

# **EXTRACTION OIL & GAS**

**Weld County  
Sec 17-T7N-R67W  
WALT 17W-20-1N**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**31 May, 2017**



WELL DETAILS: WALT 17W-20-1N

+N/-S	+E/-W	Northing	Easting	5080.0	Latitude	Longitude	Slot
0.0	0.0	1453002.00	3164157.28	40° 34' 31.397 N	104° 54' 32.598 W		

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.0	
3	2013.0	31.26	13.60	1936.6	404.3	97.8	2.00	13.60	-10.4	
4	4884.8	31.26	13.60	4391.5	1852.7	448.1	0.00	0.00	-47.4	
5	6447.8	0.00	0.00	5878.1	2257.0	545.9	2.00	180.00	-57.8	
6	6547.8	0.00	0.00	5978.1	2257.0	545.9	0.00	0.00	-57.8	
7	7548.2	90.00	268.58	6615.0	2241.3	-90.8	9.00	268.58	561.3	WALT
8	16737.4	90.00	268.42	6615.0	2000.7	-9276.9	0.00	-88.99	9490.2	WALT

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.0	BUILD 2°/100'
2013.0	31.26	13.60	1936.6	404.3	97.8	-10.4	415.9	HOLD 31.26° INC
4884.8	31.26	13.60	4391.5	1852.7	448.1	-47.4	1906.2	DROP 2°/100'
6447.8	0.00	0.00	5878.1	2257.0	545.9	-57.8	2322.1	HOLD VERTICAL
6547.8	0.00	0.00	5978.1	2257.0	545.9	-57.8	2322.1	KOP, BUILD 9°/100'
7548.2	90.00	268.58	6615.0	2241.3	-90.8	561.3	2959.0	LP @ 90° INC
16737.4	90.00	268.42	6615.0	2000.7	-9276.9	9490.2	12148.1	TD at 16737.4' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT 17W-20-1N-LP	6615.0	2241.3	-90.8	1455242.61	3164051.52	40° 34' 53.544 N	104° 54' 33.775 W	Point
WALT 17W-20-1N-PBHL	6615.0	2000.7	-9276.9	1454940.87	3154867.28	40° 34' 51.150 N	104° 56' 32.831 W	Point

- plan hits target center

FORMATION TOP DETAILS

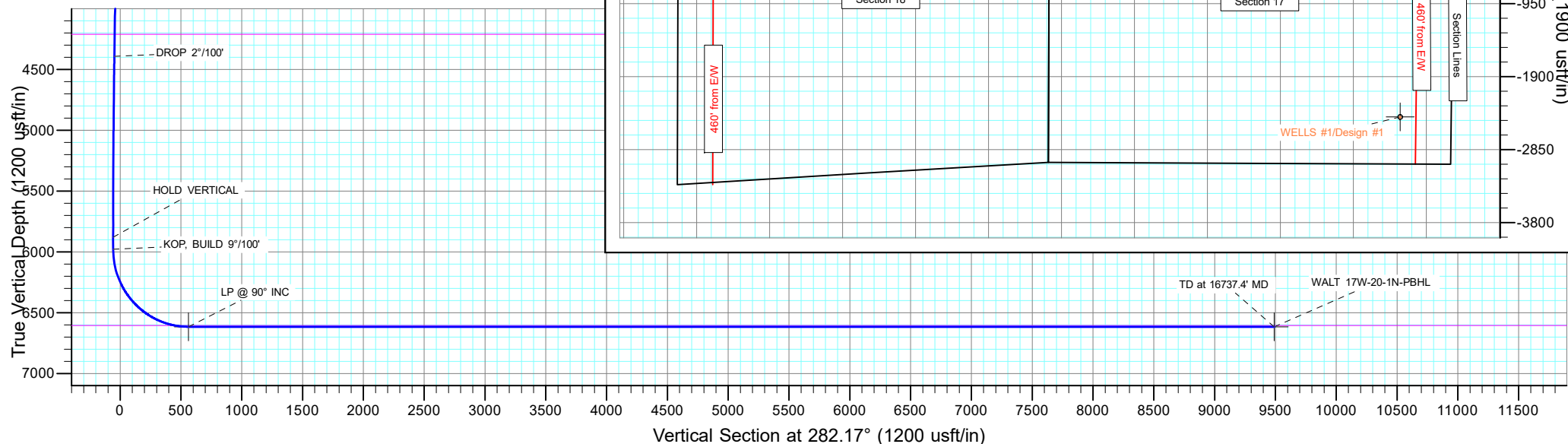
TVDPATH	MDPATH	FORMATION
3835.0	4233.8	SUSSEX
4210.0	4672.5	SHANNON
6605.0	7435.3	NIORARA

PROJECT DETAILS: Weld County

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

SHL:  
2241' FNL, 354' FEL  
Sec 17-T7N-R67W  
LP:  
0' FNL, 460' FEL  
Sec 17-T7N-R67W  
BHL:  
0' FNL, 460' FWL  
Sec 18-T7N-R67W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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 17-T7N-R67W			
Site Position:		Northing:	1,455,244.22 usft	Latitude:	40° 34' 53.530 N
From:	Lat/Long	Easting:	3,164,511.50 usft	Longitude:	104° 54' 27.814 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	WALT 17W-20-1N					
Well Position	+N/-S	-2,239.8 usft	Northing:	1,453,002.00 usft	Latitude:	40° 34' 31.397 N
	+E/-W	-369.2 usft	Easting:	3,164,157.28 usft	Longitude:	104° 54' 32.598 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,080.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/15/2017	8.31	66.97	52,476.15848225

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	282.17

Plan Survey Tool Program			Date	5/31/2017	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	16,737.4	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	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,013.0	31.26	13.60	1,936.6	404.3	97.8	2.00	2.00	0.00	13.60	
4,884.8	31.26	13.60	4,391.5	1,852.7	448.1	0.00	0.00	0.00	0.00	
6,447.8	0.00	0.00	5,878.1	2,257.0	545.9	2.00	-2.00	0.00	180.00	
6,547.8	0.00	0.00	5,978.1	2,257.0	545.9	0.00	0.00	0.00	0.00	
7,548.2	90.00	268.58	6,615.0	2,241.3	-90.8	9.00	9.00	-9.14	268.58	WALT 17W-20-1N-LP
16,737.4	90.00	268.42	6,615.0	2,000.7	-9,276.9	0.00	0.00	0.00	-88.99	WALT 17W-20-1N-PB

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
BUILD 2°/100'									
500.0	1.00	13.60	500.0	0.4	0.1	0.0	2.00	2.00	0.00
600.0	3.00	13.60	599.9	3.8	0.9	-0.1	2.00	2.00	0.00
700.0	5.00	13.60	699.7	10.6	2.6	-0.3	2.00	2.00	0.00
800.0	7.00	13.60	799.1	20.8	5.0	-0.5	2.00	2.00	0.00
900.0	9.00	13.60	898.2	34.3	8.3	-0.9	2.00	2.00	0.00
1,000.0	11.00	13.60	996.6	51.2	12.4	-1.3	2.00	2.00	0.00
1,100.0	13.00	13.60	1,094.4	71.4	17.3	-1.8	2.00	2.00	0.00
1,200.0	15.00	13.60	1,191.5	94.9	22.9	-2.4	2.00	2.00	0.00
1,300.0	17.00	13.60	1,287.6	121.7	29.4	-3.1	2.00	2.00	0.00
1,400.0	19.00	13.60	1,382.7	151.7	36.7	-3.9	2.00	2.00	0.00
1,500.0	21.00	13.60	1,476.6	184.9	44.7	-4.7	2.00	2.00	0.00
1,600.0	23.00	13.60	1,569.4	221.4	53.5	-5.7	2.00	2.00	0.00
1,700.0	25.00	13.60	1,660.7	260.9	63.1	-6.7	2.00	2.00	0.00
1,800.0	27.00	13.60	1,750.6	303.5	73.4	-7.8	2.00	2.00	0.00
1,900.0	29.00	13.60	1,838.9	349.1	84.4	-8.9	2.00	2.00	0.00
2,000.0	31.00	13.60	1,925.5	397.7	96.2	-10.2	2.00	2.00	0.00
2,013.0	31.26	13.60	1,936.6	404.3	97.8	-10.4	2.00	2.00	0.00
HOLD 31.26° INC									
2,100.0	31.26	13.60	2,011.0	448.1	108.4	-11.5	0.00	0.00	0.00
2,200.0	31.26	13.60	2,096.5	498.6	120.6	-12.8	0.00	0.00	0.00
2,300.0	31.26	13.60	2,181.9	549.0	132.8	-14.1	0.00	0.00	0.00
2,400.0	31.26	13.60	2,267.4	599.4	145.0	-15.4	0.00	0.00	0.00
2,500.0	31.26	13.60	2,352.9	649.9	157.2	-16.6	0.00	0.00	0.00
2,600.0	31.26	13.60	2,438.4	700.3	169.4	-17.9	0.00	0.00	0.00
2,700.0	31.26	13.60	2,523.9	750.8	181.6	-19.2	0.00	0.00	0.00
2,800.0	31.26	13.60	2,609.3	801.2	193.8	-20.5	0.00	0.00	0.00
2,900.0	31.26	13.60	2,694.8	851.6	206.0	-21.8	0.00	0.00	0.00
3,000.0	31.26	13.60	2,780.3	902.1	218.2	-23.1	0.00	0.00	0.00
3,100.0	31.26	13.60	2,865.8	952.5	230.4	-24.4	0.00	0.00	0.00
3,200.0	31.26	13.60	2,951.3	1,003.0	242.6	-25.7	0.00	0.00	0.00
3,300.0	31.26	13.60	3,036.8	1,053.4	254.8	-27.0	0.00	0.00	0.00
3,400.0	31.26	13.60	3,122.2	1,103.8	267.0	-28.3	0.00	0.00	0.00
3,500.0	31.26	13.60	3,207.7	1,154.3	279.2	-29.6	0.00	0.00	0.00
3,600.0	31.26	13.60	3,293.2	1,204.7	291.4	-30.9	0.00	0.00	0.00
3,700.0	31.26	13.60	3,378.7	1,255.1	303.6	-32.1	0.00	0.00	0.00
3,800.0	31.26	13.60	3,464.2	1,305.6	315.8	-33.4	0.00	0.00	0.00
3,900.0	31.26	13.60	3,549.6	1,356.0	328.0	-34.7	0.00	0.00	0.00
4,000.0	31.26	13.60	3,635.1	1,406.5	340.2	-36.0	0.00	0.00	0.00
4,100.0	31.26	13.60	3,720.6	1,456.9	352.4	-37.3	0.00	0.00	0.00
4,200.0	31.26	13.60	3,806.1	1,507.3	364.6	-38.6	0.00	0.00	0.00
4,233.8	31.26	13.60	3,835.0	1,524.4	368.7	-39.0	0.00	0.00	0.00
SUSSEX									
4,300.0	31.26	13.60	3,891.6	1,557.8	376.8	-39.9	0.00	0.00	0.00
4,400.0	31.26	13.60	3,977.1	1,608.2	388.9	-41.2	0.00	0.00	0.00
4,500.0	31.26	13.60	4,062.5	1,658.6	401.1	-42.5	0.00	0.00	0.00
4,600.0	31.26	13.60	4,148.0	1,709.1	413.3	-43.8	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
4,672.5	31.26	13.60	4,210.0	1,745.7	422.2	-44.7	0.00	0.00	0.00
<b>SHANNON</b>									
4,700.0	31.26	13.60	4,233.5	1,759.5	425.5	-45.1	0.00	0.00	0.00
4,800.0	31.26	13.60	4,319.0	1,810.0	437.7	-46.4	0.00	0.00	0.00
4,884.8	31.26	13.60	4,391.5	1,852.7	448.1	-47.4	0.00	0.00	0.00
<b>DROP 2°/100'</b>									
4,900.0	30.96	13.60	4,404.5	1,860.4	449.9	-47.6	2.00	-2.00	0.00
5,000.0	28.96	13.60	4,491.1	1,908.9	461.7	-48.9	2.00	-2.00	0.00
5,100.0	26.96	13.60	4,579.5	1,954.5	472.7	-50.1	2.00	-2.00	0.00
5,200.0	24.96	13.60	4,669.4	1,997.0	483.0	-51.1	2.00	-2.00	0.00
5,300.0	22.96	13.60	4,760.7	2,036.5	492.5	-52.2	2.00	-2.00	0.00
5,400.0	20.96	13.60	4,853.5	2,072.8	501.3	-53.1	2.00	-2.00	0.00
5,500.0	18.96	13.60	4,947.5	2,106.0	509.3	-53.9	2.00	-2.00	0.00
5,600.0	16.96	13.60	5,042.6	2,135.9	516.6	-54.7	2.00	-2.00	0.00
5,700.0	14.96	13.60	5,138.7	2,162.7	523.0	-55.4	2.00	-2.00	0.00
5,800.0	12.96	13.60	5,235.8	2,186.1	528.7	-56.0	2.00	-2.00	0.00
5,900.0	10.96	13.60	5,333.6	2,206.2	533.6	-56.5	2.00	-2.00	0.00
6,000.0	8.96	13.60	5,432.1	2,223.0	537.6	-56.9	2.00	-2.00	0.00
6,100.0	6.96	13.60	5,531.1	2,236.5	540.9	-57.3	2.00	-2.00	0.00
6,200.0	4.96	13.60	5,630.6	2,246.6	543.3	-57.5	2.00	-2.00	0.00
6,300.0	2.96	13.60	5,730.3	2,253.3	545.0	-57.7	2.00	-2.00	0.00
6,400.0	0.96	13.60	5,830.3	2,256.6	545.8	-57.8	2.00	-2.00	0.00
6,447.8	0.00	0.00	5,878.1	2,257.0	545.9	-57.8	2.00	-2.00	0.00
<b>HOLD VERTICAL</b>									
6,500.0	0.00	0.00	5,930.3	2,257.0	545.9	-57.8	0.00	0.00	0.00
6,547.8	0.00	0.00	5,978.1	2,257.0	545.9	-57.8	0.00	0.00	0.00
<b>KOP, BUILD 9°/100'</b>									
6,550.0	0.20	268.58	5,980.3	2,257.0	545.9	-57.8	9.00	9.00	0.00
6,600.0	4.69	268.58	6,030.2	2,256.9	543.7	-55.7	9.00	9.00	0.00
6,650.0	9.19	268.58	6,079.8	2,256.8	537.7	-49.9	9.00	9.00	0.00
6,700.0	13.69	268.58	6,128.8	2,256.6	527.8	-40.2	9.00	9.00	0.00
6,750.0	18.19	268.58	6,176.9	2,256.2	514.0	-26.9	9.00	9.00	0.00
6,800.0	22.69	268.58	6,223.7	2,255.8	496.6	-9.9	9.00	9.00	0.00
6,850.0	27.18	268.58	6,269.1	2,255.3	475.5	10.6	9.00	9.00	0.00
6,900.0	31.68	268.58	6,312.6	2,254.7	451.0	34.5	9.00	9.00	0.00
6,950.0	36.18	268.58	6,354.1	2,254.0	423.1	61.6	9.00	9.00	0.00
7,000.0	40.68	268.58	6,393.2	2,253.2	392.0	91.8	9.00	9.00	0.00
7,050.0	45.18	268.58	6,429.8	2,252.4	358.0	124.9	9.00	9.00	0.00
7,100.0	49.67	268.58	6,463.7	2,251.4	321.2	160.7	9.00	9.00	0.00
7,150.0	54.17	268.58	6,494.5	2,250.5	281.9	198.9	9.00	9.00	0.00
7,200.0	58.67	268.58	6,522.1	2,249.4	240.2	239.4	9.00	9.00	0.00
7,250.0	63.17	268.58	6,546.4	2,248.4	196.5	281.8	9.00	9.00	0.00
7,300.0	67.67	268.58	6,567.2	2,247.2	151.1	326.0	9.00	9.00	0.00
7,350.0	72.16	268.58	6,584.4	2,246.1	104.2	371.7	9.00	9.00	0.00
7,400.0	76.66	268.58	6,597.8	2,244.9	56.0	418.5	9.00	9.00	0.00
7,435.3	79.83	268.58	6,605.0	2,244.0	21.5	452.0	9.00	9.00	0.00
<b>NIORARA</b>									
7,450.0	81.16	268.58	6,607.4	2,243.7	7.0	466.1	9.00	9.00	0.00
7,500.0	85.66	268.58	6,613.2	2,242.5	-42.6	514.4	9.00	9.00	0.00
7,548.2	90.00	268.58	6,615.0	2,241.3	-90.8	561.3	9.00	9.00	0.00
<b>LP @ 90° INC</b>									
7,600.0	90.00	268.58	6,615.0	2,240.0	-142.6	611.6	0.00	0.00	0.00
7,700.0	90.00	268.58	6,615.0	2,237.5	-242.5	708.8	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
7,800.0	90.00	268.58	6,615.0	2,235.0	-342.5	806.0	0.00	0.00	0.00
7,900.0	90.00	268.58	6,615.0	2,232.5	-442.5	903.2	0.00	0.00	0.00
8,000.0	90.00	268.58	6,615.0	2,230.1	-542.4	1,000.4	0.00	0.00	0.00
8,100.0	90.00	268.57	6,615.0	2,227.6	-642.4	1,097.6	0.00	0.00	0.00
8,200.0	90.00	268.57	6,615.0	2,225.1	-742.4	1,194.8	0.00	0.00	0.00
8,300.0	90.00	268.57	6,615.0	2,222.6	-842.4	1,292.0	0.00	0.00	0.00
8,400.0	90.00	268.57	6,615.0	2,220.1	-942.3	1,389.2	0.00	0.00	0.00
8,500.0	90.00	268.57	6,615.0	2,217.6	-1,042.3	1,486.4	0.00	0.00	0.00
8,600.0	90.00	268.56	6,615.0	2,215.1	-1,142.3	1,583.5	0.00	0.00	0.00
8,700.0	90.00	268.56	6,615.0	2,212.6	-1,242.2	1,680.7	0.00	0.00	0.00
8,800.0	90.00	268.56	6,615.0	2,210.1	-1,342.2	1,777.9	0.00	0.00	0.00
8,900.0	90.00	268.56	6,615.0	2,207.6	-1,442.2	1,875.1	0.00	0.00	0.00
9,000.0	90.00	268.56	6,615.0	2,205.0	-1,542.1	1,972.3	0.00	0.00	0.00
9,100.0	90.00	268.56	6,615.0	2,202.5	-1,642.1	2,069.5	0.00	0.00	0.00
9,200.0	90.00	268.55	6,615.0	2,200.0	-1,742.1	2,166.7	0.00	0.00	0.00
9,300.0	90.00	268.55	6,615.0	2,197.5	-1,842.0	2,263.9	0.00	0.00	0.00
9,400.0	90.00	268.55	6,615.0	2,195.0	-1,942.0	2,361.1	0.00	0.00	0.00
9,500.0	90.00	268.55	6,615.0	2,192.4	-2,042.0	2,458.3	0.00	0.00	0.00
9,600.0	90.00	268.55	6,615.0	2,189.9	-2,141.9	2,555.4	0.00	0.00	0.00
9,700.0	90.00	268.54	6,615.0	2,187.3	-2,241.9	2,652.6	0.00	0.00	0.00
9,800.0	90.00	268.54	6,615.0	2,184.8	-2,341.9	2,749.8	0.00	0.00	0.00
9,900.0	90.00	268.54	6,615.0	2,182.3	-2,441.8	2,847.0	0.00	0.00	0.00
10,000.0	90.00	268.54	6,615.0	2,179.7	-2,541.8	2,944.2	0.00	0.00	0.00
10,100.0	90.00	268.54	6,615.0	2,177.2	-2,641.8	3,041.4	0.00	0.00	0.00
10,200.0	90.00	268.54	6,615.0	2,174.6	-2,741.7	3,138.6	0.00	0.00	0.00
10,300.0	90.00	268.53	6,615.0	2,172.1	-2,841.7	3,235.7	0.00	0.00	0.00
10,400.0	90.00	268.53	6,615.1	2,169.5	-2,941.7	3,332.9	0.00	0.00	0.00
10,500.0	90.00	268.53	6,615.1	2,166.9	-3,041.6	3,430.1	0.00	0.00	0.00
10,600.0	90.00	268.53	6,615.1	2,164.4	-3,141.6	3,527.3	0.00	0.00	0.00
10,700.0	90.00	268.53	6,615.1	2,161.8	-3,241.6	3,624.5	0.00	0.00	0.00
10,800.0	90.00	268.52	6,615.1	2,159.2	-3,341.5	3,721.6	0.00	0.00	0.00
10,900.0	90.00	268.52	6,615.1	2,156.6	-3,441.5	3,818.8	0.00	0.00	0.00
11,000.0	90.00	268.52	6,615.1	2,154.1	-3,541.5	3,916.0	0.00	0.00	0.00
11,100.0	90.00	268.52	6,615.1	2,151.5	-3,641.4	4,013.2	0.00	0.00	0.00
11,200.0	90.00	268.52	6,615.1	2,148.9	-3,741.4	4,110.3	0.00	0.00	0.00
11,300.0	90.00	268.52	6,615.1	2,146.3	-3,841.4	4,207.5	0.00	0.00	0.00
11,400.0	90.00	268.51	6,615.1	2,143.7	-3,941.3	4,304.7	0.00	0.00	0.00
11,500.0	90.00	268.51	6,615.1	2,141.1	-4,041.3	4,401.9	0.00	0.00	0.00
11,600.0	90.00	268.51	6,615.1	2,138.5	-4,141.3	4,499.0	0.00	0.00	0.00
11,700.0	90.00	268.51	6,615.1	2,135.9	-4,241.2	4,596.2	0.00	0.00	0.00
11,800.0	90.00	268.51	6,615.1	2,133.3	-4,341.2	4,693.4	0.00	0.00	0.00
11,900.0	90.00	268.50	6,615.1	2,130.7	-4,441.2	4,790.5	0.00	0.00	0.00
12,000.0	90.00	268.50	6,615.1	2,128.1	-4,541.1	4,887.7	0.00	0.00	0.00
12,100.0	90.00	268.50	6,615.1	2,125.5	-4,641.1	4,984.9	0.00	0.00	0.00
12,200.0	90.00	268.50	6,615.1	2,122.9	-4,741.1	5,082.0	0.00	0.00	0.00
12,300.0	90.00	268.50	6,615.1	2,120.2	-4,841.0	5,179.2	0.00	0.00	0.00
12,400.0	90.00	268.50	6,615.1	2,117.6	-4,941.0	5,276.4	0.00	0.00	0.00
12,500.0	90.00	268.49	6,615.1	2,115.0	-5,041.0	5,373.5	0.00	0.00	0.00
12,600.0	90.00	268.49	6,615.1	2,112.4	-5,140.9	5,470.7	0.00	0.00	0.00
12,700.0	90.00	268.49	6,615.1	2,109.7	-5,240.9	5,567.9	0.00	0.00	0.00
12,800.0	90.00	268.49	6,615.1	2,107.1	-5,340.9	5,665.0	0.00	0.00	0.00
12,900.0	90.00	268.49	6,615.1	2,104.4	-5,440.8	5,762.2	0.00	0.00	0.00
13,000.0	90.00	268.48	6,615.1	2,101.8	-5,540.8	5,859.4	0.00	0.00	0.00
13,100.0	90.00	268.48	6,615.1	2,099.2	-5,640.8	5,956.5	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)	
13,200.0	90.00	268.48	6,615.1	2,096.5	-5,740.7	6,053.7	0.00	0.00	0.00	
13,300.0	90.00	268.48	6,615.1	2,093.9	-5,840.7	6,150.8	0.00	0.00	0.00	
13,400.0	90.00	268.48	6,615.1	2,091.2	-5,940.7	6,248.0	0.00	0.00	0.00	
13,500.0	90.00	268.48	6,615.1	2,088.5	-6,040.6	6,345.2	0.00	0.00	0.00	
13,600.0	90.00	268.47	6,615.1	2,085.9	-6,140.6	6,442.3	0.00	0.00	0.00	
13,700.0	90.00	268.47	6,615.1	2,083.2	-6,240.6	6,539.5	0.00	0.00	0.00	
13,800.0	90.00	268.47	6,615.1	2,080.5	-6,340.5	6,636.6	0.00	0.00	0.00	
13,900.0	90.00	268.47	6,615.1	2,077.9	-6,440.5	6,733.8	0.00	0.00	0.00	
14,000.0	90.00	268.47	6,615.0	2,075.2	-6,540.4	6,830.9	0.00	0.00	0.00	
14,100.0	90.00	268.46	6,615.0	2,072.5	-6,640.4	6,928.1	0.00	0.00	0.00	
14,200.0	90.00	268.46	6,615.0	2,069.8	-6,740.4	7,025.2	0.00	0.00	0.00	
14,300.0	90.00	268.46	6,615.0	2,067.2	-6,840.3	7,122.4	0.00	0.00	0.00	
14,400.0	90.00	268.46	6,615.0	2,064.5	-6,940.3	7,219.5	0.00	0.00	0.00	
14,500.0	90.00	268.46	6,615.0	2,061.8	-7,040.3	7,316.7	0.00	0.00	0.00	
14,600.0	90.00	268.46	6,615.0	2,059.1	-7,140.2	7,413.8	0.00	0.00	0.00	
14,700.0	90.00	268.45	6,615.0	2,056.4	-7,240.2	7,511.0	0.00	0.00	0.00	
14,800.0	90.00	268.45	6,615.0	2,053.7	-7,340.2	7,608.1	0.00	0.00	0.00	
14,900.0	90.00	268.45	6,615.0	2,051.0	-7,440.1	7,705.3	0.00	0.00	0.00	
15,000.0	90.00	268.45	6,615.0	2,048.3	-7,540.1	7,802.4	0.00	0.00	0.00	
15,100.0	90.00	268.45	6,615.0	2,045.6	-7,640.0	7,899.6	0.00	0.00	0.00	
15,200.0	90.00	268.44	6,615.0	2,042.9	-7,740.0	7,996.7	0.00	0.00	0.00	
15,300.0	90.00	268.44	6,615.0	2,040.1	-7,840.0	8,093.9	0.00	0.00	0.00	
15,400.0	90.00	268.44	6,615.0	2,037.4	-7,939.9	8,191.0	0.00	0.00	0.00	
15,500.0	90.00	268.44	6,615.0	2,034.7	-8,039.9	8,288.1	0.00	0.00	0.00	
15,600.0	90.00	268.44	6,615.0	2,032.0	-8,139.9	8,385.3	0.00	0.00	0.00	
15,700.0	90.00	268.44	6,615.0	2,029.2	-8,239.8	8,482.4	0.00	0.00	0.00	
15,800.0	90.00	268.43	6,615.0	2,026.5	-8,339.8	8,579.6	0.00	0.00	0.00	
15,900.0	90.00	268.43	6,615.0	2,023.8	-8,439.7	8,676.7	0.00	0.00	0.00	
16,000.0	90.00	268.43	6,615.0	2,021.0	-8,539.7	8,773.9	0.00	0.00	0.00	
16,100.0	90.00	268.43	6,615.0	2,018.3	-8,639.7	8,871.0	0.00	0.00	0.00	
16,200.0	90.00	268.43	6,615.0	2,015.5	-8,739.6	8,968.1	0.00	0.00	0.00	
16,300.0	90.00	268.42	6,615.0	2,012.8	-8,839.6	9,065.3	0.00	0.00	0.00	
16,400.0	90.00	268.42	6,615.0	2,010.0	-8,939.6	9,162.4	0.00	0.00	0.00	
16,500.0	90.00	268.42	6,615.0	2,007.3	-9,039.5	9,259.5	0.00	0.00	0.00	
16,600.0	90.00	268.42	6,615.0	2,004.5	-9,139.5	9,356.7	0.00	0.00	0.00	
16,700.0	90.00	268.42	6,615.0	2,001.8	-9,239.4	9,453.8	0.00	0.00	0.00	
16,737.4	90.00	268.42	6,615.0	2,000.7	-9,276.9	9,490.2	0.00	0.00	0.00	
TD at 16737.4' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
WALT 17W-20-1N-LP - hit/miss target - Shape - Point	0.00	0.00	6,615.0	2,241.3	-90.8	1,455,242.61	3,164,051.52	40° 34' 53.544 N	104° 54' 33.775 W	
WALT 17W-20-1N-PBHL - plan hits target center - Point	0.00	0.00	6,615.0	2,000.7	-9,276.9	1,454,940.88	3,154,867.29	40° 34' 51.150 N	104° 56' 32.831 W	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-1N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 5105.0usft
<b>Project:</b>	Weld County	<b>MD Reference:</b>	KB 25' @ 5105.0usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,233.8	3,835.0	SUSSEX			
4,672.5	4,210.0	SHANNON			
7,435.3	6,605.0	NIOBRARA			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
450.0	450.0	0.0	0.0	BUILD 2°/100'
2,013.0	1,936.6	404.3	97.8	HOLD 31.26° INC
4,884.8	4,391.5	1,852.7	448.1	DROP 2°/100'
6,447.8	5,878.1	2,257.0	545.9	HOLD VERTICAL
6,547.8	5,978.1	2,257.0	545.9	KOP, BUILD 9°/100'
7,548.2	6,615.0	2,241.3	-90.8	LP @ 90° INC
16,737.4	6,615.0	2,000.7	-9,276.9	TD at 16737.4' MD