

# **EXTRACTION OIL & GAS**

**WELD COUNTY**

**Sec 20-T7N-R67W**

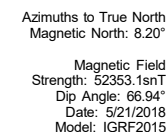
**VIC 29W-20-2N**

**ORIGINAL WELLBORE**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**22 May, 2018**



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well VIC 29W-20-2N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5040.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5040.00usft
<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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 20-T7N-R67W			
Site Position:		Northing:	1,449,964.02 usft	Latitude:	40° 34' 1.355 N
From:	Lat/Long	Easting:	3,164,495.92 usft	Longitude:	104° 54' 28.472 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	VIC 29W-20-2N					
Well Position	+N/-S	-2,286.79 usft	Northing:	1,447,675.65 usft	Latitude:	40° 33' 38.758 N
	+E/-W	-244.79 usft	Easting:	3,164,266.41 usft	Longitude:	104° 54' 31.644 W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,011.00 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	5/21/2018	8.20	66.94	52,353.06044767

<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	246.23

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/22/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	17,721.22	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	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,288.03	43.76	175.93	2,081.42	-793.73	56.44	2.00	2.00	0.00	175.93	
5,579.91	43.76	175.93	4,458.93	-3,064.82	217.92	0.00	0.00	0.00	0.00	
7,767.94	0.00	0.00	6,440.35	-3,858.55	274.36	2.00	-2.00	0.00	180.00	
7,797.94	0.00	0.00	6,470.35	-3,858.55	274.36	0.00	0.00	0.00	0.00	
8,548.26	90.00	268.40	6,948.00	-3,871.89	-203.14	12.00	12.00	-12.21	268.40	VIC 29W-2N - LP
17,721.88	90.00	268.40	6,948.00	-4,128.40	-9,373.17	0.00	0.00	0.00	-152.83	VIC 29W-2N - PBHL

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well VIC 29W-20-2N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5040.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5040.00usft
<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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
Start Build 2.00									
200.00	2.00	175.93	199.98	-1.74	0.12	0.59	2.00	2.00	0.00
300.00	4.00	175.93	299.84	-6.96	0.49	2.35	2.00	2.00	0.00
400.00	6.00	175.93	399.45	-15.65	1.11	5.29	2.00	2.00	0.00
500.00	8.00	175.93	498.70	-27.81	1.98	9.40	2.00	2.00	0.00
600.00	10.00	175.93	597.47	-43.41	3.09	14.67	2.00	2.00	0.00
700.00	12.00	175.93	695.62	-62.44	4.44	21.11	2.00	2.00	0.00
800.00	14.00	175.93	793.06	-84.88	6.04	28.69	2.00	2.00	0.00
900.00	16.00	175.93	889.64	-110.70	7.87	37.42	2.00	2.00	0.00
1,000.00	18.00	175.93	985.27	-139.86	9.94	47.27	2.00	2.00	0.00
1,100.00	20.00	175.93	1,079.82	-172.33	12.25	58.25	2.00	2.00	0.00
1,200.00	22.00	175.93	1,173.17	-208.08	14.80	70.33	2.00	2.00	0.00
1,300.00	24.00	175.93	1,265.21	-247.05	17.57	83.51	2.00	2.00	0.00
1,400.00	26.00	175.93	1,355.84	-289.20	20.56	97.75	2.00	2.00	0.00
1,500.00	28.00	175.93	1,444.94	-334.49	23.78	113.06	2.00	2.00	0.00
1,600.00	30.00	175.93	1,532.39	-382.84	27.22	129.41	2.00	2.00	0.00
1,700.00	32.00	175.93	1,618.11	-434.21	30.87	146.77	2.00	2.00	0.00
1,800.00	34.00	175.93	1,701.97	-488.54	34.74	165.13	2.00	2.00	0.00
1,900.00	36.00	175.93	1,783.88	-545.75	38.81	184.47	2.00	2.00	0.00
2,000.00	38.00	175.93	1,863.74	-605.78	43.07	204.76	2.00	2.00	0.00
2,100.00	40.00	175.93	1,941.45	-668.55	47.54	225.98	2.00	2.00	0.00
2,200.00	42.00	175.93	2,016.92	-733.98	52.19	248.09	2.00	2.00	0.00
2,288.03	43.76	175.93	2,081.42	-793.73	56.44	268.29	2.00	2.00	0.00
Start 3291.88 hold at 2288.03 MD									
2,300.00	43.76	175.93	2,090.07	-801.99	57.03	271.08	0.00	0.00	0.00
2,400.00	43.76	175.93	2,162.29	-870.98	61.93	294.40	0.00	0.00	0.00
2,500.00	43.76	175.93	2,234.51	-939.97	66.84	317.72	0.00	0.00	0.00
2,600.00	43.76	175.93	2,306.74	-1,008.96	71.74	341.04	0.00	0.00	0.00
2,700.00	43.76	175.93	2,378.96	-1,077.95	76.65	364.36	0.00	0.00	0.00
2,800.00	43.76	175.93	2,451.18	-1,146.94	81.55	387.68	0.00	0.00	0.00
2,900.00	43.76	175.93	2,523.41	-1,215.93	86.46	411.00	0.00	0.00	0.00
3,000.00	43.76	175.93	2,595.63	-1,284.93	91.36	434.32	0.00	0.00	0.00
3,100.00	43.76	175.93	2,667.85	-1,353.92	96.27	457.64	0.00	0.00	0.00
3,200.00	43.76	175.93	2,740.08	-1,422.91	101.17	480.96	0.00	0.00	0.00
3,300.00	43.76	175.93	2,812.30	-1,491.90	106.08	504.28	0.00	0.00	0.00
3,400.00	43.76	175.93	2,884.52	-1,560.89	110.99	527.60	0.00	0.00	0.00
3,500.00	43.76	175.93	2,956.75	-1,629.88	115.89	550.92	0.00	0.00	0.00
3,600.00	43.76	175.93	3,028.97	-1,698.87	120.80	574.24	0.00	0.00	0.00
3,700.00	43.76	175.93	3,101.20	-1,767.86	125.70	597.56	0.00	0.00	0.00
3,800.00	43.76	175.93	3,173.42	-1,836.85	130.61	620.87	0.00	0.00	0.00
3,900.00	43.76	175.93	3,245.64	-1,905.84	135.51	644.19	0.00	0.00	0.00
4,000.00	43.76	175.93	3,317.87	-1,974.83	140.42	667.51	0.00	0.00	0.00
4,100.00	43.76	175.93	3,390.09	-2,043.82	145.32	690.83	0.00	0.00	0.00
4,200.00	43.76	175.93	3,462.31	-2,112.81	150.23	714.15	0.00	0.00	0.00
4,235.57	43.76	175.93	3,488.00	-2,137.35	151.98	722.45	0.00	0.00	0.00
PARKMAN									
4,300.00	43.76	175.93	3,534.54	-2,181.80	155.14	737.47	0.00	0.00	0.00
4,400.00	43.76	175.93	3,606.76	-2,250.79	160.04	760.79	0.00	0.00	0.00
4,500.00	43.76	175.93	3,678.98	-2,319.78	164.95	784.11	0.00	0.00	0.00
4,600.00	43.76	175.93	3,751.21	-2,388.77	169.85	807.43	0.00	0.00	0.00
4,700.00	43.76	175.93	3,823.43	-2,457.77	174.76	830.75	0.00	0.00	0.00

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<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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)
4,800.00	43.76	175.93	3,895.65	-2,526.76	179.66	854.07	0.00	0.00	0.00
4,900.00	43.76	175.93	3,967.88	-2,595.75	184.57	877.39	0.00	0.00	0.00
5,000.00	43.76	175.93	4,040.10	-2,664.74	189.47	900.71	0.00	0.00	0.00
5,100.00	43.76	175.93	4,112.32	-2,733.73	194.38	924.03	0.00	0.00	0.00
5,200.00	43.76	175.93	4,184.55	-2,802.72	199.29	947.35	0.00	0.00	0.00
5,249.09	43.76	175.93	4,220.00	-2,836.58	201.69	958.80	0.00	0.00	0.00
<b>SUSSEX</b>									
5,300.00	43.76	175.93	4,256.77	-2,871.71	204.19	970.67	0.00	0.00	0.00
5,400.00	43.76	175.93	4,328.99	-2,940.70	209.10	993.99	0.00	0.00	0.00
5,500.00	43.76	175.93	4,401.22	-3,009.69	214.00	1,017.31	0.00	0.00	0.00
5,579.91	43.76	175.93	4,458.93	-3,064.82	217.92	1,035.94	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,600.00	43.36	175.93	4,473.49	-3,078.63	218.90	1,040.61	2.00	-2.00	0.00
5,700.00	41.36	175.93	4,547.38	-3,145.83	223.68	1,063.33	2.00	-2.00	0.00
5,761.53	40.13	175.93	4,594.00	-3,185.89	226.53	1,076.87	2.00	-2.00	0.00
<b>SHANNON</b>									
5,800.00	39.36	175.93	4,623.58	-3,210.42	228.28	1,085.16	2.00	-2.00	0.00
5,900.00	37.36	175.93	4,701.99	-3,272.32	232.68	1,106.08	2.00	-2.00	0.00
6,000.00	35.36	175.93	4,782.52	-3,331.46	236.88	1,126.07	2.00	-2.00	0.00
6,100.00	33.36	175.93	4,865.06	-3,387.75	240.88	1,145.09	2.00	-2.00	0.00
6,200.00	31.36	175.93	4,949.53	-3,441.13	244.68	1,163.14	2.00	-2.00	0.00
6,300.00	29.36	175.93	5,035.81	-3,491.54	248.26	1,180.18	2.00	-2.00	0.00
6,400.00	27.36	175.93	5,123.81	-3,538.92	251.63	1,196.19	2.00	-2.00	0.00
6,500.00	25.36	175.93	5,213.41	-3,583.21	254.78	1,211.16	2.00	-2.00	0.00
6,600.00	23.36	175.93	5,304.50	-3,624.34	257.71	1,225.07	2.00	-2.00	0.00
6,700.00	21.36	175.93	5,396.98	-3,662.29	260.40	1,237.89	2.00	-2.00	0.00
6,800.00	19.36	175.93	5,490.73	-3,696.99	262.87	1,249.62	2.00	-2.00	0.00
6,900.00	17.36	175.93	5,585.63	-3,728.40	265.11	1,260.24	2.00	-2.00	0.00
7,000.00	15.36	175.93	5,681.58	-3,756.50	267.10	1,269.74	2.00	-2.00	0.00
7,100.00	13.36	175.93	5,778.45	-3,781.23	268.86	1,278.10	2.00	-2.00	0.00
7,200.00	11.36	175.93	5,876.13	-3,802.58	270.38	1,285.31	2.00	-2.00	0.00
7,300.00	9.36	175.93	5,974.49	-3,820.51	271.66	1,291.37	2.00	-2.00	0.00
7,400.00	7.36	175.93	6,073.42	-3,835.01	272.69	1,296.28	2.00	-2.00	0.00
7,500.00	5.36	175.93	6,172.80	-3,846.06	273.47	1,300.01	2.00	-2.00	0.00
7,600.00	3.36	175.93	6,272.51	-3,853.64	274.01	1,302.57	2.00	-2.00	0.00
7,700.00	1.36	175.93	6,372.42	-3,857.75	274.30	1,303.96	2.00	-2.00	0.00
7,767.94	0.00	0.00	6,440.35	-3,858.55	274.36	1,304.23	2.00	-2.00	0.00
<b>Start 30.00 hold at 7767.94 MD</b>									
7,797.94	0.00	0.00	6,470.35	-3,858.55	274.36	1,304.23	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 268.40</b>									
7,800.00	0.25	268.40	6,472.41	-3,858.55	274.36	1,304.24	12.00	12.00	0.00
7,825.00	3.25	268.40	6,497.40	-3,858.57	273.59	1,304.94	12.00	12.00	0.00
7,850.00	6.25	268.40	6,522.31	-3,858.63	271.53	1,306.86	12.00	12.00	0.00
7,875.00	9.24	268.40	6,547.08	-3,858.72	268.16	1,309.98	12.00	12.00	0.00
7,900.00	12.24	268.40	6,571.64	-3,858.85	263.50	1,314.29	12.00	12.00	0.00
7,925.00	15.24	268.40	6,595.92	-3,859.02	257.57	1,319.79	12.00	12.00	0.00
7,950.00	18.24	268.40	6,619.86	-3,859.22	250.37	1,326.46	12.00	12.00	0.00
7,975.00	21.24	268.40	6,643.39	-3,859.46	241.93	1,334.28	12.00	12.00	0.00
8,000.00	24.24	268.40	6,666.44	-3,859.73	232.27	1,343.22	12.00	12.00	0.00
8,025.00	27.24	268.40	6,688.96	-3,860.03	221.42	1,353.28	12.00	12.00	0.00
8,050.00	30.24	268.40	6,710.88	-3,860.36	209.41	1,364.41	12.00	12.00	0.00
8,075.00	33.23	268.40	6,732.14	-3,860.73	196.26	1,376.58	12.00	12.00	0.00
8,100.00	36.23	268.40	6,752.68	-3,861.13	182.02	1,389.77	12.00	12.00	0.00
8,125.00	39.23	268.40	6,772.45	-3,861.56	166.73	1,403.94	12.00	12.00	0.00

# Planning Report

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<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5040.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5040.00usft
<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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)	
8,150.00	42.23	268.40	6,791.39	-3,862.01	150.43	1,419.04	12.00	12.00	0.00	
8,159.00	43.31	268.40	6,798.00	-3,862.18	144.32	1,424.71	12.00	12.00	0.00	
<b>SHARON SPRINGS</b>										
8,175.00	45.23	268.40	6,809.45	-3,862.49	133.16	1,435.05	12.00	12.00	0.00	
8,200.00	48.23	268.40	6,826.59	-3,863.00	114.96	1,451.90	12.00	12.00	0.00	
8,214.37	49.95	268.40	6,836.00	-3,863.31	104.10	1,461.96	12.00	12.00	0.00	
<b>NIOBRARA</b>										
8,225.00	51.23	268.40	6,842.75	-3,863.54	95.90	1,469.56	12.00	12.00	0.00	
8,250.00	54.23	268.40	6,857.88	-3,864.09	76.01	1,487.98	12.00	12.00	0.00	
8,275.00	57.23	268.40	6,871.96	-3,864.67	55.36	1,507.11	12.00	12.00	0.00	
8,300.00	60.22	268.40	6,884.94	-3,865.26	34.01	1,526.90	12.00	12.00	0.00	
8,325.00	63.22	268.40	6,896.78	-3,865.88	12.00	1,547.29	12.00	12.00	0.00	
8,350.00	66.22	268.40	6,907.45	-3,866.51	-10.59	1,568.22	12.00	12.00	0.00	
8,375.00	69.22	268.40	6,916.93	-3,867.16	-33.72	1,589.64	12.00	12.00	0.00	
8,400.00	72.22	268.40	6,925.18	-3,867.81	-57.30	1,611.49	12.00	12.00	0.00	
8,425.00	75.22	268.40	6,932.19	-3,868.48	-81.29	1,633.71	12.00	12.00	0.00	
8,450.00	78.22	268.40	6,937.94	-3,869.16	-105.61	1,656.24	12.00	12.00	0.00	
8,450.32	78.26	268.40	6,938.00	-3,869.17	-105.92	1,656.53	12.00	12.00	0.00	
<b>NIO B</b>										
8,475.00	81.22	268.40	6,942.40	-3,869.85	-130.19	1,679.02	12.00	12.00	0.00	
8,500.00	84.22	268.40	6,945.57	-3,870.54	-154.98	1,701.98	12.00	12.00	0.00	
8,525.00	87.21	268.40	6,947.44	-3,871.24	-179.90	1,725.06	12.00	12.00	0.00	
8,548.26	90.00	268.40	6,948.00	-3,871.89	-203.14	1,746.60	12.00	12.00	0.00	
<b>Start DLS 0.00 TFO -152.83</b>										
8,600.00	90.00	268.40	6,948.00	-3,873.33	-254.86	1,794.51	0.00	0.00	0.00	
8,700.00	90.00	268.40	6,947.99	-3,876.13	-354.82	1,887.12	0.00	0.00	0.00	
8,800.00	90.00	268.40	6,947.98	-3,878.92	-454.78	1,979.72	0.00	0.00	0.00	
8,900.00	90.00	268.40	6,947.97	-3,881.71	-554.74	2,072.33	0.00	0.00	0.00	
9,000.00	90.00	268.40	6,947.97	-3,884.50	-654.70	2,164.93	0.00	0.00	0.00	
9,100.00	90.00	268.40	6,947.96	-3,887.30	-754.66	2,257.54	0.00	0.00	0.00	
9,200.00	90.00	268.40	6,947.95	-3,890.09	-854.62	2,350.15	0.00	0.00	0.00	
9,300.00	90.00	268.40	6,947.95	-3,892.88	-954.58	2,442.75	0.00	0.00	0.00	
9,400.00	90.00	268.40	6,947.94	-3,895.67	-1,054.54	2,535.36	0.00	0.00	0.00	
9,500.00	90.00	268.40	6,947.94	-3,898.47	-1,154.51	2,627.97	0.00	0.00	0.00	
9,600.00	90.00	268.40	6,947.93	-3,901.26	-1,254.47	2,720.57	0.00	0.00	0.00	
9,700.00	90.00	268.40	6,947.92	-3,904.05	-1,354.43	2,813.18	0.00	0.00	0.00	
9,800.00	90.00	268.40	6,947.92	-3,906.85	-1,454.39	2,905.79	0.00	0.00	0.00	
9,900.00	90.00	268.40	6,947.91	-3,909.64	-1,554.35	2,998.39	0.00	0.00	0.00	
10,000.00	90.00	268.40	6,947.91	-3,912.43	-1,654.31	3,091.00	0.00	0.00	0.00	
10,100.00	90.00	268.40	6,947.90	-3,915.23	-1,754.27	3,183.61	0.00	0.00	0.00	
10,200.00	90.00	268.40	6,947.90	-3,918.02	-1,854.23	3,276.21	0.00	0.00	0.00	
10,300.00	90.00	268.40	6,947.89	-3,920.82	-1,954.19	3,368.82	0.00	0.00	0.00	
10,400.00	90.00	268.40	6,947.89	-3,923.61	-2,054.15	3,461.43	0.00	0.00	0.00	
10,500.00	90.00	268.40	6,947.88	-3,926.40	-2,154.12	3,554.03	0.00	0.00	0.00	
10,600.00	90.00	268.40	6,947.88	-3,929.20	-2,254.08	3,646.64	0.00	0.00	0.00	
10,700.00	90.00	268.40	6,947.87	-3,931.99	-2,354.04	3,739.25	0.00	0.00	0.00	
10,800.00	90.00	268.40	6,947.87	-3,934.79	-2,454.00	3,831.85	0.00	0.00	0.00	
10,900.00	90.00	268.40	6,947.87	-3,937.58	-2,553.96	3,924.46	0.00	0.00	0.00	
11,000.00	90.00	268.40	6,947.86	-3,940.37	-2,653.92	4,017.07	0.00	0.00	0.00	
11,100.00	90.00	268.40	6,947.86	-3,943.17	-2,753.88	4,109.68	0.00	0.00	0.00	
11,200.00	90.00	268.40	6,947.86	-3,945.96	-2,853.84	4,202.28	0.00	0.00	0.00	
11,300.00	90.00	268.40	6,947.85	-3,948.76	-2,953.80	4,294.89	0.00	0.00	0.00	
11,400.00	90.00	268.40	6,947.85	-3,951.55	-3,053.76	4,387.50	0.00	0.00	0.00	

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well VIC 29W-20-2N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5040.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5040.00usft
<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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)
11,500.00	90.00	268.40	6,947.85	-3,954.35	-3,153.73	4,480.10	0.00	0.00	0.00
11,600.00	90.00	268.40	6,947.84	-3,957.14	-3,253.69	4,572.71	0.00	0.00	0.00
11,700.00	90.00	268.40	6,947.84	-3,959.94	-3,353.65	4,665.32	0.00	0.00	0.00
11,800.00	90.00	268.40	6,947.84	-3,962.73	-3,453.61	4,757.92	0.00	0.00	0.00
11,900.00	90.00	268.40	6,947.84	-3,965.53	-3,553.57	4,850.53	0.00	0.00	0.00
12,000.00	90.00	268.40	6,947.84	-3,968.32	-3,653.53	4,943.14	0.00	0.00	0.00
12,100.00	90.00	268.40	6,947.83	-3,971.12	-3,753.49	5,035.75	0.00	0.00	0.00
12,200.00	90.00	268.40	6,947.83	-3,973.91	-3,853.45	5,128.35	0.00	0.00	0.00
12,300.00	90.00	268.40	6,947.83	-3,976.71	-3,953.41	5,220.96	0.00	0.00	0.00
12,400.00	90.00	268.40	6,947.83	-3,979.50	-4,053.37	5,313.57	0.00	0.00	0.00
12,500.00	90.00	268.40	6,947.83	-3,982.30	-4,153.33	5,406.18	0.00	0.00	0.00
12,600.00	90.00	268.40	6,947.83	-3,985.10	-4,253.30	5,498.78	0.00	0.00	0.00
12,700.00	90.00	268.40	6,947.83	-3,987.89	-4,353.26	5,591.39	0.00	0.00	0.00
12,800.00	90.00	268.40	6,947.83	-3,990.69	-4,453.22	5,684.00	0.00	0.00	0.00
12,900.00	90.00	268.40	6,947.83	-3,993.48	-4,553.18	5,776.61	0.00	0.00	0.00
13,000.00	90.00	268.40	6,947.83	-3,996.28	-4,653.14	5,869.21	0.00	0.00	0.00
13,100.00	90.00	268.40	6,947.83	-3,999.08	-4,753.10	5,961.82	0.00	0.00	0.00
13,200.00	90.00	268.40	6,947.83	-4,001.87	-4,853.06	6,054.43	0.00	0.00	0.00
13,300.00	90.00	268.40	6,947.83	-4,004.67	-4,953.02	6,147.04	0.00	0.00	0.00
13,400.00	90.00	268.40	6,947.83	-4,007.46	-5,052.98	6,239.65	0.00	0.00	0.00
13,500.00	90.00	268.40	6,947.83	-4,010.26	-5,152.94	6,332.25	0.00	0.00	0.00
13,600.00	90.00	268.40	6,947.83	-4,013.06	-5,252.90	6,424.86	0.00	0.00	0.00
13,700.00	90.00	268.40	6,947.83	-4,015.85	-5,352.87	6,517.47	0.00	0.00	0.00
13,800.00	90.00	268.40	6,947.83	-4,018.65	-5,452.83	6,610.08	0.00	0.00	0.00
13,900.00	90.00	268.40	6,947.83	-4,021.45	-5,552.79	6,702.68	0.00	0.00	0.00
14,000.00	90.00	268.40	6,947.83	-4,024.24	-5,652.75	6,795.29	0.00	0.00	0.00
14,100.00	90.00	268.40	6,947.83	-4,027.04	-5,752.71	6,887.90	0.00	0.00	0.00
14,200.00	90.00	268.40	6,947.83	-4,029.84	-5,852.67	6,980.51	0.00	0.00	0.00
14,300.00	90.00	268.40	6,947.84	-4,032.64	-5,952.63	7,073.12	0.00	0.00	0.00
14,400.00	90.00	268.40	6,947.84	-4,035.43	-6,052.59	7,165.72	0.00	0.00	0.00
14,500.00	90.00	268.40	6,947.84	-4,038.23	-6,152.55	7,258.33	0.00	0.00	0.00
14,600.00	90.00	268.40	6,947.84	-4,041.03	-6,252.51	7,350.94	0.00	0.00	0.00
14,700.00	90.00	268.40	6,947.85	-4,043.83	-6,352.47	7,443.55	0.00	0.00	0.00
14,800.00	90.00	268.40	6,947.85	-4,046.62	-6,452.43	7,536.16	0.00	0.00	0.00
14,900.00	90.00	268.40	6,947.85	-4,049.42	-6,552.40	7,628.77	0.00	0.00	0.00
15,000.00	90.00	268.40	6,947.85	-4,052.22	-6,652.36	7,721.37	0.00	0.00	0.00
15,100.00	90.00	268.40	6,947.86	-4,055.02	-6,752.32	7,813.98	0.00	0.00	0.00
15,200.00	90.00	268.40	6,947.86	-4,057.81	-6,852.28	7,906.59	0.00	0.00	0.00
15,300.00	90.00	268.40	6,947.86	-4,060.61	-6,952.24	7,999.20	0.00	0.00	0.00
15,400.00	90.00	268.40	6,947.87	-4,063.41	-7,052.20	8,091.81	0.00	0.00	0.00
15,500.00	90.00	268.40	6,947.87	-4,066.21	-7,152.16	8,184.42	0.00	0.00	0.00
15,600.00	90.00	268.40	6,947.88	-4,069.01	-7,252.12	8,277.02	0.00	0.00	0.00
15,700.00	90.00	268.40	6,947.88	-4,071.80	-7,352.08	8,369.63	0.00	0.00	0.00
15,800.00	90.00	268.40	6,947.88	-4,074.60	-7,452.04	8,462.24	0.00	0.00	0.00
15,900.00	90.00	268.40	6,947.89	-4,077.40	-7,552.00	8,554.85	0.00	0.00	0.00
16,000.00	90.00	268.40	6,947.89	-4,080.20	-7,651.96	8,647.46	0.00	0.00	0.00
16,100.00	90.00	268.40	6,947.90	-4,083.00	-7,751.93	8,740.07	0.00	0.00	0.00
16,200.00	90.00	268.40	6,947.90	-4,085.80	-7,851.89	8,832.67	0.00	0.00	0.00
16,300.00	90.00	268.40	6,947.91	-4,088.60	-7,951.85	8,925.28	0.00	0.00	0.00
16,400.00	90.00	268.40	6,947.91	-4,091.40	-8,051.81	9,017.89	0.00	0.00	0.00
16,500.00	90.00	268.40	6,947.92	-4,094.19	-8,151.77	9,110.50	0.00	0.00	0.00
16,600.00	90.00	268.40	6,947.93	-4,096.99	-8,251.73	9,203.11	0.00	0.00	0.00
16,700.00	90.00	268.40	6,947.93	-4,099.79	-8,351.69	9,295.72	0.00	0.00	0.00
16,800.00	90.00	268.40	6,947.94	-4,102.59	-8,451.65	9,388.33	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well VIC 29W-20-2N
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 29' @ 5040.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 29' @ 5040.00usft
<b>Site:</b>	Sec 20-T7N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	VIC 29W-20-2N	<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)	
16,900.00	90.00	268.40	6,947.94	-4,105.39	-8,551.61	9,480.94	0.00	0.00	0.00	
17,000.00	90.00	268.40	6,947.95	-4,108.19	-8,651.57	9,573.55	0.00	0.00	0.00	
17,100.00	90.00	268.40	6,947.96	-4,110.99	-8,751.53	9,666.15	0.00	0.00	0.00	
17,200.00	90.00	268.40	6,947.96	-4,113.79	-8,851.49	9,758.76	0.00	0.00	0.00	
17,300.00	90.00	268.40	6,947.97	-4,116.59	-8,951.46	9,851.37	0.00	0.00	0.00	
17,400.00	90.00	268.40	6,947.98	-4,119.39	-9,051.42	9,943.98	0.00	0.00	0.00	
17,500.00	90.00	268.40	6,947.98	-4,122.19	-9,151.38	10,036.59	0.00	0.00	0.00	
17,600.00	90.00	268.40	6,947.99	-4,124.99	-9,251.34	10,129.20	0.00	0.00	0.00	
17,700.00	90.00	268.40	6,948.00	-4,127.79	-9,351.30	10,221.81	0.00	0.00	0.00	
17,721.88	90.00	268.40	6,948.00	-4,128.40	-9,373.17	10,242.07	0.00	0.00	0.00	
TD at 17721.88										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
VIC 29W-2N - LP	0.00	0.00	6,948.00	-3,871.89	-203.14	1,443,802.49	3,164,089.09	40° 33' 0.497 N		104° 54' 34.276 W
- plan hits target center										
- Point										
VIC 29W-2N - PBHL	0.00	0.00	6,948.00	-4,128.40	-9,373.17	1,443,484.85	3,154,920.97	40° 32' 57.944 N		104° 56' 33.068 W
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,235.57	3,488.00	PARKMAN				
5,249.09	4,220.00	SUSSEX				
5,761.53	4,594.00	SHANNON				
8,159.00	6,798.00	SHARON SPRINGS				
8,214.37	6,836.00	NIOBRARA				
8,450.32	6,938.00	NIO B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
100.00	100.00	0.00	0.00	Start Build 2.00	
2,288.03	2,081.42	-793.73	56.44	Start 3291.88 hold at 2288.03 MD	
5,579.91	4,458.93	-3,064.82	217.92	Start Drop -2.00	
7,767.94	6,440.35	-3,858.55	274.36	Start 30.00 hold at 7767.94 MD	
7,797.94	6,470.35	-3,858.55	274.36	Start DLS 12.00 TFO 268.40	
8,548.26	6,948.00	-3,871.89	-203.14	Start DLS 0.00 TFO -152.83	
17,721.88	6,948.00	-4,128.40	-9,373.17	TD at 17721.88	