

EXTRACTION OIL & GAS

WELD COUNTY

Sec 20-T5N-R65W

GP-ALLES FED 17W-25-2N

ORIGINAL WELLBORE

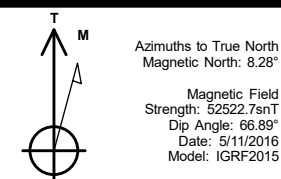
Plan: PROPOSAL #1

Standard Planning Report

12 July, 2018



Project: WELD COUNTY
Site: Sec 20-T5N-R65W
Well: GP-ALLES FED 17W-25-2N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1



WELL DETAILS: GP-ALLES FED 17W-25-2N

+N/-S	+E/-W	Northing	Ground Level: Easting	4674.00 Latitude	104° 23' 26.232 N	Longitude	Slot
0.00	0.00	1386192.91	3227707.71	40° 23' 26.232 N	104° 40' 57.036 W		

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
3	1601.87	9.04	331.42	1600.00	31.23	-17.01	2.00	331.42	22.64	
4	1701.87	9.04	331.42	1698.76	45.02	-24.53	0.00	0.00	32.64	
5	2846.23	29.42	9.11	2776.59	406.30	-22.99	2.00	50.56	99.82	
6	6967.26	29.42	9.11	6366.11	2405.16	297.61	0.00	0.00	165.09	
7	7911.21	90.00	270.14	6905.00	2706.73	-272.95	10.00	-97.83	782.57	GP-ALLES FED 17W
8	21787.02	90.00	270.14	6905.00	2739.92	-14148.72	0.00	0.00	14411.57	GP-ALLES FED 17V

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	Start Build 2.00
1601.87	9.04	331.42	1600.00	31.23	-17.01	31.23	35.56	Start 100.00 hold at 1601.87 MD
1701.87	9.04	331.42	1698.76	45.02	-24.53	45.02	51.27	Start DLS 2.00 TFO 50.56
2846.23	29.42	9.11	2776.59	406.30	-22.99	406.30	416.88	Start 4121.03 hold at 2846.23 MD
6967.26	29.42	9.11	6366.11	2405.16	297.61	2405.16	2441.29	Start DLS 10.00 TFO -97.83
7911.21	90.00	270.14	6905.00	2706.73	-272.95	2706.73	3152.11	Start 13875.81 hold at 7911.21 MD
21787.02	90.00	270.14	6905.00	2739.92	-14148.72	2739.92	17027.92	TD at 21787.02

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GP-ALLES FED 17W-25-2N - LR6905.00		2706.73	-272.95	1388897.00	3227409.82	40° 23' 52.980 N	104° 41' 0.564 W	Point
- plan hits target center								
GP-ALLES FED 17W-25-2N - PB6905.00		2739.92	-14148.72	1388802.28	3213534.33	40° 23' 53.268 N	104° 43' 59.916 W	Point
- plan hits target center								

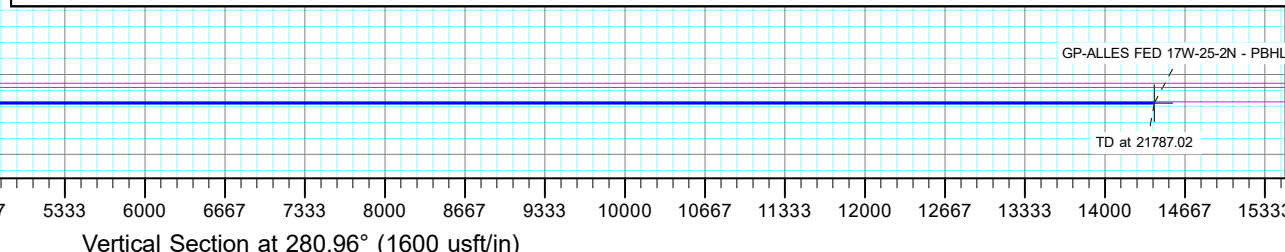
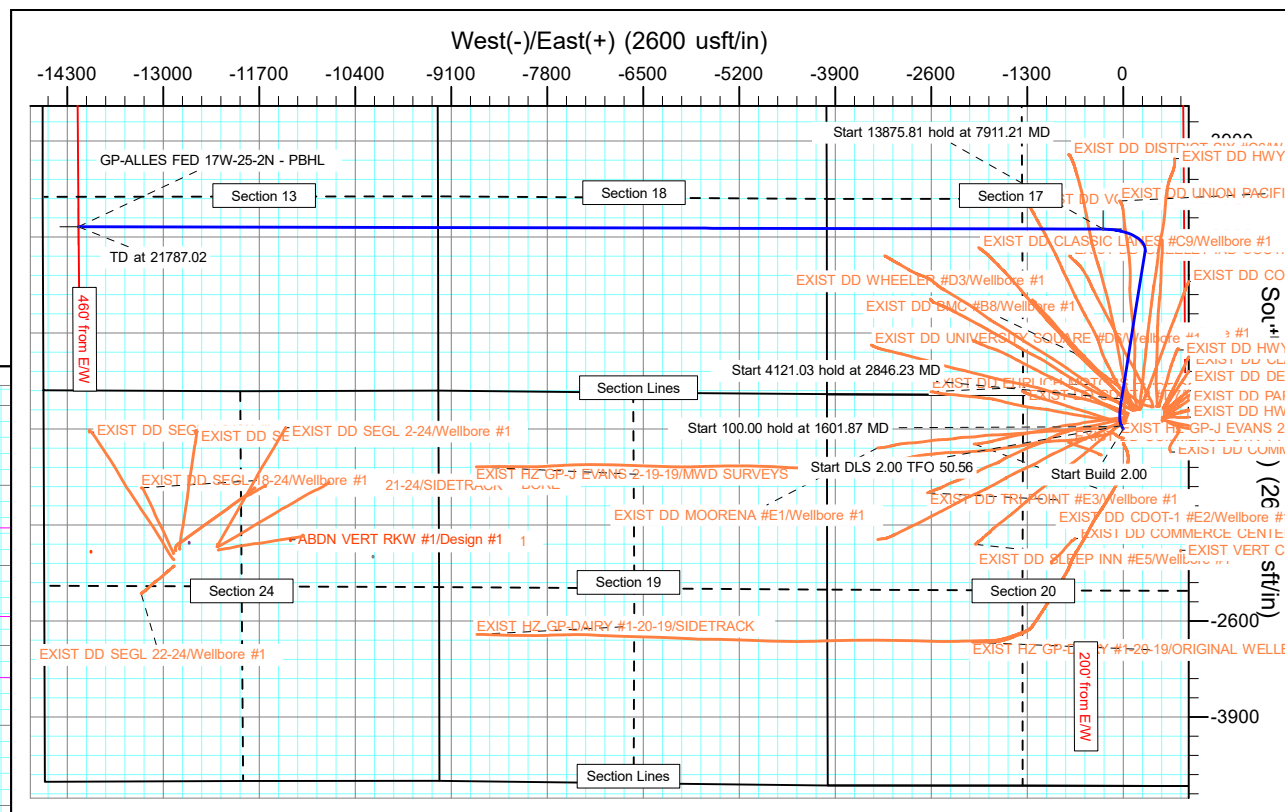
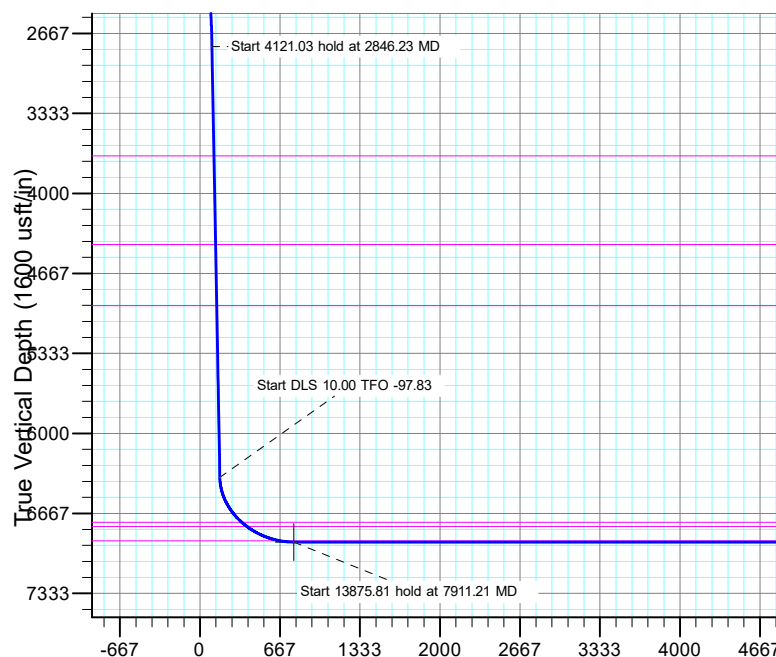
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3686.00	3890.30	PARKMAN
4425.00	4738.73	SUSSEX
4935.00	5324.24	SHANNON
6740.00	7432.16	SHARON SPRINGS
6775.00	7488.76	NIOBRARA
6895.00	7796.49	NIO B TARGET

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:
453' FNL, 1305' FEL
Sec 20-T5N-R65W
LP:
2256' FSL, 1561' FEL
Sec 17-T5N-R65W
BHL:
2219' FSL, 460' FWL
Sec 13-T5N-R66W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well GP-ALLES FED 17W-25-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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 20-T5N-R65W			
Site Position:		Northing:	1,386,203.84 usft	Latitude:	40° 23' 26.340 N
From:	Lat/Long	Easting:	3,227,707.61 usft	Longitude:	104° 40' 57.036 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	GP-ALLES FED 17W-25-2N					
Well Position	+N/-S	-10.93 usft	Northing:	1,386,192.91 usft	Latitude:	40° 23' 26.232 N
	+E/-W	0.00 usft	Easting:	3,227,707.71 usft	Longitude:	104° 40' 57.036 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,674.00 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/11/2016	8.28	66.89	52,522.72453729

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	0.00

Plan Survey Tool Program	Date	7/12/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,787.02	PROPOSAL #1 (ORIGINAL WEL	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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,601.87	9.04	331.42	1,600.00	31.23	-17.01	2.00	2.00	0.00	331.42	
1,701.87	9.04	331.42	1,698.76	45.02	-24.53	0.00	0.00	0.00	0.00	
2,846.23	29.42	9.11	2,776.59	406.30	-22.99	2.00	1.78	3.29	50.56	
6,967.26	29.42	9.11	6,366.11	2,405.16	297.61	0.00	0.00	0.00	0.00	
7,911.21	90.00	270.14	6,905.00	2,706.73	-272.95	10.00	6.42	-10.49	-97.83	GP-ALLES FED 17W-
21,787.02	90.00	270.14	6,905.00	2,739.92	-14,148.72	0.00	0.00	0.00	0.00	GP-ALLES FED 17W-

Planning Report

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,200.00	1.00	331.42	1,200.00	0.38	-0.21	0.38	2.00	2.00	0.00
1,300.00	3.00	331.42	1,299.93	3.45	-1.88	3.45	2.00	2.00	0.00
1,400.00	5.00	331.42	1,399.68	9.57	-5.22	9.57	2.00	2.00	0.00
1,500.00	7.00	331.42	1,499.13	18.75	-10.22	18.75	2.00	2.00	0.00
1,601.87	9.04	331.42	1,600.00	31.23	-17.01	31.23	2.00	2.00	0.00
Start 100.00 hold at 1601.87 MD									
1,701.87	9.04	331.42	1,698.76	45.02	-24.53	45.02	0.00	0.00	0.00
Start DLS 2.00 TFO 50.56									
1,800.00	10.39	339.85	1,795.48	60.10	-31.26	60.10	2.00	1.38	8.59
1,900.00	11.95	346.36	1,893.59	78.64	-36.82	78.64	2.00	1.56	6.51
2,000.00	13.62	351.34	1,991.11	100.34	-41.03	100.34	2.00	1.67	4.98
2,100.00	15.37	355.23	2,087.92	125.19	-43.91	125.19	2.00	1.75	3.89
2,200.00	17.17	358.33	2,183.92	153.15	-45.44	153.15	2.00	1.80	3.10
2,300.00	19.01	0.85	2,278.97	184.19	-45.63	184.19	2.00	1.84	2.52
2,400.00	20.88	2.94	2,372.97	218.28	-44.47	218.28	2.00	1.87	2.09
2,500.00	22.77	4.70	2,465.80	255.37	-41.97	255.37	2.00	1.89	1.76
2,600.00	24.68	6.20	2,557.35	295.41	-38.13	295.41	2.00	1.91	1.50
2,700.00	26.60	7.50	2,647.50	338.36	-32.95	338.36	2.00	1.92	1.30
2,800.00	28.53	8.63	2,736.14	384.17	-26.45	384.17	2.00	1.93	1.13
2,846.23	29.42	9.11	2,776.59	406.30	-22.99	406.30	2.00	1.94	1.03
Start 4121.03 hold at 2846.23 MD									
2,900.00	29.42	9.11	2,823.42	432.38	-18.81	432.38	0.00	0.00	0.00
3,000.00	29.42	9.11	2,910.53	480.88	-11.03	480.88	0.00	0.00	0.00
3,100.00	29.42	9.11	2,997.63	529.38	-3.25	529.38	0.00	0.00	0.00
3,200.00	29.42	9.11	3,084.73	577.89	4.53	577.89	0.00	0.00	0.00
3,300.00	29.42	9.11	3,171.83	626.39	12.31	626.39	0.00	0.00	0.00
3,400.00	29.42	9.11	3,258.94	674.90	20.09	674.90	0.00	0.00	0.00
3,500.00	29.42	9.11	3,346.04	723.40	27.87	723.40	0.00	0.00	0.00
3,600.00	29.42	9.11	3,433.14	771.90	35.65	771.90	0.00	0.00	0.00
3,700.00	29.42	9.11	3,520.24	820.41	43.43	820.41	0.00	0.00	0.00
3,800.00	29.42	9.11	3,607.35	868.91	51.21	868.91	0.00	0.00	0.00
3,890.30	29.42	9.11	3,686.00	912.71	58.23	912.71	0.00	0.00	0.00
PARKMAN									
3,900.00	29.42	9.11	3,694.45	917.42	58.99	917.42	0.00	0.00	0.00
4,000.00	29.42	9.11	3,781.55	965.92	66.77	965.92	0.00	0.00	0.00
4,100.00	29.42	9.11	3,868.65	1,014.42	74.55	1,014.42	0.00	0.00	0.00
4,200.00	29.42	9.11	3,955.76	1,062.93	82.33	1,062.93	0.00	0.00	0.00
4,300.00	29.42	9.11	4,042.86	1,111.43	90.11	1,111.43	0.00	0.00	0.00
4,400.00	29.42	9.11	4,129.96	1,159.94	97.88	1,159.94	0.00	0.00	0.00

Planning Report

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Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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)
4,500.00	29.42	9.11	4,217.06	1,208.44	105.66	1,208.44	0.00	0.00	0.00
4,600.00	29.42	9.11	4,304.17	1,256.94	113.44	1,256.94	0.00	0.00	0.00
4,700.00	29.42	9.11	4,391.27	1,305.45	121.22	1,305.45	0.00	0.00	0.00
4,738.73	29.42	9.11	4,425.00	1,324.23	124.24	1,324.23	0.00	0.00	0.00
SUSSEX									
4,800.00	29.42	9.11	4,478.37	1,353.95	129.00	1,353.95	0.00	0.00	0.00
4,900.00	29.42	9.11	4,565.47	1,402.46	136.78	1,402.46	0.00	0.00	0.00
5,000.00	29.42	9.11	4,652.58	1,450.96	144.56	1,450.96	0.00	0.00	0.00
5,100.00	29.42	9.11	4,739.68	1,499.46	152.34	1,499.46	0.00	0.00	0.00
5,200.00	29.42	9.11	4,826.78	1,547.97	160.12	1,547.97	0.00	0.00	0.00
5,300.00	29.42	9.11	4,913.88	1,596.47	167.90	1,596.47	0.00	0.00	0.00
5,324.24	29.42	9.11	4,935.00	1,608.23	169.79	1,608.23	0.00	0.00	0.00
SHANNON									
5,400.00	29.42	9.11	5,000.99	1,644.98	175.68	1,644.98	0.00	0.00	0.00
5,500.00	29.42	9.11	5,088.09	1,693.48	183.46	1,693.48	0.00	0.00	0.00
5,600.00	29.42	9.11	5,175.19	1,741.98	191.24	1,741.98	0.00	0.00	0.00
5,700.00	29.42	9.11	5,262.29	1,790.49	199.02	1,790.49	0.00	0.00	0.00
5,800.00	29.42	9.11	5,349.40	1,838.99	206.80	1,838.99	0.00	0.00	0.00
5,900.00	29.42	9.11	5,436.50	1,887.50	214.58	1,887.50	0.00	0.00	0.00
6,000.00	29.42	9.11	5,523.60	1,936.00	222.36	1,936.00	0.00	0.00	0.00
6,100.00	29.42	9.11	5,610.70	1,984.50	230.14	1,984.50	0.00	0.00	0.00
6,200.00	29.42	9.11	5,697.81	2,033.01	237.92	2,033.01	0.00	0.00	0.00
6,300.00	29.42	9.11	5,784.91	2,081.51	245.70	2,081.51	0.00	0.00	0.00
6,400.00	29.42	9.11	5,872.01	2,130.02	253.47	2,130.02	0.00	0.00	0.00
6,500.00	29.42	9.11	5,959.11	2,178.52	261.25	2,178.52	0.00	0.00	0.00
6,600.00	29.42	9.11	6,046.21	2,227.02	269.03	2,227.02	0.00	0.00	0.00
6,700.00	29.42	9.11	6,133.32	2,275.53	276.81	2,275.53	0.00	0.00	0.00
6,800.00	29.42	9.11	6,220.42	2,324.03	284.59	2,324.03	0.00	0.00	0.00
6,900.00	29.42	9.11	6,307.52	2,372.54	292.37	2,372.54	0.00	0.00	0.00
6,967.26	29.42	9.11	6,366.11	2,405.16	297.61	2,405.16	0.00	0.00	0.00
Start DLS 10.00 TFO -97.83									
7,000.00	29.14	2.44	6,394.67	2,421.07	299.22	2,421.07	10.00	-0.86	-20.38
7,050.00	29.36	352.21	6,438.33	2,445.39	298.07	2,445.39	10.00	0.43	-20.47
7,100.00	30.33	342.34	6,481.72	2,469.58	292.58	2,469.58	10.00	1.95	-19.73
7,150.00	32.00	333.22	6,524.53	2,493.45	282.77	2,493.45	10.00	3.33	-18.24
7,200.00	34.25	325.04	6,566.42	2,516.82	268.74	2,516.82	10.00	4.51	-16.35
7,250.00	36.98	317.85	6,607.08	2,539.51	250.57	2,539.51	10.00	5.47	-14.39
7,300.00	40.10	311.56	6,646.20	2,561.36	228.41	2,561.36	10.00	6.23	-12.57
7,350.00	43.51	306.07	6,683.48	2,582.19	202.44	2,582.19	10.00	6.82	-10.98
7,400.00	47.15	301.25	6,718.64	2,601.84	172.84	2,601.84	10.00	7.28	-9.64
7,432.16	49.59	298.45	6,740.00	2,613.79	151.99	2,613.79	10.00	7.59	-8.72
SHARON SPRINGS									
7,450.00	50.97	296.98	6,751.40	2,620.18	139.84	2,620.18	10.00	7.74	-8.23
7,488.76	54.03	293.98	6,775.00	2,633.39	112.08	2,633.39	10.00	7.90	-7.74
NIOBRARA									
7,500.00	54.93	293.16	6,781.53	2,637.04	103.70	2,637.04	10.00	8.02	-7.35
7,550.00	59.00	289.69	6,808.78	2,652.32	64.68	2,652.32	10.00	8.14	-6.93
7,600.00	63.16	286.51	6,832.96	2,665.89	23.09	2,665.89	10.00	8.31	-6.36
7,650.00	67.38	283.56	6,853.88	2,677.65	-20.76	2,677.65	10.00	8.44	-5.90
7,700.00	71.65	280.78	6,871.37	2,687.50	-66.53	2,687.50	10.00	8.54	-5.55
7,750.00	75.96	278.14	6,885.32	2,695.38	-113.88	2,695.38	10.00	8.62	-5.28
7,796.49	79.99	275.78	6,895.00	2,700.88	-159.00	2,700.88	10.00	8.67	-5.09
NIO B TARGET									

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well GP-ALLES FED 17W-25-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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)
7,800.00	80.30	275.60	6,895.60	2,701.23	-162.44	2,701.23	10.00	8.69	-5.01
7,850.00	84.65	273.12	6,902.15	2,704.99	-211.85	2,704.99	10.00	8.71	-4.95
7,900.00	89.02	270.68	6,904.90	2,706.65	-261.74	2,706.65	10.00	8.73	-4.88
7,911.21	90.00	270.14	6,905.00	2,706.73	-272.95	2,706.73	10.00	8.74	-4.87
Start 13875.81 hold at 7911.21 MD									
8,000.00	90.00	270.14	6,905.00	2,706.94	-361.73	2,706.94	0.00	0.00	0.00
8,100.00	90.00	270.14	6,905.00	2,707.18	-461.73	2,707.18	0.00	0.00	0.00
8,200.00	90.00	270.14	6,905.00	2,707.42	-561.73	2,707.42	0.00	0.00	0.00
8,300.00	90.00	270.14	6,905.00	2,707.66	-661.73	2,707.66	0.00	0.00	0.00
8,400.00	90.00	270.14	6,905.00	2,707.90	-761.73	2,707.90	0.00	0.00	0.00
8,500.00	90.00	270.14	6,905.00	2,708.14	-861.73	2,708.14	0.00	0.00	0.00
8,600.00	90.00	270.14	6,905.00	2,708.38	-961.73	2,708.38	0.00	0.00	0.00
8,700.00	90.00	270.14	6,905.00	2,708.62	-1,061.73	2,708.62	0.00	0.00	0.00
8,800.00	90.00	270.14	6,905.00	2,708.85	-1,161.73	2,708.85	0.00	0.00	0.00
8,900.00	90.00	270.14	6,905.00	2,709.09	-1,261.73	2,709.09	0.00	0.00	0.00
9,000.00	90.00	270.14	6,905.00	2,709.33	-1,361.73	2,709.33	0.00	0.00	0.00
9,100.00	90.00	270.14	6,905.00	2,709.57	-1,461.73	2,709.57	0.00	0.00	0.00
9,200.00	90.00	270.14	6,905.00	2,709.81	-1,561.73	2,709.81	0.00	0.00	0.00
9,300.00	90.00	270.14	6,905.00	2,710.05	-1,661.73	2,710.05	0.00	0.00	0.00
9,400.00	90.00	270.14	6,905.00	2,710.29	-1,761.73	2,710.29	0.00	0.00	0.00
9,500.00	90.00	270.14	6,905.00	2,710.53	-1,861.73	2,710.53	0.00	0.00	0.00
9,600.00	90.00	270.14	6,905.00	2,710.77	-1,961.73	2,710.77	0.00	0.00	0.00
9,700.00	90.00	270.14	6,905.00	2,711.01	-2,061.73	2,711.01	0.00	0.00	0.00
9,800.00	90.00	270.14	6,905.00	2,711.25	-2,161.73	2,711.25	0.00	0.00	0.00
9,900.00	90.00	270.14	6,905.00	2,711.49	-2,261.73	2,711.49	0.00	0.00	0.00
10,000.00	90.00	270.14	6,905.00	2,711.73	-2,361.73	2,711.73	0.00	0.00	0.00
10,100.00	90.00	270.14	6,905.00	2,711.96	-2,461.73	2,711.96	0.00	0.00	0.00
10,200.00	90.00	270.14	6,905.00	2,712.20	-2,561.73	2,712.20	0.00	0.00	0.00
10,300.00	90.00	270.14	6,905.00	2,712.44	-2,661.73	2,712.44	0.00	0.00	0.00
10,400.00	90.00	270.14	6,905.00	2,712.68	-2,761.73	2,712.68	0.00	0.00	0.00
10,500.00	90.00	270.14	6,905.00	2,712.92	-2,861.73	2,712.92	0.00	0.00	0.00
10,600.00	90.00	270.14	6,905.00	2,713.16	-2,961.73	2,713.16	0.00	0.00	0.00
10,700.00	90.00	270.14	6,905.00	2,713.40	-3,061.73	2,713.40	0.00	0.00	0.00
10,800.00	90.00	270.14	6,905.00	2,713.64	-3,161.73	2,713.64	0.00	0.00	0.00
10,900.00	90.00	270.14	6,905.00	2,713.88	-3,261.73	2,713.88	0.00	0.00	0.00
11,000.00	90.00	270.14	6,905.00	2,714.12	-3,361.73	2,714.12	0.00	0.00	0.00
11,100.00	90.00	270.14	6,905.00	2,714.36	-3,461.73	2,714.36	0.00	0.00	0.00
11,200.00	90.00	270.14	6,905.00	2,714.60	-3,561.72	2,714.60	0.00	0.00	0.00
11,300.00	90.00	270.14	6,905.00	2,714.84	-3,661.72	2,714.84	0.00	0.00	0.00
11,400.00	90.00	270.14	6,905.00	2,715.07	-3,761.72	2,715.07	0.00	0.00	0.00
11,500.00	90.00	270.14	6,905.00	2,715.31	-3,861.72	2,715.31	0.00	0.00	0.00
11,600.00	90.00	270.14	6,905.00	2,715.55	-3,961.72	2,715.55	0.00	0.00	0.00
11,700.00	90.00	270.14	6,905.00	2,715.79	-4,061.72	2,715.79	0.00	0.00	0.00
11,800.00	90.00	270.14	6,905.00	2,716.03	-4,161.72	2,716.03	0.00	0.00	0.00
11,900.00	90.00	270.14	6,905.00	2,716.27	-4,261.72	2,716.27	0.00	0.00	0.00
12,000.00	90.00	270.14	6,905.00	2,716.51	-4,361.72	2,716.51	0.00	0.00	0.00
12,100.00	90.00	270.14	6,905.00	2,716.75	-4,461.72	2,716.75	0.00	0.00	0.00
12,200.00	90.00	270.14	6,905.00	2,716.99	-4,561.72	2,716.99	0.00	0.00	0.00
12,300.00	90.00	270.14	6,905.00	2,717.23	-4,661.72	2,717.23	0.00	0.00	0.00
12,400.00	90.00	270.14	6,905.00	2,717.47	-4,761.72	2,717.47	0.00	0.00	0.00
12,500.00	90.00	270.14	6,905.00	2,717.71	-4,861.72	2,717.71	0.00	0.00	0.00
12,600.00	90.00	270.14	6,905.00	2,717.95	-4,961.72	2,717.95	0.00	0.00	0.00
12,700.00	90.00	270.14	6,905.00	2,718.18	-5,061.72	2,718.18	0.00	0.00	0.00
12,800.00	90.00	270.14	6,905.00	2,718.42	-5,161.72	2,718.42	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well GP-ALLES FED 17W-25-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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)
12,900.00	90.00	270.14	6,905.00	2,718.66	-5,261.72	2,718.66	0.00	0.00	0.00
13,000.00	90.00	270.14	6,905.00	2,718.90	-5,361.72	2,718.90	0.00	0.00	0.00
13,100.00	90.00	270.14	6,905.00	2,719.14	-5,461.72	2,719.14	0.00	0.00	0.00
13,200.00	90.00	270.14	6,905.00	2,719.38	-5,561.72	2,719.38	0.00	0.00	0.00
13,300.00	90.00	270.14	6,905.00	2,719.62	-5,661.72	2,719.62	0.00	0.00	0.00
13,400.00	90.00	270.14	6,905.00	2,719.86	-5,761.72	2,719.86	0.00	0.00	0.00
13,500.00	90.00	270.14	6,905.00	2,720.10	-5,861.72	2,720.10	0.00	0.00	0.00
13,600.00	90.00	270.14	6,905.00	2,720.34	-5,961.72	2,720.34	0.00	0.00	0.00
13,700.00	90.00	270.14	6,905.00	2,720.58	-6,061.72	2,720.58	0.00	0.00	0.00
13,800.00	90.00	270.14	6,905.00	2,720.82	-6,161.72	2,720.82	0.00	0.00	0.00
13,900.00	90.00	270.14	6,905.00	2,721.06	-6,261.72	2,721.06	0.00	0.00	0.00
14,000.00	90.00	270.14	6,905.00	2,721.29	-6,361.72	2,721.29	0.00	0.00	0.00
14,100.00	90.00	270.14	6,905.00	2,721.53	-6,461.72	2,721.53	0.00	0.00	0.00
14,200.00	90.00	270.14	6,905.00	2,721.77	-6,561.72	2,721.77	0.00	0.00	0.00
14,300.00	90.00	270.14	6,905.00	2,722.01	-6,661.72	2,722.01	0.00	0.00	0.00
14,400.00	90.00	270.14	6,905.00	2,722.25	-6,761.72	2,722.25	0.00	0.00	0.00
14,500.00	90.00	270.14	6,905.00	2,722.49	-6,861.72	2,722.49	0.00	0.00	0.00
14,600.00	90.00	270.14	6,905.00	2,722.73	-6,961.72	2,722.73	0.00	0.00	0.00
14,700.00	90.00	270.14	6,905.00	2,722.97	-7,061.71	2,722.97	0.00	0.00	0.00
14,800.00	90.00	270.14	6,905.00	2,723.21	-7,161.71	2,723.21	0.00	0.00	0.00
14,900.00	90.00	270.14	6,905.00	2,723.45	-7,261.71	2,723.45	0.00	0.00	0.00
15,000.00	90.00	270.14	6,905.00	2,723.69	-7,361.71	2,723.69	0.00	0.00	0.00
15,100.00	90.00	270.14	6,905.00	2,723.93	-7,461.71	2,723.93	0.00	0.00	0.00
15,200.00	90.00	270.14	6,905.00	2,724.17	-7,561.71	2,724.17	0.00	0.00	0.00
15,300.00	90.00	270.14	6,905.00	2,724.40	-7,661.71	2,724.40	0.00	0.00	0.00
15,400.00	90.00	270.14	6,905.00	2,724.64	-7,761.71	2,724.64	0.00	0.00	0.00
15,500.00	90.00	270.14	6,905.00	2,724.88	-7,861.71	2,724.88	0.00	0.00	0.00
15,600.00	90.00	270.14	6,905.00	2,725.12	-7,961.71	2,725.12	0.00	0.00	0.00
15,700.00	90.00	270.14	6,905.00	2,725.36	-8,061.71	2,725.36	0.00	0.00	0.00
15,800.00	90.00	270.14	6,905.00	2,725.60	-8,161.71	2,725.60	0.00	0.00	0.00
15,900.00	90.00	270.14	6,905.00	2,725.84	-8,261.71	2,725.84	0.00	0.00	0.00
16,000.00	90.00	270.14	6,905.00	2,726.08	-8,361.71	2,726.08	0.00	0.00	0.00
16,100.00	90.00	270.14	6,905.00	2,726.32	-8,461.71	2,726.32	0.00	0.00	0.00
16,200.00	90.00	270.14	6,905.00	2,726.56	-8,561.71	2,726.56	0.00	0.00	0.00
16,300.00	90.00	270.14	6,905.00	2,726.80	-8,661.71	2,726.80	0.00	0.00	0.00
16,400.00	90.00	270.14	6,905.00	2,727.04	-8,761.71	2,727.04	0.00	0.00	0.00
16,500.00	90.00	270.14	6,905.00	2,727.28	-8,861.71	2,727.28	0.00	0.00	0.00
16,600.00	90.00	270.14	6,905.00	2,727.51	-8,961.71	2,727.51	0.00	0.00	0.00
16,700.00	90.00	270.14	6,905.00	2,727.75	-9,061.71	2,727.75	0.00	0.00	0.00
16,800.00	90.00	270.14	6,905.00	2,727.99	-9,161.71	2,727.99	0.00	0.00	0.00
16,900.00	90.00	270.14	6,905.00	2,728.23	-9,261.71	2,728.23	0.00	0.00	0.00
17,000.00	90.00	270.14	6,905.00	2,728.47	-9,361.71	2,728.47	0.00	0.00	0.00
17,100.00	90.00	270.14	6,905.00	2,728.71	-9,461.71	2,728.71	0.00	0.00	0.00
17,200.00	90.00	270.14	6,905.00	2,728.95	-9,561.71	2,728.95	0.00	0.00	0.00
17,300.00	90.00	270.14	6,905.00	2,729.19	-9,661.71	2,729.19	0.00	0.00	0.00
17,400.00	90.00	270.14	6,905.00	2,729.43	-9,761.71	2,729.43	0.00	0.00	0.00
17,500.00	90.00	270.14	6,905.00	2,729.67	-9,861.71	2,729.67	0.00	0.00	0.00
17,600.00	90.00	270.14	6,905.00	2,729.91	-9,961.71	2,729.91	0.00	0.00	0.00
17,700.00	90.00	270.14	6,905.00	2,730.15	-10,061.71	2,730.15	0.00	0.00	0.00
17,800.00	90.00	270.14	6,905.00	2,730.39	-10,161.71	2,730.39	0.00	0.00	0.00
17,900.00	90.00	270.14	6,905.00	2,730.62	-10,261.71	2,730.62	0.00	0.00	0.00
18,000.00	90.00	270.14	6,905.00	2,730.86	-10,361.71	2,730.86	0.00	0.00	0.00
18,100.00	90.00	270.14	6,905.00	2,731.10	-10,461.71	2,731.10	0.00	0.00	0.00
18,200.00	90.00	270.14	6,905.00	2,731.34	-10,561.70	2,731.34	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well GP-ALLES FED 17W-25-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	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)	
18,300.00	90.00	270.14	6,905.00	2,731.58	-10,661.70	2,731.58	0.00	0.00	0.00	
18,400.00	90.00	270.14	6,905.00	2,731.82	-10,761.70	2,731.82	0.00	0.00	0.00	
18,500.00	90.00	270.14	6,905.00	2,732.06	-10,861.70	2,732.06	0.00	0.00	0.00	
18,600.00	90.00	270.14	6,905.00	2,732.30	-10,961.70	2,732.30	0.00	0.00	0.00	
18,700.00	90.00	270.14	6,905.00	2,732.54	-11,061.70	2,732.54	0.00	0.00	0.00	
18,800.00	90.00	270.14	6,905.00	2,732.78	-11,161.70	2,732.78	0.00	0.00	0.00	
18,900.00	90.00	270.14	6,905.00	2,733.02	-11,261.70	2,733.02	0.00	0.00	0.00	
19,000.00	90.00	270.14	6,905.00	2,733.26	-11,361.70	2,733.26	0.00	0.00	0.00	
19,100.00	90.00	270.14	6,905.00	2,733.50	-11,461.70	2,733.50	0.00	0.00	0.00	
19,200.00	90.00	270.14	6,905.00	2,733.73	-11,561.70	2,733.73	0.00	0.00	0.00	
19,300.00	90.00	270.14	6,905.00	2,733.97	-11,661.70	2,733.97	0.00	0.00	0.00	
19,400.00	90.00	270.14	6,905.00	2,734.21	-11,761.70	2,734.21	0.00	0.00	0.00	
19,500.00	90.00	270.14	6,905.00	2,734.45	-11,861.70	2,734.45	0.00	0.00	0.00	
19,600.00	90.00	270.14	6,905.00	2,734.69	-11,961.70	2,734.69	0.00	0.00	0.00	
19,700.00	90.00	270.14	6,905.00	2,734.93	-12,061.70	2,734.93	0.00	0.00	0.00	
19,800.00	90.00	270.14	6,905.00	2,735.17	-12,161.70	2,735.17	0.00	0.00	0.00	
19,900.00	90.00	270.14	6,905.00	2,735.41	-12,261.70	2,735.41	0.00	0.00	0.00	
20,000.00	90.00	270.14	6,905.00	2,735.65	-12,361.70	2,735.65	0.00	0.00	0.00	
20,100.00	90.00	270.14	6,905.00	2,735.89	-12,461.70	2,735.89	0.00	0.00	0.00	
20,200.00	90.00	270.14	6,905.00	2,736.13	-12,561.70	2,736.13	0.00	0.00	0.00	
20,300.00	90.00	270.14	6,905.00	2,736.37	-12,661.70	2,736.37	0.00	0.00	0.00	
20,400.00	90.00	270.14	6,905.00	2,736.61	-12,761.70	2,736.61	0.00	0.00	0.00	
20,500.00	90.00	270.14	6,905.00	2,736.84	-12,861.70	2,736.84	0.00	0.00	0.00	
20,600.00	90.00	270.14	6,905.00	2,737.08	-12,961.70	2,737.08	0.00	0.00	0.00	
20,700.00	90.00	270.14	6,905.00	2,737.32	-13,061.70	2,737.32	0.00	0.00	0.00	
20,800.00	90.00	270.14	6,905.00	2,737.56	-13,161.70	2,737.56	0.00	0.00	0.00	
20,900.00	90.00	270.14	6,905.00	2,737.80	-13,261.70	2,737.80	0.00	0.00	0.00	
21,000.00	90.00	270.14	6,905.00	2,738.04	-13,361.70	2,738.04	0.00	0.00	0.00	
21,787.02	90.00	270.14	6,905.00	2,739.92	-14,148.72	2,739.92	0.00	0.00	0.00	
TD at 21787.02										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
GP-ALLES FED 17W-25-2N - hit/miss target - Shape	0.00	0.00	6,905.00	2,739.92	-14,148.72	1,388,802.28	3,213,534.34	40° 23' 53.268 N	104° 43' 59.916 W	
GP-ALLES FED 17W-25-2N - plan hits target center - Point	0.00	0.00	6,905.00	2,706.73	-272.95	1,388,897.01	3,227,409.82	40° 23' 52.980 N	104° 41' 0.564 W	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well GP-ALLES FED 17W-25-2N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 29' @ 4703.00usft
Project:	WELD COUNTY	MD Reference:	KB 29' @ 4703.00usft
Site:	Sec 20-T5N-R65W	North Reference:	True
Well:	GP-ALLES FED 17W-25-2N	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,890.30	3,686.00	PARKMAN				
4,738.73	4,425.00	SUSSEX				
5,324.24	4,935.00	SHANNON				
7,432.16	6,740.00	SHARON SPRINGS				
7,488.76	6,775.00	NIOBRARA				
7,796.49	6,895.00	NIO B TARGET				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,150.00	1,150.00	0.00	0.00	Start Build 2.00	
1,601.87	1,600.00	31.23	-17.01	Start 100.00 hold at 1601.87 MD	
1,701.87	1,698.76	45.02	-24.53	Start DLS 2.00 TFO 50.56	
2,846.23	2,776.59	406.30	-22.99	Start 4121.03 hold at 2846.23 MD	
6,967.26	6,366.11	2,405.16	297.61	Start DLS 10.00 TFO -97.83	
7,911.21	6,905.00	2,706.73	-272.95	Start 13875.81 hold at 7911.21 MD	
21,787.02	6,905.00	2,739.92	-14,148.72	TD at 21787.02	