

EXTRACTION OIL & GAS

Weld County

Sec 35-T5N-R68W

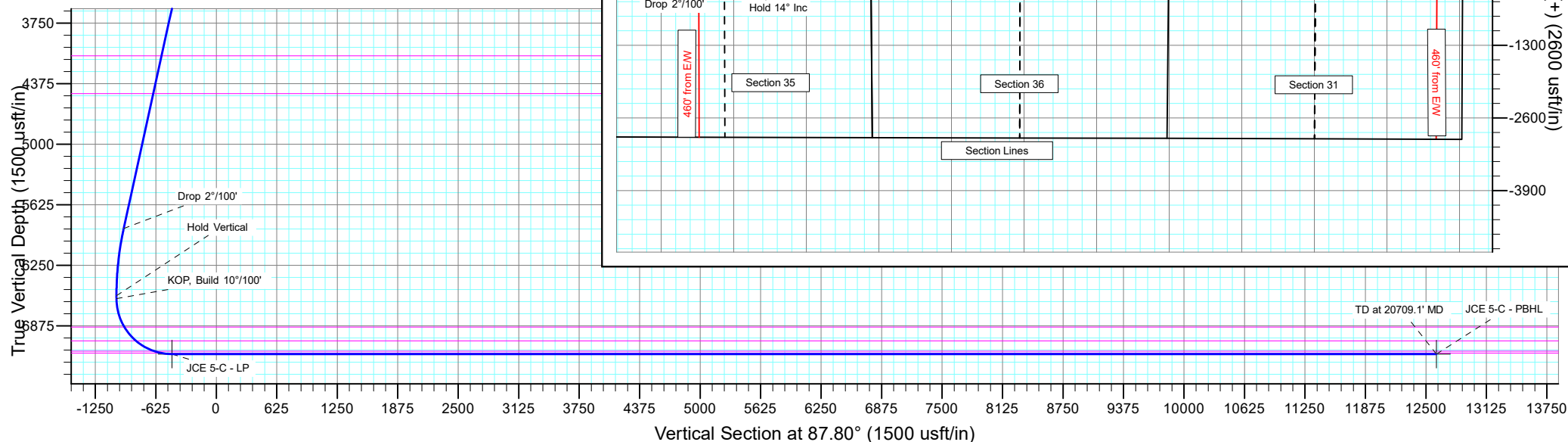
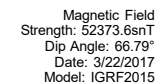
JOHNSON CORNER EAST 5-C

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

27 March, 2017



Planning Report

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

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

Site		Sec 35-T5N-R68W			
Site Position:		Northing:	1,373,645.09 usft	Latitude:	40° 21' 28.300 N
From:	Lat/Long	Easting:	3,146,750.79 usft	Longitude:	104° 58' 24.280 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.34 °

Well	JOHNSON CORNER EAST 5-C					
Well Position	+N/-S	-224.4 usft	Northing:	1,373,420.67 usft	Latitude:	40° 21' 26.082 N
	+E/-W	-1.4 usft	Easting:	3,146,750.73 usft	Longitude:	104° 58' 24.298 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,009.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/22/2017	8.34	66.79	52,373.63003722

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	87.80

Plan Survey Tool Program			Date	3/27/2017	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,709.1	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG	
			OWSG MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,850.1	14.00	296.35	1,843.1	37.8	-76.3	2.00	2.00	0.00	296.35	
6,000.1	14.00	296.35	5,869.9	483.5	-976.0	0.00	0.00	0.00	0.00	
6,700.2	0.00	0.00	6,563.0	521.3	-1,052.3	2.00	-2.00	0.00	180.00	
6,730.2	0.00	0.00	6,593.0	521.3	-1,052.3	0.00	0.00	0.00	0.00	
7,630.2	90.00	90.00	7,166.0	521.3	-479.3	10.00	10.00	10.00	90.00	JCE 5-C - LP
20,709.1	90.00	90.32	7,166.0	484.5	12,599.4	0.00	0.00	0.00	88.94	JCE 5-C - PBHL

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Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
Well:	JOHNSON CORNER EAST 5-C	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 2°/100'									
1,200.0	1.00	296.35	1,200.0	0.2	-0.4	-0.4	2.00	2.00	0.00
1,300.0	3.00	296.35	1,299.9	1.7	-3.5	-3.4	2.00	2.00	0.00
1,400.0	5.00	296.35	1,399.7	4.8	-9.8	-9.6	2.00	2.00	0.00
1,500.0	7.00	296.35	1,499.1	9.5	-19.1	-18.8	2.00	2.00	0.00
1,600.0	9.00	296.35	1,598.2	15.7	-31.6	-31.0	2.00	2.00	0.00
1,700.0	11.00	296.35	1,696.6	23.4	-47.2	-46.2	2.00	2.00	0.00
1,800.0	13.00	296.35	1,794.4	32.6	-65.8	-64.5	2.00	2.00	0.00
1,850.1	14.00	296.35	1,843.1	37.8	-76.3	-74.8	2.00	2.00	0.00
Hold 14° Inc									
1,900.0	14.00	296.35	1,891.6	43.1	-87.1	-85.4	0.00	0.00	0.00
2,000.0	14.00	296.35	1,988.6	53.9	-108.8	-106.6	0.00	0.00	0.00
2,100.0	14.00	296.35	2,085.6	64.6	-130.5	-127.9	0.00	0.00	0.00
2,200.0	14.00	296.35	2,182.7	75.4	-152.1	-149.1	0.00	0.00	0.00
2,300.0	14.00	296.35	2,279.7	86.1	-173.8	-170.4	0.00	0.00	0.00
2,400.0	14.00	296.35	2,376.7	96.9	-195.5	-191.6	0.00	0.00	0.00
2,500.0	14.00	296.35	2,473.7	107.6	-217.2	-212.9	0.00	0.00	0.00
2,600.0	14.00	296.35	2,570.8	118.3	-238.9	-234.1	0.00	0.00	0.00
2,700.0	14.00	296.35	2,667.8	129.1	-260.5	-255.4	0.00	0.00	0.00
2,800.0	14.00	296.35	2,764.8	139.8	-282.2	-276.6	0.00	0.00	0.00
2,900.0	14.00	296.35	2,861.9	150.6	-303.9	-297.9	0.00	0.00	0.00
3,000.0	14.00	296.35	2,958.9	161.3	-325.6	-319.1	0.00	0.00	0.00
3,100.0	14.00	296.35	3,055.9	172.0	-347.3	-340.4	0.00	0.00	0.00
3,200.0	14.00	296.35	3,152.9	182.8	-368.9	-361.6	0.00	0.00	0.00
3,300.0	14.00	296.35	3,250.0	193.5	-390.6	-382.9	0.00	0.00	0.00
3,400.0	14.00	296.35	3,347.0	204.3	-412.3	-404.2	0.00	0.00	0.00
3,413.4	14.00	296.35	3,360.0	205.7	-415.2	-407.0	0.00	0.00	0.00
PARKMAN									
3,500.0	14.00	296.35	3,444.0	215.0	-434.0	-425.4	0.00	0.00	0.00
3,600.0	14.00	296.35	3,541.1	225.7	-455.7	-446.7	0.00	0.00	0.00
3,700.0	14.00	296.35	3,638.1	236.5	-477.3	-467.9	0.00	0.00	0.00
3,800.0	14.00	296.35	3,735.1	247.2	-499.0	-489.2	0.00	0.00	0.00
3,900.0	14.00	296.35	3,832.1	258.0	-520.7	-510.4	0.00	0.00	0.00
4,000.0	14.00	296.35	3,929.2	268.7	-542.4	-531.7	0.00	0.00	0.00
4,100.0	14.00	296.35	4,026.2	279.4	-564.1	-552.9	0.00	0.00	0.00
4,162.7	14.00	296.35	4,087.0	286.2	-577.7	-566.2	0.00	0.00	0.00
SUSSEX									
4,200.0	14.00	296.35	4,123.2	290.2	-585.8	-574.2	0.00	0.00	0.00
4,300.0	14.00	296.35	4,220.3	300.9	-607.4	-595.4	0.00	0.00	0.00
4,400.0	14.00	296.35	4,317.3	311.7	-629.1	-616.7	0.00	0.00	0.00

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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.0	14.00	296.35	4,414.3	322.4	-650.8	-637.9	0.00	0.00	0.00
4,564.6	14.00	296.35	4,477.0	329.3	-664.8	-651.7	0.00	0.00	0.00
SHANNON									
4,600.0	14.00	296.35	4,511.3	333.1	-672.5	-659.2	0.00	0.00	0.00
4,700.0	14.00	296.35	4,608.4	343.9	-694.2	-680.4	0.00	0.00	0.00
4,800.0	14.00	296.35	4,705.4	354.6	-715.8	-701.7	0.00	0.00	0.00
4,900.0	14.00	296.35	4,802.4	365.4	-737.5	-722.9	0.00	0.00	0.00
5,000.0	14.00	296.35	4,899.5	376.1	-759.2	-744.2	0.00	0.00	0.00
5,100.0	14.00	296.35	4,996.5	386.9	-780.9	-765.4	0.00	0.00	0.00
5,200.0	14.00	296.35	5,093.5	397.6	-802.6	-786.7	0.00	0.00	0.00
5,300.0	14.00	296.35	5,190.5	408.3	-824.2	-807.9	0.00	0.00	0.00
5,400.0	14.00	296.35	5,287.6	419.1	-845.9	-829.2	0.00	0.00	0.00
5,500.0	14.00	296.35	5,384.6	429.8	-867.6	-850.4	0.00	0.00	0.00
5,600.0	14.00	296.35	5,481.6	440.6	-889.3	-871.7	0.00	0.00	0.00
5,700.0	14.00	296.35	5,578.7	451.3	-911.0	-892.9	0.00	0.00	0.00
5,800.0	14.00	296.35	5,675.7	462.0	-932.6	-914.2	0.00	0.00	0.00
5,900.0	14.00	296.35	5,772.7	472.8	-954.3	-935.5	0.00	0.00	0.00
6,000.1	14.00	296.35	5,869.9	483.5	-976.0	-956.7	0.00	0.00	0.00
Drop 2°/100'									
6,100.0	12.00	296.35	5,967.2	493.5	-996.2	-976.5	2.00	-2.00	0.00
6,200.0	10.00	296.35	6,065.3	502.0	-1,013.3	-993.2	2.00	-2.00	0.00
6,300.0	8.00	296.35	6,164.1	508.9	-1,027.3	-1,007.0	2.00	-2.00	0.00
6,400.0	6.00	296.35	6,263.3	514.3	-1,038.2	-1,017.7	2.00	-2.00	0.00
6,500.0	4.00	296.35	6,363.0	518.2	-1,046.0	-1,025.4	2.00	-2.00	0.00
6,600.0	2.00	296.35	6,462.8	520.5	-1,050.7	-1,030.0	2.00	-2.00	0.00
6,700.2	0.00	0.00	6,563.0	521.3	-1,052.3	-1,031.5	2.00	-2.00	0.00
Hold Vertical									
6,730.2	0.00	0.00	6,593.0	521.3	-1,052.3	-1,031.5	0.00	0.00	0.00
KOP, Build 10°/100'									
6,750.0	1.98	90.00	6,612.8	521.3	-1,052.0	-1,031.2	10.00	10.00	0.00
6,800.0	6.98	90.00	6,662.6	521.3	-1,048.1	-1,027.3	10.00	10.00	0.00
6,850.0	11.98	90.00	6,711.9	521.3	-1,039.8	-1,019.0	10.00	10.00	0.00
6,900.0	16.98	90.00	6,760.3	521.3	-1,027.3	-1,006.5	10.00	10.00	0.00
6,950.0	21.98	90.00	6,807.4	521.3	-1,010.7	-989.9	10.00	10.00	0.00
7,000.0	26.98	90.00	6,852.9	521.3	-989.9	-969.2	10.00	10.00	0.00
7,038.9	30.87	90.00	6,887.0	521.3	-971.1	-950.4	10.00	10.00	0.00
NIOBRARA									
7,050.0	31.98	90.00	6,896.5	521.3	-965.4	-944.6	10.00	10.00	0.00
7,100.0	36.98	90.00	6,937.7	521.3	-937.1	-916.3	10.00	10.00	0.00
7,150.0	41.98	90.00	6,976.2	521.3	-905.3	-884.6	10.00	10.00	0.00
7,200.0	46.98	90.00	7,011.9	521.3	-870.3	-849.6	10.00	10.00	0.00
7,225.7	49.54	90.00	7,029.0	521.3	-851.1	-830.4	10.00	10.00	0.00
NIO B TARGET									
7,250.0	51.98	90.00	7,044.4	521.3	-832.3	-811.6	10.00	10.00	0.00
7,300.0	56.98	90.00	7,073.4	521.3	-791.6	-771.0	10.00	10.00	0.00
7,350.0	61.98	90.00	7,098.8	521.3	-748.5	-727.9	10.00	10.00	0.00
7,400.0	66.97	90.00	7,120.4	521.3	-703.4	-682.9	10.00	10.00	0.00
7,444.0	71.38	90.00	7,136.0	521.3	-662.3	-641.8	10.00	10.00	0.00
FORT HAYS									
7,450.0	71.97	90.00	7,137.9	521.3	-656.6	-636.1	10.00	10.00	0.00
7,500.0	76.97	90.00	7,151.3	521.3	-608.4	-588.0	10.00	10.00	0.00
7,523.1	79.28	90.00	7,156.0	521.3	-585.9	-565.4	10.00	10.00	0.00
CODELL									

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 24' @ 5033.0usft
Project:	Weld County	MD Reference:	KB 24' @ 5033.0usft
Site:	Sec 35-T5N-R68W	North Reference:	True
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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,550.0	81.97	90.00	7,160.4	521.3	-559.3	-538.9	10.00	10.00	0.00
7,600.0	86.97	90.00	7,165.2	521.3	-509.6	-489.1	10.00	10.00	0.00
7,630.2	90.00	90.00	7,166.0	521.3	-479.3	-458.9	10.00	10.00	0.00
LP @ 90° Inc									
7,700.0	90.00	90.00	7,166.0	521.3	-409.6	-389.2	0.00	0.00	0.00
7,800.0	90.00	90.00	7,166.0	521.3	-309.6	-289.3	0.00	0.00	0.00
7,900.0	90.00	90.01	7,166.0	521.3	-209.6	-189.4	0.00	0.00	0.00
8,000.0	90.00	90.01	7,166.0	521.3	-109.6	-89.5	0.00	0.00	0.00
8,100.0	90.00	90.01	7,166.0	521.3	-9.6	10.5	0.00	0.00	0.00
8,200.0	90.00	90.01	7,166.0	521.2	90.4	110.4	0.00	0.00	0.00
8,300.0	90.00	90.02	7,166.0	521.2	190.4	210.3	0.00	0.00	0.00
8,400.0	90.00	90.02	7,166.0	521.2	290.4	310.2	0.00	0.00	0.00
8,500.0	90.00	90.02	7,166.0	521.2	390.4	410.2	0.00	0.00	0.00
8,600.0	90.00	90.02	7,166.0	521.1	490.4	510.1	0.00	0.00	0.00
8,700.0	90.00	90.03	7,166.1	521.1	590.4	610.0	0.00	0.00	0.00
8,800.0	90.00	90.03	7,166.1	521.0	690.4	709.9	0.00	0.00	0.00
8,900.0	90.00	90.03	7,166.1	521.0	790.4	809.9	0.00	0.00	0.00
9,000.0	90.00	90.03	7,166.1	520.9	890.4	909.8	0.00	0.00	0.00
9,100.0	90.00	90.04	7,166.1	520.9	990.4	1,009.7	0.00	0.00	0.00
9,200.0	90.00	90.04	7,166.1	520.8	1,090.4	1,109.6	0.00	0.00	0.00
9,300.0	90.00	90.04	7,166.1	520.7	1,190.4	1,209.6	0.00	0.00	0.00
9,400.0	90.00	90.04	7,166.1	520.6	1,290.4	1,309.5	0.00	0.00	0.00
9,500.0	90.00	90.05	7,166.1	520.6	1,390.4	1,409.4	0.00	0.00	0.00
9,600.0	90.00	90.05	7,166.1	520.5	1,490.4	1,509.3	0.00	0.00	0.00
9,700.0	90.00	90.05	7,166.1	520.4	1,590.4	1,609.3	0.00	0.00	0.00
9,800.0	90.00	90.05	7,166.1	520.3	1,690.4	1,709.2	0.00	0.00	0.00
9,900.0	90.00	90.06	7,166.1	520.2	1,790.4	1,809.1	0.00	0.00	0.00
10,000.0	90.00	90.06	7,166.1	520.1	1,890.4	1,909.0	0.00	0.00	0.00
10,100.0	90.00	90.06	7,166.1	520.0	1,990.4	2,008.9	0.00	0.00	0.00
10,200.0	90.00	90.06	7,166.1	519.9	2,090.4	2,108.9	0.00	0.00	0.00
10,300.0	90.00	90.07	7,166.1	519.8	2,190.4	2,208.8	0.00	0.00	0.00
10,400.0	90.00	90.07	7,166.1	519.7	2,290.4	2,308.7	0.00	0.00	0.00
10,500.0	90.00	90.07	7,166.1	519.5	2,390.4	2,408.6	0.00	0.00	0.00
10,600.0	90.00	90.07	7,166.1	519.4	2,490.4	2,508.5	0.00	0.00	0.00
10,700.0	90.00	90.08	7,166.1	519.3	2,590.4	2,608.5	0.00	0.00	0.00
10,800.0	90.00	90.08	7,166.1	519.2	2,690.4	2,708.4	0.00	0.00	0.00
10,900.0	90.00	90.08	7,166.1	519.0	2,790.4	2,808.3	0.00	0.00	0.00
11,000.0	90.00	90.08	7,166.1	518.9	2,890.4	2,908.2	0.00	0.00	0.00
11,100.0	90.00	90.09	7,166.1	518.7	2,990.4	3,008.2	0.00	0.00	0.00
11,200.0	90.00	90.09	7,166.1	518.6	3,090.4	3,108.1	0.00	0.00	0.00
11,300.0	90.00	90.09	7,166.1	518.4	3,190.4	3,208.0	0.00	0.00	0.00
11,400.0	90.00	90.09	7,166.1	518.3	3,290.4	3,307.9	0.00	0.00	0.00
11,500.0	90.00	90.10	7,166.1	518.1	3,390.4	3,407.8	0.00	0.00	0.00
11,600.0	90.00	90.10	7,166.1	517.9	3,490.4	3,507.8	0.00	0.00	0.00
11,700.0	90.00	90.10	7,166.1	517.7	3,590.4	3,607.7	0.00	0.00	0.00
11,800.0	90.00	90.10	7,166.1	517.6	3,690.4	3,707.6	0.00	0.00	0.00
11,900.0	90.00	90.11	7,166.1	517.4	3,790.4	3,807.5	0.00	0.00	0.00
12,000.0	90.00	90.11	7,166.2	517.2	3,890.4	3,907.4	0.00	0.00	0.00
12,100.0	90.00	90.11	7,166.2	517.0	3,990.4	4,007.3	0.00	0.00	0.00
12,200.0	90.00	90.11	7,166.2	516.8	4,090.4	4,107.3	0.00	0.00	0.00
12,300.0	90.00	90.12	7,166.2	516.6	4,190.4	4,207.2	0.00	0.00	0.00
12,400.0	90.00	90.12	7,166.2	516.4	4,290.4	4,307.1	0.00	0.00	0.00
12,500.0	90.00	90.12	7,166.2	516.2	4,390.4	4,407.0	0.00	0.00	0.00

Planning Report

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

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,600.0	90.00	90.12	7,166.2	516.0	4,490.4	4,506.9	0.00	0.00	0.00
12,700.0	90.00	90.13	7,166.2	515.8	4,590.4	4,606.9	0.00	0.00	0.00
12,800.0	90.00	90.13	7,166.2	515.6	4,690.4	4,706.8	0.00	0.00	0.00
12,900.0	90.00	90.13	7,166.2	515.3	4,790.4	4,806.7	0.00	0.00	0.00
13,000.0	90.00	90.13	7,166.2	515.1	4,890.4	4,906.6	0.00	0.00	0.00
13,100.0	90.00	90.14	7,166.2	514.9	4,990.4	5,006.5	0.00	0.00	0.00
13,200.0	90.00	90.14	7,166.2	514.6	5,090.4	5,106.4	0.00	0.00	0.00
13,300.0	90.00	90.14	7,166.2	514.4	5,190.4	5,206.4	0.00	0.00	0.00
13,400.0	90.00	90.14	7,166.2	514.1	5,290.4	5,306.3	0.00	0.00	0.00
13,500.0	90.00	90.14	7,166.2	513.9	5,390.4	5,406.2	0.00	0.00	0.00
13,600.0	90.00	90.15	7,166.2	513.6	5,490.4	5,506.1	0.00	0.00	0.00
13,700.0	90.00	90.15	7,166.2	513.4	5,590.4	5,606.0	0.00	0.00	0.00
13,800.0	90.00	90.15	7,166.2	513.1	5,690.4	5,705.9	0.00	0.00	0.00
13,900.0	90.00	90.15	7,166.2	512.8	5,790.4	5,805.9	0.00	0.00	0.00
14,000.0	90.00	90.16	7,166.2	512.6	5,890.4	5,905.8	0.00	0.00	0.00
14,100.0	90.00	90.16	7,166.2	512.3	5,990.4	6,005.7	0.00	0.00	0.00
14,200.0	90.00	90.16	7,166.2	512.0	6,090.4	6,105.6	0.00	0.00	0.00
14,300.0	90.00	90.16	7,166.2	511.7	6,190.4	6,205.5	0.00	0.00	0.00
14,400.0	90.00	90.17	7,166.2	511.4	6,290.4	6,305.4	0.00	0.00	0.00
14,500.0	90.00	90.17	7,166.2	511.1	6,390.4	6,405.3	0.00	0.00	0.00
14,600.0	90.00	90.17	7,166.2	510.8	6,490.4	6,505.3	0.00	0.00	0.00
14,700.0	90.00	90.17	7,166.2	510.5	6,590.4	6,605.2	0.00	0.00	0.00
14,800.0	90.00	90.18	7,166.2	510.2	6,690.4	6,705.1	0.00	0.00	0.00
14,900.0	90.00	90.18	7,166.2	509.9	6,790.4	6,805.0	0.00	0.00	0.00
15,000.0	90.00	90.18	7,166.2	509.6	6,890.4	6,904.9	0.00	0.00	0.00
15,100.0	90.00	90.18	7,166.2	509.3	6,990.4	7,004.8	0.00	0.00	0.00
15,200.0	90.00	90.19	7,166.2	509.0	7,090.4	7,104.7	0.00	0.00	0.00
15,300.0	90.00	90.19	7,166.2	508.6	7,190.4	7,204.7	0.00	0.00	0.00
15,400.0	90.00	90.19	7,166.2	508.3	7,290.4	7,304.6	0.00	0.00	0.00
15,500.0	90.00	90.19	7,166.2	508.0	7,390.4	7,404.5	0.00	0.00	0.00
15,600.0	90.00	90.20	7,166.2	507.6	7,490.4	7,504.4	0.00	0.00	0.00
15,700.0	90.00	90.20	7,166.2	507.3	7,590.4	7,604.3	0.00	0.00	0.00
15,800.0	90.00	90.20	7,166.2	506.9	7,690.4	7,704.2	0.00	0.00	0.00
15,900.0	90.00	90.20	7,166.2	506.6	7,790.4	7,804.1	0.00	0.00	0.00
16,000.0	90.00	90.21	7,166.2	506.2	7,890.4	7,904.0	0.00	0.00	0.00
16,100.0	90.00	90.21	7,166.2	505.9	7,990.4	8,003.9	0.00	0.00	0.00
16,200.0	90.00	90.21	7,166.2	505.5	8,090.4	8,103.9	0.00	0.00	0.00
16,300.0	90.00	90.21	7,166.2	505.1	8,190.4	8,203.8	0.00	0.00	0.00
16,400.0	90.00	90.22	7,166.2	504.7	8,290.4	8,303.7	0.00	0.00	0.00
16,500.0	90.00	90.22	7,166.1	504.4	8,390.4	8,403.6	0.00	0.00	0.00
16,600.0	90.00	90.22	7,166.1	504.0	8,490.4	8,503.5	0.00	0.00	0.00
16,700.0	90.00	90.22	7,166.1	503.6	8,590.4	8,603.4	0.00	0.00	0.00
16,800.0	90.00	90.23	7,166.1	503.2	8,690.4	8,703.3	0.00	0.00	0.00
16,900.0	90.00	90.23	7,166.1	502.8	8,790.4	8,803.2	0.00	0.00	0.00
17,000.0	90.00	90.23	7,166.1	502.4	8,890.4	8,903.1	0.00	0.00	0.00
17,100.0	90.00	90.23	7,166.1	502.0	8,990.4	9,003.1	0.00	0.00	0.00
17,200.0	90.00	90.24	7,166.1	501.6	9,090.4	9,103.0	0.00	0.00	0.00
17,300.0	90.00	90.24	7,166.1	501.2	9,190.4	9,202.9	0.00	0.00	0.00
17,400.0	90.00	90.24	7,166.1	500.7	9,290.4	9,302.8	0.00	0.00	0.00
17,500.0	90.00	90.24	7,166.1	500.3	9,390.4	9,402.7	0.00	0.00	0.00
17,600.0	90.00	90.25	7,166.1	499.9	9,490.4	9,502.6	0.00	0.00	0.00
17,700.0	90.00	90.25	7,166.1	499.5	9,590.4	9,602.5	0.00	0.00	0.00
17,800.0	90.00	90.25	7,166.1	499.0	9,690.4	9,702.4	0.00	0.00	0.00
17,900.0	90.00	90.25	7,166.1	498.6	9,790.4	9,802.3	0.00	0.00	0.00

Planning Report

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

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
18,000.0	90.00	90.26	7,166.1	498.1	9,890.4	9,902.2	0.00	0.00	0.00	
18,100.0	90.00	90.26	7,166.1	497.7	9,990.4	10,002.1	0.00	0.00	0.00	
18,200.0	90.00	90.26	7,166.1	497.2	10,090.4	10,102.0	0.00	0.00	0.00	
18,300.0	90.00	90.26	7,166.1	496.8	10,190.4	10,202.0	0.00	0.00	0.00	
18,400.0	90.00	90.27	7,166.1	496.3	10,290.4	10,301.9	0.00	0.00	0.00	
18,500.0	90.00	90.27	7,166.1	495.9	10,390.4	10,401.8	0.00	0.00	0.00	
18,600.0	90.00	90.27	7,166.1	495.4	10,490.4	10,501.7	0.00	0.00	0.00	
18,700.0	90.00	90.27	7,166.1	494.9	10,590.4	10,601.6	0.00	0.00	0.00	
18,800.0	90.00	90.28	7,166.1	494.4	10,690.4	10,701.5	0.00	0.00	0.00	
18,900.0	90.00	90.28	7,166.1	493.9	10,790.4	10,801.4	0.00	0.00	0.00	
19,000.0	90.00	90.28	7,166.1	493.5	10,890.4	10,901.3	0.00	0.00	0.00	
19,100.0	90.00	90.28	7,166.1	493.0	10,990.4	11,001.2	0.00	0.00	0.00	
19,200.0	90.00	90.29	7,166.1	492.5	11,090.4	11,101.1	0.00	0.00	0.00	
19,300.0	90.00	90.29	7,166.1	492.0	11,190.4	11,201.0	0.00	0.00	0.00	
19,400.0	90.00	90.29	7,166.1	491.5	11,290.4	11,300.9	0.00	0.00	0.00	
19,500.0	90.00	90.29	7,166.1	491.0	11,390.4	11,400.8	0.00	0.00	0.00	
19,600.0	90.00	90.30	7,166.1	490.4	11,490.4	11,500.7	0.00	0.00	0.00	
19,700.0	90.00	90.30	7,166.0	489.9	11,590.4	11,600.6	0.00	0.00	0.00	
19,800.0	90.00	90.30	7,166.0	489.4	11,690.4	11,700.5	0.00	0.00	0.00	
19,900.0	90.00	90.30	7,166.0	488.9	11,790.4	11,800.5	0.00	0.00	0.00	
20,000.0	90.00	90.31	7,166.0	488.3	11,890.4	11,900.4	0.00	0.00	0.00	
20,709.1	90.00	90.32	7,166.0	484.5	12,599.4	12,608.7	0.00	0.00	0.00	
TD at 20709.1' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
JCE 5-C - LP	0.00	0.00	7,166.0	521.3	-479.3	1,373,939.13	3,146,268.31	40° 21' 31.234 N	104° 58' 30.490 W	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										
JCE 5-C - PBHL	0.00	0.00	7,166.0	484.5	12,599.4	1,373,979.94	3,159,347.06	40° 21' 30.838 N	104° 55' 41.538 W	
- plan hits target center										
- Point										

Formations							
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)		
3,413.4	3,360.0	PARKMAN					
4,162.7	4,087.0	SUSSEX					
4,564.6	4,477.0	SHANNON					
7,038.9	6,887.0	NIOBRARA					
7,225.7	7,029.0	NIO B TARGET					
7,444.0	7,136.0	FORT HAYS					
7,523.1	7,156.0	CODELL					

Planning Report

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

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,150.0	1,150.0	0.0	0.0	Build 2°/100'
1,850.1	1,843.1	37.8	-76.3	Hold 14° Inc
6,000.1	5,869.9	483.5	-976.0	Drop 2°/100'
6,700.2	6,563.0	521.3	-1,052.3	Hold Vertical
6,730.2	6,593.0	521.3	-1,052.3	KOP, Build 10°/100'
7,630.2	7,166.0	521.3	-479.3	LP @ 90° Inc
20,709.1	7,166.0	484.5	12,599.4	TD at 20709.1' MD