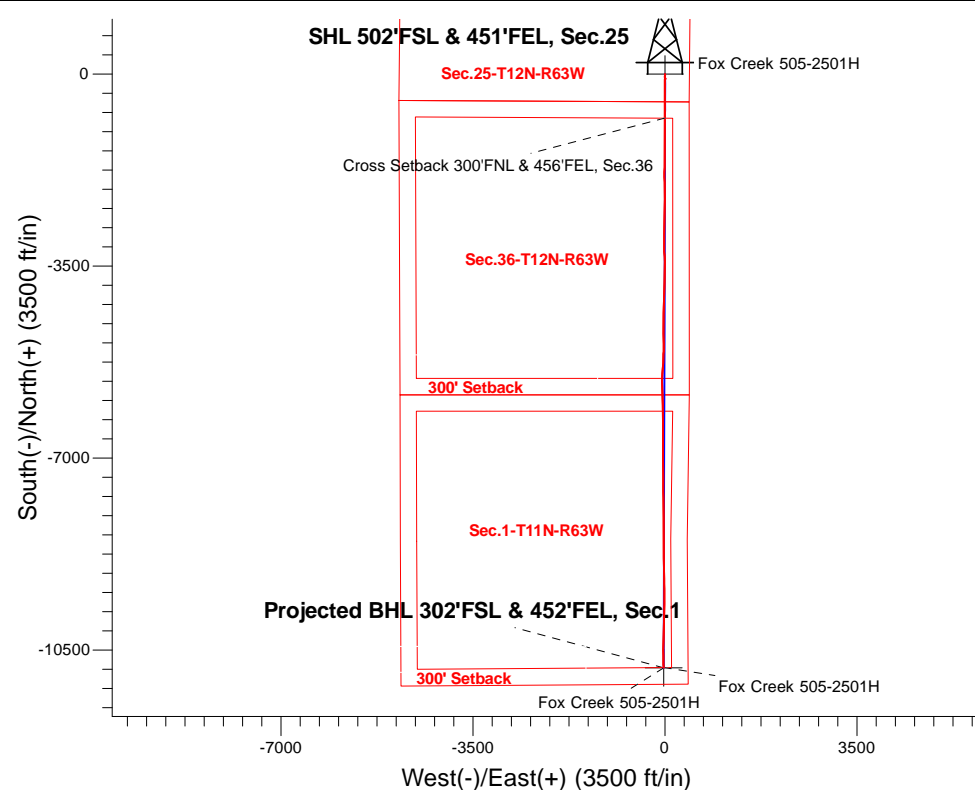


Fifth Creek Energy Company, LLC

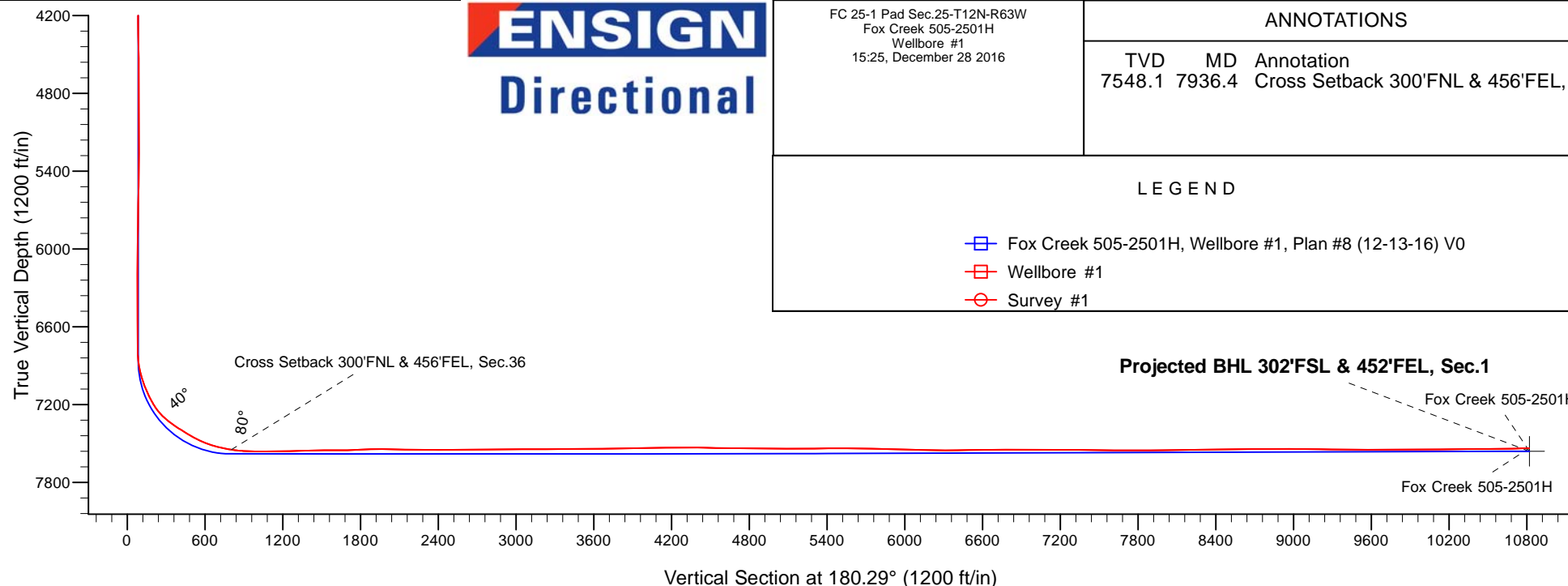
Well Name: **Fox Creek 505-2501H**
 Surface Location: FC 25-1 Pad Sec.25-T12N-R63W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 5391.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1599926.43 3311130.96 40.974731 -104.373292
 Ensign 145 RKB - 13' WELL @ 5404.0ft (Ensign 145 RKB - 13')

FINAL SURVEY

Projected Bottom Hole Location
 17957'MD 7537'TVD 10818'S & 27'W of SHL
 91.5 degree Incl @ 179.2 degree AZM



ENSIGN
 Directional



FC 25-1 Pad Sec.25-T12N-R63W
 Fox Creek 505-2501H
 Wellbore #1
 15:25, December 28 2016

ANNOTATIONS

TVD	MD	Annotation
7548.1	7936.4	Cross Setback 300'FNL & 456'FEL, Sec.36

LEGEND

- Fox Creek 505-2501H, Wellbore #1, Plan #8 (12-13-16) V0
- Wellbore #1
- Survey #1



Fifth Creek Energy Company, LLC

Sec.25-T12N-R63W

FC 25-1 Pad Sec.25-T12N-R63W

Fox Creek 505-2501H

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 December, 2016

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Fox Creek 505-2501H
Project:	Sec.25-T12N-R63W	TVD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Site:	FC 25-1 Pad Sec.25-T12N-R63W	MD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Project	Sec.25-T12N-R63W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		FC 25-1 Pad Sec.25-T12N-R63W						
Site Position:		Northing:	1,599,929.32	usft	Latitude:	40.974738		
From:	Lat/Long	Easting:	3,311,156.34	usft	Longitude:	-104.373200		
Position Uncertainty:	0.0	ft	Slot Radius:	13-3/16	"	Grid Convergence:	0.73	°

Well	Fox Creek 505-2501H					
Well Position	+N/-S	0.0 ft	Northing:	1,599,926.42 usft	Latitude:	40.974731
	+E/-W	0.0 ft	Easting:	3,311,130.96 usft	Longitude:	-104.373292
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	5,391.0 ft

Wellbore					
Wellbore #1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/7/2016	7.95	67.38	52,886

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	180.29	

Survey Program		Date	12/28/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
149.0	17,957.0	Survey #1 (Wellbore #1)	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)
Survey 1	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	149.0	0.40	266.00	149.0	0.0	-0.5	0.0	0.27	0.27	0.00
	242.0	0.40	264.10	242.0	-0.1	-1.2	0.1	0.01	0.00	-2.04
	335.0	0.30	171.40	335.0	-0.4	-1.5	0.4	0.55	-0.11	-99.68
	429.0	0.40	174.90	429.0	-0.9	-1.4	0.9	0.11	0.11	3.72
	522.0	0.50	150.90	522.0	-1.6	-1.2	1.6	0.23	0.11	-25.81
	615.0	0.50	146.10	615.0	-2.3	-0.7	2.3	0.05	0.00	-5.16
	708.0	0.40	161.80	708.0	-3.0	-0.4	3.0	0.17	-0.11	16.88
	801.0	0.40	159.30	801.0	-3.6	-0.2	3.6	0.02	0.00	-2.69
	895.0	0.50	170.70	895.0	-4.3	0.0	4.3	0.14	0.11	12.13

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Fox Creek 505-2501H
Project:	Sec.25-T12N-R63W	TVD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Site:	FC 25-1 Pad Sec.25-T12N-R63W	MD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

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)
988.0	0.40	197.30	988.0	-5.0	0.0	5.0	0.25	-0.11	28.60
1,082.0	0.40	190.40	1,082.0	-5.6	-0.2	5.6	0.05	0.00	-7.34
1,175.0	0.40	162.50	1,175.0	-6.3	-0.2	6.3	0.21	0.00	-30.00
1,268.0	0.70	167.60	1,268.0	-7.1	0.1	7.1	0.33	0.32	5.48
1,385.0	0.50	171.60	1,385.0	-8.3	0.3	8.3	0.17	-0.17	3.42
1,456.0	1.10	161.60	1,456.0	-9.3	0.5	9.3	0.86	0.85	-14.08
1,549.0	1.10	168.40	1,548.9	-11.0	1.0	11.0	0.14	0.00	7.31
1,643.0	0.90	158.80	1,642.9	-12.6	1.5	12.6	0.28	-0.21	-10.21
1,736.0	0.90	153.30	1,735.9	-13.9	2.1	13.9	0.09	0.00	-5.91
1,830.0	0.50	155.40	1,829.9	-14.9	2.6	14.9	0.43	-0.43	2.23
1,923.0	0.40	129.20	1,922.9	-15.5	3.0	15.5	0.24	-0.11	-28.17
2,016.0	0.50	123.30	2,015.9	-15.9	3.6	15.9	0.12	0.11	-6.34
2,110.0	0.40	165.60	2,109.9	-16.5	4.0	16.5	0.36	-0.11	45.00
2,203.0	1.10	223.10	2,202.9	-17.4	3.5	17.4	1.02	0.75	61.83
2,296.0	0.70	238.20	2,295.9	-18.4	2.4	18.4	0.50	-0.43	16.24
2,389.0	0.70	229.30	2,388.9	-19.1	1.5	19.1	0.12	0.00	-9.57
2,483.0	1.90	192.90	2,482.8	-21.0	0.7	21.0	1.49	1.28	-38.72
2,576.0	3.30	196.70	2,575.7	-25.0	-0.4	25.0	1.52	1.51	4.09
2,669.0	4.40	198.10	2,668.5	-31.0	-2.3	31.0	1.19	1.18	1.51
2,762.0	5.20	188.30	2,761.2	-38.5	-4.0	38.6	1.23	0.86	-10.54
2,855.0	5.30	176.50	2,853.8	-47.0	-4.4	47.0	1.16	0.11	-12.69
2,948.0	4.90	174.10	2,946.5	-55.2	-3.7	55.3	0.49	-0.43	-2.58
3,042.0	3.40	161.60	3,040.2	-61.9	-2.4	61.9	1.85	-1.60	-13.30
3,135.0	3.10	154.20	3,133.1	-66.8	-0.5	66.8	0.55	-0.32	-7.96
3,228.0	2.60	147.90	3,225.9	-70.8	1.8	70.8	0.63	-0.54	-6.77
3,321.0	1.30	163.30	3,318.9	-73.6	3.2	73.6	1.49	-1.40	16.56
3,414.0	1.50	145.80	3,411.9	-75.6	4.2	75.6	0.50	0.22	-18.82
3,507.0	1.10	142.80	3,504.8	-77.3	5.4	77.3	0.44	-0.43	-3.23
3,601.0	0.60	153.50	3,598.8	-78.5	6.2	78.5	0.56	-0.53	11.38
3,694.0	0.60	181.40	3,691.8	-79.4	6.4	79.4	0.31	0.00	30.00
3,787.0	0.70	207.50	3,784.8	-80.4	6.1	80.4	0.33	0.11	28.06
3,880.0	0.50	197.60	3,877.8	-81.3	5.7	81.3	0.24	-0.22	-10.65
3,973.0	0.50	208.90	3,970.8	-82.0	5.4	82.0	0.11	0.00	12.15
4,067.0	0.40	210.40	4,064.8	-82.7	5.0	82.7	0.11	-0.11	1.60
4,160.0	0.40	204.80	4,157.8	-83.3	4.7	83.2	0.04	0.00	-6.02
4,253.0	0.40	193.90	4,250.8	-83.9	4.5	83.8	0.08	0.00	-11.72
4,346.0	1.00	169.00	4,343.8	-85.0	4.6	85.0	0.71	0.65	-26.77
4,439.0	1.10	180.90	4,436.8	-86.7	4.7	86.6	0.26	0.11	12.80
4,532.0	0.60	128.40	4,529.8	-87.9	5.1	87.8	0.94	-0.54	-56.45
4,625.0	0.30	100.60	4,622.8	-88.2	5.7	88.2	0.39	-0.32	-29.89
4,718.0	0.10	183.90	4,715.8	-88.3	5.9	88.3	0.33	-0.22	89.57
4,812.0	0.40	211.70	4,809.8	-88.7	5.8	88.7	0.34	0.32	29.57
4,905.0	0.40	204.10	4,902.8	-89.3	5.5	89.2	0.06	0.00	-8.17
4,998.0	0.80	250.70	4,995.8	-89.8	4.7	89.8	0.65	0.43	50.11

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Site:	FC 25-1 Pad Sec.25-T12N-R63W	MD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

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)	
5,091.0	1.10	252.80	5,088.7	-90.3	3.3	90.2	0.32	0.32	2.26	
5,184.0	1.20	251.80	5,181.7	-90.8	1.5	90.8	0.11	0.11	-1.08	
5,277.0	0.90	305.00	5,274.7	-90.7	0.0	90.7	1.05	-0.32	57.20	
5,371.0	1.30	299.20	5,368.7	-89.8	-1.6	89.8	0.44	0.43	-6.17	
5,464.0	0.80	25.40	5,461.7	-88.7	-2.2	88.7	1.59	-0.54	92.69	
5,557.0	1.60	27.60	5,554.7	-86.9	-1.3	86.9	0.86	0.86	2.37	
5,650.0	1.10	15.70	5,647.6	-84.9	-0.5	84.9	0.61	-0.54	-12.80	
5,743.0	0.90	352.00	5,740.6	-83.3	-0.4	83.3	0.49	-0.22	-25.48	
5,836.0	0.90	329.50	5,833.6	-82.0	-0.8	82.0	0.38	0.00	-24.19	
5,929.0	0.80	313.60	5,926.6	-80.9	-1.7	80.9	0.27	-0.11	-17.10	
6,022.0	0.70	327.00	6,019.6	-80.0	-2.5	80.0	0.22	-0.11	14.41	
6,116.0	0.80	327.90	6,113.6	-78.9	-3.1	79.0	0.11	0.11	0.96	
6,209.0	0.10	105.70	6,206.6	-78.4	-3.4	78.4	0.94	-0.75	148.17	
6,302.0	0.40	125.50	6,299.6	-78.6	-3.0	78.6	0.33	0.32	21.29	
6,395.0	0.40	129.20	6,392.6	-79.0	-2.5	79.0	0.03	0.00	3.98	
6,488.0	0.30	100.90	6,485.6	-79.3	-2.0	79.3	0.21	-0.11	-30.43	
6,581.0	0.30	89.50	6,578.6	-79.3	-1.5	79.3	0.06	0.00	-12.26	
6,675.0	0.30	113.60	6,672.6	-79.4	-1.1	79.4	0.13	0.00	25.64	
6,768.0	0.30	166.90	6,765.6	-79.8	-0.8	79.8	0.29	0.00	57.31	
6,861.0	5.90	186.20	6,858.4	-84.7	-1.3	84.7	6.04	6.02	20.75	
6,954.0	13.90	186.90	6,949.9	-100.6	-3.1	100.6	8.60	8.60	0.75	
7,047.0	20.00	181.10	7,038.9	-127.6	-4.8	127.7	6.80	6.56	-6.24	
7,141.0	24.80	179.70	7,125.7	-163.4	-5.0	163.5	5.14	5.11	-1.49	
7,234.0	32.00	177.80	7,207.5	-207.6	-3.9	207.6	7.80	7.74	-2.04	
7,327.0	44.10	179.90	7,280.6	-264.8	-2.9	264.8	13.08	13.01	2.26	
7,420.0	54.10	180.90	7,341.4	-335.0	-3.5	335.0	10.78	10.75	1.08	
7,514.0	57.90	178.60	7,394.0	-412.9	-3.1	412.9	4.52	4.04	-2.45	
7,607.0	60.00	177.80	7,441.9	-492.6	-0.6	492.6	2.38	2.26	-0.86	
7,701.0	65.30	180.40	7,485.1	-576.0	0.7	576.0	6.15	5.64	2.77	
7,794.0	74.10	181.60	7,517.4	-663.1	-0.9	663.1	9.54	9.46	1.29	
7,852.0	77.00	181.60	7,531.8	-719.3	-2.4	719.3	5.00	5.00	0.00	
7,936.4	80.79	181.41	7,548.1	-802.0	-4.6	802.1	4.50	4.49	-0.22	
Cross Setback 300'FNL & 456'FEL, Sec.36										
7,941.0	81.00	181.40	7,548.8	-806.6	-4.7	806.6	4.50	4.49	-0.22	
8,031.0	87.00	180.00	7,558.2	-896.0	-5.8	896.1	6.84	6.67	-1.56	
8,120.0	89.00	180.60	7,561.3	-985.0	-6.3	985.0	2.35	2.25	0.67	
8,209.0	90.50	180.70	7,561.7	-1,074.0	-7.3	1,074.0	1.69	1.69	0.11	
8,298.0	90.40	179.50	7,561.0	-1,163.0	-7.4	1,163.0	1.35	-0.11	-1.35	
8,388.0	90.90	178.60	7,560.0	-1,252.9	-5.9	1,253.0	1.14	0.56	-1.00	
8,477.0	92.30	180.20	7,557.5	-1,341.9	-5.0	1,341.9	2.39	1.57	1.80	
8,566.0	91.70	180.60	7,554.4	-1,430.8	-5.6	1,430.9	0.81	-0.67	0.45	
8,656.0	91.10	181.10	7,552.2	-1,520.8	-7.0	1,520.8	0.87	-0.67	0.56	
8,745.0	89.30	180.40	7,551.9	-1,609.8	-8.1	1,609.8	2.17	-2.02	-0.79	

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Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

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)
8,834.0	91.00	180.60	7,551.6	-1,698.8	-8.9	1,698.8	1.92	1.91	0.22
8,924.0	92.50	180.90	7,548.9	-1,788.7	-10.1	1,788.8	1.70	1.67	0.33
9,014.0	91.80	179.00	7,545.5	-1,878.7	-10.0	1,878.7	2.25	-0.78	-2.11
9,103.0	89.70	178.50	7,544.4	-1,967.6	-8.1	1,967.6	2.43	-2.36	-0.56
9,193.0	88.50	178.10	7,545.8	-2,057.6	-5.4	2,057.6	1.41	-1.33	-0.44
9,283.0	89.30	179.20	7,547.5	-2,147.5	-3.3	2,147.5	1.51	0.89	1.22
9,372.0	89.10	180.70	7,548.7	-2,236.5	-3.2	2,236.5	1.70	-0.22	1.69
9,462.0	89.20	180.90	7,550.1	-2,326.5	-4.4	2,326.5	0.25	0.11	0.22
9,551.0	90.00	180.90	7,550.7	-2,415.5	-5.8	2,415.5	0.90	0.90	0.00
9,640.0	90.70	181.40	7,550.2	-2,504.5	-7.6	2,504.5	0.97	0.79	0.56
9,730.0	90.90	181.80	7,548.9	-2,594.4	-10.1	2,594.4	0.50	0.22	0.44
9,819.0	91.60	180.70	7,547.0	-2,683.4	-12.1	2,683.4	1.46	0.79	-1.24
9,908.0	89.80	180.00	7,545.9	-2,772.4	-12.6	2,772.4	2.17	-2.02	-0.79
9,998.0	89.80	179.70	7,546.2	-2,862.4	-12.4	2,862.4	0.33	0.00	-0.33
10,093.0	90.30	180.60	7,546.1	-2,957.4	-12.6	2,957.4	1.08	0.53	0.95
10,186.0	90.60	181.40	7,545.4	-3,050.3	-14.3	3,050.4	0.92	0.32	0.86
10,279.0	90.00	179.90	7,544.9	-3,143.3	-15.3	3,143.4	1.74	-0.65	-1.61
10,372.0	90.50	177.10	7,544.5	-3,236.3	-12.9	3,236.3	3.06	0.54	-3.01
10,465.0	90.60	177.20	7,543.6	-3,329.2	-8.3	3,329.2	0.15	0.11	0.11
10,558.0	90.00	178.80	7,543.1	-3,422.1	-5.0	3,422.1	1.84	-0.65	1.72
10,651.0	90.60	180.70	7,542.6	-3,515.1	-4.6	3,515.1	2.14	0.65	2.04
10,745.0	90.50	181.40	7,541.7	-3,609.1	-6.3	3,609.1	0.75	-0.11	0.74
10,838.0	90.80	181.30	7,540.7	-3,702.1	-8.5	3,702.1	0.34	0.32	-0.11
10,932.0	90.90	180.90	7,539.3	-3,796.0	-10.3	3,796.0	0.44	0.11	-0.43
11,025.0	91.10	181.40	7,537.6	-3,889.0	-12.2	3,889.0	0.58	0.22	0.54
11,118.0	91.00	181.40	7,535.9	-3,981.9	-14.5	3,982.0	0.11	-0.11	0.00
11,211.0	91.20	182.00	7,534.1	-4,074.9	-17.2	4,074.9	0.68	0.22	0.65
11,305.0	90.10	181.80	7,533.1	-4,168.8	-20.3	4,168.9	1.19	-1.17	-0.21
11,398.0	90.50	181.40	7,532.6	-4,261.8	-22.9	4,261.9	0.61	0.43	-0.43
11,492.0	90.10	181.40	7,532.1	-4,355.8	-25.2	4,355.8	0.43	-0.43	0.00
11,585.0	88.50	181.40	7,533.2	-4,448.7	-27.5	4,448.8	1.72	-1.72	0.00
11,678.0	89.20	180.40	7,535.1	-4,541.7	-29.0	4,541.8	1.31	0.75	-1.08
11,772.0	89.30	180.60	7,536.3	-4,635.7	-29.8	4,635.8	0.24	0.11	0.21
11,865.0	90.10	178.10	7,536.8	-4,728.7	-28.7	4,728.8	2.82	0.86	-2.69
11,958.0	88.80	178.10	7,537.7	-4,821.6	-25.6	4,821.7	1.40	-1.40	0.00
12,052.0	88.90	179.50	7,539.6	-4,915.6	-23.7	4,915.6	1.49	0.11	1.49
12,145.0	90.40	181.80	7,540.2	-5,008.6	-24.7	5,008.6	2.95	1.61	2.47
12,238.0	89.80	180.70	7,540.0	-5,101.5	-26.8	5,101.6	1.35	-0.65	-1.18
12,332.0	90.20	182.70	7,540.0	-5,195.5	-29.6	5,195.6	2.17	0.43	2.13
12,425.0	90.40	183.40	7,539.5	-5,288.3	-34.5	5,288.5	0.78	0.22	0.75
12,518.0	90.70	185.30	7,538.6	-5,381.1	-41.6	5,381.2	2.07	0.32	2.04
12,549.0	90.40	185.00	7,538.3	-5,411.9	-44.3	5,412.1	1.37	-0.97	-0.97
12,580.0	89.80	185.10	7,538.3	-5,442.8	-47.1	5,443.0	1.96	-1.94	0.32
12,611.0	90.10	184.10	7,538.3	-5,473.7	-49.6	5,473.9	3.37	0.97	-3.23

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Fox Creek 505-2501H
Project:	Sec.25-T12N-R63W	TVD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Site:	FC 25-1 Pad Sec.25-T12N-R63W	MD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

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)
12,642.0	90.80	183.90	7,538.1	-5,504.6	-51.7	5,504.8	2.35	2.26	-0.65
12,673.0	90.30	181.40	7,537.8	-5,535.6	-53.1	5,535.8	8.22	-1.61	-8.06
12,704.0	89.30	178.80	7,537.9	-5,566.6	-53.2	5,566.8	8.99	-3.23	-8.39
12,751.0	89.00	179.00	7,538.6	-5,613.6	-52.3	5,613.8	0.77	-0.64	0.43
12,798.0	88.70	178.60	7,539.5	-5,660.6	-51.3	5,660.8	1.06	-0.64	-0.85
12,891.0	88.60	178.10	7,541.7	-5,753.5	-48.6	5,753.7	0.55	-0.11	-0.54
12,984.0	89.30	178.50	7,543.4	-5,846.5	-45.9	5,846.6	0.87	0.75	0.43
13,077.0	88.80	178.10	7,544.9	-5,939.4	-43.1	5,939.5	0.69	-0.54	-0.43
13,170.0	88.50	178.50	7,547.1	-6,032.3	-40.4	6,032.5	0.54	-0.32	0.43
13,263.0	88.30	179.00	7,549.7	-6,125.3	-38.3	6,125.4	0.58	-0.22	0.54
13,356.0	88.50	180.20	7,552.3	-6,218.2	-37.7	6,218.3	1.31	0.22	1.29
13,450.0	89.90	180.60	7,553.6	-6,312.2	-38.3	6,312.3	1.55	1.49	0.43
13,543.0	91.30	180.40	7,552.7	-6,405.2	-39.2	6,405.3	1.52	1.51	-0.22
13,636.0	91.20	179.00	7,550.6	-6,498.2	-38.7	6,498.3	1.51	-0.11	-1.51
13,729.0	90.70	179.30	7,549.1	-6,591.2	-37.3	6,591.3	0.63	-0.54	0.32
13,822.0	90.30	179.70	7,548.3	-6,684.1	-36.5	6,684.2	0.61	-0.43	0.43
13,915.0	90.00	179.90	7,548.0	-6,777.1	-36.1	6,777.2	0.39	-0.32	0.22
14,009.0	89.50	180.20	7,548.5	-6,871.1	-36.2	6,871.2	0.62	-0.53	0.32
14,102.0	90.00	180.00	7,548.9	-6,964.1	-36.4	6,964.2	0.58	0.54	-0.22
14,195.0	90.00	180.00	7,548.9	-7,057.1	-36.4	7,057.2	0.00	0.00	0.00
14,288.0	90.10	178.80	7,548.8	-7,150.1	-35.4	7,150.2	1.29	0.11	-1.29
14,381.0	89.80	179.30	7,548.9	-7,243.1	-33.9	7,243.2	0.63	-0.32	0.54
14,474.0	89.30	180.20	7,549.6	-7,336.1	-33.5	7,336.2	1.11	-0.54	0.97
14,567.0	88.90	179.90	7,551.1	-7,429.1	-33.6	7,429.2	0.54	-0.43	-0.32
14,661.0	89.70	179.00	7,552.2	-7,523.1	-32.7	7,523.2	1.28	0.85	-0.96
14,754.0	89.40	179.50	7,552.9	-7,616.1	-31.4	7,616.1	0.63	-0.32	0.54
14,847.0	90.10	178.50	7,553.3	-7,709.1	-29.8	7,709.1	1.31	0.75	-1.08
14,940.0	90.00	179.30	7,553.3	-7,802.0	-28.0	7,802.1	0.87	-0.11	0.86
15,033.0	90.40	179.70	7,552.9	-7,895.0	-27.2	7,895.1	0.61	0.43	0.43
15,127.0	90.30	180.20	7,552.4	-7,989.0	-27.1	7,989.1	0.54	-0.11	0.53
15,220.0	90.70	179.00	7,551.5	-8,082.0	-26.5	8,082.1	1.36	0.43	-1.29
15,313.0	90.80	179.70	7,550.3	-8,175.0	-25.4	8,175.0	0.76	0.11	0.75
15,406.0	90.60	180.20	7,549.2	-8,268.0	-25.3	8,268.0	0.58	-0.22	0.54
15,499.0	90.90	179.50	7,548.0	-8,361.0	-25.1	8,361.0	0.82	0.32	-0.75
15,592.0	90.80	179.50	7,546.6	-8,454.0	-24.3	8,454.0	0.11	-0.11	0.00
15,685.0	90.70	180.40	7,545.4	-8,547.0	-24.2	8,547.0	0.97	-0.11	0.97
15,778.0	90.60	179.70	7,544.3	-8,640.0	-24.3	8,640.0	0.76	-0.11	-0.75
15,872.0	90.50	180.00	7,543.4	-8,734.0	-24.0	8,734.0	0.34	-0.11	0.32
15,965.0	90.80	179.00	7,542.4	-8,827.0	-23.2	8,827.0	1.12	0.32	-1.08
16,058.0	89.90	178.30	7,541.8	-8,919.9	-21.0	8,919.9	1.23	-0.97	-0.75
16,151.0	89.60	178.50	7,542.2	-9,012.9	-18.4	9,012.9	0.39	-0.32	0.22
16,244.0	89.00	179.00	7,543.3	-9,105.9	-16.4	9,105.8	0.84	-0.65	0.54
16,337.0	89.10	179.00	7,544.9	-9,198.8	-14.8	9,198.8	0.11	0.11	0.00

Company:	Fifth Creek Energy Company, LLC	Local Co-ordinate Reference:	Well Fox Creek 505-2501H
Project:	Sec.25-T12N-R63W	TVD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Site:	FC 25-1 Pad Sec.25-T12N-R63W	MD Reference:	WELL @ 5404.0ft (Ensign 145 RKB - 13')
Well:	Fox Creek 505-2501H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

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)
16,430.0	89.30	178.80	7,546.2	-9,291.8	-13.0	9,291.8	0.30	0.22	-0.22
16,523.0	89.30	179.00	7,547.3	-9,384.8	-11.2	9,384.7	0.22	0.00	0.22
16,617.0	90.00	180.00	7,547.9	-9,478.8	-10.4	9,478.7	1.30	0.74	1.06
16,711.0	89.80	180.40	7,548.1	-9,572.8	-10.7	9,572.7	0.48	-0.21	0.43
16,804.0	90.00	180.40	7,548.2	-9,665.8	-11.4	9,665.7	0.22	0.22	0.00
16,897.0	89.50	180.90	7,548.6	-9,758.8	-12.4	9,758.7	0.76	-0.54	0.54
16,990.0	90.80	182.00	7,548.4	-9,851.7	-14.8	9,851.7	1.83	1.40	1.18
17,083.0	90.60	182.30	7,547.2	-9,944.7	-18.3	9,944.6	0.39	-0.22	0.32
17,176.0	90.60	180.90	7,546.3	-10,037.6	-20.9	10,037.6	1.51	0.00	-1.51
17,269.0	90.00	181.60	7,545.8	-10,130.6	-22.9	10,130.6	0.99	-0.65	0.75
17,363.0	90.70	181.10	7,545.2	-10,224.6	-25.1	10,224.6	0.92	0.74	-0.53
17,456.0	90.60	182.10	7,544.2	-10,317.5	-27.7	10,317.5	1.08	-0.11	1.08
17,549.0	90.70	180.90	7,543.1	-10,410.5	-30.1	10,410.5	1.29	0.11	-1.29
17,643.0	90.60	179.70	7,542.0	-10,504.5	-30.6	10,504.5	1.28	-0.11	-1.28
17,736.0	90.60	179.20	7,541.1	-10,597.5	-29.7	10,597.5	0.54	0.00	-0.54
17,829.0	91.10	179.20	7,539.7	-10,690.4	-28.5	10,690.5	0.54	0.54	0.00
17,905.0	91.50	179.20	7,538.0	-10,766.4	-27.4	10,766.4	0.53	0.53	0.00
17,957.0	91.50	179.20	7,536.6	-10,818.4	-26.7	10,818.4	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
- hit/miss target									
- Shape									
SHL 502'FSL & 451'FEL	0.00	0.00	1.0	0.0	0.0	1,599,926.44	3,311,130.96	40.974731	-104.373292
- survey hits target center									
- Point									
BHL 300'FSL & 450'FEL	0.00	0.00	7,560.0	-10,820.5	-24.5	1,589,106.11	3,311,243.95	40.945033	-104.373381
- survey misses target center by 23.6ft at 17957.0ft MD (7536.6 TVD, -10818.4 N, -26.7 E)									
- Point									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,936.4	7,548.1	-802.0	-4.6	Cross Setback 300'FNL & 456'FEL, Sec.36

Checked By: _____	Approved By: _____	Date: _____
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