

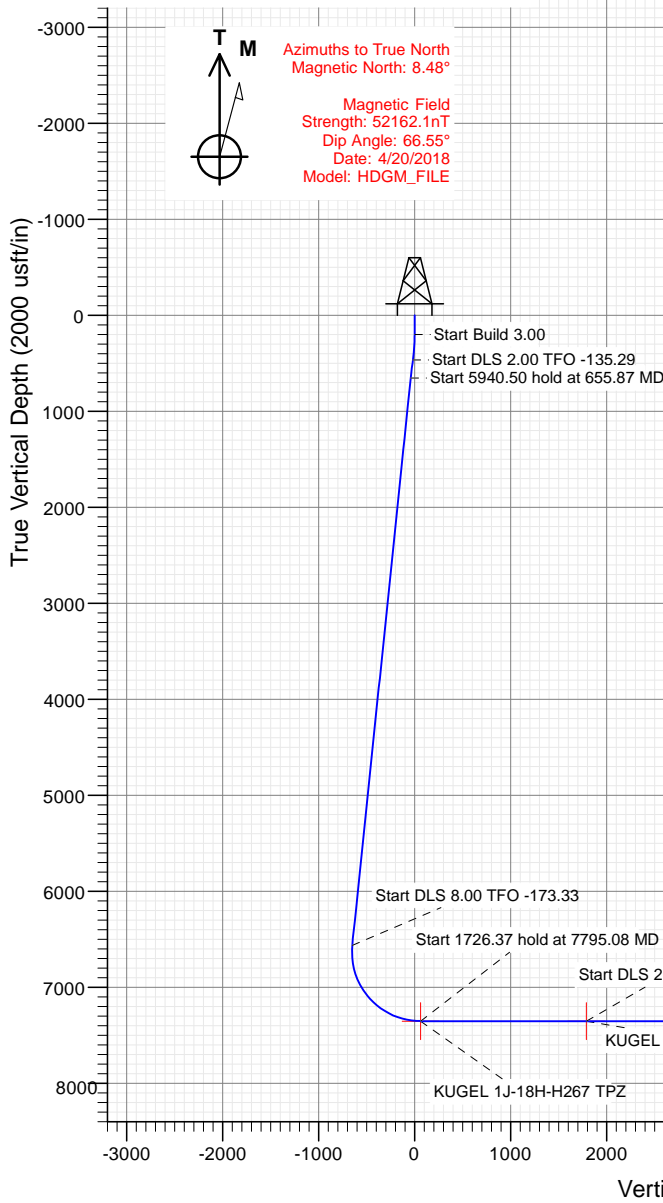


CRESTONE PEAK
RESOURCES

PLAN #2 (6.11)
KUGEL 1J-18H-H267
23 KB @ 4976.00usft
Ground Level @ 4953.00
North American Datum 1983
Well KUGEL 1J-18H-H267 - Slot KUGEL 1J, True North

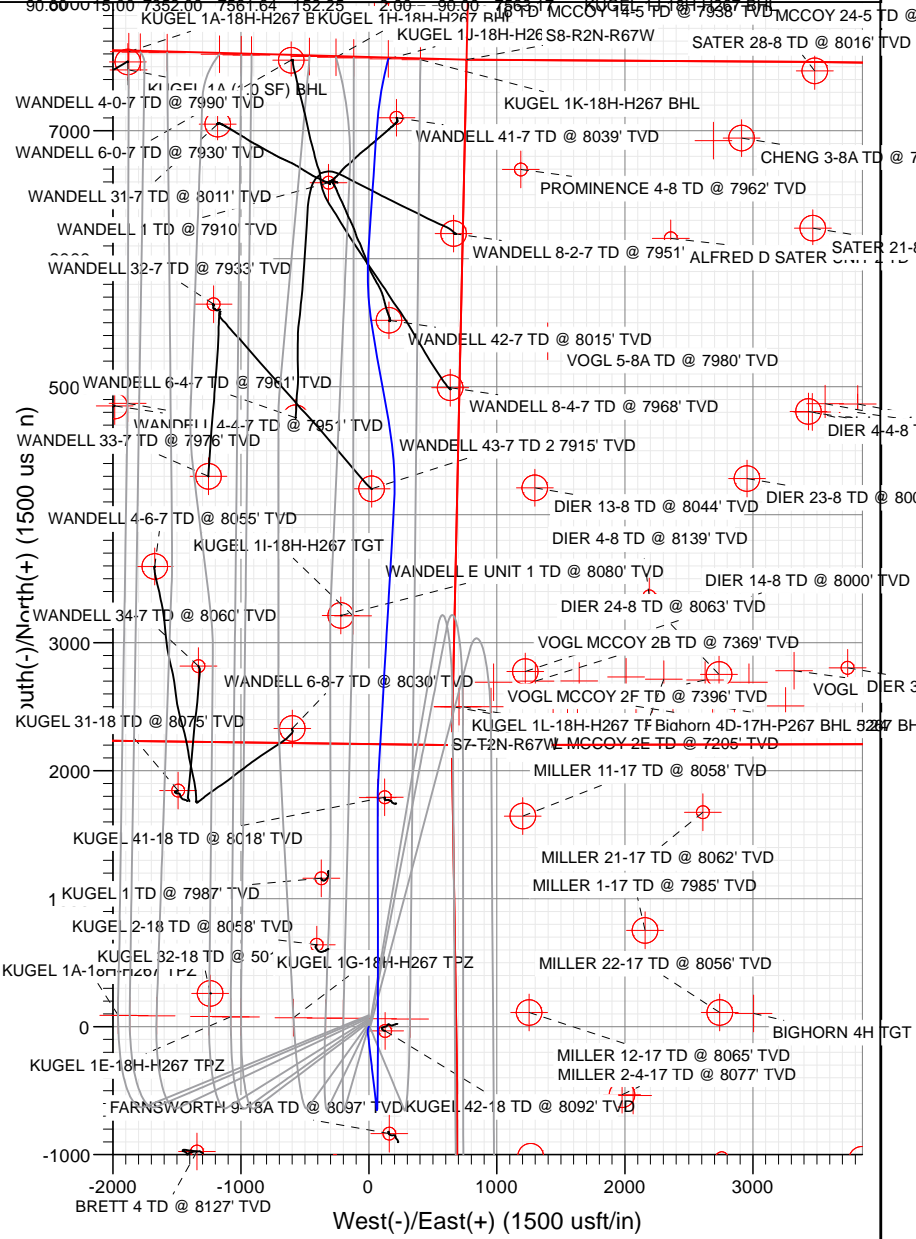
Type	Target	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From	TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude				
KUGEL 1J-18H-H267 BHL	7352.00	7561.64	152.25	40.160336	-104.925912				
KUGEL 1J-18H-H267 TGT 1	7352.00	7352.00	62.56	40.144489	-104.926204				
KUGEL 1J-18H-H267 TPZ	7352.00								

Project: DJ BASIN
Site: S18-T2N-R67W (KUGEL)
Well: KUGEL 1J-18H-H267
Wellbore: OH
Design: PLAN #2 (6.11)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	466.67	8.00	200.00	465.80	-17.47	-6.36	3.00	200.00	-17.59	
4	655.87	5.94	173.33	653.64	-39.56	-9.72	2.00	-135.29	-39.75	
5	6596.36	5.94	173.33	6562.28	-649.85	61.67	0.00	0.00	-648.48	
6	7795.08	90.00	359.96	7352.00	62.56	70.65	8.00	-173.33	63.97	KUGEL 1J-18H-H267 TPZ
7	9521.45	90.00	359.96	7352.00	1788.93	69.43	0.00	0.00	1789.97	KUGEL 1J-18H-H267 TGT 1
8	9688.47	90.00	3.30	7352.00	1955.86	74.18	2.00	90.00	1956.96	
9	11788.47	90.00	3.30	7352.00	4052.38	195.07	0.00	0.00	4055.49	
10	12453.47	90.00	350.00	7352.00	4714.76	156.30	2.00	-90.00	4716.95	
11	13153.47	90.00	350.00	7352.00	5404.12	34.74	0.00	0.00	5403.73	
12	13850.90	90.00	3.95	7352.00	6098.86	-1.98	2.00	90.00	6097.58	
13	14771.68	90.00	3.95	7352.00	7017.45	61.43	0.00	0.00	7017.26	
14	15324.25	90.00	0.00	7352.00	7561.64	152.25	2.00	-90.00	7561.64	



WELL DETAILS: KUGEL 1J-18H-H267

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	KUGEL 1J
0.00	0.00	1294210.51	3160350.23	40.139578	-104.926457	

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well KUGEL 1J-18H-H267 - Slot KUGEL 1J
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4976.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4976.00usft
Site:	S18-T2N-R67W (KUGEL)	North Reference:	True
Well:	KUGEL 1J-18H-H267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2 (6.11)		

Project	DJ BASIN		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S18-T2N-R67W (KUGEL)			
Site Position:		Northing:	1,294,180.28 usft	Latitude:	40.139495
From:	Lat/Long	Easting:	3,160,365.72 usft	Longitude:	-104.926402
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.37 °

Well	KUGEL 1J-18H-H267 - Slot KUGEL 1J					
Well Position	+N/-S	0.00 usft	Northing:	1,294,210.51 usft	Latitude:	40.139578
	+E/-W	0.00 usft	Easting:	3,160,350.23 usft	Longitude:	-104.926457
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,953.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM_FILE	4/20/2018	8.48	66.55	52,162.10000000

Design	PLAN #2 (6.11)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	1.15

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
466.67	8.00	200.00	465.80	-17.47	-6.36	3.00	3.00	0.00	200.00	
655.87	5.94	173.33	653.64	-39.56	-9.72	2.00	-1.09	-14.10	-135.29	
6,596.36	5.94	173.33	6,562.28	-649.85	61.67	0.00	0.00	0.00	0.00	
7,795.08	90.00	359.96	7,352.00	62.56	70.65	8.00	7.01	-14.46	-173.33	KUGEL 1J-18H-H267
9,521.45	90.00	359.96	7,352.00	1,788.93	69.43	0.00	0.00	0.00	0.00	KUGEL 1J-18H-H267
9,688.47	90.00	3.30	7,352.00	1,955.86	74.18	2.00	0.00	2.00	90.00	
11,788.47	90.00	3.30	7,352.00	4,052.38	195.07	0.00	0.00	0.00	0.00	
12,453.47	90.00	350.00	7,352.00	4,714.76	156.30	2.00	0.00	-2.00	-90.00	
13,153.47	90.00	350.00	7,352.00	5,404.12	34.74	0.00	0.00	0.00	0.00	
13,850.90	90.00	3.95	7,352.00	6,098.86	-1.98	2.00	0.00	2.00	90.00	
14,771.68	90.00	3.95	7,352.00	7,017.45	61.43	0.00	0.00	0.00	0.00	
15,324.25	90.00	15.00	7,352.00	7,561.64	152.25	2.00	0.00	2.00	90.00	KUGEL 1J-18H-H267

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well KUGEL 1J-18H-H267 - Slot KUGEL 1J
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4976.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4976.00usft
Site:	S18-T2N-R67W (KUGEL)	North Reference:	True
Well:	KUGEL 1J-18H-H267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2 (6.11)		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	3.00	200.00	299.95	-2.46	-0.90	-2.48	3.00	3.00	
400.00	6.00	200.00	399.63	-9.83	-3.58	-9.90	3.00	3.00	
466.67	8.00	200.00	465.80	-17.47	-6.36	-17.59	3.00	3.00	
500.00	7.54	196.42	498.83	-21.74	-7.77	-21.90	2.00	-1.38	
600.00	6.38	182.88	598.10	-33.59	-9.90	-33.78	2.00	-1.16	
655.87	5.94	173.33	653.64	-39.56	-9.72	-39.75	2.00	-0.80	
700.00	5.94	173.33	697.54	-44.10	-9.19	-44.27	0.00	0.00	
800.00	5.94	173.33	797.00	-54.37	-7.99	-54.52	0.00	0.00	
900.00	5.94	173.33	896.47	-64.64	-6.79	-64.77	0.00	0.00	
1,000.00	5.94	173.33	995.93	-74.92	-5.59	-75.02	0.00	0.00	
1,100.00	5.94	173.33	1,095.39	-85.19	-4.39	-85.26	0.00	0.00	
1,200.00	5.94	173.33	1,194.86	-95.46	-3.18	-95.51	0.00	0.00	
1,300.00	5.94	173.33	1,294.32	-105.74	-1.98	-105.76	0.00	0.00	
1,400.00	5.94	173.33	1,393.78	-116.01	-0.78	-116.00	0.00	0.00	
1,500.00	5.94	173.33	1,493.25	-126.29	0.42	-126.25	0.00	0.00	
1,600.00	5.94	173.33	1,592.71	-136.56	1.62	-136.50	0.00	0.00	
1,700.00	5.94	173.33	1,692.17	-146.83	2.82	-146.75	0.00	0.00	
1,800.00	5.94	173.33	1,791.64	-157.11	4.03	-156.99	0.00	0.00	
1,900.00	5.94	173.33	1,891.10	-167.38	5.23	-167.24	0.00	0.00	
2,000.00	5.94	173.33	1,990.57	-177.65	6.43	-177.49	0.00	0.00	
2,100.00	5.94	173.33	2,090.03	-187.93	7.63	-187.73	0.00	0.00	
2,200.00	5.94	173.33	2,189.49	-198.20	8.83	-197.98	0.00	0.00	
2,300.00	5.94	173.33	2,288.96	-208.47	10.04	-208.23	0.00	0.00	
2,400.00	5.94	173.33	2,388.42	-218.75	11.24	-218.47	0.00	0.00	
2,500.00	5.94	173.33	2,487.88	-229.02	12.44	-228.72	0.00	0.00	
2,600.00	5.94	173.33	2,587.35	-239.29	13.64	-238.97	0.00	0.00	
2,700.00	5.94	173.33	2,686.81	-249.57	14.84	-249.22	0.00	0.00	
2,800.00	5.94	173.33	2,786.27	-259.84	16.05	-259.46	0.00	0.00	
2,900.00	5.94	173.33	2,885.74	-270.11	17.25	-269.71	0.00	0.00	
3,000.00	5.94	173.33	2,985.20	-280.39	18.45	-279.96	0.00	0.00	
3,100.00	5.94	173.33	3,084.66	-290.66	19.65	-290.20	0.00	0.00	
3,200.00	5.94	173.33	3,184.13	-300.93	20.85	-300.45	0.00	0.00	
3,300.00	5.94	173.33	3,283.59	-311.21	22.05	-310.70	0.00	0.00	
3,400.00	5.94	173.33	3,383.06	-321.48	23.26	-320.95	0.00	0.00	
3,500.00	5.94	173.33	3,482.52	-331.75	24.46	-331.19	0.00	0.00	
3,600.00	5.94	173.33	3,581.98	-342.03	25.66	-341.44	0.00	0.00	
3,700.00	5.94	173.33	3,681.45	-352.30	26.86	-351.69	0.00	0.00	
3,800.00	5.94	173.33	3,780.91	-362.57	28.06	-361.93	0.00	0.00	
3,900.00	5.94	173.33	3,880.37	-372.85	29.27	-372.18	0.00	0.00	
4,000.00	5.94	173.33	3,979.84	-383.12	30.47	-382.43	0.00	0.00	
4,100.00	5.94	173.33	4,079.30	-393.39	31.67	-392.68	0.00	0.00	
4,200.00	5.94	173.33	4,178.76	-403.67	32.87	-402.92	0.00	0.00	
4,300.00	5.94	173.33	4,278.23	-413.94	34.07	-413.17	0.00	0.00	
4,400.00	5.94	173.33	4,377.69	-424.21	35.28	-423.42	0.00	0.00	
4,500.00	5.94	173.33	4,477.16	-434.49	36.48	-433.66	0.00	0.00	
4,600.00	5.94	173.33	4,576.62	-444.76	37.68	-443.91	0.00	0.00	
4,700.00	5.94	173.33	4,676.08	-455.03	38.88	-454.16	0.00	0.00	
4,800.00	5.94	173.33	4,775.55	-465.31	40.08	-464.41	0.00	0.00	
4,900.00	5.94	173.33	4,875.01	-475.58	41.28	-474.65	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well KUGEL 1J-18H-H267 - Slot KUGEL 1J
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4976.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4976.00usft
Site:	S18-T2N-R67W (KUGEL)	North Reference:	True
Well:	KUGEL 1J-18H-H267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2 (6.11)		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,000.00	5.94	173.33	4,974.47	-485.85	42.49	-484.90	0.00	0.00	
5,100.00	5.94	173.33	5,073.94	-496.13	43.69	-495.15	0.00	0.00	
5,200.00	5.94	173.33	5,173.40	-506.40	44.89	-505.39	0.00	0.00	
5,300.00	5.94	173.33	5,272.86	-516.67	46.09	-515.64	0.00	0.00	
5,400.00	5.94	173.33	5,372.33	-526.95	47.29	-525.89	0.00	0.00	
5,500.00	5.94	173.33	5,471.79	-537.22	48.50	-536.13	0.00	0.00	
5,600.00	5.94	173.33	5,571.26	-547.49	49.70	-546.38	0.00	0.00	
5,700.00	5.94	173.33	5,670.72	-557.77	50.90	-556.63	0.00	0.00	
5,800.00	5.94	173.33	5,770.18	-568.04	52.10	-566.88	0.00	0.00	
5,900.00	5.94	173.33	5,869.65	-578.31	53.30	-577.12	0.00	0.00	
6,000.00	5.94	173.33	5,969.11	-588.59	54.50	-587.37	0.00	0.00	
6,100.00	5.94	173.33	6,068.57	-598.86	55.71	-597.62	0.00	0.00	
6,200.00	5.94	173.33	6,168.04	-609.13	56.91	-607.86	0.00	0.00	
6,300.00	5.94	173.33	6,267.50	-619.41	58.11	-618.11	0.00	0.00	
6,400.00	5.94	173.33	6,366.96	-629.68	59.31	-628.36	0.00	0.00	
6,500.00	5.94	173.33	6,466.43	-639.95	60.51	-638.61	0.00	0.00	
6,596.36	5.94	173.33	6,562.28	-649.85	61.67	-648.48	0.00	0.00	
6,600.00	5.65	172.98	6,565.89	-650.22	61.72	-648.84	8.00	-7.94	
6,700.00	2.49	15.99	6,665.77	-653.02	62.92	-651.62	8.00	-3.16	
6,800.00	10.42	3.71	6,765.06	-641.89	64.10	-640.47	8.00	7.93	
6,900.00	18.41	2.03	6,861.83	-617.05	65.25	-615.61	8.00	7.99	
7,000.00	26.40	1.35	6,954.21	-578.98	66.33	-577.53	8.00	8.00	
7,100.00	34.40	0.96	7,040.39	-528.43	67.33	-526.97	8.00	8.00	
7,200.00	42.40	0.71	7,118.70	-466.37	68.23	-464.91	8.00	8.00	
7,300.00	50.40	0.53	7,187.60	-394.02	69.00	-392.55	8.00	8.00	
7,400.00	58.40	0.38	7,245.77	-312.78	69.64	-311.32	8.00	8.00	
7,500.00	66.40	0.26	7,292.07	-224.24	70.14	-222.78	8.00	8.00	
7,600.00	74.39	0.15	7,325.60	-130.12	70.47	-128.67	8.00	8.00	
7,700.00	82.39	0.05	7,345.70	-32.24	70.65	-30.81	8.00	8.00	
7,795.08	90.00	359.96	7,352.00	62.56	70.65	63.97	8.00	8.00	KUGEL 1J-18H-H267 TPZ
7,800.00	90.00	359.96	7,352.00	67.48	70.65	68.89	0.00	0.00	
7,900.00	90.00	359.96	7,352.00	167.48	70.58	168.87	0.00	0.00	
8,000.00	90.00	359.96	7,352.00	267.48	70.51	268.85	0.00	0.00	
8,100.00	90.00	359.96	7,352.00	367.48	70.44	368.83	0.00	0.00	
8,200.00	90.00	359.96	7,352.00	467.48	70.37	468.80	0.00	0.00	
8,300.00	90.00	359.96	7,352.00	567.48	70.30	568.78	0.00	0.00	
8,400.00	90.00	359.96	7,352.00	667.48	70.23	668.76	0.00	0.00	
8,500.00	90.00	359.96	7,352.00	767.48	70.16	768.74	0.00	0.00	
8,600.00	90.00	359.96	7,352.00	867.48	70.09	868.72	0.00	0.00	
8,700.00	90.00	359.96	7,352.00	967.48	70.01	968.69	0.00	0.00	
8,800.00	90.00	359.96	7,352.00	1,067.48	69.94	1,068.67	0.00	0.00	
8,900.00	90.00	359.96	7,352.00	1,167.48	69.87	1,168.65	0.00	0.00	
9,000.00	90.00	359.96	7,352.00	1,267.48	69.80	1,268.63	0.00	0.00	
9,100.00	90.00	359.96	7,352.00	1,367.48	69.73	1,368.61	0.00	0.00	
9,200.00	90.00	359.96	7,352.00	1,467.48	69.66	1,468.59	0.00	0.00	
9,300.00	90.00	359.96	7,352.00	1,567.48	69.59	1,568.56	0.00	0.00	
9,400.00	90.00	359.96	7,352.00	1,667.48	69.52	1,668.54	0.00	0.00	
9,500.00	90.00	359.96	7,352.00	1,767.48	69.45	1,768.52	0.00	0.00	
9,521.45	90.00	359.96	7,352.00	1,788.93	69.43	1,789.97	0.00	0.00	KUGEL 1J-18H-H267 TGT 1
9,600.00	90.00	1.53	7,352.00	1,867.47	70.46	1,868.51	2.00	0.00	
9,688.47	90.00	3.30	7,352.00	1,955.86	74.18	1,956.96	2.00	0.00	
9,700.00	90.00	3.30	7,352.00	1,967.37	74.85	1,968.48	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well KUGEL 1J-18H-H267 - Slot KUGEL 1J
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4976.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4976.00usft
Site:	S18-T2N-R67W (KUGEL)	North Reference:	True
Well:	KUGEL 1J-18H-H267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2 (6.11)		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,800.00	90.00	3.30	7,352.00	2,067.21	80.60	2,068.41	0.00	0.00	
9,900.00	90.00	3.30	7,352.00	2,167.04	86.36	2,168.34	0.00	0.00	
10,000.00	90.00	3.30	7,352.00	2,266.87	92.12	2,268.27	0.00	0.00	
10,100.00	90.00	3.30	7,352.00	2,366.71	97.87	2,368.20	0.00	0.00	
10,200.00	90.00	3.30	7,352.00	2,466.54	103.63	2,468.13	0.00	0.00	
10,300.00	90.00	3.30	7,352.00	2,566.38	109.39	2,568.06	0.00	0.00	
10,400.00	90.00	3.30	7,352.00	2,666.21	115.14	2,667.99	0.00	0.00	
10,500.00	90.00	3.30	7,352.00	2,766.04	120.90	2,767.92	0.00	0.00	
10,600.00	90.00	3.30	7,352.00	2,865.88	126.66	2,867.85	0.00	0.00	
10,700.00	90.00	3.30	7,352.00	2,965.71	132.41	2,967.78	0.00	0.00	
10,800.00	90.00	3.30	7,352.00	3,065.55	138.17	3,067.71	0.00	0.00	
10,900.00	90.00	3.30	7,352.00	3,165.38	143.92	3,167.64	0.00	0.00	
11,000.00	90.00	3.30	7,352.00	3,265.22	149.68	3,267.57	0.00	0.00	
11,100.00	90.00	3.30	7,352.00	3,365.05	155.44	3,367.50	0.00	0.00	
11,200.00	90.00	3.30	7,352.00	3,464.88	161.19	3,467.43	0.00	0.00	
11,300.00	90.00	3.30	7,352.00	3,564.72	166.95	3,567.36	0.00	0.00	
11,400.00	90.00	3.30	7,352.00	3,664.55	172.71	3,667.29	0.00	0.00	
11,500.00	90.00	3.30	7,352.00	3,764.39	178.46	3,767.22	0.00	0.00	
11,600.00	90.00	3.30	7,352.00	3,864.22	184.22	3,867.15	0.00	0.00	
11,700.00	90.00	3.30	7,352.00	3,964.05	189.98	3,967.08	0.00	0.00	
11,788.47	90.00	3.30	7,352.00	4,052.38	195.07	4,055.49	0.00	0.00	
11,800.00	90.00	3.07	7,352.00	4,063.89	195.71	4,067.01	2.00	0.00	
11,900.00	90.00	1.07	7,352.00	4,163.82	199.32	4,166.99	2.00	0.00	
12,000.00	90.00	359.07	7,352.00	4,263.81	199.44	4,266.97	2.00	0.00	
12,100.00	90.00	357.07	7,352.00	4,363.75	196.07	4,366.82	2.00	0.00	
12,200.00	90.00	355.07	7,352.00	4,463.51	189.22	4,466.42	2.00	0.00	
12,300.00	90.00	353.07	7,352.00	4,562.97	178.89	4,565.65	2.00	0.00	
12,400.00	90.00	351.07	7,352.00	4,662.01	165.09	4,664.39	2.00	0.00	
12,453.47	90.00	350.00	7,352.00	4,714.76	156.30	4,716.95	2.00	0.00	
12,500.00	90.00	350.00	7,352.00	4,760.58	148.22	4,762.59	0.00	0.00	
12,600.00	90.00	350.00	7,352.00	4,859.06	130.85	4,860.71	0.00	0.00	
12,700.00	90.00	350.00	7,352.00	4,957.54	113.49	4,958.82	0.00	0.00	
12,800.00	90.00	350.00	7,352.00	5,056.02	96.12	5,056.93	0.00	0.00	
12,900.00	90.00	350.00	7,352.00	5,154.50	78.76	5,155.04	0.00	0.00	
13,000.00	90.00	350.00	7,352.00	5,252.98	61.39	5,253.15	0.00	0.00	
13,100.00	90.00	350.00	7,352.00	5,351.46	44.03	5,351.26	0.00	0.00	
13,153.47	90.00	350.00	7,352.00	5,404.12	34.74	5,403.73	0.00	0.00	
13,200.00	90.00	350.93	7,352.00	5,450.00	27.04	5,449.44	2.00	0.00	
13,300.00	90.00	352.93	7,352.00	5,549.01	13.00	5,548.15	2.00	0.00	
13,400.00	90.00	354.93	7,352.00	5,648.44	2.43	5,647.35	2.00	0.00	
13,500.00	90.00	356.93	7,352.00	5,748.19	-4.67	5,746.93	2.00	0.00	
13,600.00	90.00	358.93	7,352.00	5,848.12	-8.28	5,846.76	2.00	0.00	
13,700.00	90.00	0.93	7,352.00	5,948.11	-8.40	5,946.74	2.00	0.00	
13,800.00	90.00	2.93	7,352.00	6,048.05	-5.03	6,046.72	2.00	0.00	
13,850.90	90.00	3.95	7,352.00	6,098.86	-1.98	6,097.58	2.00	0.00	
13,900.00	90.00	3.95	7,352.00	6,147.84	1.40	6,146.62	0.00	0.00	
14,000.00	90.00	3.95	7,352.00	6,247.60	8.29	6,246.50	0.00	0.00	
14,100.00	90.00	3.95	7,352.00	6,347.37	15.18	6,346.38	0.00	0.00	
14,200.00	90.00	3.95	7,352.00	6,447.13	22.06	6,446.27	0.00	0.00	
14,300.00	90.00	3.95	7,352.00	6,546.89	28.95	6,546.15	0.00	0.00	
14,400.00	90.00	3.95	7,352.00	6,646.65	35.83	6,646.03	0.00	0.00	
14,500.00	90.00	3.95	7,352.00	6,746.42	42.72	6,745.91	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well KUGEL 1J-18H-H267 - Slot KUGEL 1J
Company:	Crestone Peak Resources	TVD Reference:	23' KB @ 4976.00usft
Project:	DJ BASIN	MD Reference:	23' KB @ 4976.00usft
Site:	S18-T2N-R67W (KUGEL)	North Reference:	True
Well:	KUGEL 1J-18H-H267	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2 (6.11)		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
14,600.00	90.00	3.95	7,352.00	6,846.18	49.61	6,845.79	0.00	0.00	
14,700.00	90.00	3.95	7,352.00	6,945.94	56.49	6,945.67	0.00	0.00	
14,771.68	90.00	3.95	7,352.00	7,017.45	61.43	7,017.26	0.00	0.00	
14,800.00	90.00	4.52	7,352.00	7,045.69	63.52	7,045.54	2.00	0.00	
14,900.00	90.00	6.52	7,352.00	7,145.23	73.13	7,145.25	2.00	0.00	
15,000.00	90.00	8.52	7,352.00	7,244.36	86.21	7,244.63	2.00	0.00	
15,100.00	90.00	10.52	7,352.00	7,342.98	102.74	7,343.56	2.00	0.00	
15,200.00	90.00	12.52	7,352.00	7,440.96	122.70	7,441.92	2.00	0.00	
15,300.00	90.00	14.52	7,352.00	7,538.19	146.07	7,539.60	2.00	0.00	
15,324.25	90.00	15.00	7,352.00	7,561.64	152.25	7,563.17	2.00	0.00	KUGEL 1J-18H-H267 BHL

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KUGEL 1J-18H-H267 T(- plan hits target center - Point	0.00	0.00	7,352.00	1,788.93	69.43	1,295,999.85	3,160,408.09	40.144489	-104.926208
KUGEL 1J-18H-H267 T(- plan hits target center - Point	0.00	0.00	7,352.00	62.56	70.65	1,294,273.53	3,160,420.48	40.139750	-104.926204
KUGEL 1J-18H-H267 B(- plan hits target center - Point	0.00	0.00	7,352.00	7,561.64	152.25	1,301,772.97	3,160,453.56	40.160336	-104.925912