



Extraction Oil & Gas

WELD COUNTY, CO

Kiteley 21-I Pad

Kiteley 7

Kiteley 7

Survey: Survey #1

Standard Survey Report

09 March, 2017



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Kiteley 7
Project:	WELD COUNTY, CO	TVD Reference:	New KB @ 5017.00ft (Cyclone 37)
Site:	Kiteley 21-I Pad	MD Reference:	New KB @ 5017.00ft (Cyclone 37)
Well:	Kiteley 7	North Reference:	True
Wellbore:	Kiteley 7	Survey Calculation Method:	Minimum Curvature
Design:	Kiteley 7	Database:	EDM 5000.1 Single User Db

Project	WELD COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Kiteley 21-I Pad			
Site Position:		Northing:	1,319,048.75 usft	Latitude:	40° 12' 29.416 N
From:	Lat/Long	Easting:	3,135,328.07 usft	Longitude:	105° 0' 55.688 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"	Grid Convergence:	0.31 °

Well	Kiteley 7					
Well Position	+N/-S	0.00 ft	Northing:	1,318,931.95 usft	Latitude:	40° 12' 28.256 N
	+E/-W	0.00 ft	Easting:	3,135,422.55 usft	Longitude:	105° 0' 54.479 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,989.00 ft

Wellbore	Kiteley 7				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	01/31/17	8.37	66.67	52,307

Design	Kiteley 7				
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	93.55	

Survey Program	Date	03/09/17			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
96.00	11,630.00	Survey #1 (Kiteley 7)	MWD	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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
96.00	1.10	48.10	95.99	0.62	0.69	0.65	1.15	1.15	0.00	
191.00	1.70	135.10	190.97	0.23	2.36	2.34	2.08	0.63	91.58	
286.00	2.40	51.40	285.93	0.47	4.91	4.87	2.93	0.74	-88.11	
318.00	1.80	48.20	317.91	1.22	5.81	5.72	1.91	-1.88	-10.00	
350.00	1.30	54.00	349.90	1.77	6.48	6.35	1.64	-1.56	18.13	
382.00	0.80	80.00	381.89	2.02	6.99	6.85	2.12	-1.56	81.25	
414.00	0.30	251.40	413.89	2.03	7.13	6.99	3.43	-1.56	535.63	
445.00	0.80	246.20	444.89	1.92	6.86	6.72	1.62	1.61	-16.77	
477.00	0.70	243.00	476.89	1.74	6.48	6.36	0.34	-0.31	-10.00	
509.00	1.30	247.70	508.88	1.52	5.97	5.86	1.89	1.88	14.69	
541.00	1.90	249.60	540.87	1.19	5.13	5.05	1.88	1.88	5.94	
573.00	2.00	254.50	572.85	0.86	4.10	4.04	0.61	0.31	15.31	

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Well:	Kiteley 7	North Reference:	True
Wellbore:	Kiteley 7	Survey Calculation Method:	Minimum Curvature
Design:	Kiteley 7	Database:	EDM 5000.1 Single User Db

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)
605.00	2.40	248.60	604.83	0.47	2.94	2.90	1.43	1.25	-18.44
637.00	2.50	253.10	636.80	0.02	1.64	1.64	0.68	0.31	14.06
668.00	2.80	247.80	667.76	-0.46	0.30	0.32	1.25	0.97	-17.10
732.00	3.20	255.70	731.68	-1.50	-2.88	-2.78	0.90	0.63	12.34
764.00	3.80	252.50	763.62	-2.04	-4.76	-4.62	1.97	1.88	-10.00
827.00	4.40	250.00	826.46	-3.49	-9.02	-8.79	0.99	0.95	-3.97
859.00	5.10	247.60	858.35	-4.45	-11.49	-11.19	2.27	2.19	-7.50
923.00	6.20	247.60	922.03	-6.85	-17.31	-16.86	1.72	1.72	0.00
955.00	7.00	246.40	953.82	-8.29	-20.70	-20.15	2.54	2.50	-3.75
987.00	7.60	246.50	985.56	-9.92	-24.43	-23.77	1.88	1.88	0.31
1,019.00	7.80	245.10	1,017.27	-11.67	-28.34	-27.56	0.86	0.63	-4.38
1,050.00	8.30	245.60	1,047.97	-13.48	-32.28	-31.39	1.63	1.61	1.61
1,082.00	9.10	249.70	1,079.60	-15.32	-36.76	-35.74	3.16	2.50	12.81
1,176.00	10.60	248.50	1,172.21	-21.06	-51.78	-50.37	1.61	1.60	-1.28
1,208.00	11.00	248.10	1,203.64	-23.28	-57.35	-55.80	1.27	1.25	-1.25
1,239.00	11.70	248.50	1,234.04	-25.54	-63.02	-61.31	2.27	2.26	1.29
1,271.00	11.70	247.80	1,265.37	-27.95	-69.04	-67.18	0.44	0.00	-2.19
1,365.00	11.60	248.00	1,357.44	-35.09	-86.63	-84.29	0.11	-0.11	0.21
1,397.00	11.90	246.60	1,388.77	-37.61	-92.64	-90.13	1.29	0.94	-4.38
1,428.00	12.40	246.20	1,419.07	-40.22	-98.61	-95.94	1.64	1.61	-1.29
1,460.00	12.60	246.00	1,450.31	-43.03	-104.95	-102.08	0.64	0.63	-0.63
1,544.00	12.80	242.00	1,532.26	-51.12	-121.53	-118.14	1.07	0.24	-4.76
1,666.00	12.68	238.97	1,651.26	-64.37	-144.94	-140.68	0.56	-0.10	-2.48
1,760.00	12.28	236.07	1,743.04	-75.27	-162.07	-157.10	0.79	-0.43	-3.09
1,854.00	12.81	241.75	1,834.80	-85.78	-179.55	-173.90	1.43	0.56	6.04
1,949.00	13.61	253.25	1,927.30	-93.99	-199.53	-193.33	2.89	0.84	12.11
2,044.00	13.08	256.95	2,019.73	-99.64	-220.71	-214.12	1.06	-0.56	3.89
2,138.00	11.62	255.19	2,111.56	-104.46	-240.22	-233.30	1.60	-1.55	-1.87
2,233.00	11.00	254.75	2,204.71	-109.29	-258.22	-250.96	0.66	-0.65	-0.46
2,327.00	10.38	253.65	2,297.08	-114.03	-275.00	-267.41	0.69	-0.66	-1.17
2,421.00	9.99	249.55	2,389.60	-119.26	-290.76	-282.82	0.88	-0.41	-4.36
2,516.00	12.02	243.47	2,482.85	-126.56	-307.34	-298.91	2.46	2.14	-6.40
2,611.00	14.18	241.97	2,575.37	-136.45	-326.46	-317.39	2.30	2.27	-1.58
2,705.00	13.70	241.49	2,666.60	-147.17	-346.40	-336.63	0.53	-0.51	-0.51
2,800.00	11.71	242.28	2,759.27	-157.03	-364.83	-354.41	2.10	-2.09	0.83
2,895.00	10.78	242.28	2,852.45	-165.65	-381.22	-370.24	0.98	-0.98	0.00
2,989.00	12.51	242.85	2,944.51	-174.38	-398.07	-386.51	1.84	1.84	0.61
3,084.00	12.11	243.78	3,037.33	-183.48	-416.16	-404.01	0.47	-0.42	0.98
3,178.00	10.38	244.97	3,129.52	-191.42	-432.68	-420.00	1.86	-1.84	1.27
3,273.00	9.28	238.67	3,223.12	-199.02	-446.98	-433.80	1.62	-1.16	-6.63
3,367.00	14.72	247.48	3,315.04	-207.55	-464.50	-450.76	6.09	5.79	9.37
3,462.00	15.20	247.17	3,406.82	-217.00	-487.13	-472.76	0.51	0.51	-0.33
3,556.00	14.32	247.88	3,497.72	-226.16	-509.26	-494.28	0.96	-0.94	0.76
3,651.00	13.30	244.26	3,589.97	-235.33	-529.98	-514.40	1.41	-1.07	-3.81
3,745.00	12.42	243.87	3,681.62	-244.48	-548.80	-532.61	0.94	-0.94	-0.41
3,840.00	10.78	240.78	3,774.67	-253.31	-565.73	-548.96	1.85	-1.73	-3.25
3,935.00	9.18	238.18	3,868.23	-261.65	-579.92	-562.61	1.75	-1.68	-2.74
4,030.00	8.31	242.06	3,962.13	-268.86	-592.42	-574.65	1.11	-0.92	4.08
4,124.00	9.50	241.18	4,054.99	-275.78	-605.22	-586.99	1.27	1.27	-0.94
4,219.00	10.30	247.48	4,148.58	-282.81	-619.94	-601.24	1.42	0.84	6.63
4,314.00	9.19	243.38	4,242.21	-289.47	-634.56	-615.43	1.38	-1.17	-4.32
4,408.00	7.91	241.57	4,335.16	-295.91	-646.96	-627.41	1.39	-1.36	-1.93
4,503.00	9.19	251.75	4,429.11	-301.40	-659.92	-640.00	2.08	1.35	10.72
4,598.00	11.49	248.18	4,522.56	-307.29	-675.91	-655.59	2.51	2.42	-3.76

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4,693.00	9.90	245.58	4,615.91	-314.19	-692.13	-671.36	1.75	-1.67	-2.74	
4,788.00	8.62	243.78	4,709.67	-320.71	-705.95	-684.75	1.38	-1.35	-1.89	
4,882.00	6.81	240.65	4,802.82	-326.55	-717.13	-695.54	1.98	-1.93	-3.33	
4,976.00	5.48	241.35	4,896.27	-331.44	-725.93	-704.02	1.42	-1.41	0.74	
5,071.00	2.70	269.78	4,991.03	-333.62	-732.15	-710.09	3.54	-2.93	29.93	
5,165.00	2.39	314.37	5,084.95	-332.26	-735.76	-713.79	2.08	-0.33	47.44	
5,260.00	2.12	287.76	5,179.88	-330.34	-738.85	-716.99	1.13	-0.28	-28.01	
5,354.00	2.21	284.67	5,273.81	-329.35	-742.26	-720.45	0.16	0.10	-3.29	
5,449.00	0.62	342.27	5,368.78	-328.39	-744.19	-722.44	2.05	-1.67	60.63	
5,543.00	0.09	16.65	5,462.78	-327.84	-744.33	-722.61	0.58	-0.56	36.57	
5,638.00	0.49	112.68	5,557.78	-327.92	-743.93	-722.21	0.53	0.42	101.08	
5,733.00	0.40	208.79	5,652.78	-328.37	-743.71	-721.96	0.70	-0.09	101.17	
5,827.00	0.22	337.29	5,746.78	-328.49	-743.94	-722.18	0.60	-0.19	136.70	
5,921.00	0.22	191.47	5,840.78	-328.50	-744.05	-722.29	0.45	0.00	-155.13	
6,016.00	0.40	284.36	5,935.77	-328.60	-744.41	-722.64	0.49	0.19	97.78	
6,111.00	0.88	252.77	6,030.77	-328.73	-745.42	-723.65	0.61	0.51	-33.25	
6,206.00	1.02	259.38	6,125.76	-329.10	-746.95	-725.15	0.19	0.15	6.96	
6,302.00	0.80	280.75	6,221.74	-329.14	-748.45	-726.64	0.42	-0.23	22.26	
6,419.00	1.50	109.37	6,338.73	-329.49	-747.81	-725.98	1.96	0.60	-146.48	
6,514.00	12.81	84.39	6,432.85	-328.87	-736.11	-714.35	12.07	11.91	-26.29	
6,609.00	21.92	78.26	6,523.43	-324.23	-708.21	-686.78	9.77	9.59	-6.45	
6,703.00	31.20	83.86	6,607.43	-318.04	-666.73	-645.76	10.22	9.87	5.96	
6,798.00	42.29	88.88	6,683.45	-314.77	-610.12	-589.46	12.09	11.67	5.28	
6,893.00	53.12	92.36	6,747.30	-315.71	-539.98	-519.40	11.71	11.40	3.66	
6,988.00	63.28	90.16	6,797.30	-317.40	-459.37	-438.84	10.87	10.69	-2.32	
7,082.00	73.00	87.16	6,832.26	-315.28	-372.27	-352.04	10.75	10.34	-3.19	
7,177.00	76.58	85.88	6,857.19	-309.71	-280.78	-261.08	3.99	3.77	-1.35	
7,272.00	82.41	87.87	6,874.50	-304.64	-187.56	-168.34	6.47	6.14	2.09	
7,367.00	86.08	89.45	6,884.03	-302.43	-93.08	-74.19	4.20	3.86	1.66	
7,460.00	88.51	89.59	6,888.41	-301.65	-0.20	18.47	2.62	2.61	0.15	
7,555.00	88.29	89.59	6,891.07	-300.97	94.76	113.21	0.23	-0.23	0.00	
7,649.00	85.59	90.07	6,896.08	-300.70	188.62	206.87	2.92	-2.87	0.51	
7,743.00	84.89	89.59	6,903.88	-300.42	282.29	300.35	0.90	-0.74	-0.51	
7,837.00	86.61	89.98	6,910.85	-300.07	376.03	393.88	1.88	1.83	0.41	
7,932.00	88.60	89.45	6,914.82	-299.59	470.94	488.58	2.17	2.09	-0.56	
8,027.00	88.51	90.29	6,917.22	-299.38	565.91	583.36	0.89	-0.09	0.88	
8,122.00	88.51	89.98	6,919.69	-299.60	660.88	678.16	0.33	0.00	-0.33	
8,217.00	88.60	89.37	6,922.08	-299.06	755.85	772.91	0.65	0.09	-0.64	
8,311.00	89.31	89.67	6,923.80	-298.28	849.83	866.66	0.82	0.76	0.32	
8,406.00	89.88	88.66	6,924.47	-296.89	944.81	961.38	1.22	0.60	-1.06	
8,501.00	88.82	89.67	6,925.54	-295.51	1,039.79	1,056.09	1.54	-1.12	1.06	
8,595.00	88.60	90.47	6,927.66	-295.62	1,133.77	1,149.89	0.88	-0.23	0.85	
8,690.00	86.30	92.67	6,931.89	-298.22	1,228.63	1,244.73	3.35	-2.42	2.32	
8,784.00	87.41	92.45	6,937.05	-302.41	1,322.39	1,338.57	1.20	1.18	-0.23	
8,879.00	87.01	92.05	6,941.67	-306.14	1,417.20	1,433.44	0.60	-0.42	-0.42	
8,974.00	85.68	90.29	6,947.73	-308.07	1,511.98	1,528.15	2.32	-1.40	-1.85	
9,068.00	85.59	88.97	6,954.88	-307.47	1,605.71	1,621.66	1.40	-0.10	-1.40	
9,163.00	86.70	87.87	6,961.27	-304.86	1,700.45	1,716.06	1.64	1.17	-1.16	
9,257.00	88.51	89.19	6,965.20	-302.45	1,794.34	1,809.62	2.38	1.93	1.40	
9,353.00	89.31	88.18	6,967.02	-300.24	1,890.29	1,905.25	1.34	0.83	-1.05	
9,448.00	89.40	88.09	6,968.09	-297.15	1,985.23	1,999.82	0.13	0.09	-0.09	
9,542.00	89.70	87.38	6,968.83	-293.44	2,079.16	2,093.33	0.82	0.32	-0.76	
9,637.00	90.28	85.97	6,968.85	-287.93	2,173.99	2,187.65	1.60	0.61	-1.48	
9,732.00	88.82	86.77	6,969.59	-281.91	2,268.80	2,281.90	1.75	-1.54	0.84	

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Wellbore:	Kiteley 7	Survey Calculation Method:	Minimum Curvature
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9,827.00	86.08	87.38	6,973.82	-277.07	2,363.57	2,376.19	2.95	-2.88	0.64	
9,921.00	85.20	89.76	6,980.97	-274.73	2,457.26	2,469.55	2.69	-0.94	2.53	
10,016.00	85.59	91.26	6,988.59	-275.57	2,551.95	2,564.11	1.63	0.41	1.58	
10,111.00	82.28	90.29	6,998.63	-276.85	2,646.39	2,658.46	3.63	-3.48	-1.02	
10,206.00	81.00	88.75	7,012.44	-276.07	2,740.38	2,752.21	2.09	-1.35	-1.62	
10,300.00	80.60	89.59	7,027.47	-274.72	2,833.16	2,844.73	0.98	-0.43	0.89	
10,395.00	84.71	86.59	7,039.62	-271.57	2,927.29	2,938.49	5.34	4.33	-3.16	
10,490.00	89.00	87.56	7,044.83	-266.74	3,022.00	3,032.72	4.63	4.52	1.02	
10,585.00	89.62	88.88	7,045.97	-263.79	3,116.95	3,127.30	1.54	0.65	1.39	
10,679.00	90.19	87.87	7,046.13	-261.12	3,210.91	3,220.91	1.23	0.61	-1.07	
10,774.00	90.81	88.48	7,045.30	-258.09	3,305.85	3,315.49	0.92	0.65	0.64	
10,868.00	91.60	87.78	7,043.32	-255.03	3,399.78	3,409.05	1.12	0.84	-0.74	
10,963.00	91.21	89.37	7,040.99	-252.67	3,494.72	3,503.66	1.72	-0.41	1.67	
11,057.00	92.62	89.67	7,037.85	-251.88	3,588.66	3,597.37	1.53	1.50	0.32	
11,152.00	90.41	90.29	7,035.34	-251.85	3,683.62	3,692.15	2.42	-2.33	0.65	
11,247.00	88.51	91.26	7,036.23	-253.13	3,778.60	3,787.03	2.25	-2.00	1.02	
11,342.00	88.91	90.95	7,038.37	-254.96	3,873.56	3,881.92	0.53	0.42	-0.33	
11,436.00	90.01	91.79	7,039.26	-257.21	3,967.53	3,975.84	1.47	1.17	0.89	
Last Svy										
11,531.00	87.98	89.76	7,040.93	-258.50	4,062.50	4,070.71	3.02	-2.14	-2.14	
Proj Svy										
11,630.00	87.98	89.76	7,044.42	-258.08	4,161.43	4,169.43	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
Kiteley 7 Hard Line Inter	0.00	0.00	6,879.59	-303.31	-144.60	1,318,627.85	3,135,279.61	40° 12' 25.259 N		105° 0' 56.343 W
- hit/miss target										
- Shape										
- survey hits target center										
- Point										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
11,531.00	7,040.93	-258.50	4,062.50	Last Svy	
11,630.00	7,044.42	-258.08	4,161.43	Proj Svy	

Checked By: _____	Approved By: _____	Date: _____
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