

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 17-T7N-R67W**

**WALT 17W-20-10C**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**16 August, 2018**



Project: WELD COUNTY  
Site: Sec 17-T7N-R67W  
Well: WALT 17W-20-10C  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL 1



Azimuths to True North  
Magnetic North: 8.18°

Magnetic Field  
Strength: 52333.0nT  
Dip Angle: 66.94°  
Date: 8/15/2018  
Model: IGRF2015

#### WELL DETAILS: WALT 17W-20-10C

+N/-S	+E/-W	Northing	Easting	5106.00	Latitude	Longitude	Slot
0.00	0.00	1453058.11	3164157.46	40° 34'	31.951° N	104° 54'	32.591° W

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1234.21	16.68	164.48	1222.47	-116.20	32.28	2.00	164.48	-6.82	
4	6552.33	16.68	164.48	6316.70	-1587.33	440.89	0.00	0.00	-93.18	
5	7492.08	90.00	268.45	6905.00	-1773.83	-125.85	10.00	103.41	500.27	WALT 17W-10C - LP
6	16656.56	90.00	268.45	6905.00	-2021.63	-9286.98	0.00	0.00	9504.47	WALT 17W-10C - P

#### ANNOTATIONS

+N/-S	+E/-W	Vsect	Departure	Annotation
0.00	0.00	0.00	0.00	Start Build 2.00
-116.20	32.28	-6.82	120.60	Start 5318.11 hold at 1234.21 MD
-1587.33	440.89	-93.18	1647.42	Start DLS 10.00 TFO 103.41
-1773.83	-125.85	500.27	2281.36	Start 9164.48 hold at 7492.08 MD
-2021.63	-9286.98	9504.47	11445.84	TD at 16656.56

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT 17W-10C - LP	6905.00	-1773.83	-125.85	1451283.48	3164043.44	40° 34'	14.423° N	104° 54'
- plan hits target center								Point
WALT 17W-10C - PBHL	6905.00	-2021.63	-9286.98	1450974.63	3154884.17	40° 34'	11.957° N	104° 56'
- plan hits target center								Point

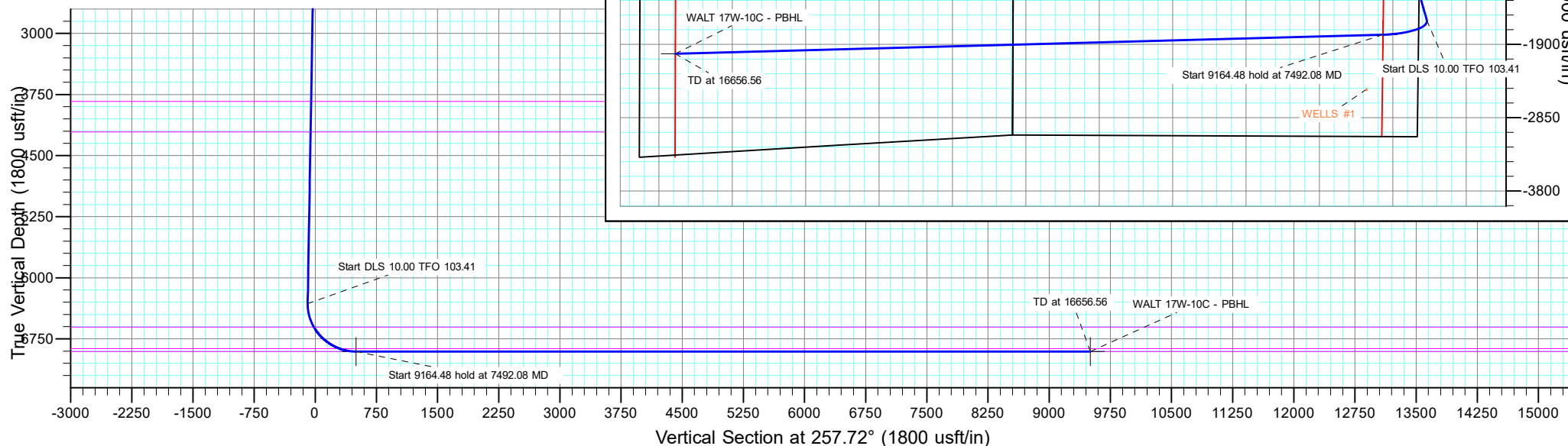
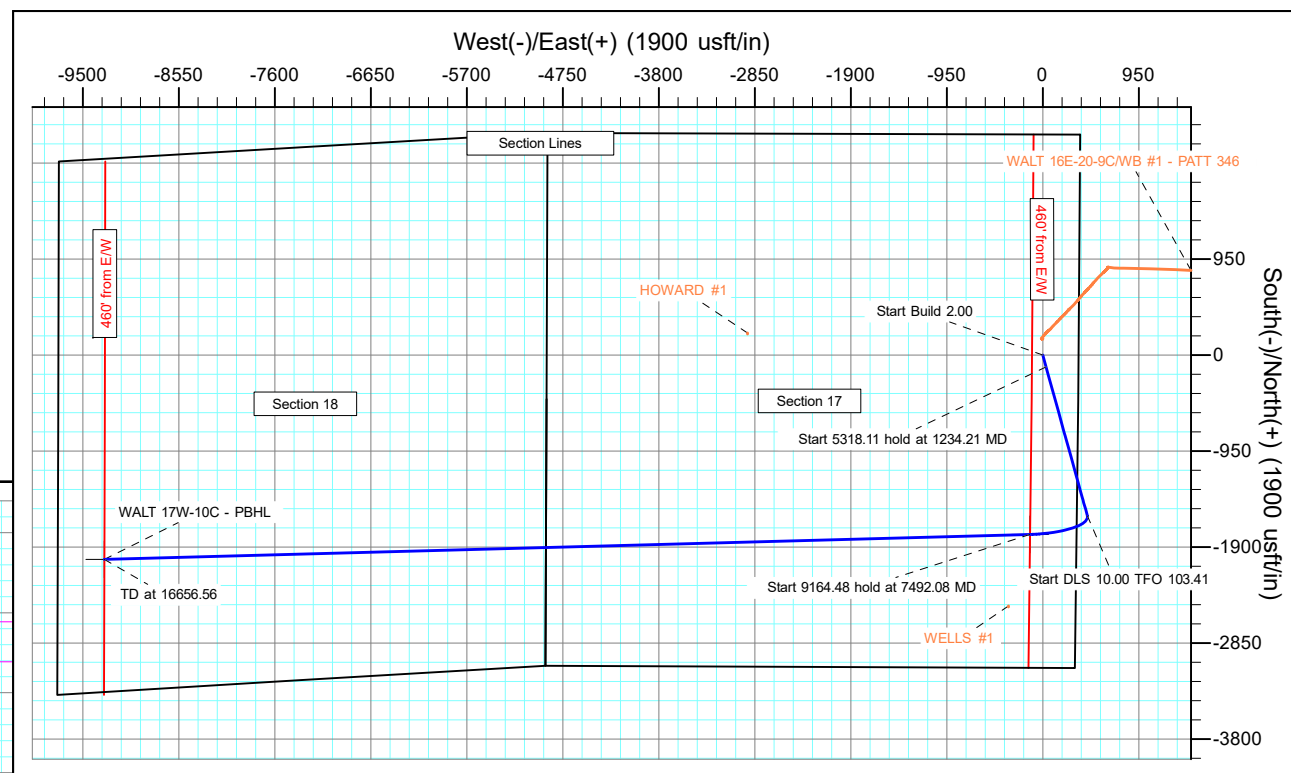
#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3835.00	3961.56	SUSSEX
4210.00	4353.04	SHANNON
6605.00	6862.54	NIOBRARA
6870.00	7286.60	FORT HAYS
6905.00	7492.08	CODELL

#### 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:  
2185' FNL, 354' FEL  
Sec 17-T7N-R67W  
LP:  
1321' FSL, 460' FEL  
Sec 17-T7N-R67W  
BHL:  
1310' FSL, 460' FWL  
Sec 18-T7N-R67W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-10C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5135.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	WALT 17W-20-10C					
Well Position	+N/-S	-2,183.70 usft	Northing:	1,453,058.11 usft	Latitude:	40° 34' 31.951 N
	+E/-W	-368.63 usft	Easting:	3,164,157.47 usft	Longitude:	104° 54' 32.591 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,106.00 usft

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	8/15/2018	8.18	66.94	52,332.98527827

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	257.72

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/16/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,656.56	PROPOSAL 1 (ORIGINAL WELL	MWD OWSG
			OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,234.21	16.68	164.48	1,222.47	-116.20	32.28	2.00	2.00	0.00	164.48	
6,552.33	16.68	164.48	6,316.70	-1,587.33	440.89	0.00	0.00	0.00	0.00	
7,492.08	90.00	268.45	6,905.00	-1,773.83	-125.85	10.00	7.80	11.06	103.41	WALT 17W-10C - LP
16,656.56	90.00	268.45	6,905.00	-2,021.63	-9,286.98	0.00	0.00	0.00	0.00	WALT 17W-10C - PBI

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-10C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5135.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
500.00	2.00	164.48	499.98	-1.68	0.47	-0.10	2.00	2.00	0.00
600.00	4.00	164.48	599.84	-6.72	1.87	-0.39	2.00	2.00	0.00
700.00	6.00	164.48	699.45	-15.12	4.20	-0.89	2.00	2.00	0.00
800.00	8.00	164.48	798.70	-26.86	7.46	-1.58	2.00	2.00	0.00
900.00	10.00	164.48	897.47	-41.94	11.65	-2.46	2.00	2.00	0.00
1,000.00	12.00	164.48	995.62	-60.32	16.75	-3.54	2.00	2.00	0.00
1,100.00	14.00	164.48	1,093.06	-81.99	22.77	-4.81	2.00	2.00	0.00
1,200.00	16.00	164.48	1,189.64	-106.93	29.70	-6.28	2.00	2.00	0.00
1,234.21	16.68	164.48	1,222.47	-116.20	32.28	-6.82	2.00	2.00	0.00
Start 5318.11 hold at 1234.21 MD									
1,300.00	16.68	164.48	1,285.49	-134.40	37.33	-7.89	0.00	0.00	0.00
1,400.00	16.68	164.48	1,381.28	-162.07	45.02	-9.51	0.00	0.00	0.00
1,500.00	16.68	164.48	1,477.07	-189.73	52.70	-11.14	0.00	0.00	0.00
1,600.00	16.68	164.48	1,572.86	-217.39	60.38	-12.76	0.00	0.00	0.00
1,700.00	16.68	164.48	1,668.65	-245.05	68.07	-14.38	0.00	0.00	0.00
1,800.00	16.68	164.48	1,764.44	-272.72	75.75	-16.01	0.00	0.00	0.00
1,900.00	16.68	164.48	1,860.23	-300.38	83.43	-17.63	0.00	0.00	0.00
2,000.00	16.68	164.48	1,956.02	-328.04	91.12	-19.26	0.00	0.00	0.00
2,100.00	16.68	164.48	2,051.81	-355.70	98.80	-20.88	0.00	0.00	0.00
2,200.00	16.68	164.48	2,147.60	-383.37	106.48	-22.50	0.00	0.00	0.00
2,300.00	16.68	164.48	2,243.39	-411.03	114.17	-24.13	0.00	0.00	0.00
2,400.00	16.68	164.48	2,339.18	-438.69	121.85	-25.75	0.00	0.00	0.00
2,500.00	16.68	164.48	2,434.97	-466.35	129.53	-27.37	0.00	0.00	0.00
2,600.00	16.68	164.48	2,530.76	-494.02	137.22	-29.00	0.00	0.00	0.00
2,700.00	16.68	164.48	2,626.55	-521.68	144.90	-30.62	0.00	0.00	0.00
2,800.00	16.68	164.48	2,722.34	-549.34	152.58	-32.25	0.00	0.00	0.00
2,900.00	16.68	164.48	2,818.13	-577.00	160.27	-33.87	0.00	0.00	0.00
3,000.00	16.68	164.48	2,913.92	-604.67	167.95	-35.49	0.00	0.00	0.00
3,100.00	16.68	164.48	3,009.71	-632.33	175.63	-37.12	0.00	0.00	0.00
3,200.00	16.68	164.48	3,105.50	-659.99	183.32	-38.74	0.00	0.00	0.00
3,300.00	16.68	164.48	3,201.29	-687.65	191.00	-40.36	0.00	0.00	0.00
3,400.00	16.68	164.48	3,297.08	-715.32	198.69	-41.99	0.00	0.00	0.00
3,500.00	16.68	164.48	3,392.87	-742.98	206.37	-43.61	0.00	0.00	0.00
3,600.00	16.68	164.48	3,488.66	-770.64	214.05	-45.24	0.00	0.00	0.00
3,700.00	16.68	164.48	3,584.45	-798.30	221.74	-46.86	0.00	0.00	0.00
3,800.00	16.68	164.48	3,680.24	-825.97	229.42	-48.48	0.00	0.00	0.00
3,900.00	16.68	164.48	3,776.03	-853.63	237.10	-50.11	0.00	0.00	0.00
3,961.56	16.68	164.48	3,835.00	-870.66	241.83	-51.11	0.00	0.00	0.00
SUSSEX									
4,000.00	16.68	164.48	3,871.82	-881.29	244.79	-51.73	0.00	0.00	0.00
4,100.00	16.68	164.48	3,967.61	-908.95	252.47	-53.36	0.00	0.00	0.00
4,200.00	16.68	164.48	4,063.40	-936.62	260.15	-54.98	0.00	0.00	0.00
4,300.00	16.68	164.48	4,159.19	-964.28	267.84	-56.60	0.00	0.00	0.00
4,353.04	16.68	164.48	4,210.00	-978.95	271.91	-57.46	0.00	0.00	0.00
SHANNON									
4,400.00	16.68	164.48	4,254.98	-991.94	275.52	-58.23	0.00	0.00	0.00
4,500.00	16.68	164.48	4,350.77	-1,019.60	283.20	-59.85	0.00	0.00	0.00

# Planning Report

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<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<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)
4,600.00	16.68	164.48	4,446.56	-1,047.27	290.89	-61.47	0.00	0.00	0.00
4,700.00	16.68	164.48	4,542.35	-1,074.93	298.57	-63.10	0.00	0.00	0.00
4,800.00	16.68	164.48	4,638.14	-1,102.59	306.25	-64.72	0.00	0.00	0.00
4,900.00	16.68	164.48	4,733.94	-1,130.26	313.94	-66.35	0.00	0.00	0.00
5,000.00	16.68	164.48	4,829.73	-1,157.92	321.62	-67.97	0.00	0.00	0.00
5,100.00	16.68	164.48	4,925.52	-1,185.58	329.31	-69.59	0.00	0.00	0.00
5,200.00	16.68	164.48	5,021.31	-1,213.24	336.99	-71.22	0.00	0.00	0.00
5,300.00	16.68	164.48	5,117.10	-1,240.91	344.67	-72.84	0.00	0.00	0.00
5,400.00	16.68	164.48	5,212.89	-1,268.57	352.36	-74.46	0.00	0.00	0.00
5,500.00	16.68	164.48	5,308.68	-1,296.23	360.04	-76.09	0.00	0.00	0.00
5,600.00	16.68	164.48	5,404.47	-1,323.89	367.72	-77.71	0.00	0.00	0.00
5,700.00	16.68	164.48	5,500.26	-1,351.56	375.41	-79.34	0.00	0.00	0.00
5,800.00	16.68	164.48	5,596.05	-1,379.22	383.09	-80.96	0.00	0.00	0.00
5,900.00	16.68	164.48	5,691.84	-1,406.88	390.77	-82.58	0.00	0.00	0.00
6,000.00	16.68	164.48	5,787.63	-1,434.54	398.46	-84.21	0.00	0.00	0.00
6,100.00	16.68	164.48	5,883.42	-1,462.21	406.14	-85.83	0.00	0.00	0.00
6,200.00	16.68	164.48	5,979.21	-1,489.87	413.82	-87.45	0.00	0.00	0.00
6,300.00	16.68	164.48	6,075.00	-1,517.53	421.51	-89.08	0.00	0.00	0.00
6,400.00	16.68	164.48	6,170.79	-1,545.19	429.19	-90.70	0.00	0.00	0.00
6,500.00	16.68	164.48	6,266.58	-1,572.86	436.87	-92.33	0.00	0.00	0.00
6,552.33	16.68	164.48	6,316.70	-1,587.33	440.89	-93.18	0.00	0.00	0.00
Start DLS 10.00 TFO 103.41									
6,600.00	16.24	181.28	6,362.45	-1,600.60	442.58	-92.00	10.00	-0.94	35.26
6,650.00	17.19	198.41	6,410.36	-1,614.60	440.09	-86.58	10.00	1.92	34.26
6,700.00	19.40	212.77	6,457.86	-1,628.61	433.25	-76.93	10.00	4.41	28.71
6,750.00	22.49	223.81	6,504.57	-1,642.50	422.13	-63.11	10.00	6.18	22.09
6,800.00	26.15	232.12	6,550.14	-1,656.17	406.81	-45.23	10.00	7.32	16.61
6,850.00	30.17	238.43	6,594.22	-1,669.52	387.40	-23.42	10.00	8.05	12.62
6,862.54	31.22	239.77	6,605.00	-1,672.81	381.91	-17.36	10.00	8.37	10.72
NIOBRARA									
6,900.00	34.43	243.34	6,636.48	-1,682.45	364.05	2.15	10.00	8.57	9.53
6,950.00	38.84	247.28	6,676.60	-1,694.86	336.94	31.28	10.00	8.83	7.87
7,000.00	43.37	250.52	6,714.27	-1,706.65	306.27	63.75	10.00	9.05	6.48
7,050.00	47.97	253.25	6,749.20	-1,717.73	272.28	99.32	10.00	9.20	5.47
7,100.00	52.63	255.62	6,781.14	-1,728.02	235.23	137.71	10.00	9.32	4.73
7,150.00	57.33	257.70	6,809.82	-1,737.45	195.40	178.63	10.00	9.40	4.17
7,200.00	62.06	259.58	6,835.05	-1,745.93	153.09	221.78	10.00	9.46	3.75
7,250.00	66.81	261.29	6,856.62	-1,753.41	108.62	266.82	10.00	9.51	3.44
7,286.60	70.30	262.47	6,870.00	-1,758.22	74.90	300.79	10.00	9.54	3.22
FORT HAYS									
7,300.00	71.58	262.89	6,874.37	-1,759.83	62.34	313.41	10.00	9.55	3.13
7,350.00	76.37	264.41	6,888.17	-1,765.13	14.59	361.19	10.00	9.57	3.03
7,400.00	81.16	265.86	6,897.91	-1,769.29	-34.26	409.81	10.00	9.59	2.90
7,450.00	85.96	267.27	6,903.52	-1,772.26	-83.84	458.88	10.00	9.60	2.83
7,492.08	90.00	268.45	6,905.00	-1,773.83	-125.85	500.27	10.00	9.60	2.80
Start 9164.48 hold at 7492.08 MD - CODELL									
7,500.00	90.00	268.45	6,905.00	-1,774.04	-133.77	508.05	0.00	0.00	0.00
7,600.00	90.00	268.45	6,905.00	-1,776.75	-233.73	606.30	0.00	0.00	0.00
7,700.00	90.00	268.45	6,905.00	-1,779.45	-333.69	704.55	0.00	0.00	0.00
7,800.00	90.00	268.45	6,905.00	-1,782.15	-433.66	802.80	0.00	0.00	0.00
7,900.00	90.00	268.45	6,905.00	-1,784.86	-533.62	901.06	0.00	0.00	0.00
8,000.00	90.00	268.45	6,905.00	-1,787.56	-633.58	999.31	0.00	0.00	0.00
8,100.00	90.00	268.45	6,905.00	-1,790.27	-733.55	1,097.56	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-10C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5135.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<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)	
8,200.00	90.00	268.45	6,905.00	-1,792.97	-833.51	1,195.81	0.00	0.00	0.00	
8,300.00	90.00	268.45	6,905.00	-1,795.67	-933.48	1,294.06	0.00	0.00	0.00	
8,400.00	90.00	268.45	6,905.00	-1,798.38	-1,033.44	1,392.31	0.00	0.00	0.00	
8,500.00	90.00	268.45	6,905.00	-1,801.08	-1,133.40	1,490.56	0.00	0.00	0.00	
8,600.00	90.00	268.45	6,905.00	-1,803.79	-1,233.37	1,588.81	0.00	0.00	0.00	
8,700.00	90.00	268.45	6,905.00	-1,806.49	-1,333.33	1,687.06	0.00	0.00	0.00	
8,800.00	90.00	268.45	6,905.00	-1,809.19	-1,433.29	1,785.32	0.00	0.00	0.00	
8,900.00	90.00	268.45	6,905.00	-1,811.90	-1,533.26	1,883.57	0.00	0.00	0.00	
9,000.00	90.00	268.45	6,905.00	-1,814.60	-1,633.22	1,981.82	0.00	0.00	0.00	
9,100.00	90.00	268.45	6,905.00	-1,817.31	-1,733.18	2,080.07	0.00	0.00	0.00	
9,200.00	90.00	268.45	6,905.00	-1,820.01	-1,833.15	2,178.32	0.00	0.00	0.00	
9,300.00	90.00	268.45	6,905.00	-1,822.71	-1,933.11	2,276.57	0.00	0.00	0.00	
9,400.00	90.00	268.45	6,905.00	-1,825.42	-2,033.07	2,374.82	0.00	0.00	0.00	
9,500.00	90.00	268.45	6,905.00	-1,828.12	-2,133.04	2,473.07	0.00	0.00	0.00	
9,600.00	90.00	268.45	6,905.00	-1,830.83	-2,233.00	2,571.32	0.00	0.00	0.00	
9,700.00	90.00	268.45	6,905.00	-1,833.53	-2,332.96	2,669.58	0.00	0.00	0.00	
9,800.00	90.00	268.45	6,905.00	-1,836.23	-2,432.93	2,767.83	0.00	0.00	0.00	
9,900.00	90.00	268.45	6,905.00	-1,838.94	-2,532.89	2,866.08	0.00	0.00	0.00	
10,000.00	90.00	268.45	6,905.00	-1,841.64	-2,632.85	2,964.33	0.00	0.00	0.00	
10,100.00	90.00	268.45	6,905.00	-1,844.35	-2,732.82	3,062.58	0.00	0.00	0.00	
10,200.00	90.00	268.45	6,905.00	-1,847.05	-2,832.78	3,160.83	0.00	0.00	0.00	
10,300.00	90.00	268.45	6,905.00	-1,849.75	-2,932.74	3,259.08	0.00	0.00	0.00	
10,400.00	90.00	268.45	6,905.00	-1,852.46	-3,032.71	3,357.33	0.00	0.00	0.00	
10,500.00	90.00	268.45	6,905.00	-1,855.16	-3,132.67	3,455.58	0.00	0.00	0.00	
10,600.00	90.00	268.45	6,905.00	-1,857.87	-3,232.63	3,553.84	0.00	0.00	0.00	
10,700.00	90.00	268.45	6,905.00	-1,860.57	-3,332.60	3,652.09	0.00	0.00	0.00	
10,800.00	90.00	268.45	6,905.00	-1,863.27	-3,432.56	3,750.34	0.00	0.00	0.00	
10,900.00	90.00	268.45	6,905.00	-1,865.98	-3,532.52	3,848.59	0.00	0.00	0.00	
11,000.00	90.00	268.45	6,905.00	-1,868.68	-3,632.49	3,946.84	0.00	0.00	0.00	
11,100.00	90.00	268.45	6,905.00	-1,871.39	-3,732.45	4,045.09	0.00	0.00	0.00	
11,200.00	90.00	268.45	6,905.00	-1,874.09	-3,832.41	4,143.34	0.00	0.00	0.00	
11,300.00	90.00	268.45	6,905.00	-1,876.79	-3,932.38	4,241.59	0.00	0.00	0.00	
11,400.00	90.00	268.45	6,905.00	-1,879.50	-4,032.34	4,339.84	0.00	0.00	0.00	
11,500.00	90.00	268.45	6,905.00	-1,882.20	-4,132.31	4,438.10	0.00	0.00	0.00	
11,600.00	90.00	268.45	6,905.00	-1,884.90	-4,232.27	4,536.35	0.00	0.00	0.00	
11,700.00	90.00	268.45	6,905.00	-1,887.61	-4,332.23	4,634.60	0.00	0.00	0.00	
11,800.00	90.00	268.45	6,905.00	-1,890.31	-4,432.20	4,732.85	0.00	0.00	0.00	
11,900.00	90.00	268.45	6,905.00	-1,893.02	-4,532.16	4,831.10	0.00	0.00	0.00	
12,000.00	90.00	268.45	6,905.00	-1,895.72	-4,632.12	4,929.35	0.00	0.00	0.00	
12,100.00	90.00	268.45	6,905.00	-1,898.42	-4,732.09	5,027.60	0.00	0.00	0.00	
12,200.00	90.00	268.45	6,905.00	-1,901.13	-4,832.05	5,125.85	0.00	0.00	0.00	
12,300.00	90.00	268.45	6,905.00	-1,903.83	-4,932.01	5,224.10	0.00	0.00	0.00	
12,400.00	90.00	268.45	6,905.00	-1,906.54	-5,031.98	5,322.36	0.00	0.00	0.00	
12,500.00	90.00	268.45	6,905.00	-1,909.24	-5,131.94	5,420.61	0.00	0.00	0.00	
12,600.00	90.00	268.45	6,905.00	-1,911.94	-5,231.90	5,518.86	0.00	0.00	0.00	
12,700.00	90.00	268.45	6,905.00	-1,914.65	-5,331.87	5,617.11	0.00	0.00	0.00	
12,800.00	90.00	268.45	6,905.00	-1,917.35	-5,431.83	5,715.36	0.00	0.00	0.00	
12,900.00	90.00	268.45	6,905.00	-1,920.06	-5,531.79	5,813.61	0.00	0.00	0.00	
13,000.00	90.00	268.45	6,905.00	-1,922.76	-5,631.76	5,911.86	0.00	0.00	0.00	
13,100.00	90.00	268.45	6,905.00	-1,925.46	-5,731.72	6,010.11	0.00	0.00	0.00	
13,200.00	90.00	268.45	6,905.00	-1,928.17	-5,831.68	6,108.36	0.00	0.00	0.00	
13,300.00	90.00	268.45	6,905.00	-1,930.87	-5,931.65	6,206.62	0.00	0.00	0.00	
13,400.00	90.00	268.45	6,905.00	-1,933.58	-6,031.61	6,304.87	0.00	0.00	0.00	
13,500.00	90.00	268.45	6,905.00	-1,936.28	-6,131.57	6,403.12	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-10C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5135.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<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)	
13,600.00	90.00	268.45	6,905.00	-1,938.98	-6,231.54	6,501.37	0.00	0.00	0.00	
13,700.00	90.00	268.45	6,905.00	-1,941.69	-6,331.50	6,599.62	0.00	0.00	0.00	
13,800.00	90.00	268.45	6,905.00	-1,944.39	-6,431.46	6,697.87	0.00	0.00	0.00	
13,900.00	90.00	268.45	6,905.00	-1,947.10	-6,531.43	6,796.12	0.00	0.00	0.00	
14,000.00	90.00	268.45	6,905.00	-1,949.80	-6,631.39	6,894.37	0.00	0.00	0.00	
14,100.00	90.00	268.45	6,905.00	-1,952.50	-6,731.35	6,992.62	0.00	0.00	0.00	
14,200.00	90.00	268.45	6,905.00	-1,955.21	-6,831.32	7,090.87	0.00	0.00	0.00	
14,300.00	90.00	268.45	6,905.00	-1,957.91	-6,931.28	7,189.13	0.00	0.00	0.00	
14,400.00	90.00	268.45	6,905.00	-1,960.62	-7,031.24	7,287.38	0.00	0.00	0.00	
14,500.00	90.00	268.45	6,905.00	-1,963.32	-7,131.21	7,385.63	0.00	0.00	0.00	
14,600.00	90.00	268.45	6,905.00	-1,966.02	-7,231.17	7,483.88	0.00	0.00	0.00	
14,700.00	90.00	268.45	6,905.00	-1,968.73	-7,331.14	7,582.13	0.00	0.00	0.00	
14,800.00	90.00	268.45	6,905.00	-1,971.43	-7,431.10	7,680.38	0.00	0.00	0.00	
14,900.00	90.00	268.45	6,905.00	-1,974.14	-7,531.06	7,778.63	0.00	0.00	0.00	
15,000.00	90.00	268.45	6,905.00	-1,976.84	-7,631.03	7,876.88	0.00	0.00	0.00	
15,100.00	90.00	268.45	6,905.00	-1,979.54	-7,730.99	7,975.13	0.00	0.00	0.00	
15,200.00	90.00	268.45	6,905.00	-1,982.25	-7,830.95	8,073.39	0.00	0.00	0.00	
15,300.00	90.00	268.45	6,905.00	-1,984.95	-7,930.92	8,171.64	0.00	0.00	0.00	
15,400.00	90.00	268.45	6,905.00	-1,987.66	-8,030.88	8,269.89	0.00	0.00	0.00	
15,500.00	90.00	268.45	6,905.00	-1,990.36	-8,130.84	8,368.14	0.00	0.00	0.00	
15,600.00	90.00	268.45	6,905.00	-1,993.06	-8,230.81	8,466.39	0.00	0.00	0.00	
15,700.00	90.00	268.45	6,905.00	-1,995.77	-8,330.77	8,564.64	0.00	0.00	0.00	
15,800.00	90.00	268.45	6,905.00	-1,998.47	-8,430.73	8,662.89	0.00	0.00	0.00	
15,900.00	90.00	268.45	6,905.00	-2,001.18	-8,530.70	8,761.14	0.00	0.00	0.00	
16,000.00	90.00	268.45	6,905.00	-2,003.88	-8,630.66	8,859.39	0.00	0.00	0.00	
16,100.00	90.00	268.45	6,905.00	-2,006.58	-8,730.62	8,957.65	0.00	0.00	0.00	
16,200.00	90.00	268.45	6,905.00	-2,009.29	-8,830.59	9,055.90	0.00	0.00	0.00	
16,300.00	90.00	268.45	6,905.00	-2,011.99	-8,930.55	9,154.15	0.00	0.00	0.00	
16,400.00	90.00	268.45	6,905.00	-2,014.69	-9,030.51	9,252.40	0.00	0.00	0.00	
16,500.00	90.00	268.45	6,905.00	-2,017.40	-9,130.48	9,350.65	0.00	0.00	0.00	
16,600.00	90.00	268.45	6,905.00	-2,020.10	-9,230.44	9,448.90	0.00	0.00	0.00	
16,656.56	90.00	268.45	6,905.00	-2,021.63	-9,286.98	9,504.47	0.00	0.00	0.00	
TD at 16656.56										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
WALT 17W-10C - PBHL - hit/miss target - Shape - Point	0.00	0.00	6,905.00	-2,021.63	-9,286.98	1,450,974.63	3,154,884.17	40° 34' 11.957 N	104° 56' 32.935 W	
WALT 17W-10C - LP - plan hits target center - Point	0.00	0.00	6,905.00	-1,773.83	-125.85	1,451,283.48	3,164,043.44	40° 34' 14.423 N	104° 54' 34.222 W	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well WALT 17W-20-10C
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5135.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5135.00usft
<b>Site:</b>	Sec 17-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	WALT 17W-20-10C	<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 (°)	
3,961.56	3,835.00	SUSSEX				
4,353.04	4,210.00	SHANNON				
6,862.54	6,605.00	NIOBRARA				
7,286.60	6,870.00	FORT HAYS				
7,492.08	6,905.00	CODELL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
400.00	400.00	0.00	0.00	Start Build 2.00	
1,234.21	1,222.47	-116.20	32.28	Start 5318.11 hold at 1234.21 MD	
6,552.33	6,316.70	-1,587.33	440.89	Start DLS 10.00 TFO 103.41	
7,492.08	6,905.00	-1,773.83	-125.85	Start 9164.48 hold at 7492.08 MD	
16,656.56	6,905.00	-2,021.63	-9,286.98	TD at 16656.56	