.7	8.6	4.9	86.46	1,674.3	490.7	1,721.6	1,708.1	13.49	127.598	
2,400.0	2,376.7	2,312.7	2,312.7	9.1	5.1	87.24	1,674.3	490.7	1,720.2	1,706.0	14.21	121.099	
2,500.0	2,473.7	2,409.7	2,409.7	9.6	5.3	88.02	1,674.3	490.7	1,719.2	1,704.3	14.92	115.194	
2,600.0	2,570.8	2,506.8	2,506.8	10.1	5.5	88.80	1,674.3	490.7	1,718.5	1,702.9	15.65	109.817	
2,700.0	2,667.8	2,603.8	2,603.8	10.6	5.7	89.59	1,674.3	490.7	1,718.2	1,701.8	16.38	104.909	
2,752.8	2,719.0	2,655.0	2,655.0	10.9	5.8	90.00	1,674.3	490.7	1,718.1	1,701.4	16.76	102.489	
2,800.0	2,764.8	2,700.8	2,700.8	11.2	5.9	90.37	1,674.3	490.7	1,718.2	1,701.1	17.11	100.419	
2,900.0	2,861.9	2,802.1	2,797.9	11.7	6.2	91.15	1,674.3	490.7	1,718.5	1,700.6	17.85	96.249	
3,000.0	2,958.9	2,905.1	2,894.9	12.2	6.4	91.93	1,674.3	490.7	1,719.2	1,700.6	18.61	92.402	

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