

EXTRACTION OIL & GAS

WELD COUNTY

SEC 20-T7N-R67W

VIC EAST 21E-20-08N

OWB

Plan: PROPOSAL 1

Standard Planning Report

17 August, 2021



Project: WELD COUNTY
Site: SEC 20-T7N-R67W
Well: VIC EAST 21E-20-08N
Wellbore: OWB
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.30°

Magnetic Field
Strength: 52428.7nT
Dip Angle: 66.91°
Date: 10/20/2017
Model: IGRF2020

WELL DETAILS: VIC EAST 21E-20-08N

+N/-S	+E/-W	Northing	Easting	5008.00	Latitude	Longitude	Slot
0.00	0.00	1447871.64	3164265.10		40.561304°N	104.908790°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
3	1791.81	17.84	174.35	1777.47	-137.02	13.55	2.00	174.35	37.20	
4	6655.51	17.84	174.35	6407.41	-1619.53	160.17	0.00	0.00	439.64	
5	7537.56	90.00	90.22	6936.00	-1790.93	732.18	10.00	-84.41	1032.76	VIC EAST 21E-20-08N-LP
6	17147.15	90.00	90.22	6936.00	-1828.12	10341.70	0.00	0.00	10502.04	VIC EAST 21E-20-08N-PBHL

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	Start Build 2.00
1791.81	17.84	174.35	1777.47	-137.02	13.55	37.20	137.69	Start 4863.70 hold at 1791.81 MD
6655.51	17.84	174.35	6407.41	-1619.53	160.17	439.64	1627.43	Start DLS 10.00 TFO -84.41
7537.56	90.00	90.22	6936.00	-1790.93	732.18	1032.76	2251.85	Start 9609.59 hold at 7537.56 MD
17147.15	90.00	90.22	6936.00	-1828.12	10341.70	10502.04	11861.44	TD at 17147.15

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
VIC EAST 21E-20-08N-LP	6936.00	-1790.93	732.18	1446085.62	3165009.21	40.556388°N	104.906155°W	Point
- plan hits target center								
VIC EAST 21E-20-08N-PBHL	6936.00	-1828.12	10341.70	1446112.51	3174618.76	40.556280°N	104.871572°W	Point
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
804.00	804.00	Fox Hills Base:
3499.00	3600.26	Parkman:
4034.00	4162.27	Sussex:
4604.00	4761.05	Shannon:
6906.00	7346.69	Sharon Springs (Confining Zone):
6926.00	7427.70	Niobrara:

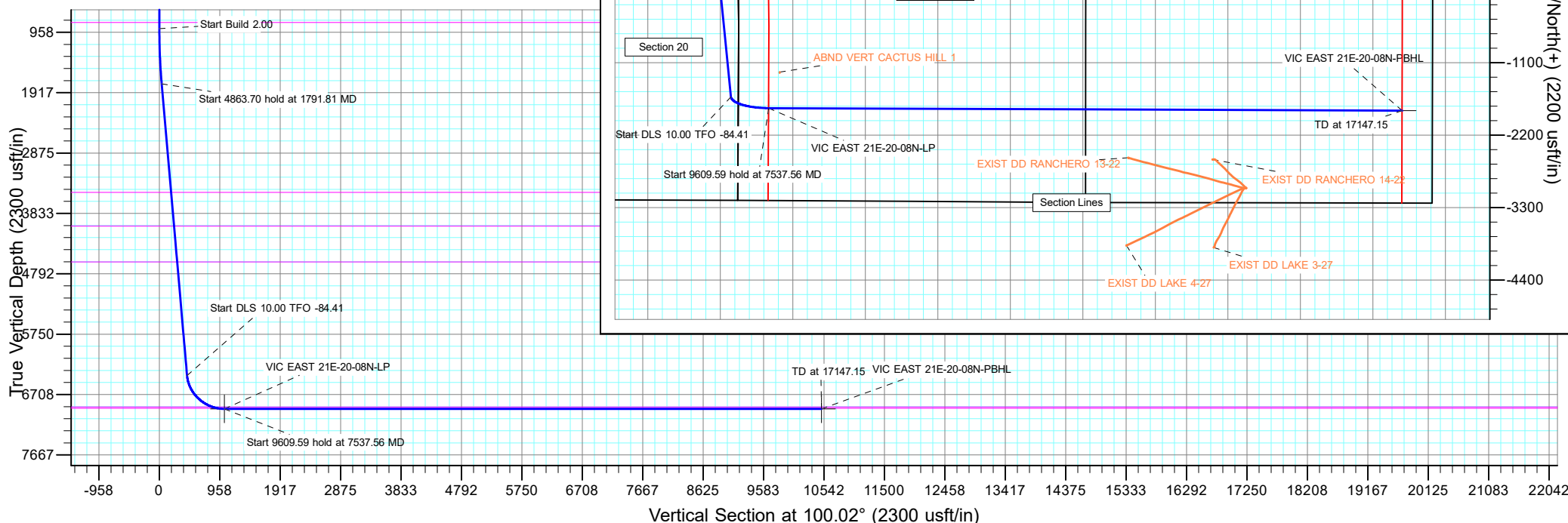
PROJECT DETAILS: WELD COUNTY

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

SHL:
2092' FNL, 271' FEL
Sec 20-T7N-R67W

LP:
1402' FSL, 460' FWL
Sec 21-T7N-R67W

BHL:
1405' FSL, 460' FEL
Sec 22-T7N-R67W



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well VIC EAST 21E-20-08N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5033.00usft
Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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-T7N-R67W				
Site Position:		Northing:	1,449,964.02	usft	Latitude:	40.567043°N
From:	Lat/Long	Easting:	3,164,495.92	usft	Longitude:	104.907909°W
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well		VIC EAST 21E-20-08N				
Well Position	+N/-S	0.00 usft	Northing:	1,447,871.64 usft	Latitude:	40.561304°N
	+E/-W	0.00 usft	Easting:	3,164,265.10 usft	Longitude:	104.908790°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,008.00 usft
Grid Convergence:		0.38 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/2/2017	8.30	66.91	52,428.73999354

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	100.02	

Plan Survey Tool Program	Date	8/16/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	17,147.15 PROPOSAL 1 (OWB)	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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,791.81	17.84	174.35	1,777.47	-137.02	13.55	2.00	2.00	0.00	174.35	
6,655.51	17.84	174.35	6,407.41	-1,619.53	160.17	0.00	0.00	0.00	0.00	
7,537.56	90.00	90.22	6,936.00	-1,790.93	732.18	10.00	8.18	-9.54	-84.41	VIC EAST 21E-20-08
17,147.15	90.00	90.22	6,936.00	-1,828.12	10,341.70	0.00	0.00	0.00	0.00	VIC EAST 21E-20-08

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Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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
804.00	0.00	0.00	804.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Base:									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	2.00	174.35	999.98	-1.74	0.17	0.47	2.00	2.00	0.00
1,100.00	4.00	174.35	1,099.84	-6.94	0.69	1.89	2.00	2.00	0.00
1,200.00	6.00	174.35	1,199.45	-15.62	1.54	4.24	2.00	2.00	0.00
1,300.00	8.00	174.35	1,298.70	-27.74	2.74	7.53	2.00	2.00	0.00
1,400.00	10.00	174.35	1,397.47	-43.31	4.28	11.76	2.00	2.00	0.00
1,500.00	12.00	174.35	1,495.62	-62.30	6.16	16.91	2.00	2.00	0.00
1,600.00	14.00	174.35	1,593.06	-84.68	8.37	22.99	2.00	2.00	0.00
1,700.00	16.00	174.35	1,689.64	-110.44	10.92	29.98	2.00	2.00	0.00
1,791.81	17.84	174.35	1,777.47	-137.02	13.55	37.20	2.00	2.00	0.00
Start 4863.70 hold at 1791.81 MD									
1,800.00	17.84	174.35	1,785.27	-139.52	13.80	37.87	0.00	0.00	0.00
1,900.00	17.84	174.35	1,880.47	-170.00	16.81	46.15	0.00	0.00	0.00
2,000.00	17.84	174.35	1,975.66	-200.48	19.83	54.42	0.00	0.00	0.00
2,100.00	17.84	174.35	2,070.85	-230.96	22.84	62.70	0.00	0.00	0.00
2,200.00	17.84	174.35	2,166.05	-261.45	25.86	70.97	0.00	0.00	0.00
2,300.00	17.84	174.35	2,261.24	-291.93	28.87	79.25	0.00	0.00	0.00
2,400.00	17.84	174.35	2,356.43	-322.41	31.88	87.52	0.00	0.00	0.00
2,500.00	17.84	174.35	2,451.63	-352.89	34.90	95.79	0.00	0.00	0.00
2,600.00	17.84	174.35	2,546.82	-383.37	37.91	104.07	0.00	0.00	0.00
2,700.00	17.84	174.35	2,642.01	-413.85	40.93	112.34	0.00	0.00	0.00
2,800.00	17.84	174.35	2,737.21	-444.33	43.94	120.62	0.00	0.00	0.00
2,900.00	17.84	174.35	2,832.40	-474.81	46.96	128.89	0.00	0.00	0.00
3,000.00	17.84	174.35	2,927.60	-505.29	49.97	137.17	0.00	0.00	0.00
3,100.00	17.84	174.35	3,022.79	-535.77	52.99	145.44	0.00	0.00	0.00
3,200.00	17.84	174.35	3,117.98	-566.26	56.00	153.72	0.00	0.00	0.00
3,300.00	17.84	174.35	3,213.18	-596.74	59.01	161.99	0.00	0.00	0.00
3,400.00	17.84	174.35	3,308.37	-627.22	62.03	170.26	0.00	0.00	0.00
3,500.00	17.84	174.35	3,403.56	-657.70	65.04	178.54	0.00	0.00	0.00
3,600.00	17.84	174.35	3,498.76	-688.18	68.06	186.81	0.00	0.00	0.00
3,600.26	17.84	174.35	3,499.00	-688.26	68.07	186.83	0.00	0.00	0.00
Parkman:									
3,700.00	17.84	174.35	3,593.95	-718.66	71.07	195.09	0.00	0.00	0.00
3,800.00	17.84	174.35	3,689.14	-749.14	74.09	203.36	0.00	0.00	0.00
3,900.00	17.84	174.35	3,784.34	-779.62	77.10	211.64	0.00	0.00	0.00
4,000.00	17.84	174.35	3,879.53	-810.10	80.12	219.91	0.00	0.00	0.00
4,100.00	17.84	174.35	3,974.72	-840.58	83.13	228.18	0.00	0.00	0.00
4,162.27	17.84	174.35	4,034.00	-859.56	85.01	233.34	0.00	0.00	0.00
Sussex:									
4,200.00	17.84	174.35	4,069.92	-871.07	86.15	236.46	0.00	0.00	0.00
4,300.00	17.84	174.35	4,165.11	-901.55	89.16	244.73	0.00	0.00	0.00
4,400.00	17.84	174.35	4,260.31	-932.03	92.17	253.01	0.00	0.00	0.00
4,500.00	17.84	174.35	4,355.50	-962.51	95.19	261.28	0.00	0.00	0.00
4,600.00	17.84	174.35	4,450.69	-992.99	98.20	269.56	0.00	0.00	0.00
4,700.00	17.84	174.35	4,545.89	-1,023.47	101.22	277.83	0.00	0.00	0.00
4,761.05	17.84	174.35	4,604.00	-1,042.08	103.06	282.88	0.00	0.00	0.00
Shannon:									
4,800.00	17.84	174.35	4,641.08	-1,053.95	104.23	286.10	0.00	0.00	0.00
4,900.00	17.84	174.35	4,736.27	-1,084.43	107.25	294.38	0.00	0.00	0.00

Planning Report

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Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
5,000.00	17.84	174.35	4,831.47	-1,114.91	110.26	302.65	0.00	0.00	0.00
5,100.00	17.84	174.35	4,926.66	-1,145.39	113.28	310.93	0.00	0.00	0.00
5,200.00	17.84	174.35	5,021.85	-1,175.88	116.29	319.20	0.00	0.00	0.00
5,300.00	17.84	174.35	5,117.05	-1,206.36	119.30	327.48	0.00	0.00	0.00
5,400.00	17.84	174.35	5,212.24	-1,236.84	122.32	335.75	0.00	0.00	0.00
5,500.00	17.84	174.35	5,307.44	-1,267.32	125.33	344.03	0.00	0.00	0.00
5,600.00	17.84	174.35	5,402.63	-1,297.80	128.35	352.30	0.00	0.00	0.00
5,700.00	17.84	174.35	5,497.82	-1,328.28	131.36	360.57	0.00	0.00	0.00
5,800.00	17.84	174.35	5,593.02	-1,358.76	134.38	368.85	0.00	0.00	0.00
5,900.00	17.84	174.35	5,688.21	-1,389.24	137.39	377.12	0.00	0.00	0.00
6,000.00	17.84	174.35	5,783.40	-1,419.72	140.41	385.40	0.00	0.00	0.00
6,100.00	17.84	174.35	5,878.60	-1,450.20	143.42	393.67	0.00	0.00	0.00
6,200.00	17.84	174.35	5,973.79	-1,480.69	146.43	401.95	0.00	0.00	0.00
6,300.00	17.84	174.35	6,068.98	-1,511.17	149.45	410.22	0.00	0.00	0.00
6,400.00	17.84	174.35	6,164.18	-1,541.65	152.46	418.49	0.00	0.00	0.00
6,500.00	17.84	174.35	6,259.37	-1,572.13	155.48	426.77	0.00	0.00	0.00
6,600.00	17.84	174.35	6,354.56	-1,602.61	158.49	435.04	0.00	0.00	0.00
6,655.51	17.84	174.35	6,407.41	-1,619.53	160.17	439.64	0.00	0.00	0.00
Start DLS 10.00 TFO -84.41									
6,700.00	18.78	160.48	6,449.66	-1,633.07	163.23	445.01	10.00	2.12	-31.18
6,750.00	20.91	147.11	6,496.72	-1,648.16	170.77	455.06	10.00	4.26	-26.73
6,800.00	23.88	136.52	6,542.96	-1,663.00	182.59	469.29	10.00	5.94	-21.19
6,850.00	27.42	128.32	6,588.04	-1,677.49	198.60	487.57	10.00	7.07	-16.39
6,900.00	31.33	121.95	6,631.61	-1,691.52	218.67	509.78	10.00	7.82	-12.74
6,950.00	35.48	116.90	6,673.35	-1,704.97	242.65	535.74	10.00	8.32	-10.10
7,000.00	39.81	112.80	6,712.94	-1,717.75	270.37	565.25	10.00	8.66	-8.20
7,050.00	44.26	109.39	6,750.07	-1,729.75	301.60	598.10	10.00	8.90	-6.82
7,100.00	48.80	106.49	6,784.46	-1,740.90	336.12	634.03	10.00	9.07	-5.80
7,150.00	53.40	103.97	6,815.85	-1,751.09	373.66	672.77	10.00	9.20	-5.04
7,200.00	58.05	101.74	6,844.00	-1,760.26	413.93	714.02	10.00	9.29	-4.47
7,250.00	62.73	99.72	6,868.70	-1,768.33	456.63	757.48	10.00	9.36	-4.04
7,300.00	67.44	97.86	6,889.76	-1,775.24	501.43	802.80	10.00	9.42	-3.71
7,346.69	71.85	96.24	6,906.00	-1,780.61	544.86	846.50	10.00	9.46	-3.47
Sharon Springs (Confining Zone):									
7,350.00	72.17	96.13	6,907.02	-1,780.95	547.99	849.64	10.00	9.47	-3.37
7,400.00	76.91	94.49	6,920.35	-1,785.40	595.96	897.65	10.00	9.49	-3.28
7,427.70	79.54	93.61	6,926.00	-1,787.31	623.01	924.62	10.00	9.50	-3.18
Niobrara:									
7,450.00	81.66	92.91	6,929.64	-1,788.56	644.97	946.47	10.00	9.51	-3.13
7,500.00	86.42	91.37	6,934.83	-1,790.41	694.65	995.71	10.00	9.52	-3.08
7,537.56	90.00	90.22	6,936.00	-1,790.93	732.18	1,032.76	10.00	9.52	-3.05
Start 9609.59 hold at 7537.56 MD									
7,600.00	90.00	90.22	6,936.00	-1,791.18	794.62	1,094.29	0.00	0.00	0.00
7,700.00	90.00	90.22	6,936.00	-1,791.56	894.62	1,192.83	0.00	0.00	0.00
7,800.00	90.00	90.22	6,936.00	-1,791.95	994.62	1,291.37	0.00	0.00	0.00
7,900.00	90.00	90.22	6,936.00	-1,792.34	1,094.62	1,389.91	0.00	0.00	0.00
8,000.00	90.00	90.22	6,936.00	-1,792.72	1,194.62	1,488.45	0.00	0.00	0.00
8,100.00	90.00	90.22	6,936.00	-1,793.11	1,294.62	1,586.99	0.00	0.00	0.00
8,200.00	90.00	90.22	6,936.00	-1,793.50	1,394.62	1,685.53	0.00	0.00	0.00
8,300.00	90.00	90.22	6,936.00	-1,793.88	1,494.62	1,784.07	0.00	0.00	0.00
8,400.00	90.00	90.22	6,936.00	-1,794.27	1,594.62	1,882.61	0.00	0.00	0.00
8,500.00	90.00	90.22	6,936.00	-1,794.66	1,694.62	1,981.15	0.00	0.00	0.00
8,600.00	90.00	90.22	6,936.00	-1,795.05	1,794.62	2,079.69	0.00	0.00	0.00

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5033.00usft
Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)	
8,700.00	90.00	90.22	6,936.00	-1,795.43	1,894.61	2,178.23	0.00	0.00	0.00	
8,800.00	90.00	90.22	6,936.00	-1,795.82	1,994.61	2,276.77	0.00	0.00	0.00	
8,900.00	90.00	90.22	6,936.00	-1,796.21	2,094.61	2,375.31	0.00	0.00	0.00	
9,000.00	90.00	90.22	6,936.00	-1,796.59	2,194.61	2,473.84	0.00	0.00	0.00	
9,100.00	90.00	90.22	6,936.00	-1,796.98	2,294.61	2,572.38	0.00	0.00	0.00	
9,200.00	90.00	90.22	6,936.00	-1,797.37	2,394.61	2,670.92	0.00	0.00	0.00	
9,300.00	90.00	90.22	6,936.00	-1,797.75	2,494.61	2,769.46	0.00	0.00	0.00	
9,400.00	90.00	90.22	6,936.00	-1,798.14	2,594.61	2,868.00	0.00	0.00	0.00	
9,500.00	90.00	90.22	6,936.00	-1,798.53	2,694.61	2,966.54	0.00	0.00	0.00	
9,600.00	90.00	90.22	6,936.00	-1,798.91	2,794.61	3,065.08	0.00	0.00	0.00	
9,700.00	90.00	90.22	6,936.00	-1,799.30	2,894.61	3,163.62	0.00	0.00	0.00	
9,800.00	90.00	90.22	6,936.00	-1,799.69	2,994.61	3,262.16	0.00	0.00	0.00	
9,900.00	90.00	90.22	6,936.00	-1,800.08	3,094.61	3,360.70	0.00	0.00	0.00	
10,000.00	90.00	90.22	6,936.00	-1,800.46	3,194.61	3,459.24	0.00	0.00	0.00	
10,100.00	90.00	90.22	6,936.00	-1,800.85	3,294.60	3,557.78	0.00	0.00	0.00	
10,200.00	90.00	90.22	6,936.00	-1,801.24	3,394.60	3,656.32	0.00	0.00	0.00	
10,300.00	90.00	90.22	6,936.00	-1,801.62	3,494.60	3,754.86	0.00	0.00	0.00	
10,400.00	90.00	90.22	6,936.00	-1,802.01	3,594.60	3,853.40	0.00	0.00	0.00	
10,500.00	90.00	90.22	6,936.00	-1,802.40	3,694.60	3,951.94	0.00	0.00	0.00	
10,600.00	90.00	90.22	6,936.00	-1,802.78	3,794.60	4,050.48	0.00	0.00	0.00	
10,700.00	90.00	90.22	6,936.00	-1,803.17	3,894.60	4,149.02	0.00	0.00	0.00	
10,800.00	90.00	90.22	6,936.00	-1,803.56	3,994.60	4,247.56	0.00	0.00	0.00	
10,900.00	90.00	90.22	6,936.00	-1,803.95	4,094.60	4,346.10	0.00	0.00	0.00	
11,000.00	90.00	90.22	6,936.00	-1,804.33	4,194.60	4,444.64	0.00	0.00	0.00	
11,100.00	90.00	90.22	6,936.00	-1,804.72	4,294.60	4,543.18	0.00	0.00	0.00	
11,200.00	90.00	90.22	6,936.00	-1,805.11	4,394.60	4,641.72	0.00	0.00	0.00	
11,300.00	90.00	90.22	6,936.00	-1,805.49	4,494.60	4,740.26	0.00	0.00	0.00	
11,400.00	90.00	90.22	6,936.00	-1,805.88	4,594.59	4,838.80	0.00	0.00	0.00	
11,500.00	90.00	90.22	6,936.00	-1,806.27	4,694.59	4,937.34	0.00	0.00	0.00	
11,600.00	90.00	90.22	6,936.00	-1,806.65	4,794.59	5,035.88	0.00	0.00	0.00	
11,700.00	90.00	90.22	6,936.00	-1,807.04	4,894.59	5,134.42	0.00	0.00	0.00	
11,800.00	90.00	90.22	6,936.00	-1,807.43	4,994.59	5,232.96	0.00	0.00	0.00	
11,900.00	90.00	90.22	6,936.00	-1,807.82	5,094.59	5,331.50	0.00	0.00	0.00	
12,000.00	90.00	90.22	6,936.00	-1,808.20	5,194.59	5,430.04	0.00	0.00	0.00	
12,100.00	90.00	90.22	6,936.00	-1,808.59	5,294.59	5,528.58	0.00	0.00	0.00	
12,200.00	90.00	90.22	6,936.00	-1,808.98	5,394.59	5,627.12	0.00	0.00	0.00	
12,300.00	90.00	90.22	6,936.00	-1,809.36	5,494.59	5,725.66	0.00	0.00	0.00	
12,400.00	90.00	90.22	6,936.00	-1,809.75	5,594.59	5,824.20	0.00	0.00	0.00	
12,500.00	90.00	90.22	6,936.00	-1,810.14	5,694.59	5,922.74	0.00	0.00	0.00	
12,600.00	90.00	90.22	6,936.00	-1,810.52	5,794.59	6,021.28	0.00	0.00	0.00	
12,700.00	90.00	90.22	6,936.00	-1,810.91	5,894.58	6,119.82	0.00	0.00	0.00	
12,800.00	90.00	90.22	6,936.00	-1,811.30	5,994.58	6,218.36	0.00	0.00	0.00	
12,900.00	90.00	90.22	6,936.00	-1,811.68	6,094.58	6,316.90	0.00	0.00	0.00	
13,000.00	90.00	90.22	6,936.00	-1,812.07	6,194.58	6,415.44	0.00	0.00	0.00	
13,100.00	90.00	90.22	6,936.00	-1,812.46	6,294.58	6,513.98	0.00	0.00	0.00	
13,200.00	90.00	90.22	6,936.00	-1,812.85	6,394.58	6,612.52	0.00	0.00	0.00	
13,300.00	90.00	90.22	6,936.00	-1,813.23	6,494.58	6,711.06	0.00	0.00	0.00	
13,400.00	90.00	90.22	6,936.00	-1,813.62	6,594.58	6,809.60	0.00	0.00	0.00	
13,500.00	90.00	90.22	6,936.00	-1,814.01	6,694.58	6,908.14	0.00	0.00	0.00	
13,600.00	90.00	90.22	6,936.00	-1,814.39	6,794.58	7,006.68	0.00	0.00	0.00	
13,700.00	90.00	90.22	6,936.00	-1,814.78	6,894.58	7,105.22	0.00	0.00	0.00	
13,800.00	90.00	90.22	6,936.00	-1,815.17	6,994.58	7,203.76	0.00	0.00	0.00	
13,900.00	90.00	90.22	6,936.00	-1,815.55	7,094.58	7,302.30	0.00	0.00	0.00	
14,000.00	90.00	90.22	6,936.00	-1,815.94	7,194.58	7,400.84	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well VIC EAST 21E-20-08N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5033.00usft
Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)	
14,100.00	90.00	90.22	6,936.00	-1,816.33	7,294.57	7,499.38	0.00	0.00	0.00	
14,200.00	90.00	90.22	6,936.00	-1,816.72	7,394.57	7,597.92	0.00	0.00	0.00	
14,300.00	90.00	90.22	6,936.00	-1,817.10	7,494.57	7,696.46	0.00	0.00	0.00	
14,400.00	90.00	90.22	6,936.00	-1,817.49	7,594.57	7,795.00	0.00	0.00	0.00	
14,500.00	90.00	90.22	6,936.00	-1,817.88	7,694.57	7,893.54	0.00	0.00	0.00	
14,600.00	90.00	90.22	6,936.00	-1,818.26	7,794.57	7,992.08	0.00	0.00	0.00	
14,700.00	90.00	90.22	6,936.00	-1,818.65	7,894.57	8,090.62	0.00	0.00	0.00	
14,800.00	90.00	90.22	6,936.00	-1,819.04	7,994.57	8,189.16	0.00	0.00	0.00	
14,900.00	90.00	90.22	6,936.00	-1,819.42	8,094.57	8,287.70	0.00	0.00	0.00	
15,000.00	90.00	90.22	6,936.00	-1,819.81	8,194.57	8,386.24	0.00	0.00	0.00	
15,100.00	90.00	90.22	6,936.00	-1,820.20	8,294.57	8,484.78	0.00	0.00	0.00	
15,200.00	90.00	90.22	6,936.00	-1,820.59	8,394.57	8,583.32	0.00	0.00	0.00	
15,300.00	90.00	90.22	6,936.00	-1,820.97	8,494.57	8,681.86	0.00	0.00	0.00	
15,400.00	90.00	90.22	6,936.00	-1,821.36	8,594.56	8,780.40	0.00	0.00	0.00	
15,500.00	90.00	90.22	6,936.00	-1,821.75	8,694.56	8,878.94	0.00	0.00	0.00	
15,600.00	90.00	90.22	6,936.00	-1,822.13	8,794.56	8,977.48	0.00	0.00	0.00	
15,700.00	90.00	90.22	6,936.00	-1,822.52	8,894.56	9,076.02	0.00	0.00	0.00	
15,800.00	90.00	90.22	6,936.00	-1,822.91	8,994.56	9,174.56	0.00	0.00	0.00	
15,900.00	90.00	90.22	6,936.00	-1,823.29	9,094.56	9,273.10	0.00	0.00	0.00	
16,000.00	90.00	90.22	6,936.00	-1,823.68	9,194.56	9,371.64	0.00	0.00	0.00	
16,100.00	90.00	90.22	6,936.00	-1,824.07	9,294.56	9,470.18	0.00	0.00	0.00	
16,200.00	90.00	90.22	6,936.00	-1,824.45	9,394.56	9,568.72	0.00	0.00	0.00	
16,300.00	90.00	90.22	6,936.00	-1,824.84	9,494.56	9,667.26	0.00	0.00	0.00	
16,400.00	90.00	90.22	6,936.00	-1,825.23	9,594.56	9,765.80	0.00	0.00	0.00	
16,500.00	90.00	90.22	6,936.00	-1,825.62	9,694.56	9,864.34	0.00	0.00	0.00	
16,600.00	90.00	90.22	6,936.00	-1,826.00	9,794.56	9,962.88	0.00	0.00	0.00	
16,700.00	90.00	90.22	6,936.00	-1,826.39	9,894.56	10,061.42	0.00	0.00	0.00	
16,800.00	90.00	90.22	6,936.00	-1,826.78	9,994.55	10,159.96	0.00	0.00	0.00	
16,900.00	90.00	90.22	6,936.00	-1,827.16	10,094.55	10,258.50	0.00	0.00	0.00	
17,000.00	90.00	90.22	6,936.00	-1,827.55	10,194.55	10,357.04	0.00	0.00	0.00	
17,100.00	90.00	90.22	6,936.00	-1,827.94	10,294.55	10,455.58	0.00	0.00	0.00	
17,147.15	90.00	90.22	6,936.00	-1,828.12	10,341.70	10,502.04	0.00	0.00	0.00	
TD at 17147.15										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	
- hit/miss target									
- Shape									
VIC EAST 21E-20-08N-I	0.00	0.00	6,936.00	-1,790.93	732.18	1,446,085.63	3,165,009.21	40.556388°N	
- plan hits target center									
- Point									
VIC EAST 21E-20-08N-I	0.00	0.00	6,936.00	-1,828.12	10,341.70	1,446,112.51	3,174,618.77	40.556280°N	
- plan hits target center									
- Point									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well VIC EAST 21E-20-08N
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB 25' @ 5033.00usft
Project:	WELD COUNTY	MD Reference:	KB 25' @ 5033.00usft
Site:	SEC 20-T7N-R67W	North Reference:	True
Well:	VIC EAST 21E-20-08N	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
804.00	804.00	Fox Hills Base:				
3,600.26	3,499.00	Parkman:				
4,162.27	4,034.00	Sussex:				
4,761.05	4,604.00	Shannon:				
7,346.69	6,906.00	Sharon Springs (Confining Zone):				
7,427.70	6,926.00	Niobrara:				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
900.00	900.00	0.00	0.00	Start Build 2.00	
1,791.81	1,777.47	-137.02	13.55	Start 4863.70 hold at 1791.81 MD	
6,655.51	6,407.41	-1,619.53	160.17	Start DLS 10.00 TFO -84.41	
7,537.56	6,936.00	-1,790.93	732.18	Start 9609.59 hold at 7537.56 MD	
17,147.15	6,936.00	-1,828.12	10,341.70	TD at 17147.15	