

EXTRACTION OIL & GAS

WELD COUNTY

Sec 17-T7N-R67W

WALT 17W-20-8N

ORIGINAL WELLBORE

Plan: PROPOSAL 1

Standard Planning Report

16 August, 2018



Project: WELD COUNTY
Site: Sec 17-T7N-R67W
Well: WALT 17W-20-8N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.18°

Magnetic Field
Strength: 52333.1snT
Dip Angle: 66.94°
Date: 8/15/2018
Model: IGRF2015

WELL DETAILS: WALT 17W-20-8N

+N/-S	+E/-W	Northing	Easting	5105.00	Latitude	Longitude	Slot
0.00	0.00	1453114.22	3164157.65	40° 34' 32.506 N	104° 54' 32.584 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	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
3	1122.95	10.46	151.52	1120.05	-41.84	22.70	2.00	151.52	-17.17	
4	6088.55	10.46	151.52	6003.14	-834.16	452.55	0.00	0.00	-342.26	
5	7035.73	90.00	268.46	6615.00	-950.12	-115.56	10.00	116.56	236.01	WALT 17W-8N - LP
6	16208.16	90.00	268.46	6615.00	-1196.11	-9284.70	0.00	0.00	9361.43	WALT 17W-8N - PB

ANNOTATIONS

+N/-S	+E/-W	Vsect	Departure	Annotation
0.00	0.00	0.00	0.00	Start Build 2.00
-41.84	22.70	-17.17	47.60	Start 4965.60 hold at 1122.95 MD
-834.16	452.55	-342.26	949.01	Start DLS 10.00 TFO 116.56
-950.12	-115.56	236.01	1551.00	Start 9172.43 hold at 7035.73 MD
-1196.11	-9284.70	9361.43	10723.43	TD at 16208.16

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WALT 17W-8N - LP	6615.00	-950.12	-115.56	1452163.35	3164048.42	40° 34' 23.117 N	104° 54' 34.081 W	Point
- plan hits target center								
WALT 17W-8N - PBHL	6615.00	-1196.11	-9284.70	1451856.26	3154881.12	40° 34' 20.669 N	104° 56' 32.903 W	Point
- plan hits target center								

FORMATION TOP DETAILS

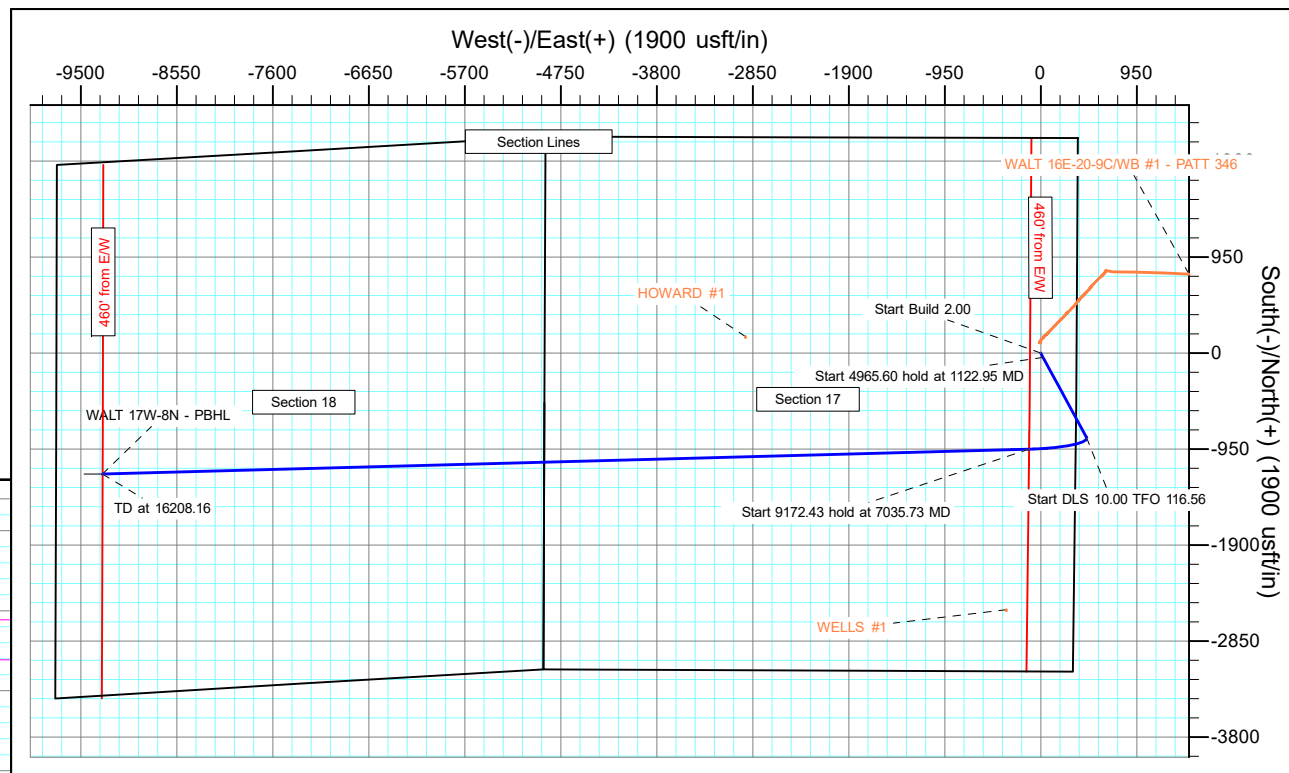
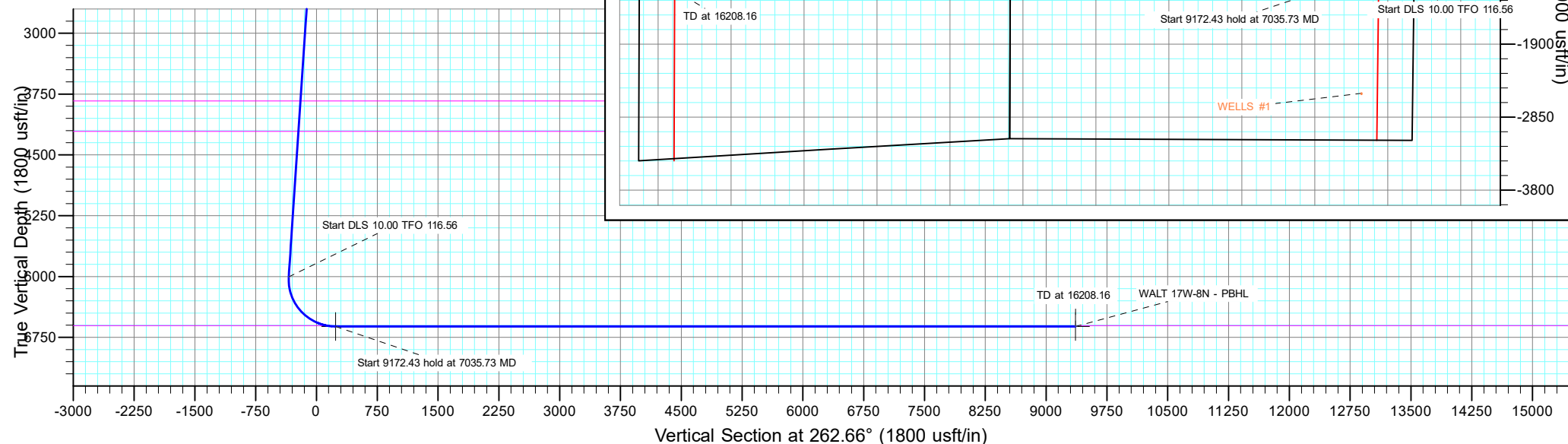
TVDPath	MDPath	Formation
3835.00	3883.77	SUSSEX
4210.00	4265.11	SHANNON
6605.00	6927.80	NIORARA

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:
2129' FNL, 353' FEL
Sec 17-T7N-R67W
LP:
2201' FSL, 460' FEL
Sec 17-T7N-R67W
BHL:
2190' FSL, 460' FWL
Sec 18-T7N-R67W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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 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-20-8N					
Well Position	+N/-S	-2,127.59 usft	Northing:	1,453,114.22 usft	Latitude:	40° 34' 32.506 N
	+E/-W	-368.07 usft	Easting:	3,164,157.65 usft	Longitude:	104° 54' 32.584 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,105.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/15/2018	8.18	66.94	52,333.07297918

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	262.66

Plan Survey Tool Program	Date	8/16/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,208.16	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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,122.95	10.46	151.52	1,120.05	-41.84	22.70	2.00	2.00	0.00	151.52	
6,088.55	10.46	151.52	6,003.14	-834.16	452.55	0.00	0.00	0.00	0.00	
7,035.73	90.00	268.46	6,615.00	-950.12	-115.56	10.00	8.40	12.35	116.56	WALT 17W-8N - LP
16,208.16	90.00	268.46	6,615.00	-1,196.11	-9,284.70	0.00	0.00	0.00	0.00	WALT 17W-8N - PBH

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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)
0.00	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
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
700.00	2.00	151.52	699.98	-1.53	0.83	-0.63	2.00	2.00	0.00
800.00	4.00	151.52	799.84	-6.13	3.33	-2.52	2.00	2.00	0.00
900.00	6.00	151.52	899.45	-13.79	7.48	-5.66	2.00	2.00	0.00
1,000.00	8.00	151.52	998.70	-24.51	13.29	-10.05	2.00	2.00	0.00
1,100.00	10.00	151.52	1,097.47	-38.26	20.75	-15.70	2.00	2.00	0.00
1,122.95	10.46	151.52	1,120.05	-41.84	22.70	-17.17	2.00	2.00	0.00
Start 4965.60 hold at 1122.95 MD									
1,200.00	10.46	151.52	1,195.82	-54.13	29.37	-22.21	0.00	0.00	0.00
1,300.00	10.46	151.52	1,294.16	-70.09	38.02	-28.76	0.00	0.00	0.00
1,400.00	10.46	151.52	1,392.50	-86.04	46.68	-35.30	0.00	0.00	0.00
1,500.00	10.46	151.52	1,490.84	-102.00	55.34	-41.85	0.00	0.00	0.00
1,600.00	10.46	151.52	1,589.17	-117.96	63.99	-48.40	0.00	0.00	0.00
1,700.00	10.46	151.52	1,687.51	-133.91	72.65	-54.94	0.00	0.00	0.00
1,800.00	10.46	151.52	1,785.85	-149.87	81.31	-61.49	0.00	0.00	0.00
1,900.00	10.46	151.52	1,884.19	-165.83	89.96	-68.04	0.00	0.00	0.00
2,000.00	10.46	151.52	1,982.53	-181.78	98.62	-74.59	0.00	0.00	0.00
2,100.00	10.46	151.52	2,080.87	-197.74	107.28	-81.13	0.00	0.00	0.00
2,200.00	10.46	151.52	2,179.21	-213.69	115.93	-87.68	0.00	0.00	0.00
2,300.00	10.46	151.52	2,277.54	-229.65	124.59	-94.23	0.00	0.00	0.00
2,400.00	10.46	151.52	2,375.88	-245.61	133.25	-100.77	0.00	0.00	0.00
2,500.00	10.46	151.52	2,474.22	-261.56	141.90	-107.32	0.00	0.00	0.00
2,600.00	10.46	151.52	2,572.56	-277.52	150.56	-113.87	0.00	0.00	0.00
2,700.00	10.46	151.52	2,670.90	-293.48	159.22	-120.41	0.00	0.00	0.00
2,800.00	10.46	151.52	2,769.24	-309.43	167.87	-126.96	0.00	0.00	0.00
2,900.00	10.46	151.52	2,867.58	-325.39	176.53	-133.51	0.00	0.00	0.00
3,000.00	10.46	151.52	2,965.91	-341.34	185.18	-140.05	0.00	0.00	0.00
3,100.00	10.46	151.52	3,064.25	-357.30	193.84	-146.60	0.00	0.00	0.00
3,200.00	10.46	151.52	3,162.59	-373.26	202.50	-153.15	0.00	0.00	0.00
3,300.00	10.46	151.52	3,260.93	-389.21	211.15	-159.69	0.00	0.00	0.00
3,400.00	10.46	151.52	3,359.27	-405.17	219.81	-166.24	0.00	0.00	0.00
3,500.00	10.46	151.52	3,457.61	-421.12	228.47	-172.79	0.00	0.00	0.00
3,600.00	10.46	151.52	3,555.94	-437.08	237.12	-179.33	0.00	0.00	0.00
3,700.00	10.46	151.52	3,654.28	-453.04	245.78	-185.88	0.00	0.00	0.00
3,800.00	10.46	151.52	3,752.62	-468.99	254.44	-192.43	0.00	0.00	0.00
3,883.77	10.46	151.52	3,835.00	-482.36	261.69	-197.91	0.00	0.00	0.00
SUSSEX									
3,900.00	10.46	151.52	3,850.96	-484.95	263.09	-198.98	0.00	0.00	0.00
4,000.00	10.46	151.52	3,949.30	-500.91	271.75	-205.52	0.00	0.00	0.00
4,100.00	10.46	151.52	4,047.64	-516.86	280.41	-212.07	0.00	0.00	0.00
4,200.00	10.46	151.52	4,145.98	-532.82	289.06	-218.62	0.00	0.00	0.00
4,265.11	10.46	151.52	4,210.00	-543.21	294.70	-222.88	0.00	0.00	0.00
SHANNON									
4,300.00	10.46	151.52	4,244.31	-548.77	297.72	-225.16	0.00	0.00	0.00
4,400.00	10.46	151.52	4,342.65	-564.73	306.38	-231.71	0.00	0.00	0.00
4,500.00	10.46	151.52	4,440.99	-580.69	315.03	-238.26	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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)
4,600.00	10.46	151.52	4,539.33	-596.64	323.69	-244.80	0.00	0.00	0.00
4,700.00	10.46	151.52	4,637.67	-612.60	332.35	-251.35	0.00	0.00	0.00
4,800.00	10.46	151.52	4,736.01	-628.56	341.00	-257.90	0.00	0.00	0.00
4,900.00	10.46	151.52	4,834.35	-644.51	349.66	-264.44	0.00	0.00	0.00
5,000.00	10.46	151.52	4,932.68	-660.47	358.31	-270.99	0.00	0.00	0.00
5,100.00	10.46	151.52	5,031.02	-676.42	366.97	-277.54	0.00	0.00	0.00
5,200.00	10.46	151.52	5,129.36	-692.38	375.63	-284.08	0.00	0.00	0.00
5,300.00	10.46	151.52	5,227.70	-708.34	384.28	-290.63	0.00	0.00	0.00
5,400.00	10.46	151.52	5,326.04	-724.29	392.94	-297.18	0.00	0.00	0.00
5,500.00	10.46	151.52	5,424.38	-740.25	401.60	-303.72	0.00	0.00	0.00
5,600.00	10.46	151.52	5,522.72	-756.21	410.25	-310.27	0.00	0.00	0.00
5,700.00	10.46	151.52	5,621.05	-772.16	418.91	-316.82	0.00	0.00	0.00
5,800.00	10.46	151.52	5,719.39	-788.12	427.57	-323.37	0.00	0.00	0.00
5,900.00	10.46	151.52	5,817.73	-804.07	436.22	-329.91	0.00	0.00	0.00
6,000.00	10.46	151.52	5,916.07	-820.03	444.88	-336.46	0.00	0.00	0.00
6,088.55	10.46	151.52	6,003.14	-834.16	452.55	-342.26	0.00	0.00	0.00
Start DLS 10.00 TFO 116.56									
6,100.00	10.00	157.43	6,014.42	-835.99	453.42	-342.89	10.00	-4.02	51.60
6,150.00	9.45	187.19	6,063.73	-844.08	454.58	-343.00	10.00	-1.09	59.51
6,200.00	11.33	213.21	6,112.93	-852.26	451.37	-338.78	10.00	3.75	52.06
6,250.00	14.72	229.69	6,161.66	-860.49	443.83	-330.25	10.00	6.79	32.95
6,300.00	18.84	239.62	6,209.53	-868.68	432.02	-317.48	10.00	8.23	19.86
6,350.00	23.29	245.99	6,256.18	-876.79	416.02	-300.58	10.00	8.91	12.73
6,400.00	27.92	250.37	6,301.26	-884.75	395.95	-279.66	10.00	9.26	8.77
6,450.00	32.65	253.58	6,344.43	-892.50	371.97	-254.89	10.00	9.46	6.42
6,500.00	37.45	256.05	6,385.36	-899.98	344.26	-226.45	10.00	9.59	4.95
6,550.00	42.28	258.04	6,423.72	-907.14	313.04	-194.57	10.00	9.67	3.97
6,600.00	47.15	259.68	6,459.25	-913.91	278.53	-159.48	10.00	9.73	3.29
6,650.00	52.03	261.08	6,491.65	-920.25	241.01	-121.45	10.00	9.77	2.81
6,700.00	56.93	262.31	6,520.69	-926.11	200.75	-80.77	10.00	9.80	2.45
6,750.00	61.84	263.41	6,546.15	-931.45	158.06	-37.76	10.00	9.82	2.20
6,800.00	66.76	264.41	6,567.82	-936.22	113.28	7.27	10.00	9.84	2.00
6,850.00	71.68	265.34	6,585.56	-940.39	66.73	53.97	10.00	9.85	1.86
6,900.00	76.61	266.22	6,599.21	-943.92	18.78	101.98	10.00	9.86	1.76
6,927.80	79.35	266.69	6,605.00	-945.60	-8.36	129.11	10.00	9.86	1.70
NIOBRARA									
6,950.00	81.54	267.06	6,608.68	-946.79	-30.22	150.94	10.00	9.86	1.67
7,000.00	86.47	267.88	6,613.90	-948.98	-79.88	200.48	10.00	9.87	1.64
7,035.73	90.00	268.46	6,615.00	-950.12	-115.56	236.01	10.00	9.87	1.63
Start 9172.43 hold at 7035.73 MD									
7,100.00	90.00	268.46	6,615.00	-951.85	-179.82	299.96	0.00	0.00	0.00
7,200.00	90.00	268.46	6,615.00	-954.53	-279.78	399.45	0.00	0.00	0.00
7,300.00	90.00	268.46	6,615.00	-957.21	-379.74	498.93	0.00	0.00	0.00
7,400.00	90.00	268.46	6,615.00	-959.89	-479.71	598.42	0.00	0.00	0.00
7,500.00	90.00	268.46	6,615.00	-962.57	-579.67	697.91	0.00	0.00	0.00
7,600.00	90.00	268.46	6,615.00	-965.26	-679.64	797.40	0.00	0.00	0.00
7,700.00	90.00	268.46	6,615.00	-967.94	-779.60	896.88	0.00	0.00	0.00
7,800.00	90.00	268.46	6,615.00	-970.62	-879.56	996.37	0.00	0.00	0.00
7,900.00	90.00	268.46	6,615.00	-973.30	-979.53	1,095.86	0.00	0.00	0.00
8,000.00	90.00	268.46	6,615.00	-975.98	-1,079.49	1,195.34	0.00	0.00	0.00
8,100.00	90.00	268.46	6,615.00	-978.66	-1,179.46	1,294.83	0.00	0.00	0.00
8,200.00	90.00	268.46	6,615.00	-981.35	-1,279.42	1,394.32	0.00	0.00	0.00
8,300.00	90.00	268.46	6,615.00	-984.03	-1,379.38	1,493.81	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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)	
8,400.00	90.00	268.46	6,615.00	-986.71	-1,479.35	1,593.29	0.00	0.00	0.00	
8,500.00	90.00	268.46	6,615.00	-989.39	-1,579.31	1,692.78	0.00	0.00	0.00	
8,600.00	90.00	268.46	6,615.00	-992.07	-1,679.28	1,792.27	0.00	0.00	0.00	
8,700.00	90.00	268.46	6,615.00	-994.75	-1,779.24	1,891.76	0.00	0.00	0.00	
8,800.00	90.00	268.46	6,615.00	-997.44	-1,879.20	1,991.24	0.00	0.00	0.00	
8,900.00	90.00	268.46	6,615.00	-1,000.12	-1,979.17	2,090.73	0.00	0.00	0.00	
9,000.00	90.00	268.46	6,615.00	-1,002.80	-2,079.13	2,190.22	0.00	0.00	0.00	
9,100.00	90.00	268.46	6,615.00	-1,005.48	-2,179.10	2,289.71	0.00	0.00	0.00	
9,200.00	90.00	268.46	6,615.00	-1,008.16	-2,279.06	2,389.19	0.00	0.00	0.00	
9,300.00	90.00	268.46	6,615.00	-1,010.85	-2,379.02	2,488.68	0.00	0.00	0.00	
9,400.00	90.00	268.46	6,615.00	-1,013.53	-2,478.99	2,588.17	0.00	0.00	0.00	
9,500.00	90.00	268.46	6,615.00	-1,016.21	-2,578.95	2,687.66	0.00	0.00	0.00	
9,600.00	90.00	268.46	6,615.00	-1,018.89	-2,678.92	2,787.14	0.00	0.00	0.00	
9,700.00	90.00	268.46	6,615.00	-1,021.57	-2,778.88	2,886.63	0.00	0.00	0.00	
9,800.00	90.00	268.46	6,615.00	-1,024.25	-2,878.84	2,986.12	0.00	0.00	0.00	
9,900.00	90.00	268.46	6,615.00	-1,026.94	-2,978.81	3,085.60	0.00	0.00	0.00	
10,000.00	90.00	268.46	6,615.00	-1,029.62	-3,078.77	3,185.09	0.00	0.00	0.00	
10,100.00	90.00	268.46	6,615.00	-1,032.30	-3,178.74	3,284.58	0.00	0.00	0.00	
10,200.00	90.00	268.46	6,615.00	-1,034.98	-3,278.70	3,384.07	0.00	0.00	0.00	
10,300.00	90.00	268.46	6,615.00	-1,037.66	-3,378.66	3,483.55	0.00	0.00	0.00	
10,400.00	90.00	268.46	6,615.00	-1,040.34	-3,478.63	3,583.04	0.00	0.00	0.00	
10,500.00	90.00	268.46	6,615.00	-1,043.03	-3,578.59	3,682.53	0.00	0.00	0.00	
10,600.00	90.00	268.46	6,615.00	-1,045.71	-3,678.56	3,782.02	0.00	0.00	0.00	
10,700.00	90.00	268.46	6,615.00	-1,048.39	-3,778.52	3,881.50	0.00	0.00	0.00	
10,800.00	90.00	268.46	6,615.00	-1,051.07	-3,878.48	3,980.99	0.00	0.00	0.00	
10,900.00	90.00	268.46	6,615.00	-1,053.75	-3,978.45	4,080.48	0.00	0.00	0.00	
11,000.00	90.00	268.46	6,615.00	-1,056.44	-4,078.41	4,179.97	0.00	0.00	0.00	
11,100.00	90.00	268.46	6,615.00	-1,059.12	-4,178.38	4,279.45	0.00	0.00	0.00	
11,200.00	90.00	268.46	6,615.00	-1,061.80	-4,278.34	4,378.94	0.00	0.00	0.00	
11,300.00	90.00	268.46	6,615.00	-1,064.48	-4,378.30	4,478.43	0.00	0.00	0.00	
11,400.00	90.00	268.46	6,615.00	-1,067.16	-4,478.27	4,577.92	0.00	0.00	0.00	
11,500.00	90.00	268.46	6,615.00	-1,069.84	-4,578.23	4,677.40	0.00	0.00	0.00	
11,600.00	90.00	268.46	6,615.00	-1,072.53	-4,678.20	4,776.89	0.00	0.00	0.00	
11,700.00	90.00	268.46	6,615.00	-1,075.21	-4,778.16	4,876.38	0.00	0.00	0.00	
11,800.00	90.00	268.46	6,615.00	-1,077.89	-4,878.13	4,975.86	0.00	0.00	0.00	
11,900.00	90.00	268.46	6,615.00	-1,080.57	-4,978.09	5,075.35	0.00	0.00	0.00	
12,000.00	90.00	268.46	6,615.00	-1,083.25	-5,078.05	5,174.84	0.00	0.00	0.00	
12,100.00	90.00	268.46	6,615.00	-1,085.93	-5,178.02	5,274.33	0.00	0.00	0.00	
12,200.00	90.00	268.46	6,615.00	-1,088.62	-5,277.98	5,373.81	0.00	0.00	0.00	
12,300.00	90.00	268.46	6,615.00	-1,091.30	-5,377.95	5,473.30	0.00	0.00	0.00	
12,400.00	90.00	268.46	6,615.00	-1,093.98	-5,477.91	5,572.79	0.00	0.00	0.00	
12,500.00	90.00	268.46	6,615.00	-1,096.66	-5,577.87	5,672.28	0.00	0.00	0.00	
12,600.00	90.00	268.46	6,615.00	-1,099.34	-5,677.84	5,771.76	0.00	0.00	0.00	
12,700.00	90.00	268.46	6,615.00	-1,102.03	-5,777.80	5,871.25	0.00	0.00	0.00	
12,800.00	90.00	268.46	6,615.00	-1,104.71	-5,877.77	5,970.74	0.00	0.00	0.00	
12,900.00	90.00	268.46	6,615.00	-1,107.39	-5,977.73	6,070.23	0.00	0.00	0.00	
13,000.00	90.00	268.46	6,615.00	-1,110.07	-6,077.69	6,169.71	0.00	0.00	0.00	
13,100.00	90.00	268.46	6,615.00	-1,112.75	-6,177.66	6,269.20	0.00	0.00	0.00	
13,200.00	90.00	268.46	6,615.00	-1,115.43	-6,277.62	6,368.69	0.00	0.00	0.00	
13,300.00	90.00	268.46	6,615.00	-1,118.12	-6,377.59	6,468.18	0.00	0.00	0.00	
13,400.00	90.00	268.46	6,615.00	-1,120.80	-6,477.55	6,567.66	0.00	0.00	0.00	
13,500.00	90.00	268.46	6,615.00	-1,123.48	-6,577.51	6,667.15	0.00	0.00	0.00	
13,600.00	90.00	268.46	6,615.00	-1,126.16	-6,677.48	6,766.64	0.00	0.00	0.00	
13,700.00	90.00	268.46	6,615.00	-1,128.84	-6,777.44	6,866.12	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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)	
13,800.00	90.00	268.46	6,615.00	-1,131.52	-6,877.41	6,965.61	0.00	0.00	0.00	
13,900.00	90.00	268.46	6,615.00	-1,134.21	-6,977.37	7,065.10	0.00	0.00	0.00	
14,000.00	90.00	268.46	6,615.00	-1,136.89	-7,077.33	7,164.59	0.00	0.00	0.00	
14,100.00	90.00	268.46	6,615.00	-1,139.57	-7,177.30	7,264.07	0.00	0.00	0.00	
14,200.00	90.00	268.46	6,615.00	-1,142.25	-7,277.26	7,363.56	0.00	0.00	0.00	
14,300.00	90.00	268.46	6,615.00	-1,144.93	-7,377.23	7,463.05	0.00	0.00	0.00	
14,400.00	90.00	268.46	6,615.00	-1,147.62	-7,477.19	7,562.54	0.00	0.00	0.00	
14,500.00	90.00	268.46	6,615.00	-1,150.30	-7,577.15	7,662.02	0.00	0.00	0.00	
14,600.00	90.00	268.46	6,615.00	-1,152.98	-7,677.12	7,761.51	0.00	0.00	0.00	
14,700.00	90.00	268.46	6,615.00	-1,155.66	-7,777.08	7,861.00	0.00	0.00	0.00	
14,800.00	90.00	268.46	6,615.00	-1,158.34	-7,877.05	7,960.49	0.00	0.00	0.00	
14,900.00	90.00	268.46	6,615.00	-1,161.02	-7,977.01	8,059.97	0.00	0.00	0.00	
15,000.00	90.00	268.46	6,615.00	-1,163.71	-8,076.97	8,159.46	0.00	0.00	0.00	
15,100.00	90.00	268.46	6,615.00	-1,166.39	-8,176.94	8,258.95	0.00	0.00	0.00	
15,200.00	90.00	268.46	6,615.00	-1,169.07	-8,276.90	8,358.44	0.00	0.00	0.00	
15,300.00	90.00	268.46	6,615.00	-1,171.75	-8,376.87	8,457.92	0.00	0.00	0.00	
15,400.00	90.00	268.46	6,615.00	-1,174.43	-8,476.83	8,557.41	0.00	0.00	0.00	
15,500.00	90.00	268.46	6,615.00	-1,177.11	-8,576.79	8,656.90	0.00	0.00	0.00	
15,600.00	90.00	268.46	6,615.00	-1,179.80	-8,676.76	8,756.38	0.00	0.00	0.00	
15,700.00	90.00	268.46	6,615.00	-1,182.48	-8,776.72	8,855.87	0.00	0.00	0.00	
15,800.00	90.00	268.46	6,615.00	-1,185.16	-8,876.69	8,955.36	0.00	0.00	0.00	
15,900.00	90.00	268.46	6,615.00	-1,187.84	-8,976.65	9,054.85	0.00	0.00	0.00	
16,000.00	90.00	268.46	6,615.00	-1,190.52	-9,076.61	9,154.33	0.00	0.00	0.00	
16,100.00	90.00	268.46	6,615.00	-1,193.21	-9,176.58	9,253.82	0.00	0.00	0.00	
16,208.16	90.00	268.46	6,615.00	-1,196.11	-9,284.70	9,361.43	0.00	0.00	0.00	
TD at 16208.16										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
WALT 17W-8N - LP	0.00	0.00	6,615.00	-950.12	-115.56	1,452,163.35	3,164,048.42	40° 34' 23.117 N	104° 54' 34.081 W
- plan hits target center									
- Point									
WALT 17W-8N - PBHL	0.00	0.00	6,615.00	-1,196.11	-9,284.70	1,451,856.27	3,154,881.12	40° 34' 20.669 N	104° 56' 32.903 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,883.77	3,835.00	SUSSEX				
4,265.11	4,210.00	SHANNON				
6,927.80	6,605.00	NIOBRARA				

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well WALT 17W-20-8N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 5134.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 5134.00usft
Site:	Sec 17-T7N-R67W	North Reference:	True
Well:	WALT 17W-20-8N	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)	
600.00	600.00	0.00	0.00	Start Build 2.00
1,122.95	1,120.05	-41.84	22.70	Start 4965.60 hold at 1122.95 MD
6,088.55	6,003.14	-834.16	452.55	Start DLS 10.00 TFO 116.56
7,035.73	6,615.00	-950.12	-115.56	Start 9172.43 hold at 7035.73 MD
16,208.16	6,615.00	-1,196.11	-9,284.70	TD at 16208.16