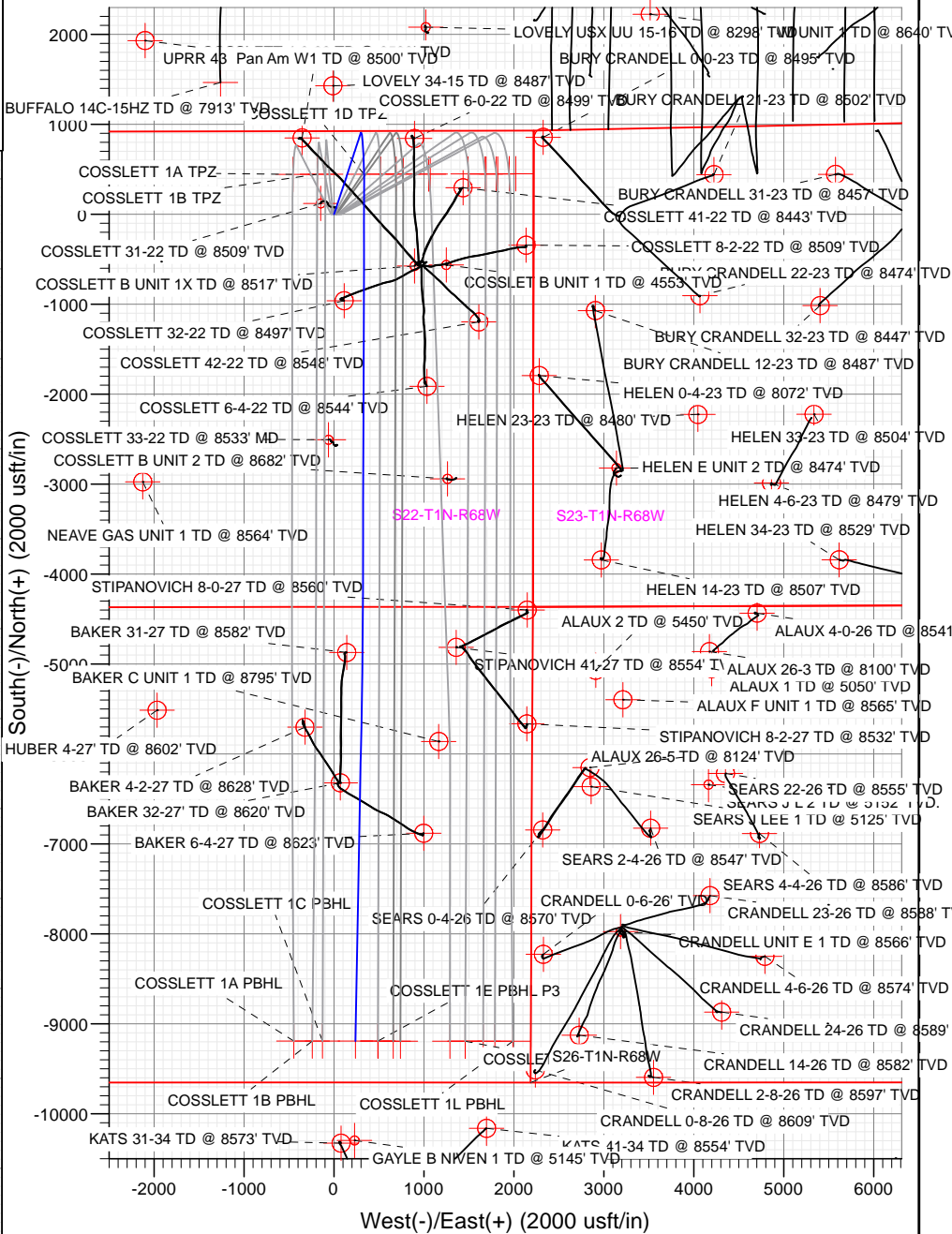
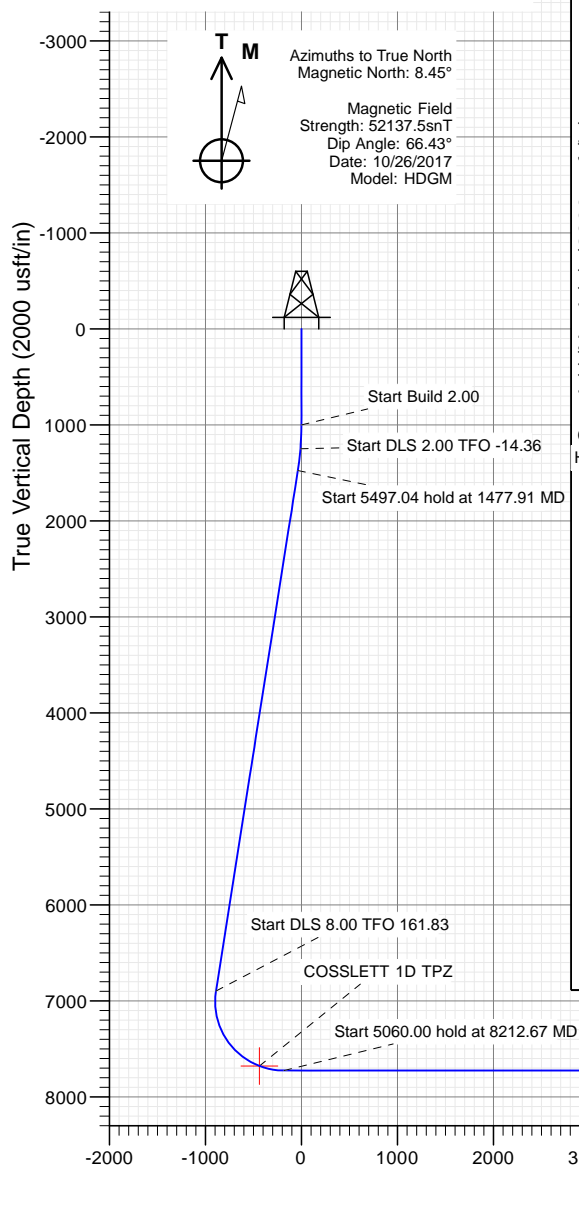




Sec	MD	Inc	azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1250.00	5.00	25.00	1249.68	9.88	4.61	2.00	25.00	-9.76	
4	1477.91	9.48	18.13	1475.72	36.74	14.65	2.00	-14.36	-36.34	
5	6974.95	9.48	18.13	6897.64	897.45	296.47	0.00	0.00	-889.44	
6	8212.67	90.00	180.19	7725.00	189.97	336.71	8.00	161.83	-181.15	
7	13272.67	90.00	180.19	7725.00	-4870.00	320.00	0.00	0.00	4876.68	
8	13317.90	90.00	181.08	7725.00	-4914.33	319.51	2.00	90.00	4920.98	
9	17594.76	90.00	181.08	7725.00	-9191.33	239.19	0.00	0.00	9194.44	COSSLETT 1D PBHL

Type TD	Target No Target (Freehand)	Azimuth 178.51	Origin Type Slot	N/S 0.00	E/W 0.00	From TVD 0.00
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
COSSLETT 1D TPZ	7678.28	445.57	335.31	40.042614	-104.986778	
COSSLETT 1D PBHL	7725.00	-9191.33	239.19	40.016159	-104.987122	

Project: DJ BASIN  
Site: S22-T1N-R68W  
Well: COSSLETT 1D-22H-B168  
Wellbore: OH  
Design: PLAN #3



Start DLS 2.00 TFO 90.00      Start 4277.75 hold at 13317.00 MD      TD at 17594.76

COSSLETT 1

Vertical Section at 178.51° (2000 usft/in)

5174.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1258338.35	3143357.51	40.041391	-104.987976



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1D-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1D-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

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		S22-T1N-R68W			
Site Position:		Northing:	1,258,338.24 usft	Latitude:	40.041391
From:	Lat/Long	Easting:	3,143,327.55 usft	Longitude:	-104.988083
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	COSSLETT 1D-22H-B168					
Well Position	+N/-S	0.00 usft	Northing:	1,258,338.35 usft	Latitude:	40.041391
	+E/-W	0.00 usft	Easting:	3,143,357.51 usft	Longitude:	-104.987976
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,174.00 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/26/2017	8.45	66.43	52,137.50000000

Design	PLAN #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	178.51

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,250.00	5.00	25.00	1,249.68	9.88	4.61	2.00	2.00	0.00	25.00	
1,477.91	9.48	18.13	1,475.72	36.74	14.65	2.00	1.97	-3.01	-14.36	
6,974.95	9.48	18.13	6,897.64	897.45	296.47	0.00	0.00	0.00	0.00	
8,212.67	90.00	180.19	7,725.00	189.97	336.71	8.00	6.51	13.09	161.83	
13,272.67	90.00	180.19	7,725.00	-4,870.00	320.00	0.00	0.00	0.00	0.00	
13,317.00	90.00	181.08	7,725.00	-4,914.33	319.51	2.00	0.00	2.00	90.00	
17,594.76	90.00	181.08	7,725.00	-9,191.33	239.19	0.00	0.00	0.00	0.00	COSSLETT 1D PBHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1D-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1D-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

### 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	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	2.00	25.00	1,099.98	1.58	0.74	-1.56	2.00	2.00	
1,200.00	4.00	25.00	1,199.84	6.32	2.95	-6.25	2.00	2.00	
1,250.00	5.00	25.00	1,249.68	9.88	4.61	-9.76	2.00	2.00	
1,300.00	5.97	22.62	1,299.45	14.26	6.53	-14.08	2.00	1.95	
1,400.00	7.94	19.61	1,398.71	25.57	10.85	-25.28	2.00	1.97	
1,477.91	9.48	18.13	1,475.72	36.74	14.65	-36.34	2.00	1.98	
1,500.00	9.48	18.13	1,497.51	40.20	15.78	-39.77	0.00	0.00	
1,600.00	9.48	18.13	1,596.14	55.86	20.91	-55.29	0.00	0.00	
1,700.00	9.48	18.13	1,694.78	71.51	26.04	-70.81	0.00	0.00	
1,800.00	9.48	18.13	1,793.41	87.17	31.17	-86.33	0.00	0.00	
1,900.00	9.48	18.13	1,892.04	102.83	36.29	-101.85	0.00	0.00	
2,000.00	9.48	18.13	1,990.68	118.49	41.42	-117.37	0.00	0.00	
2,100.00	9.48	18.13	2,089.31	134.14	46.55	-132.89	0.00	0.00	
2,200.00	9.48	18.13	2,187.94	149.80	51.67	-148.41	0.00	0.00	
2,300.00	9.48	18.13	2,286.58	165.46	56.80	-163.93	0.00	0.00	
2,400.00	9.48	18.13	2,385.21	181.12	61.93	-179.45	0.00	0.00	
2,500.00	9.48	18.13	2,483.84	196.78	67.05	-194.96	0.00	0.00	
2,600.00	9.48	18.13	2,582.48	212.43	72.18	-210.48	0.00	0.00	
2,700.00	9.48	18.13	2,681.11	228.09	77.31	-226.00	0.00	0.00	
2,800.00	9.48	18.13	2,779.74	243.75	82.43	-241.52	0.00	0.00	
2,900.00	9.48	18.13	2,878.38	259.41	87.56	-257.04	0.00	0.00	
3,000.00	9.48	18.13	2,977.01	275.06	92.69	-272.56	0.00	0.00	
3,100.00	9.48	18.13	3,075.64	290.72	97.81	-288.08	0.00	0.00	
3,200.00	9.48	18.13	3,174.28	306.38	102.94	-303.60	0.00	0.00	
3,300.00	9.48	18.13	3,272.91	322.04	108.07	-319.12	0.00	0.00	
3,400.00	9.48	18.13	3,371.54	337.70	113.19	-334.64	0.00	0.00	
3,500.00	9.48	18.13	3,470.18	353.35	118.32	-350.16	0.00	0.00	
3,600.00	9.48	18.13	3,568.81	369.01	123.45	-365.67	0.00	0.00	
3,700.00	9.48	18.13	3,667.44	384.67	128.57	-381.19	0.00	0.00	
3,800.00	9.48	18.13	3,766.08	400.33	133.70	-396.71	0.00	0.00	
3,900.00	9.48	18.13	3,864.71	415.98	138.83	-412.23	0.00	0.00	
4,000.00	9.48	18.13	3,963.34	431.64	143.95	-427.75	0.00	0.00	
4,100.00	9.48	18.13	4,061.98	447.30	149.08	-443.27	0.00	0.00	
4,200.00	9.48	18.13	4,160.61	462.96	154.21	-458.79	0.00	0.00	
4,300.00	9.48	18.13	4,259.24	478.62	159.34	-474.31	0.00	0.00	
4,400.00	9.48	18.13	4,357.88	494.27	164.46	-489.83	0.00	0.00	
4,500.00	9.48	18.13	4,456.51	509.93	169.59	-505.35	0.00	0.00	
4,600.00	9.48	18.13	4,555.14	525.59	174.72	-520.87	0.00	0.00	
4,700.00	9.48	18.13	4,653.78	541.25	179.84	-536.39	0.00	0.00	
4,800.00	9.48	18.13	4,752.41	556.90	184.97	-551.90	0.00	0.00	
4,900.00	9.48	18.13	4,851.05	572.56	190.10	-567.42	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1D-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1D-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

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	9.48	18.13	4,949.68	588.22	195.22	-582.94	0.00	0.00	
5,100.00	9.48	18.13	5,048.31	603.88	200.35	-598.46	0.00	0.00	
5,200.00	9.48	18.13	5,146.95	619.54	205.48	-613.98	0.00	0.00	
5,300.00	9.48	18.13	5,245.58	635.19	210.60	-629.50	0.00	0.00	
5,400.00	9.48	18.13	5,344.21	650.85	215.73	-645.02	0.00	0.00	
5,500.00	9.48	18.13	5,442.85	666.51	220.86	-660.54	0.00	0.00	
5,600.00	9.48	18.13	5,541.48	682.17	225.98	-676.06	0.00	0.00	
5,700.00	9.48	18.13	5,640.11	697.82	231.11	-691.58	0.00	0.00	
5,800.00	9.48	18.13	5,738.75	713.48	236.24	-707.10	0.00	0.00	
5,900.00	9.48	18.13	5,837.38	729.14	241.36	-722.61	0.00	0.00	
6,000.00	9.48	18.13	5,936.01	744.80	246.49	-738.13	0.00	0.00	
6,100.00	9.48	18.13	6,034.65	760.46	251.62	-753.65	0.00	0.00	
6,200.00	9.48	18.13	6,133.28	776.11	256.74	-769.17	0.00	0.00	
6,300.00	9.48	18.13	6,231.91	791.77	261.87	-784.69	0.00	0.00	
6,400.00	9.48	18.13	6,330.55	807.43	267.00	-800.21	0.00	0.00	
6,500.00	9.48	18.13	6,429.18	823.09	272.13	-815.73	0.00	0.00	
6,600.00	9.48	18.13	6,527.81	838.74	277.25	-831.25	0.00	0.00	
6,700.00	9.48	18.13	6,626.45	854.40	282.38	-846.77	0.00	0.00	
6,800.00	9.48	18.13	6,725.08	870.06	287.51	-862.29	0.00	0.00	
6,900.00	9.48	18.13	6,823.71	885.72	292.63	-877.81	0.00	0.00	
6,974.95	9.48	18.13	6,897.64	897.45	296.47	-889.44	0.00	0.00	
7,000.00	7.60	22.86	6,922.41	900.94	297.76	-892.89	8.00	-7.50	
7,100.00	3.11	108.71	7,022.06	906.18	302.91	-897.99	8.00	-4.50	
7,200.00	9.45	162.19	7,121.47	897.48	307.99	-889.16	8.00	6.35	
7,300.00	17.23	170.64	7,218.70	875.01	312.92	-866.57	8.00	7.78	
7,400.00	25.15	173.90	7,311.87	839.21	317.60	-830.66	8.00	7.92	
7,500.00	33.10	175.66	7,399.16	790.77	321.93	-782.13	8.00	7.95	
7,600.00	41.07	176.80	7,478.87	730.65	325.83	-721.92	8.00	7.97	
7,700.00	49.05	177.63	7,549.44	660.00	329.23	-651.21	8.00	7.98	
7,800.00	57.04	178.28	7,609.51	580.20	332.06	-571.37	8.00	7.98	
7,900.00	65.02	178.82	7,657.91	492.82	334.26	-483.95	8.00	7.99	
7,951.46	69.13	179.07	7,677.95	445.44	335.13	-436.57	8.00	7.99	COSSLETT 1D TPZ
8,000.00	73.01	179.29	7,693.70	399.54	335.79	-390.67	8.00	7.99	
8,100.00	81.00	179.72	7,716.17	302.18	336.63	-293.32	8.00	7.99	
8,200.00	88.99	180.14	7,724.89	202.64	336.75	-193.82	8.00	7.99	
8,212.67	90.00	180.19	7,725.00	189.97	336.71	-181.15	8.00	7.99	
8,300.00	90.00	180.19	7,725.00	102.65	336.42	-93.86	0.00	0.00	
8,400.00	90.00	180.19	7,725.00	2.65	336.09	6.10	0.00	0.00	
8,500.00	90.00	180.19	7,725.00	-97.35	335.76	106.05	0.00	0.00	
8,600.00	90.00	180.19	7,725.00	-197.35	335.43	206.01	0.00	0.00	
8,700.00	90.00	180.19	7,725.00	-297.35	335.10	305.97	0.00	0.00	
8,800.00	90.00	180.19	7,725.00	-397.35	334.77	405.93	0.00	0.00	
8,900.00	90.00	180.19	7,725.00	-497.35	334.44	505.88	0.00	0.00	
9,000.00	90.00	180.19	7,725.00	-597.35	334.11	605.84	0.00	0.00	
9,100.00	90.00	180.19	7,725.00	-697.35	333.78	705.80	0.00	0.00	
9,200.00	90.00	180.19	7,725.00	-797.35	333.45	805.75	0.00	0.00	
9,300.00	90.00	180.19	7,725.00	-897.35	333.12	905.71	0.00	0.00	
9,400.00	90.00	180.19	7,725.00	-997.35	332.79	1,005.67	0.00	0.00	
9,500.00	90.00	180.19	7,725.00	-1,097.35	332.46	1,105.62	0.00	0.00	
9,600.00	90.00	180.19	7,725.00	-1,197.35	332.13	1,205.58	0.00	0.00	
9,700.00	90.00	180.19	7,725.00	-1,297.35	331.80	1,305.54	0.00	0.00	
9,800.00	90.00	180.19	7,725.00	-1,397.35	331.47	1,405.50	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1D-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1D-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

### 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
9,900.00	90.00	180.19	7,725.00	-1,497.35	331.14	1,505.45	0.00	0.00	
10,000.00	90.00	180.19	7,725.00	-1,597.34	330.81	1,605.41	0.00	0.00	
10,100.00	90.00	180.19	7,725.00	-1,697.34	330.48	1,705.37	0.00	0.00	
10,200.00	90.00	180.19	7,725.00	-1,797.34	330.15	1,805.32	0.00	0.00	
10,300.00	90.00	180.19	7,725.00	-1,897.34	329.82	1,905.28	0.00	0.00	
10,400.00	90.00	180.19	7,725.00	-1,997.34	329.49	2,005.24	0.00	0.00	
10,500.00	90.00	180.19	7,725.00	-2,097.34	329.16	2,105.20	0.00	0.00	
10,600.00	90.00	180.19	7,725.00	-2,197.34	328.83	2,205.15	0.00	0.00	
10,700.00	90.00	180.19	7,725.00	-2,297.34	328.50	2,305.11	0.00	0.00	
10,800.00	90.00	180.19	7,725.00	-2,397.34	328.17	2,405.07	0.00	0.00	
10,900.00	90.00	180.19	7,725.00	-2,497.34	327.84	2,505.02	0.00	0.00	
11,000.00	90.00	180.19	7,725.00	-2,597.34	327.51	2,604.98	0.00	0.00	
11,100.00	90.00	180.19	7,725.00	-2,697.34	327.17	2,704.94	0.00	0.00	
11,200.00	90.00	180.19	7,725.00	-2,797.34	326.84	2,804.89	0.00	0.00	
11,300.00	90.00	180.19	7,725.00	-2,897.34	326.51	2,904.85	0.00	0.00	
11,400.00	90.00	180.19	7,725.00	-2,997.34	326.18	3,004.81	0.00	0.00	
11,500.00	90.00	180.19	7,725.00	-3,097.34	325.85	3,104.77	0.00	0.00	
11,600.00	90.00	180.19	7,725.00	-3,197.34	325.52	3,204.72	0.00	0.00	
11,700.00	90.00	180.19	7,725.00	-3,297.34	325.19	3,304.68	0.00	0.00	
11,800.00	90.00	180.19	7,725.00	-3,397.33	324.86	3,404.64	0.00	0.00	
11,900.00	90.00	180.19	7,725.00	-3,497.33	324.53	3,504.59	0.00	0.00	
12,000.00	90.00	180.19	7,725.00	-3,597.33	324.20	3,604.55	0.00	0.00	
12,100.00	90.00	180.19	7,725.00	-3,697.33	323.87	3,704.51	0.00	0.00	
12,200.00	90.00	180.19	7,725.00	-3,797.33	323.54	3,804.46	0.00	0.00	
12,300.00	90.00	180.19	7,725.00	-3,897.33	323.21	3,904.42	0.00	0.00	
12,400.00	90.00	180.19	7,725.00	-3,997.33	322.88	4,004.38	0.00	0.00	
12,500.00	90.00	180.19	7,725.00	-4,097.33	322.55	4,104.34	0.00	0.00	
12,600.00	90.00	180.19	7,725.00	-4,197.33	322.22	4,204.29	0.00	0.00	
12,700.00	90.00	180.19	7,725.00	-4,297.33	321.89	4,304.25	0.00	0.00	
12,800.00	90.00	180.19	7,725.00	-4,397.33	321.56	4,404.21	0.00	0.00	
12,900.00	90.00	180.19	7,725.00	-4,497.33	321.23	4,504.16	0.00	0.00	
13,000.00	90.00	180.19	7,725.00	-4,597.33	320.90	4,604.12	0.00	0.00	
13,100.00	90.00	180.19	7,725.00	-4,697.33	320.57	4,704.08	0.00	0.00	
13,200.00	90.00	180.19	7,725.00	-4,797.33	320.24	4,804.03	0.00	0.00	
13,272.67	90.00	180.19	7,725.00	-4,870.00	320.00	4,876.68	0.00	0.00	
13,300.00	90.00	180.74	7,725.00	-4,897.33	319.78	4,903.99	2.00	0.00	
13,317.00	90.00	181.08	7,725.00	-4,914.33	319.51	4,920.98	2.00	0.00	
13,400.00	90.00	181.08	7,725.00	-4,997.31	317.95	5,003.89	0.00	0.00	
13,500.00	90.00	181.08	7,725.00	-5,097.29	316.07	5,103.79	0.00	0.00	
13,600.00	90.00	181.08	7,725.00	-5,197.27	314.20	5,203.69	0.00	0.00	
13,700.00	90.00	181.08	7,725.00	-5,297.26	312.32	5,303.59	0.00	0.00	
13,800.00	90.00	181.08	7,725.00	-5,397.24	310.44	5,403.49	0.00	0.00	
13,900.00	90.00	181.08	7,725.00	-5,497.22	308.56	5,503.39	0.00	0.00	
14,000.00	90.00	181.08	7,725.00	-5,597.20	306.69	5,603.29	0.00	0.00	
14,100.00	90.00	181.08	7,725.00	-5,697.19	304.81	5,703.19	0.00	0.00	
14,200.00	90.00	181.08	7,725.00	-5,797.17	302.93	5,803.09	0.00	0.00	
14,300.00	90.00	181.08	7,725.00	-5,897.15	301.05	5,902.99	0.00	0.00	
14,400.00	90.00	181.08	7,725.00	-5,997.13	299.18	6,002.89	0.00	0.00	
14,500.00	90.00	181.08	7,725.00	-6,097.12	297.30	6,102.79	0.00	0.00	
14,600.00	90.00	181.08	7,725.00	-6,197.10	295.42	6,202.69	0.00	0.00	
14,700.00	90.00	181.08	7,725.00	-6,297.08	293.54	6,302.59	0.00	0.00	
14,800.00	90.00	181.08	7,725.00	-6,397.06	291.67	6,402.48	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well COSSLETT 1D-22H-B168
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 5197.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 5197.00usft
<b>Site:</b>	S22-T1N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	COSSLETT 1D-22H-B168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

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
14,900.00	90.00	181.08	7,725.00	-6,497.04	289.79	6,502.38	0.00	0.00	
15,000.00	90.00	181.08	7,725.00	-6,597.03	287.91	6,602.28	0.00	0.00	
15,100.00	90.00	181.08	7,725.00	-6,697.01	286.03	6,702.18	0.00	0.00	
15,200.00	90.00	181.08	7,725.00	-6,796.99	284.16	6,802.08	0.00	0.00	
15,300.00	90.00	181.08	7,725.00	-6,896.97	282.28	6,901.98	0.00	0.00	
15,400.00	90.00	181.08	7,725.00	-6,996.96	280.40	7,001.88	0.00	0.00	
15,500.00	90.00	181.08	7,725.00	-7,096.94	278.52	7,101.78	0.00	0.00	
15,600.00	90.00	181.08	7,725.00	-7,196.92	276.65	7,201.68	0.00	0.00	
15,700.00	90.00	181.08	7,725.00	-7,296.90	274.77	7,301.58	0.00	0.00	
15,800.00	90.00	181.08	7,725.00	-7,396.89	272.89	7,401.48	0.00	0.00	
15,900.00	90.00	181.08	7,725.00	-7,496.87	271.01	7,501.38	0.00	0.00	
16,000.00	90.00	181.08	7,725.00	-7,596.85	269.14	7,601.28	0.00	0.00	
16,100.00	90.00	181.08	7,725.00	-7,696.83	267.26	7,701.18	0.00	0.00	
16,200.00	90.00	181.08	7,725.00	-7,796.82	265.38	7,801.08	0.00	0.00	
16,300.00	90.00	181.08	7,725.00	-7,896.80	263.50	7,900.98	0.00	0.00	
16,400.00	90.00	181.08	7,725.00	-7,996.78	261.63	8,000.88	0.00	0.00	
16,500.00	90.00	181.08	7,725.00	-8,096.76	259.75	8,100.78	0.00	0.00	
16,600.00	90.00	181.08	7,725.00	-8,196.75	257.87	8,200.68	0.00	0.00	
16,700.00	90.00	181.08	7,725.00	-8,296.73	255.99	8,300.58	0.00	0.00	
16,800.00	90.00	181.08	7,725.00	-8,396.71	254.12	8,400.48	0.00	0.00	
16,900.00	90.00	181.08	7,725.00	-8,496.69	252.24	8,500.38	0.00	0.00	
17,000.00	90.00	181.08	7,725.00	-8,596.67	250.36	8,600.28	0.00	0.00	
17,100.00	90.00	181.08	7,725.00	-8,696.66	248.48	8,700.18	0.00	0.00	
17,200.00	90.00	181.08	7,725.00	-8,796.64	246.61	8,800.08	0.00	0.00	
17,300.00	90.00	181.08	7,725.00	-8,896.62	244.73	8,899.98	0.00	0.00	
17,400.00	90.00	181.08	7,725.00	-8,996.60	242.85	8,999.88	0.00	0.00	
17,500.00	90.00	181.08	7,725.00	-9,096.59	240.97	9,099.78	0.00	0.00	
17,594.76	90.00	181.08	7,725.00	-9,191.33	239.19	9,194.44	0.00	0.00	COSSLETT 1D PBHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
COSSLETT 1D TPZ - hit/miss target - Shape	0.00	0.00	7,678.28	445.57	335.31	1,258,785.85	3,143,690.24	40.042614	-104.986778
- plan misses target center by 0.39usft at 7951.46usft MD (7677.95 TVD, 445.44 N, 335.13 E)									
- Point									
COSSLETT 1D PBHL - plan hits target center - Point	0.00	0.00	7,725.00	-9,191.33	239.19	1,249,148.56	3,143,649.77	40.016159	-104.987122