

EXTRACTION OIL & GAS

Weld County, Co. (TRUE) NAD 83

Sec 22-T12N-R64W

Cox #5

Wellbore #1

Survey: Survey #2

Standard Survey Report

29 January, 2018

Survey Report

Company: EXTRACTION OIL & GAS	Local Co-ordinate Reference: Site Sec 22-T12N-R64W
Project: Weld County, Co. (TRUE) NAD 83	TVD Reference: KB=29 @ 5585.00ft
Site: Sec 22-T12N-R64W	MD Reference: KB=29 @ 5585.00ft
Well: Cox #5	North Reference: True
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: EDM 5000.1

Project Weld County, Co. (TRUE) NAD 83		
Map System: US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum: North American Datum 1983		
Map Zone: Colorado Northern Zone		

Site Sec 22-T12N-R64W					
Site Position:		Northing: 1,608,110.2887 usft	Latitude: 40.998636		
From: Lat/Long		Easting: 3,266,469.0726 usft	Longitude: -104.534691		
Position Uncertainty: 0.00 ft		Slot Radius: 13-3/16 "	Grid Convergence: 0.62 °		

Well Cox #5					
Well Position	+N/-S 0.00 ft	Northing: 1,608,110.2849 usft	Latitude: 40.998636		
	+E/-W 0.00 ft	Easting: 3,266,469.0727 usft	Longitude: -104.534691		
Position Uncertainty	0.00 ft	Wellhead Elevation: 0.00 ft	Ground Level: 5,556.00 ft		

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/11/2018	8.53	67.33	52,815

Design Wellbore #1					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00			
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	158.17	

Survey Program		Date 1/29/2018
From (ft)	To (ft)	Survey (Wellbore)
225.00	1,701.00	Survey #1 (Wellbore #1)
1,765.00	19,008.00	Survey #2 (Wellbore #1)
		Tool Name
		MWD
		MWD
		Description
		MWD - Standard
		MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,701.00	31.46	71.03	1,624.33	130.63	388.63	23.25	0.00	0.00	0.00	
1,765.00	31.11	74.54	1,679.02	140.47	420.37	25.92	2.90	-0.55	5.48	
1st MWD Survey										
1,861.00	33.72	74.15	1,760.06	154.36	469.91	31.45	2.73	2.72	-0.41	
1,956.00	37.38	74.01	1,837.34	169.51	523.02	37.13	3.85	3.85	-0.15	
2,052.00	41.01	72.52	1,911.73	187.00	581.09	42.49	3.91	3.78	-1.55	
2,147.00	41.32	71.02	1,983.25	206.57	640.48	46.42	1.09	0.33	-1.58	
2,242.00	41.32	70.84	2,054.60	227.06	699.77	49.44	0.13	0.00	-0.19	
2,338.00	41.41	71.24	2,126.65	247.67	759.77	52.61	0.29	0.09	0.42	
2,434.00	41.32	68.55	2,198.70	269.47	819.33	54.53	1.85	-0.09	-2.80	

Survey Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Site Sec 22-T12N-R64W
Project:	Weld County, Co. (TRUE) NAD 83	TVD Reference:	KB=29 @ 5585.00ft
Site:	Sec 22-T12N-R64W	MD Reference:	KB=29 @ 5585.00ft
Well:	Cox #5	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,529.00	39.11	65.95	2,271.25	293.16	875.89	53.57	2.92	-2.33	-2.74	
2,625.00	36.59	68.02	2,347.05	316.21	930.09	52.33	2.94	-2.63	2.16	
2,720.00	36.59	67.93	2,423.32	337.45	982.58	52.13	0.06	0.00	-0.09	
2,816.00	35.79	72.65	2,500.82	356.57	1,035.90	54.21	3.02	-0.83	4.92	
2,911.00	35.71	72.52	2,577.92	373.19	1,088.86	58.48	0.12	-0.08	-0.14	
3,007.00	36.81	75.03	2,655.33	389.03	1,143.37	64.04	1.92	1.15	2.61	
3,103.00	39.68	75.25	2,730.72	404.27	1,200.81	71.26	2.99	2.99	0.23	
3,198.00	39.42	74.85	2,803.97	419.87	1,259.25	78.50	0.38	-0.27	-0.42	
3,294.00	38.89	75.12	2,878.41	435.58	1,317.80	85.70	0.58	-0.55	0.28	
3,389.00	38.18	74.01	2,952.72	451.32	1,374.85	92.29	1.04	-0.75	-1.17	
3,485.00	37.21	73.53	3,028.68	467.73	1,431.21	98.02	1.06	-1.01	-0.50	
3,580.00	36.19	73.22	3,104.85	483.97	1,485.61	103.18	1.09	-1.07	-0.33	
3,676.00	35.40	73.22	3,182.72	500.18	1,539.37	108.12	0.82	-0.82	0.00	
3,772.00	36.28	71.81	3,260.54	517.07	1,592.97	112.37	1.26	0.92	-1.47	
3,867.00	35.48	71.02	3,337.51	534.81	1,645.75	115.53	0.97	-0.84	-0.83	
3,963.00	37.69	69.43	3,414.60	554.19	1,699.58	117.56	2.50	2.30	-1.66	
4,058.00	39.42	69.92	3,488.89	574.75	1,755.10	119.12	1.85	1.82	0.52	
4,153.00	38.49	69.52	3,562.76	595.45	1,811.12	120.74	1.01	-0.98	-0.42	
4,249.00	39.99	71.55	3,637.11	615.67	1,868.38	123.26	2.06	1.56	2.11	
4,344.00	39.11	70.53	3,710.37	635.32	1,925.59	126.30	1.15	-0.93	-1.07	
4,439.00	39.11	70.31	3,784.08	655.40	1,982.05	128.65	0.15	0.00	-0.23	
4,535.00	38.71	68.81	3,858.78	676.45	2,038.55	130.11	1.07	-0.42	-1.56	
4,630.00	39.90	70.93	3,932.29	697.14	2,095.05	131.91	1.89	1.25	2.23	
4,726.00	39.81	70.53	4,005.99	717.45	2,153.12	134.66	0.28	-0.09	-0.42	
4,821.00	39.81	68.95	4,078.97	738.51	2,210.18	136.33	1.06	0.00	-1.66	
4,916.00	41.32	71.94	4,151.14	759.16	2,268.38	138.81	2.59	1.59	3.15	
5,012.00	39.68	72.91	4,224.14	777.99	2,327.81	143.42	1.83	-1.71	1.01	
5,107.00	37.38	71.94	4,298.45	795.85	2,384.23	147.83	2.50	-2.42	-1.02	
5,203.00	35.88	69.65	4,375.49	814.67	2,438.32	150.47	2.11	-1.56	-2.39	
5,298.00	35.62	72.43	4,452.60	832.70	2,490.80	153.25	1.73	-0.27	2.93	
5,394.00	34.11	71.94	4,531.36	849.48	2,543.04	157.09	1.60	-1.57	-0.51	
5,489.00	35.22	73.22	4,609.50	865.65	2,594.60	161.26	1.40	1.17	1.35	
5,585.00	38.31	72.25	4,686.40	882.72	2,649.45	165.81	3.27	3.22	-1.01	
5,681.00	41.49	72.65	4,760.04	901.28	2,708.16	170.42	3.32	3.31	0.42	
5,776.00	42.11	72.52	4,830.86	920.23	2,768.58	175.29	0.66	0.65	-0.14	
5,872.00	41.01	71.55	4,902.69	939.87	2,829.16	179.59	1.33	-1.15	-1.01	
5,967.00	40.30	70.05	4,974.76	960.21	2,887.61	182.44	1.27	-0.75	-1.58	
6,063.00	39.02	69.52	5,048.66	981.38	2,945.10	184.17	1.38	-1.33	-0.55	
6,158.00	36.90	70.93	5,123.56	1,001.17	3,000.08	186.25	2.41	-2.23	1.48	
6,179.00	36.99	71.33	5,140.35	1,005.25	3,012.02	186.90	1.22	0.43	1.90	
6,274.00	36.19	70.31	5,216.62	1,023.85	3,065.51	189.52	1.06	-0.84	-1.07	
6,370.00	35.71	69.92	5,294.34	1,043.02	3,118.51	191.43	0.55	-0.50	-0.41	
6,465.00	34.60	69.74	5,372.01	1,061.87	3,169.85	193.02	1.17	-1.17	-0.19	

Survey Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Site Sec 22-T12N-R64W
Project:	Weld County, Co. (TRUE) NAD 83	TVD Reference:	KB=29 @ 5585.00ft
Site:	Sec 22-T12N-R64W	MD Reference:	KB=29 @ 5585.00ft
Well:	Cox #5	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,560.00	33.89	73.04	5,450.55	1,078.94	3,220.50	196.01	2.09	-0.75	3.47	
6,656.00	30.58	72.43	5,531.74	1,094.13	3,269.39	200.10	3.46	-3.45	-0.64	
6,751.00	28.50	71.94	5,614.39	1,108.45	3,313.98	203.38	2.20	-2.19	-0.52	
6,847.00	24.48	71.63	5,700.29	1,121.82	3,354.65	206.09	4.19	-4.19	-0.32	
6,942.00	21.79	69.34	5,787.64	1,134.25	3,389.84	207.64	2.99	-2.83	-2.41	
7,038.00	18.38	70.14	5,877.79	1,145.68	3,420.75	208.52	3.56	-3.55	0.83	
7,133.00	15.60	68.81	5,968.64	1,155.39	3,446.75	209.18	2.95	-2.93	-1.40	
7,228.00	12.42	72.91	6,060.80	1,163.01	3,468.43	210.17	3.50	-3.35	4.32	
7,324.00	11.40	72.43	6,154.73	1,168.91	3,487.35	211.73	1.07	-1.06	-0.50	
7,419.00	10.52	66.35	6,248.00	1,175.22	3,504.24	212.15	1.53	-0.93	-6.40	
7,515.00	11.00	70.31	6,342.32	1,181.82	3,520.90	212.21	0.92	0.50	4.13	
7,610.00	9.19	66.43	6,435.84	1,187.91	3,536.38	212.32	2.03	-1.91	-4.08	
7,706.00	7.69	77.01	6,530.81	1,192.42	3,549.67	213.08	2.24	-1.56	11.02	
7,802.00	6.19	77.72	6,626.10	1,194.97	3,560.99	214.92	1.57	-1.56	0.74	
7,897.00	4.20	78.95	6,720.71	1,196.72	3,569.41	216.42	2.10	-2.09	1.29	
7,992.00	1.50	63.53	6,815.58	1,197.94	3,573.93	216.97	2.93	-2.84	-16.23	
8,088.00	0.22	110.33	6,911.57	1,198.44	3,575.23	217.00	1.42	-1.33	48.75	
8,183.00	0.22	15.45	7,006.57	1,198.55	3,575.45	216.97	0.34	0.00	-99.87	
8,278.00	0.31	322.03	7,101.57	1,198.93	3,575.34	216.58	0.26	0.09	-56.23	
8,374.00	0.62	319.43	7,197.56	1,199.53	3,574.84	215.84	0.32	0.32	-2.71	
8,469.00	0.80	310.92	7,292.56	1,200.35	3,574.01	214.76	0.22	0.19	-8.96	
8,564.00	0.62	332.03	7,387.55	1,201.24	3,573.27	213.66	0.33	-0.19	22.22	
8,660.00	9.90	175.02	7,483.10	1,193.46	3,573.74	221.06	10.91	9.67	-163.55	
8,755.00	19.09	175.81	7,574.98	1,169.78	3,575.59	243.73	9.68	9.67	0.83	
8,850.00	28.10	180.75	7,661.95	1,131.83	3,576.43	279.27	9.70	9.48	5.20	
8,946.00	34.91	185.81	7,743.77	1,081.83	3,573.35	324.54	7.60	7.09	5.27	
9,041.00	43.79	185.81	7,817.16	1,021.96	3,567.26	377.85	9.35	9.35	0.00	
9,137.00	52.98	184.93	7,880.84	950.58	3,560.59	441.64	9.60	9.57	-0.92	
9,232.00	64.52	181.85	7,930.05	869.65	3,555.93	515.03	12.46	12.15	-3.24	
9,327.00	72.12	180.75	7,965.12	781.46	3,553.95	596.16	8.07	8.00	-1.16	
9,423.00	76.89	179.64	7,990.76	688.98	3,553.65	681.90	5.09	4.97	-1.16	
9,505.27	82.91	179.45	8,005.18	608.02	3,554.29	757.29	7.33	7.32	-0.23	
Cross 300' FNL 9505.27 MD/8005.18 TVD 608.02 N 3554.29 E N: 1608756.9 E: 3270016.5										
9,519.00	83.92	179.42	8,006.75	594.38	3,554.42	770.00	7.33	7.32	-0.23	
9,614.00	87.98	178.23	8,013.46	499.66	3,556.37	858.65	4.45	4.27	-1.25	
9,710.00	89.00	177.04	8,015.99	403.78	3,560.33	949.13	1.63	1.06	-1.24	
9,806.00	89.31	175.63	8,017.41	307.99	3,566.47	1,040.33	1.50	0.32	-1.47	
9,901.00	89.79	176.65	8,018.15	213.21	3,572.86	1,130.69	1.19	0.51	1.07	
9,997.00	89.48	177.44	8,018.77	117.34	3,577.81	1,221.53	0.88	-0.32	0.82	
10,092.00	88.69	179.91	8,020.28	22.38	3,580.01	1,310.49	2.73	-0.83	2.60	
10,188.00	88.91	179.51	8,022.29	-73.59	3,580.49	1,399.76	0.48	0.23	-0.42	
10,283.00	89.00	178.63	8,024.03	-168.56	3,582.03	1,488.50	0.93	0.09	-0.93	
10,378.00	88.82	179.42	8,025.83	-263.53	3,583.65	1,577.26	0.85	-0.19	0.83	
10,474.00	89.88	180.13	8,026.92	-359.52	3,584.03	1,666.50	1.33	1.10	0.74	

Survey Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Site Sec 22-T12N-R64W
Project:	Weld County, Co. (TRUE) NAD 83	TVD Reference:	KB=29 @ 5585.00ft
Site:	Sec 22-T12N-R64W	MD Reference:	KB=29 @ 5585.00ft
Well:	Cox #5	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,569.00	89.88	180.13	8,027.12	-454.52	3,583.81	1,754.61	0.00	0.00	0.00
10,665.00	89.88	179.73	8,027.32	-550.52	3,583.93	1,843.77	0.42	0.00	-0.42
10,760.00	89.88	178.41	8,027.52	-645.51	3,585.47	1,932.52	1.39	0.00	-1.39
10,856.00	90.10	177.84	8,027.54	-741.46	3,588.61	2,022.75	0.64	0.23	-0.59
10,951.00	89.62	177.93	8,027.77	-836.39	3,592.12	2,112.18	0.51	-0.51	0.09
11,047.00	89.31	177.75	8,028.67	-932.32	3,595.74	2,202.58	0.37	-0.32	-0.19
11,142.00	89.79	177.75	8,029.41	-1,027.24	3,599.46	2,292.08	0.51	0.51	0.00
11,238.00	87.98	179.03	8,031.28	-1,123.18	3,602.16	2,382.14	2.31	-1.89	1.33
11,333.00	89.22	180.75	8,033.60	-1,218.15	3,602.34	2,470.36	2.23	1.31	1.81
11,429.00	90.72	182.02	8,033.65	-1,314.11	3,600.02	2,558.59	2.05	1.56	1.32
11,525.00	91.12	182.51	8,032.11	-1,410.03	3,596.23	2,646.21	0.66	0.42	0.51
11,620.00	90.99	182.11	8,030.36	-1,504.93	3,592.40	2,732.89	0.44	-0.14	-0.42
11,715.00	90.01	181.63	8,029.53	-1,599.88	3,589.30	2,819.87	1.15	-1.03	-0.51
11,811.00	90.10	182.24	8,029.44	-1,695.82	3,586.06	2,907.73	0.64	0.09	0.64
11,906.00	89.88	181.94	8,029.46	-1,790.76	3,582.60	2,994.57	0.39	-0.23	-0.32
12,002.00	89.79	181.63	8,029.73	-1,886.71	3,579.61	3,082.53	0.34	-0.09	-0.32
12,097.00	89.70	181.14	8,030.16	-1,981.68	3,577.31	3,169.83	0.52	-0.09	-0.52
12,193.00	89.31	180.35	8,030.99	-2,077.67	3,576.06	3,258.47	0.92	-0.41	-0.82
12,288.00	89.88	181.85	8,031.66	-2,172.65	3,574.24	3,345.96	1.69	0.60	1.58
12,384.00	89.88	182.02	8,031.86	-2,268.59	3,571.00	3,433.82	0.18	0.00	0.18
12,479.00	89.88	181.71	8,032.06	-2,363.54	3,567.90	3,520.81	0.33	0.00	-0.33
12,575.00	90.01	181.23	8,032.15	-2,459.51	3,565.44	3,608.98	0.52	0.14	-0.50
12,670.00	89.62	180.35	8,032.46	-2,554.50	3,564.13	3,696.67	1.01	-0.41	-0.93
12,766.00	89.31	179.42	8,033.35	-2,650.49	3,564.32	3,785.85	1.02	-0.32	-0.97
12,861.00	89.31	178.32	8,034.50	-2,745.47	3,566.20	3,874.71	1.16	0.00	-1.16
12,956.00	89.09	177.44	8,035.82	-2,840.39	3,569.71	3,964.14	0.95	-0.23	-0.93
13,052.00	89.70	177.93	8,036.84	-2,936.31	3,573.59	4,054.62	0.82	0.64	0.51
13,147.00	89.88	180.13	8,037.19	-3,031.29	3,575.20	4,143.38	2.32	0.19	2.32
13,243.00	90.72	180.52	8,036.68	-3,127.28	3,574.65	4,232.29	0.96	0.88	0.41
13,338.00	90.90	179.64	8,035.34	-3,222.27	3,574.52	4,320.42	0.95	0.19	-0.93
13,434.00	90.90	179.03	8,033.83	-3,318.25	3,575.63	4,409.93	0.64	0.00	-0.64
13,529.00	90.90	178.32	8,032.34	-3,413.21	3,577.83	4,498.90	0.75	0.00	-0.75
13,625.00	89.00	177.53	8,032.42	-3,509.15	3,581.31	4,589.25	2.14	-1.98	-0.82
13,720.00	89.62	178.85	8,033.57	-3,604.09	3,584.31	4,678.50	1.54	0.65	1.39
13,816.00	89.79	178.54	8,034.06	-3,700.06	3,586.49	4,768.40	0.37	0.18	-0.32
13,911.00	88.60	178.15	8,035.40	-3,795.01	3,589.24	4,857.56	1.32	-1.25	-0.41
14,006.00	88.60	179.73	8,037.72	-3,889.96	3,590.99	4,946.36	1.66	0.00	1.66
14,102.00	89.48	181.23	8,039.33	-3,985.94	3,590.19	5,035.16	1.81	0.92	1.56
14,197.00	90.19	179.82	8,039.60	-4,080.94	3,589.32	5,123.01	1.66	0.75	-1.48
14,292.00	89.79	180.92	8,039.62	-4,175.93	3,588.70	5,210.97	1.23	-0.42	1.16
14,388.00	88.91	181.71	8,040.71	-4,271.90	3,586.50	5,299.23	1.23	-0.92	0.82
14,483.00	90.19	181.71	8,041.45	-4,366.85	3,583.67	5,386.32	1.35	1.35	0.00
14,579.00	90.41	180.83	8,040.95	-4,462.83	3,581.54	5,474.62	0.94	0.23	-0.92

Survey Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Site Sec 22-T12N-R64W
Project:	Weld County, Co. (TRUE) NAD 83	TVD Reference:	KB=29 @ 5585.00ft
Site:	Sec 22-T12N-R64W	MD Reference:	KB=29 @ 5585.00ft
Well:	Cox #5	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,674.00	90.72	181.01	8,040.01	-4,557.81	3,580.01	5,562.23	0.38	0.33	0.19	
14,769.00	91.21	180.35	8,038.41	-4,652.79	3,578.89	5,649.98	0.87	0.52	-0.69	
14,864.00	89.88	181.23	8,037.51	-4,747.77	3,577.58	5,737.66	1.68	-1.40	0.93	
14,960.00	89.40	180.44	8,038.11	-4,843.76	3,576.18	5,826.25	0.96	-0.50	-0.82	
15,055.00	89.31	179.82	8,039.18	-4,938.75	3,575.96	5,914.35	0.66	-0.09	-0.65	
15,151.00	89.48	179.51	8,040.19	-5,034.75	3,576.52	6,003.66	0.37	0.18	-0.32	
15,246.00	89.88	179.11	8,040.73	-5,129.74	3,577.67	6,092.27	0.60	0.42	-0.42	
15,342.00	89.09	176.25	8,041.59	-5,225.64	3,581.55	6,182.74	3.09	-0.82	-2.98	
15,437.00	92.09	177.13	8,040.61	-5,320.47	3,587.04	6,272.81	3.29	3.16	0.93	
15,532.00	92.18	178.23	8,037.07	-5,415.32	3,590.88	6,362.29	1.16	0.09	1.16	
15,628.00	91.69	179.91	8,033.83	-5,511.25	3,592.44	6,451.92	1.82	-0.51	1.75	
15,723.00	91.38	181.32	8,031.28	-5,606.21	3,591.42	6,539.69	1.52	-0.33	1.48	
15,818.00	89.88	184.05	8,030.24	-5,701.09	3,586.97	6,626.11	3.28	-1.58	2.87	
15,914.00	90.90	186.83	8,029.59	-5,796.64	3,577.87	6,711.42	3.08	1.06	2.90	
16,009.00	87.10	190.92	8,031.24	-5,890.45	3,563.22	6,793.06	5.88	-4.00	4.31	
16,104.00	84.09	190.75	8,038.54	-5,983.47	3,545.42	6,872.79	3.17	-3.17	-0.18	
16,200.00	83.92	187.31	8,048.57	-6,077.75	3,530.44	6,954.74	3.57	-0.18	-3.58	
16,295.00	86.79	182.24	8,056.27	-6,172.07	3,522.57	7,039.36	6.12	3.02	-5.34	
16,390.00	89.79	180.44	8,059.10	-6,266.99	3,520.35	7,126.65	3.68	3.16	-1.89	
16,485.00	89.70	181.01	8,059.52	-6,361.98	3,519.14	7,214.38	0.61	-0.09	0.60	
16,580.00	89.40	180.61	8,060.27	-6,456.97	3,517.80	7,302.06	0.53	-0.32	-0.42	
16,676.00	89.79	179.42	8,060.95	-6,552.96	3,517.78	7,391.16	1.30	0.41	-1.24	
16,772.00	90.99	178.85	8,060.30	-6,648.95	3,519.23	7,480.80	1.38	1.25	-0.59	
16,867.00	90.72	178.32	8,058.88	-6,743.91	3,521.57	7,569.82	0.63	-0.28	-0.56	
16,963.00	90.01	178.32	8,058.27	-6,839.86	3,524.39	7,659.94	0.74	-0.74	0.00	
17,058.00	89.88	177.84	8,058.36	-6,934.81	3,527.57	7,749.27	0.52	-0.14	-0.51	
17,153.00	90.41	177.93	8,058.12	-7,029.74	3,531.07	7,838.70	0.57	0.56	0.09	
17,249.00	90.59	178.32	8,057.28	-7,125.69	3,534.21	7,928.93	0.45	0.19	0.41	
17,345.00	91.78	178.41	8,055.29	-7,221.63	3,536.95	8,019.00	1.24	1.24	0.09	
17,440.00	90.90	177.31	8,053.07	-7,316.53	3,540.50	8,108.42	1.48	-0.93	-1.16	
17,535.00	90.41	177.31	8,051.99	-7,411.42	3,544.96	8,198.17	0.52	-0.52	0.00	
17,631.00	90.01	177.13	8,051.64	-7,507.31	3,549.61	8,288.91	0.46	-0.42	-0.19	
17,726.00	89.62	177.22	8,051.94	-7,602.19	3,554.30	8,378.73	0.42	-0.41	0.09	
17,821.00	88.82	178.23	8,053.24	-7,697.11	3,558.07	8,468.24	1.36	-0.84	1.06	
17,917.00	90.01	178.85	8,054.22	-7,793.07	3,560.51	8,558.23	1.40	1.24	0.65	
18,012.00	90.90	179.03	8,053.46	-7,888.05	3,562.27	8,647.05	0.96	0.94	0.19	
18,107.00	90.99	178.94	8,051.89	-7,983.02	3,563.95	8,735.84	0.13	0.09	-0.09	
18,202.00	91.12	179.64	8,050.14	-8,077.99	3,565.13	8,824.44	0.75	0.14	0.74	
18,298.00	90.81	179.64	8,048.53	-8,173.98	3,565.73	8,913.76	0.32	-0.32	0.00	
18,393.00	90.59	178.94	8,047.37	-8,268.96	3,566.91	9,002.38	0.77	-0.23	-0.74	
18,489.00	90.28	178.63	8,046.64	-8,364.94	3,568.95	9,092.22	0.46	-0.32	-0.32	
18,584.00	89.88	179.11	8,046.51	-8,459.92	3,570.82	9,181.09	0.66	-0.42	0.51	
18,679.00	90.90	179.03	8,045.86	-8,554.90	3,572.36	9,269.84	1.08	1.07	-0.08	

Survey Report

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Site Sec 22-T12N-R64W
Project:	Weld County, Co. (TRUE) NAD 83	TVD Reference:	KB=29 @ 5585.00ft
Site:	Sec 22-T12N-R64W	MD Reference:	KB=29 @ 5585.00ft
Well:	Cox #5	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,774.00	90.72	179.11	8,044.52	-8,649.88	3,573.90	9,358.58	0.21	-0.19	0.08
18,870.00	90.28	179.91	8,043.68	-8,745.87	3,574.72	9,447.99	0.95	-0.46	0.83
Last MWD Survey 18870 MD/8043.68 TVD -8745.87 S 3574.72 E N: 1599403.8 E: 3270138.7									
19,008.00	90.28	179.91	8,043.00	-8,883.87	3,574.94	9,576.17	0.00	0.00	0.00
PTB 19008 MD/8043 TVD -8883.87 S 3574.94 E N: 1599265.8 E: 3270140.5									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,765.00	1,679.02	140.47	420.37	1st MWD Survey
9,505.27	8,005.18	608.02	3,554.29	Cross 300' FNL 9505.27 MD/8005.18 TVD 608.02 N 3554.29 E N: 1608756.9 E
18,870.00	8,043.68	-8,745.87	3,574.72	Last MWD Survey 18870 MD/8043.68 TVD -8745.87 S 3574.72 E N: 1599403.8
19,008.00	8,043.00	-8,883.87	3,574.94	PTB 19008 MD/8043 TVD -8883.87 S 3574.94 E N: 1599265.8 E: 3270140.5

Checked By: _____ Approved By: _____ Date: _____