



Crestone Peak Resources

Sec 2 T2N-R67W

Echeverria Pad

ECHEVERRIA 2C-2H-D267

Wellbore #1

Plan: Design #1 23Apr18 kjs

Standard Planning Report - Geographic

14 May, 2018



Crestone Peak Resources

Well Name:

ECHEVERRIA 2C-2H-D267

Project Name:

Sec 2 T2N-R67W

Pad Name:

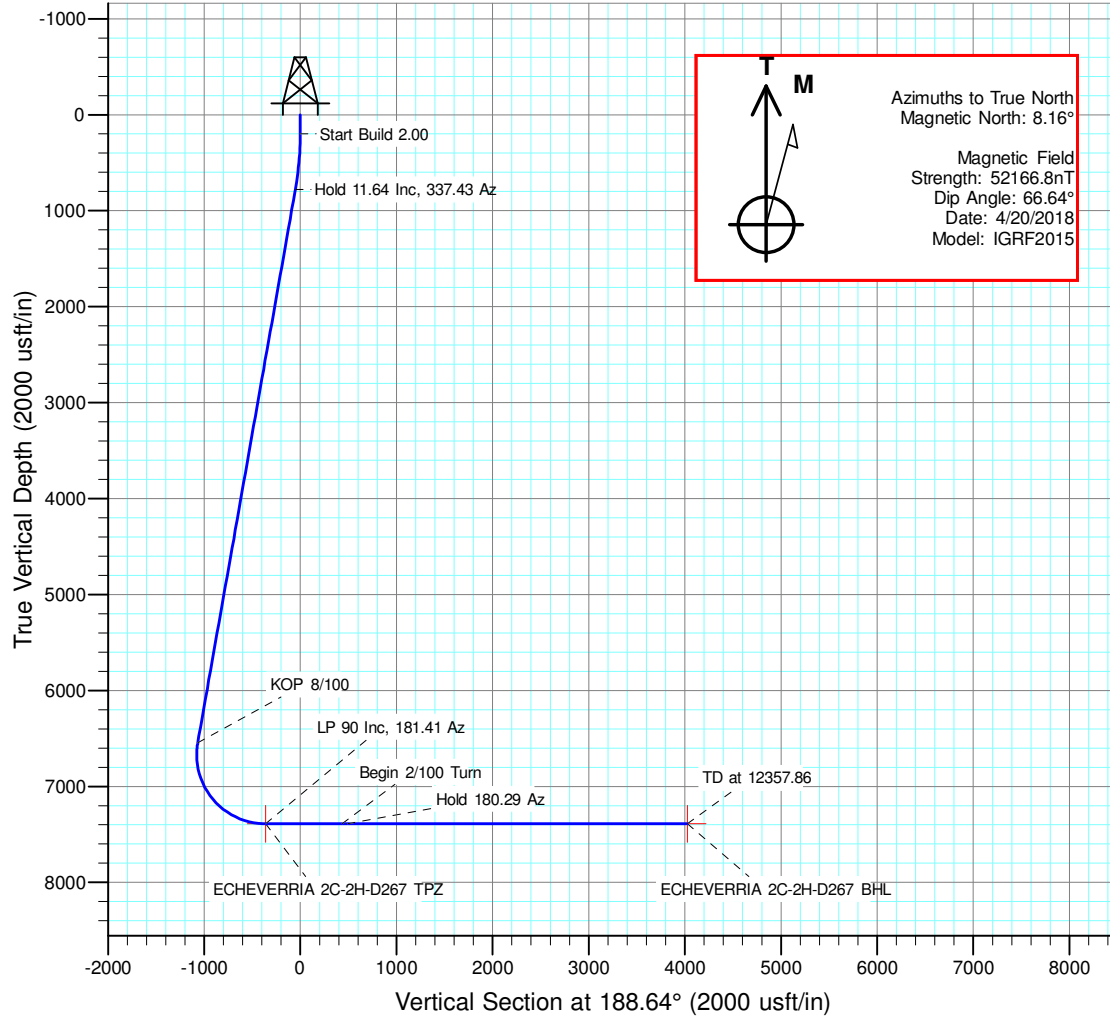
Echeverria Pad

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	Start Build 2.00
781.87	11.64	337.43	777.88	54.38	-22.60	-50.37	58.89	Hold 11.64 Inc, 337.43 Az
6669.78	11.64	337.43	6544.75	1151.18	-478.38	-1066.22	1246.62	KOP 8/100
7927.54	90.00	181.41	7390.00	449.22	-566.43	-359.00	1989.03	LP 90 Inc, 181.41 Az
8727.54	90.00	181.41	7390.00	-350.54	-586.12	434.64	2789.03	Begin 2/100 Turn
8783.51	90.00	180.29	7390.00	-406.50	-586.95	490.09	2845.00	Hold 180.29 Az
12357.86	90.00	180.29	7390.00	-3980.81	-605.10	4026.53	6419.35	TD at 12357.86

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
ECHEVERRIA 2C-2H-D267 BHL	7390.00	-3980.81	-605.10	1302164.68	3176898.90	40.16110399	-104.86706400	Point
ECHEVERRIA 2C-2H-D267 TPZ	7390.00	449.21	-566.43	1306594.86	3176905.85	40.17326499	-104.86692600	Point

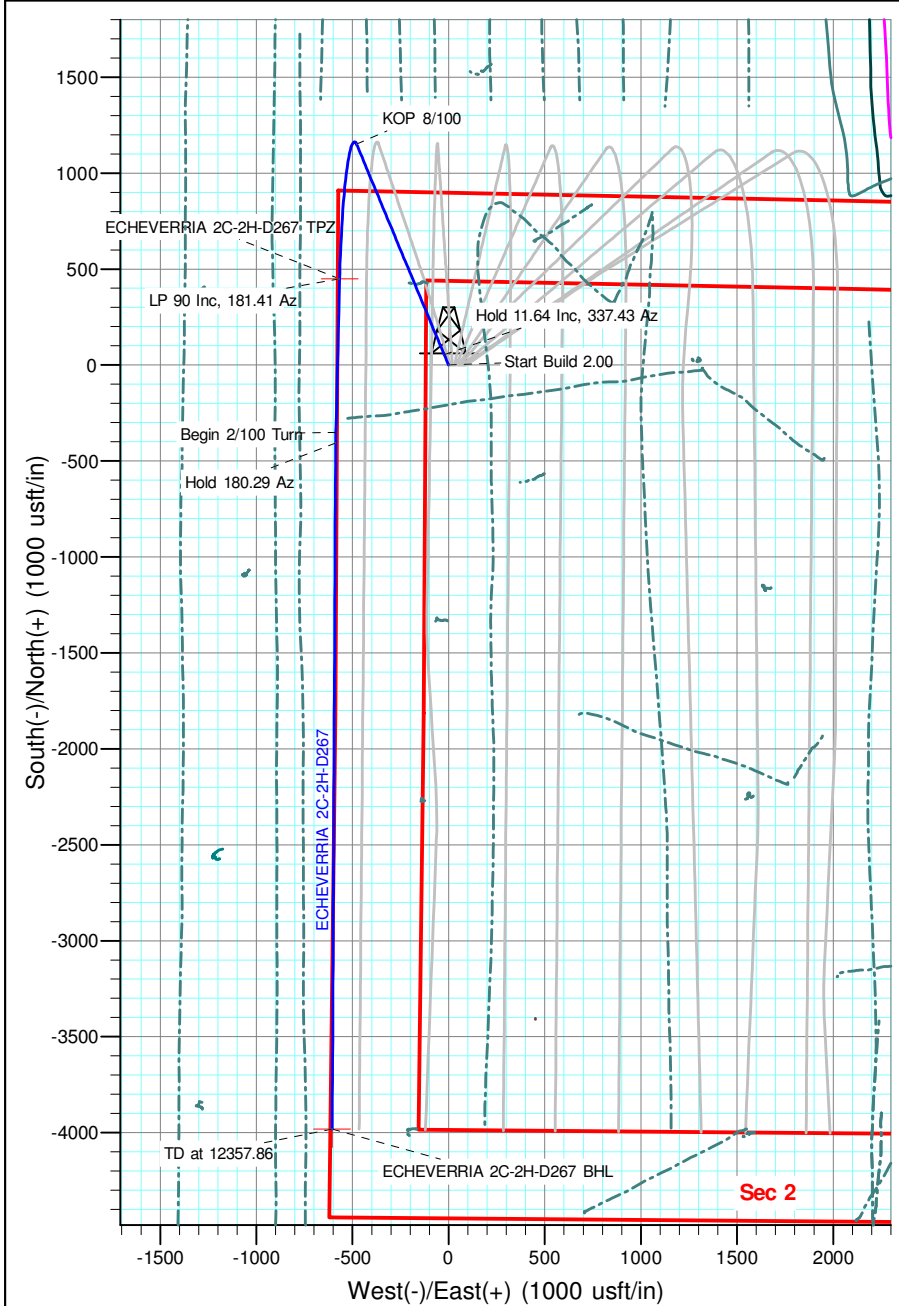


Geodetic Datum:

North American Datum 1983
US State Plane 1983, Colorado Northern Zone

Elevation:

Ground Elevation: 4883.00
KB Elevation: WELL @ 4906.00usft (Original Well Elev)



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Project	Sec 2 T2N-R67W, 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		Echeverria Pad			
Site Position:		Northing:	1,306,149.76 usft	Latitude:	40.17203200
From:	Lat/Long	Easting:	3,177,475.48 usft	Longitude:	-104.86489900
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	ECHEVERRIA 2C-2H-D267					
Well Position	+N/-S	0.00 usft	Northing:	1,306,149.72 usft	Latitude:	40.17203187
	+E/-W	0.00 usft	Easting:	3,177,475.48 usft	Longitude:	-104.86489900
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,883.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/20/2018	8.16	66.64	52,166.79191362

Design	Design #1 23Apr18 kjs			
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	188.64

Plan Survey Tool Program	Date	5/14/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,357.86 Design #1 23Apr18 kjs (Wellbore)	MWD	
			OWSG MWD - Standard	

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	
781.89	11.64	337.43	777.90	54.38	-22.60	2.00	2.00	0.00	337.43	
6,669.78	11.64	337.43	6,544.75	1,151.18	-478.38	0.00	0.00	0.00	0.00	
7,927.55	90.00	181.41	7,390.00	449.21	-566.43	8.00	6.23	-12.40	-155.58	ECHEVERRIA 2C-2H
8,727.55	90.00	181.41	7,390.00	-350.55	-586.12	0.00	0.00	0.00	0.00	
8,783.52	90.00	180.29	7,390.00	-406.51	-586.95	2.00	0.00	-2.00	-90.00	
12,357.87	90.00	180.29	7,390.00	-3,980.81	-605.10	0.00	0.00	0.00	0.00	ECHEVERRIA 2C-2H

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,306,149.72	3,177,475.48	40.17203187	-104.86489900
100.00	0.00	0.00	100.00	0.00	0.00	1,306,149.72	3,177,475.48	40.17203187	-104.86489900
200.00	0.00	0.00	200.00	0.00	0.00	1,306,149.72	3,177,475.48	40.17203187	-104.86489900
Start Build 2.00									
300.00	2.00	337.43	299.98	1.61	-0.67	1,306,151.33	3,177,474.80	40.17203629	-104.86490139
400.00	4.00	337.43	399.84	6.44	-2.68	1,306,156.14	3,177,472.75	40.17204956	-104.86490858
500.00	6.00	337.43	499.45	14.49	-6.02	1,306,164.17	3,177,469.35	40.17207165	-104.86492055
600.00	8.00	337.43	598.70	25.75	-10.70	1,306,175.39	3,177,464.60	40.17210254	-104.86493728
700.00	10.00	337.43	697.47	40.19	-16.70	1,306,189.79	3,177,458.49	40.17214220	-104.86495876
781.87	11.64	337.43	777.88	54.38	-22.60	1,306,203.94	3,177,452.49	40.17218115	-104.86497987
Hold 11.64 Inc, 337.43 Az									
781.89	11.64	337.43	777.90	54.38	-22.60	1,306,203.94	3,177,452.49	40.17218116	-104.86497987
800.00	11.64	337.43	795.63	57.76	-24.00	1,306,207.30	3,177,451.06	40.17219042	-104.86498489
900.00	11.64	337.43	893.58	76.39	-31.74	1,306,225.88	3,177,443.19	40.17224156	-104.86501259
1,000.00	11.64	337.43	991.52	95.01	-39.48	1,306,244.45	3,177,435.31	40.17229269	-104.86504029
1,100.00	11.64	337.43	1,089.47	113.64	-47.22	1,306,263.02	3,177,427.44	40.17234383	-104.86506799
1,200.00	11.64	337.43	1,187.41	132.27	-54.97	1,306,281.59	3,177,419.57	40.17239497	-104.86509569
1,300.00	11.64	337.43	1,285.36	150.90	-62.71	1,306,300.16	3,177,411.69	40.17244610	-104.86512340
1,400.00	11.64	337.43	1,383.30	169.53	-70.45	1,306,318.74	3,177,403.82	40.17249724	-104.86515110
1,500.00	11.64	337.43	1,481.24	188.15	-78.19	1,306,337.31	3,177,395.94	40.17254837	-104.86517880
1,600.00	11.64	337.43	1,579.19	206.78	-85.93	1,306,355.88	3,177,388.07	40.17259951	-104.86520650
1,700.00	11.64	337.43	1,677.13	225.41	-93.67	1,306,374.45	3,177,380.20	40.17265065	-104.86523420
1,800.00	11.64	337.43	1,775.08	244.04	-101.41	1,306,393.02	3,177,372.32	40.17270178	-104.86526190
1,900.00	11.64	337.43	1,873.02	262.67	-109.15	1,306,411.60	3,177,364.45	40.17275292	-104.86528961
2,000.00	11.64	337.43	1,970.97	281.29	-116.89	1,306,430.17	3,177,356.57	40.17280406	-104.86531731
2,100.00	11.64	337.43	2,068.91	299.92	-124.64	1,306,448.74	3,177,348.70	40.17285519	-104.86534501
2,200.00	11.64	337.43	2,166.85	318.55	-132.38	1,306,467.31	3,177,340.82	40.17290633	-104.86537271
2,300.00	11.64	337.43	2,264.80	337.18	-140.12	1,306,485.89	3,177,332.95	40.17295746	-104.86540041
2,400.00	11.64	337.43	2,362.74	355.81	-147.86	1,306,504.46	3,177,325.08	40.17300860	-104.86542812
2,500.00	11.64	337.43	2,460.69	374.43	-155.60	1,306,523.03	3,177,317.20	40.17305974	-104.86545582
2,600.00	11.64	337.43	2,558.63	393.06	-163.34	1,306,541.60	3,177,309.33	40.17311087	-104.86548352
2,700.00	11.64	337.43	2,656.58	411.69	-171.08	1,306,560.17	3,177,301.45	40.17316201	-104.86551122
2,800.00	11.64	337.43	2,754.52	430.32	-178.82	1,306,578.75	3,177,293.58	40.17321315	-104.86553892
2,900.00	11.64	337.43	2,852.46	448.95	-186.56	1,306,597.32	3,177,285.70	40.17326428	-104.86556663
3,000.00	11.64	337.43	2,950.41	467.57	-194.30	1,306,615.89	3,177,277.83	40.17331542	-104.86559433
3,100.00	11.64	337.43	3,048.35	486.20	-202.05	1,306,634.46	3,177,269.96	40.17336655	-104.86562203
3,200.00	11.64	337.43	3,146.30	504.83	-209.79	1,306,653.03	3,177,262.08	40.17341769	-104.86564973
3,300.00	11.64	337.43	3,244.24	523.46	-217.53	1,306,671.61	3,177,254.21	40.17346883	-104.86567744
3,400.00	11.64	337.43	3,342.18	542.09	-225.27	1,306,690.18	3,177,246.33	40.17351996	-104.86570514
3,500.00	11.64	337.43	3,440.13	560.71	-233.01	1,306,708.75	3,177,238.46	40.17357110	-104.86573284
3,600.00	11.64	337.43	3,538.07	579.34	-240.75	1,306,727.32	3,177,230.58	40.17362223	-104.86576054
3,700.00	11.64	337.43	3,636.02	597.97	-248.49	1,306,745.89	3,177,222.71	40.17367337	-104.86578825
3,800.00	11.64	337.43	3,733.96	616.60	-256.23	1,306,764.47	3,177,214.84	40.17372451	-104.86581595
3,900.00	11.64	337.43	3,831.91	635.23	-263.97	1,306,783.04	3,177,206.96	40.17377564	-104.86584365
4,000.00	11.64	337.43	3,929.85	653.86	-271.71	1,306,801.61	3,177,199.09	40.17382678	-104.86587135
4,100.00	11.64	337.43	4,027.79	672.48	-279.46	1,306,820.18	3,177,191.21	40.17387792	-104.86589906
4,200.00	11.64	337.43	4,125.74	691.11	-287.20	1,306,838.76	3,177,183.34	40.17392905	-104.86592676
4,300.00	11.64	337.43	4,223.68	709.74	-294.94	1,306,857.33	3,177,175.46	40.17398019	-104.86595446
4,400.00	11.64	337.43	4,321.63	728.37	-302.68	1,306,875.90	3,177,167.59	40.17403132	-104.86598216
4,500.00	11.64	337.43	4,419.57	747.00	-310.42	1,306,894.47	3,177,159.72	40.17408246	-104.86600987
4,600.00	11.64	337.43	4,517.52	765.62	-318.16	1,306,913.04	3,177,151.84	40.17413360	-104.86603757
4,700.00	11.64	337.43	4,615.46	784.25	-325.90	1,306,931.62	3,177,143.97	40.17418473	-104.86606527
4,800.00	11.64	337.43	4,713.40	802.88	-333.64	1,306,950.19	3,177,136.09	40.17423587	-104.86609298
4,900.00	11.64	337.43	4,811.35	821.51	-341.38	1,306,968.76	3,177,128.22	40.17428700	-104.86612068

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,000.00	11.64	337.43	4,909.29	840.14	-349.12	1,306,987.33	3,177,120.34	40.17433814	-104.86614838
5,100.00	11.64	337.43	5,007.24	858.76	-356.87	1,307,005.90	3,177,112.47	40.17438928	-104.86617609
5,200.00	11.64	337.43	5,105.18	877.39	-364.61	1,307,024.48	3,177,104.60	40.17444041	-104.86620379
5,300.00	11.64	337.43	5,203.13	896.02	-372.35	1,307,043.05	3,177,096.72	40.17449155	-104.86623149
5,400.00	11.64	337.43	5,301.07	914.65	-380.09	1,307,061.62	3,177,088.85	40.17454268	-104.86625920
5,500.00	11.64	337.43	5,399.01	933.28	-387.83	1,307,080.19	3,177,080.97	40.17459382	-104.86628690
5,600.00	11.64	337.43	5,496.96	951.90	-395.57	1,307,098.77	3,177,073.10	40.17464496	-104.86631460
5,700.00	11.64	337.43	5,594.90	970.53	-403.31	1,307,117.34	3,177,065.23	40.17469609	-104.86634231
5,800.00	11.64	337.43	5,692.85	989.16	-411.05	1,307,135.91	3,177,057.35	40.17474723	-104.86637001
5,900.00	11.64	337.43	5,790.79	1,007.79	-418.79	1,307,154.48	3,177,049.48	40.17479836	-104.86639771
6,000.00	11.64	337.43	5,888.74	1,026.42	-426.54	1,307,173.05	3,177,041.60	40.17484950	-104.86642542
6,100.00	11.64	337.43	5,986.68	1,045.04	-434.28	1,307,191.63	3,177,033.73	40.17490064	-104.86645312
6,200.00	11.64	337.43	6,084.62	1,063.67	-442.02	1,307,210.20	3,177,025.85	40.17495177	-104.86648082
6,300.00	11.64	337.43	6,182.57	1,082.30	-449.76	1,307,228.77	3,177,017.98	40.17500291	-104.86650853
6,400.00	11.64	337.43	6,280.51	1,100.93	-457.50	1,307,247.34	3,177,010.11	40.17505404	-104.86653623
6,500.00	11.64	337.43	6,378.46	1,119.56	-465.24	1,307,265.91	3,177,002.23	40.17510518	-104.86656393
6,600.00	11.64	337.43	6,476.40	1,138.18	-472.98	1,307,284.49	3,176,994.36	40.17515632	-104.86659164
6,669.78	11.64	337.43	6,544.75	1,151.18	-478.38	1,307,297.45	3,176,988.86	40.17519200	-104.86661097
KOP 8/100									
6,700.00	9.49	331.36	6,574.45	1,156.18	-480.75	1,307,302.43	3,176,986.46	40.17520573	-104.86661943
6,800.00	4.79	273.86	6,673.76	1,163.71	-488.88	1,307,309.90	3,176,978.28	40.17522639	-104.86664852
6,900.00	9.14	212.76	6,773.11	1,157.30	-497.35	1,307,303.43	3,176,969.85	40.17520880	-104.86667885
7,000.00	16.49	197.84	6,870.58	1,137.08	-506.01	1,307,283.15	3,176,961.34	40.17515330	-104.86670983
7,100.00	24.24	192.12	6,964.26	1,103.45	-514.68	1,307,249.45	3,176,952.91	40.17506096	-104.86674086
7,200.00	32.12	189.07	7,052.34	1,057.05	-523.20	1,307,202.99	3,176,944.73	40.17493359	-104.86677133
7,300.00	40.03	187.13	7,133.11	998.79	-531.39	1,307,144.68	3,176,936.95	40.17477366	-104.86680066
7,400.00	47.98	185.74	7,204.98	929.81	-539.11	1,307,075.64	3,176,929.73	40.17458429	-104.86682826
7,500.00	55.93	184.65	7,266.56	851.44	-546.19	1,306,997.23	3,176,923.20	40.17436916	-104.86685361
7,600.00	63.89	183.76	7,316.65	765.22	-552.51	1,306,910.96	3,176,917.50	40.17413247	-104.86687621
7,700.00	71.86	182.98	7,354.28	672.81	-557.93	1,306,818.52	3,176,912.74	40.17387881	-104.86689561
7,800.00	79.83	182.27	7,378.71	576.03	-562.36	1,306,721.70	3,176,909.01	40.17361312	-104.86691145
7,900.00	87.80	181.59	7,389.47	476.75	-565.71	1,306,622.40	3,176,906.37	40.17334058	-104.86692342
7,927.54	90.00	181.41	7,390.00	449.22	-566.43	1,306,594.87	3,176,905.85	40.17326501	-104.86692600
LP 90 Inc, 181.41 Az									
7,927.55	90.00	181.41	7,390.00	449.21	-566.43	1,306,594.86	3,176,905.85	40.17326499	-104.86692600
ECHEVERRIA 2C-2H-D267 TPZ									
8,000.00	90.00	181.41	7,390.00	376.78	-568.21	1,306,522.42	3,176,904.58	40.17306617	-104.86693237
8,100.00	90.00	181.41	7,390.00	276.82	-570.67	1,306,422.44	3,176,902.84	40.17279174	-104.86694117
8,200.00	90.00	181.41	7,390.00	176.85	-573.13	1,306,322.45	3,176,901.09	40.17251731	-104.86694997
8,300.00	90.00	181.41	7,390.00	76.88	-575.60	1,306,222.47	3,176,899.35	40.17224288	-104.86695877
8,400.00	90.00	181.41	7,390.00	-23.09	-578.06	1,306,122.49	3,176,897.60	40.17196845	-104.86696757
8,500.00	90.00	181.41	7,390.00	-123.06	-580.52	1,306,022.50	3,176,895.86	40.17169402	-104.86697637
8,600.00	90.00	181.41	7,390.00	-223.03	-582.98	1,305,922.52	3,176,894.11	40.17141959	-104.86698517
8,700.00	90.00	181.41	7,390.00	-323.00	-585.44	1,305,822.53	3,176,892.37	40.17114516	-104.86699397
8,727.54	90.00	181.41	7,390.00	-350.54	-586.12	1,305,794.99	3,176,891.88	40.17106957	-104.86699639
Begin 2/100 Turn									
8,727.55	90.00	181.41	7,390.00	-350.55	-586.12	1,305,794.98	3,176,891.88	40.17106955	-104.86699639
8,783.51	90.00	180.29	7,390.00	-406.50	-586.95	1,305,739.02	3,176,891.45	40.17091595	-104.86699936
Hold 180.29 Az									
8,783.52	90.00	180.29	7,390.00	-406.51	-586.95	1,305,739.02	3,176,891.45	40.17091592	-104.86699936
8,800.00	90.00	180.29	7,390.00	-422.99	-587.03	1,305,722.54	3,176,891.49	40.17087069	-104.86699966
8,900.00	90.00	180.29	7,390.00	-522.99	-587.54	1,305,622.54	3,176,891.70	40.17059618	-104.86700147
9,000.00	90.00	180.29	7,390.00	-622.98	-588.05	1,305,522.54	3,176,891.91	40.17032167	-104.86700328
9,100.00	90.00	180.29	7,390.00	-722.98	-588.56	1,305,422.54	3,176,892.11	40.17004716	-104.86700509

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,200.00	90.00	180.29	7,390.00	-822.98	-589.06	1,305,322.54	3,176,892.32	40.16977265	-104.86700689
9,300.00	90.00	180.29	7,390.00	-922.98	-589.57	1,305,222.54	3,176,892.53	40.16949815	-104.86700870
9,400.00	90.00	180.29	7,390.00	-1,022.98	-590.08	1,305,122.54	3,176,892.74	40.16922364	-104.86701051
9,500.00	90.00	180.29	7,390.00	-1,122.98	-590.59	1,305,022.54	3,176,892.95	40.16894913	-104.86701232
9,600.00	90.00	180.29	7,390.00	-1,222.98	-591.10	1,304,922.54	3,176,893.16	40.16867462	-104.86701413
9,700.00	90.00	180.29	7,390.00	-1,322.98	-591.60	1,304,822.54	3,176,893.36	40.16840011	-104.86701594
9,800.00	90.00	180.29	7,390.00	-1,422.97	-592.11	1,304,722.54	3,176,893.57	40.16812560	-104.86701774
9,900.00	90.00	180.29	7,390.00	-1,522.97	-592.62	1,304,622.54	3,176,893.78	40.16785109	-104.86701955
10,000.00	90.00	180.29	7,390.00	-1,622.97	-593.13	1,304,522.54	3,176,893.99	40.16757658	-104.86702136
10,100.00	90.00	180.29	7,390.00	-1,722.97	-593.63	1,304,422.54	3,176,894.20	40.16730207	-104.86702317
10,200.00	90.00	180.29	7,390.00	-1,822.97	-594.14	1,304,322.54	3,176,894.41	40.16702756	-104.86702498
10,300.00	90.00	180.29	7,390.00	-1,922.97	-594.65	1,304,222.54	3,176,894.62	40.16675305	-104.86702679
10,400.00	90.00	180.29	7,390.00	-2,022.97	-595.16	1,304,122.54	3,176,894.82	40.16647854	-104.86702859
10,500.00	90.00	180.29	7,390.00	-2,122.97	-595.67	1,304,022.54	3,176,895.03	40.16620403	-104.86703040
10,600.00	90.00	180.29	7,390.00	-2,222.96	-596.17	1,303,922.54	3,176,895.24	40.16592952	-104.86703221
10,700.00	90.00	180.29	7,390.00	-2,322.96	-596.68	1,303,822.54	3,176,895.45	40.16565501	-104.86703402
10,800.00	90.00	180.29	7,390.00	-2,422.96	-597.19	1,303,722.54	3,176,895.66	40.16538050	-104.86703583
10,900.00	90.00	180.29	7,390.00	-2,522.96	-597.70	1,303,622.54	3,176,895.87	40.16510599	-104.86703764
11,000.00	90.00	180.29	7,390.00	-2,622.96	-598.20	1,303,522.54	3,176,896.07	40.16483148	-104.86703944
11,100.00	90.00	180.29	7,390.00	-2,722.96	-598.71	1,303,422.54	3,176,896.28	40.16455697	-104.86704125
11,200.00	90.00	180.29	7,390.00	-2,822.96	-599.22	1,303,322.54	3,176,896.49	40.16428246	-104.86704306
11,300.00	90.00	180.29	7,390.00	-2,922.96	-599.73	1,303,222.54	3,176,896.70	40.16400795	-104.86704487
11,400.00	90.00	180.29	7,390.00	-3,022.95	-600.24	1,303,122.54	3,176,896.91	40.16373344	-104.86704668
11,500.00	90.00	180.29	7,390.00	-3,122.95	-600.74	1,303,022.54	3,176,897.12	40.16345893	-104.86704849
11,600.00	90.00	180.29	7,390.00	-3,222.95	-601.25	1,302,922.54	3,176,897.33	40.16318442	-104.86705029
11,700.00	90.00	180.29	7,390.00	-3,322.95	-601.76	1,302,822.54	3,176,897.53	40.16290991	-104.86705210
11,800.00	90.00	180.29	7,390.00	-3,422.95	-602.27	1,302,722.54	3,176,897.74	40.16263540	-104.86705391
11,900.00	90.00	180.29	7,390.00	-3,522.95	-602.77	1,302,622.54	3,176,897.95	40.16236089	-104.86705572
12,000.00	90.00	180.29	7,390.00	-3,622.95	-603.28	1,302,522.54	3,176,898.16	40.16208638	-104.86705753
12,100.00	90.00	180.29	7,390.00	-3,722.95	-603.79	1,302,422.54	3,176,898.37	40.16181187	-104.86705933
12,200.00	90.00	180.29	7,390.00	-3,822.94	-604.30	1,302,322.55	3,176,898.58	40.16153736	-104.86706114
12,300.00	90.00	180.29	7,390.00	-3,922.94	-604.81	1,302,222.55	3,176,898.78	40.16126285	-104.86706295
12,357.86	90.00	180.29	7,390.00	-3,980.81	-605.10	1,302,164.68	3,176,898.90	40.16110401	-104.86706400
TD at 12357.86									
12,357.87	90.00	180.29	7,390.00	-3,980.81	-605.10	1,302,164.67	3,176,898.90	40.16110399	-104.86706400
ECHEVERRIA 2C-2H-D267 BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
ECHEVERRIA 2C-2H-D:	0.00	0.41	7,390.00	-3,980.81	-605.10	1,302,164.67	3,176,898.90	40.16110399	-104.86706400
- plan hits target center									
- Point									
ECHEVERRIA 2C-2H-D:	0.00	0.41	7,390.00	449.21	-566.43	1,306,594.86	3,176,905.85	40.17326499	-104.86692600
- plan hits target center									
- Point									



Planning Report - Geographic

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Start Build 2.00
781.87	777.88	54.38	-22.60	Hold 11.64 Inc, 337.43 Az
6,669.78	6,544.75	1,151.18	-478.38	KOP 8/100
7,927.54	7,390.00	449.22	-566.43	LP 90 Inc, 181.41 Az
8,727.54	7,390.00	-350.54	-586.12	Begin 2/100 Turn
8,783.51	7,390.00	-406.50	-586.95	Hold 180.29 Az
12,357.86	7,390.00	-3,980.81	-605.10	TD at 12357.86



Crestone Peak Resources

Sec 2 T2N-R67W

Echeverria Pad

ECHEVERRIA 2C-2H-D267

Wellbore #1

Design #1 23Apr18 kjs

Anticollision Summary Report

14 May, 2018

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Reference	Design #1 23Apr18 kjs		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	5/14/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,357.86	Design #1 23Apr18 kjs (Wellbore #1)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Echeverria Pad						
ECHEVERRIA 2D-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	9.79	8.80	9.891	CC
ECHEVERRIA 2D-2H-D267 - Wellbore #1 - Design #1 23	400.00	399.22	10.44	8.01	4.299	ES
ECHEVERRIA 2D-2H-D267 - Wellbore #1 - Design #1 23	6,677.29	6,682.48	100.50	39.44	1.646	SF
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	19.84	18.85	20.057	CC
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	300.00	299.03	20.54	18.83	12.042	ES
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,196.16	504.46	343.48	3.134	SF
ECHEVERRIA 2F-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	29.90	28.91	30.224	CC, ES
ECHEVERRIA 2F-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,331.58	889.65	723.13	5.343	SF
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	39.96	38.97	40.391	CC
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	300.00	298.98	40.68	38.97	23.847	ES
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,207.38	1,167.95	1,002.54	7.061	SF
ECHEVERRIA 2H-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	50.02	49.03	50.559	CC, ES
ECHEVERRIA 2H-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,156.65	1,505.48	1,340.49	9.125	SF
ECHEVERRIA 2I-2H-D267 - Wellbore #1 - Design #1 23A	200.00	198.00	59.81	58.82	60.667	CC, ES
ECHEVERRIA 2I-2H-D267 - Wellbore #1 - Design #1 23A	12,357.87	12,226.08	1,923.19	1,757.88	11.634	SF
ECHEVERRIA 2J-2H-D267 - Wellbore #1 - Design #1 23	200.00	198.00	69.87	68.88	70.872	CC, ES
ECHEVERRIA 2J-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,257.61	2,160.39	1,994.68	13.037	SF
ECHEVERRIA 2K-2H-D267 - Wellbore #1 - Design #1 23	200.00	198.00	79.92	78.94	81.077	CC, ES
ECHEVERRIA 2K-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,404.88	2,468.23	2,302.10	14.858	SF
ECHEVERRIA 2L-2H-D267 - Wellbore #1 - Design #1 23	200.00	198.00	89.98	89.00	91.281	CC, ES
ECHEVERRIA 2L-2H-D267 - Wellbore #1 - Design #1 23	12,357.87	12,416.80	2,584.99	2,420.69	15.733	SF

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Echeverria)						
BARCLAY 28C-11HZ - KMG - MWD	12,357.87	17,339.00	2,941.70	2,695.67	11.956	CC, ES, SF
BBKB 15N-35HZ - KMG - MWD	7,144.32	12,400.00	583.04	484.09	5.893	CC, ES, SF
BBKB 16N-35HZ - KMG - MWD	7,111.25	12,431.00	1,249.42	1,129.69	10.435	CC, ES, SF
BBKB 16N-A35HZ - KMG - MWD	7,123.13	12,450.00	1,482.56	1,362.59	12.358	CC, ES
BBKB 16N-A35HZ - KMG - MWD	7,200.00	12,450.00	1,485.54	1,365.31	12.356	SF
BBKB 25E-3HZ - KMG - MWD	7,274.05	12,763.06	550.78	470.17	6.833	CC, ES, SF
BBKB 36E-35HZ - KMG - MWD	7,176.53	12,687.00	385.89	310.43	5.113	CC, ES
BBKB 36E-35HZ - KMG - MWD	7,200.00	12,687.00	386.97	310.82	5.082	SF
BBKB 36N-35HZ - KMG - MWD	7,194.68	12,677.00	432.72	370.53	6.958	CC, ES
BBKB 36N-35HZ - KMG - MWD	7,200.00	12,677.00	432.77	370.54	6.954	SF
BBKB 37C-35HZ - KMG - MWD	7,236.04	12,762.00	1,132.74	1,017.96	9.868	CC, ES, SF
BBKB 37N-35HZ - KMG - MWD	7,184.39	12,575.00	842.13	729.84	7.499	CC, ES
BBKB 37N-35HZ - KMG - MWD	7,200.00	12,575.00	842.35	729.99	7.497	SF
BBKB 38C-35HZ - KMG - MWD	7,223.30	12,652.00	1,718.22	1,600.07	14.543	CC, ES
BBKB 38C-35HZ - KMG - MWD	7,300.00	12,652.00	1,720.91	1,602.53	14.537	SF
BBKB 38N-35HZ - KMG - MWD	7,078.41	12,437.00	2,109.26	1,987.44	17.315	CC, ES
BBKB 38N-35HZ - KMG - MWD	7,200.00	12,437.00	2,114.27	1,991.94	17.283	SF
BUTTERBALL 40C-34HZ - KMG - MWD	12,357.87	8,192.41	144.79	34.79	1.316	Level 3, CC, ES, SF
BUTTERBALL 40N-34HZ - KMG - MWD	7,400.00	12,885.55	376.65	237.76	2.712	SF
BUTTERBALL 40N-34HZ - KMG - MWD	11,635.27	8,690.99	323.43	220.28	3.136	CC
BUTTERBALL 40N-34HZ - KMG - MWD	12,000.00	8,328.36	324.45	219.72	3.098	ES
BUTTERBALL 9N-34HZ - KMG - MWD	7,500.00	12,847.53	822.26	685.20	5.999	SF
BUTTERBALL 9N-34HZ - KMG - MWD	10,200.00	10,165.11	788.92	677.91	7.107	ES
BUTTERBALL 9N-34HZ - KMG - MWD	10,343.99	10,023.79	788.75	677.92	7.117	CC
ECHEVERRIA 0-2-2 - CPR - MWD	8,645.55	7,696.97	43.55	-18.07	0.707	Level 2, CC, ES, SF
ECHEVERRIA 1 - CPR - No Survey	11,775.74	7,373.00	1,053.47	966.47	12.108	CC, ES
ECHEVERRIA 1 - CPR - No Survey	11,900.00	7,373.00	1,060.77	972.86	12.066	SF
ECHEVERRIA 11-2 - CPR - Gyro	2,732.02	2,665.66	33.36	12.10	1.569	CC, ES, SF
ECHEVERRIA 1-2 - CPR - Gyro	210.04	168.54	753.56	752.61	794.494	CC, ES
ECHEVERRIA 1-2 - CPR - Gyro	9,100.00	7,389.90	992.65	931.27	16.173	SF
ECHEVERRIA 12-2 - CPR - Gyro	9,708.15	7,366.57	526.87	458.34	7.688	CC, ES, SF
ECHEVERRIA 13-2 - CPR - Gyro	10,635.54	7,369.06	474.89	393.40	5.827	CC, ES, SF
ECHEVERRIA 14-2 - CPR - Gyro	12,357.87	7,370.89	407.25	298.16	3.733	CC, ES, SF
ECHEVERRIA 2-0-2 - CPR - Gyro	1,429.30	1,320.01	716.23	706.07	70.476	CC
ECHEVERRIA 2-0-2 - CPR - Gyro	1,500.00	1,382.59	716.69	705.98	66.867	ES
ECHEVERRIA 2-0-2 - CPR - Gyro	7,500.00	7,259.61	1,273.69	1,217.73	22.758	SF
ECHEVERRIA 21-2 - CPR - Gyro	257.07	214.53	1,295.98	1,294.70	1,013.645	CC
ECHEVERRIA 21-2 - CPR - Gyro	300.00	253.68	1,296.16	1,294.59	825.816	ES
ECHEVERRIA 21-2 - CPR - Gyro	8,600.00	7,336.68	1,863.48	1,806.27	32.573	SF
ECHEVERRIA 22-2 - CPR - Gyro	100.00	40.52	2,038.56	2,038.35	9,737.313	CC
ECHEVERRIA 22-2 - CPR - Gyro	200.00	134.67	2,038.99	2,038.20	2,568.313	ES
ECHEVERRIA 22-2 - CPR - Gyro	10,100.00	7,349.82	2,305.60	2,233.88	32.149	SF
ECHEVERRIA 23-2 - CPR - Gyro	10,627.08	7,374.41	2,144.04	2,062.60	26.328	CC, ES
ECHEVERRIA 23-2 - CPR - Gyro	11,100.00	7,376.25	2,195.58	2,109.20	25.419	SF
ECHEVERRIA 24-2 - CPR - Gyro	12,357.87	7,353.53	2,128.41	2,019.45	19.535	CC, ES, SF
ECHEVERRIA 2-8-2 - CPR - MWD	12,357.87	7,461.50	1,381.74	1,272.34	12.630	CC, ES, SF
ECHEVERRIA 2A-2H - CPR - MWD	7,742.84	7,336.00	734.89	681.42	13.744	CC
ECHEVERRIA 2A-2H - CPR - MWD	12,341.85	11,870.00	812.53	650.05	5.001	ES, SF
ECHEVERRIA 2B-2H - CPR - MWD	100.00	63.22	922.56	922.31	3,783.610	CC
ECHEVERRIA 2B-2H - CPR - MWD	600.00	564.89	925.21	921.54	251.790	ES
ECHEVERRIA 2B-2H - CPR - MWD	12,357.87	11,851.17	1,761.68	1,595.00	10.569	SF
ECHEVERRIA 4-2-2 - CPR - MWD	272.34	247.51	1,319.62	1,318.14	891.874	CC
ECHEVERRIA 4-2-2 - CPR - MWD	300.00	272.68	1,319.68	1,318.01	791.778	ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Echeverria)						
ECHEVERRIA 4-2-2 - CPR - MWD	9,700.00	7,402.02	2,686.88	2,618.10	39.069	SF
ECHEVERRIA 4-4-2 - CPR - MWD	10,283.89	7,342.86	2,549.98	2,474.29	33.688	CC
ECHEVERRIA 4-4-2 - CPR - MWD	10,300.00	7,342.84	2,550.03	2,474.14	33.600	ES
ECHEVERRIA 4-4-2 - CPR - MWD	11,000.00	7,342.13	2,648.63	2,565.45	31.842	SF
ECHEVERRIA C-2-320-W - CPR - MWD	10,192.04	7,514.14	1,269.32	1,193.50	16.740	CC
ECHEVERRIA C-2-320-W - CPR - MWD	10,200.00	7,514.16	1,269.35	1,193.41	16.716	ES
ECHEVERRIA C-2-320-W - CPR - MWD	10,400.00	7,514.56	1,286.24	1,207.90	16.419	SF
ENDERSON 3-11 - KMG - Gyro	12,357.87	7,378.68	2,251.96	2,146.61	21.376	CC, ES, SF
GORDON RED V 10-1 - KMG - Gyro	12,357.87	7,412.82	1,191.27	1,126.10	18.279	CC, ES, SF
HSR-ENDERSON 4-11A - KMG - Gyro	12,357.87	7,391.75	995.93	919.31	12.998	CC, ES, SF
HSR-WITTEMEYER 7-2A - KMG - Gyro	100.00	37.20	2,760.09	2,759.88	10,000.000	CC
HSR-WITTEMEYER 7-2A - KMG - Gyro	200.00	127.42	2,760.65	2,759.88	3,579.033	ES
HSR-WITTEMEYER 7-2A - KMG - Gyro	10,600.00	7,311.13	3,198.09	3,121.09	41.535	SF
KIYOTA 4A-35H-O367 - CPR - MWD	7,021.19	7,557.00	2,545.77	2,486.41	42.884	CC, ES
KIYOTA 4A-35H-O367 - CPR - MWD	7,100.00	7,557.00	2,547.70	2,488.26	42.866	SF
KIYOTA 4B-35H-O367 - CPR - MWD	7,080.35	7,369.00	2,747.07	2,688.95	47.265	CC, ES
KIYOTA 4B-35H-O367 - CPR - MWD	7,100.00	7,369.00	2,747.15	2,689.02	47.256	SF
KIYOTA 4C-35H-O367 - CPR - MWD	6,939.49	7,226.00	2,808.83	2,751.46	48.962	CC, ES
KIYOTA 4C-35H-O367 - CPR - MWD	7,000.00	7,226.00	2,809.63	2,752.19	48.911	SF
KIYOTA 4D-35H-O367 - CPR - MWD	6,969.84	7,174.00	2,926.70	2,869.58	51.239	CC, ES
KIYOTA 4D-35H-O367 - CPR - MWD	7,000.00	7,174.00	2,926.87	2,869.71	51.204	SF
MATSUSHIMA 35-13L - KMG - Gyro	6,738.99	6,585.47	718.31	663.86	13.194	CC, ES
MATSUSHIMA 35-13L - KMG - Gyro	6,800.00	6,644.44	719.73	664.84	13.113	SF
PANCOST 10-2 - KMG - MWD	10,705.53	7,470.86	3,136.37	3,050.79	36.647	CC, ES
PANCOST 10-2 - KMG - MWD	11,700.00	7,473.47	3,290.26	3,192.87	33.786	SF
PANCOST 23-2 - KMG - MWD	11,548.69	7,492.80	2,623.43	2,526.61	27.093	CC
PANCOST 23-2 - KMG - MWD	11,600.00	7,493.17	2,623.94	2,526.43	26.909	ES
PANCOST 23-2 - KMG - MWD	12,100.00	7,497.09	2,680.73	2,577.67	26.010	SF
PANCOST 36-2 - KMG - MWD	12,357.87	7,631.10	2,767.24	2,646.19	22.861	CC, ES, SF
PENNINGTON 28N-2HZ - KMG - MWD	12,357.87	7,499.00	2,813.77	2,704.01	25.636	CC, ES, SF
PENNINGTON 28N-2HZX - KMG - MWD	8,077.98	11,763.00	2,762.69	2,650.43	24.610	CC, ES
PENNINGTON 28N-2HZX - KMG - MWD	8,200.00	11,763.00	2,765.38	2,652.81	24.565	SF
RICHARDSON V 3-16 - KMG - Gyro	12,221.13	7,373.36	680.51	573.81	6.378	CC, ES
RICHARDSON V 3-16 - KMG - Gyro	12,300.00	7,372.63	685.06	576.88	6.332	SF
RICHARDSON V 3-1JI - KMG - Gyro	8,000.00	7,396.06	763.13	707.57	13.734	SF
RICHARDSON V 3-1JI - KMG - Gyro	8,021.30	7,395.99	762.83	707.31	13.739	CC, ES
RICHARDSON V 3-2 - KMG - No Survey	8,317.51	7,396.00	2,097.03	2,053.32	47.977	CC, ES
RICHARDSON V 3-2 - KMG - No Survey	9,200.00	7,396.00	2,283.13	2,233.38	45.892	SF
RICHARDSON V 3-8 - KMG - Gyro	9,470.44	7,394.07	461.41	395.77	7.029	CC, ES
RICHARDSON V 3-8 - KMG - Gyro	9,500.00	7,394.27	462.36	396.22	6.991	SF
RICHARDSON V 3-9 - KMG - Gyro	10,907.57	7,412.62	595.26	509.61	6.950	CC, ES
RICHARDSON V 3-9 - KMG - Gyro	11,000.00	7,411.80	602.39	515.13	6.903	SF
ROLLIE J VINCENT 1 - Kauffman - Gyro	100.00	52.08	2,707.05	2,706.83	10,000.000	CC
ROLLIE J VINCENT 1 - Kauffman - Gyro	200.00	148.53	2,707.19	2,706.44	3,600.018	ES
ROLLIE J VINCENT 1 - Kauffman - Gyro	10,500.00	7,320.23	3,178.39	3,103.24	42.293	SF
VOLLMAR 28N-11HZ - KMG - MWD	12,357.87	12,881.00	2,367.40	2,170.93	12.050	CC, ES, SF
VOLLMAR 29C-11HZ - KMG - MWD	12,357.87	13,082.00	1,327.49	1,144.74	7.264	CC, ES, SF
VOLLMAR 3N-11HZ - KMG - MWD	12,357.87	12,934.00	1,652.94	1,463.81	8.739	CC, ES, SF
VOLLMAR 4N-11HZ - KMG - MWD	12,357.87	13,131.00	894.75	739.38	5.759	CC, ES, SF
VYNCKIER 15-2A7952 - KMG - Gyro	12,202.31	7,343.10	3,111.97	3,005.68	29.280	CC, ES
VYNCKIER 15-2A7952 - KMG - Gyro	12,357.87	7,345.38	3,115.85	3,007.37	28.723	SF
WITTEMEYER HSR 2-2 - KMG - Gyro	201.06	138.34	2,431.53	2,430.70	2,941.649	CC, ES
WITTEMEYER HSR 2-2 - KMG - Gyro	9,200.00	7,273.84	3,119.45	3,058.90	51.517	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						

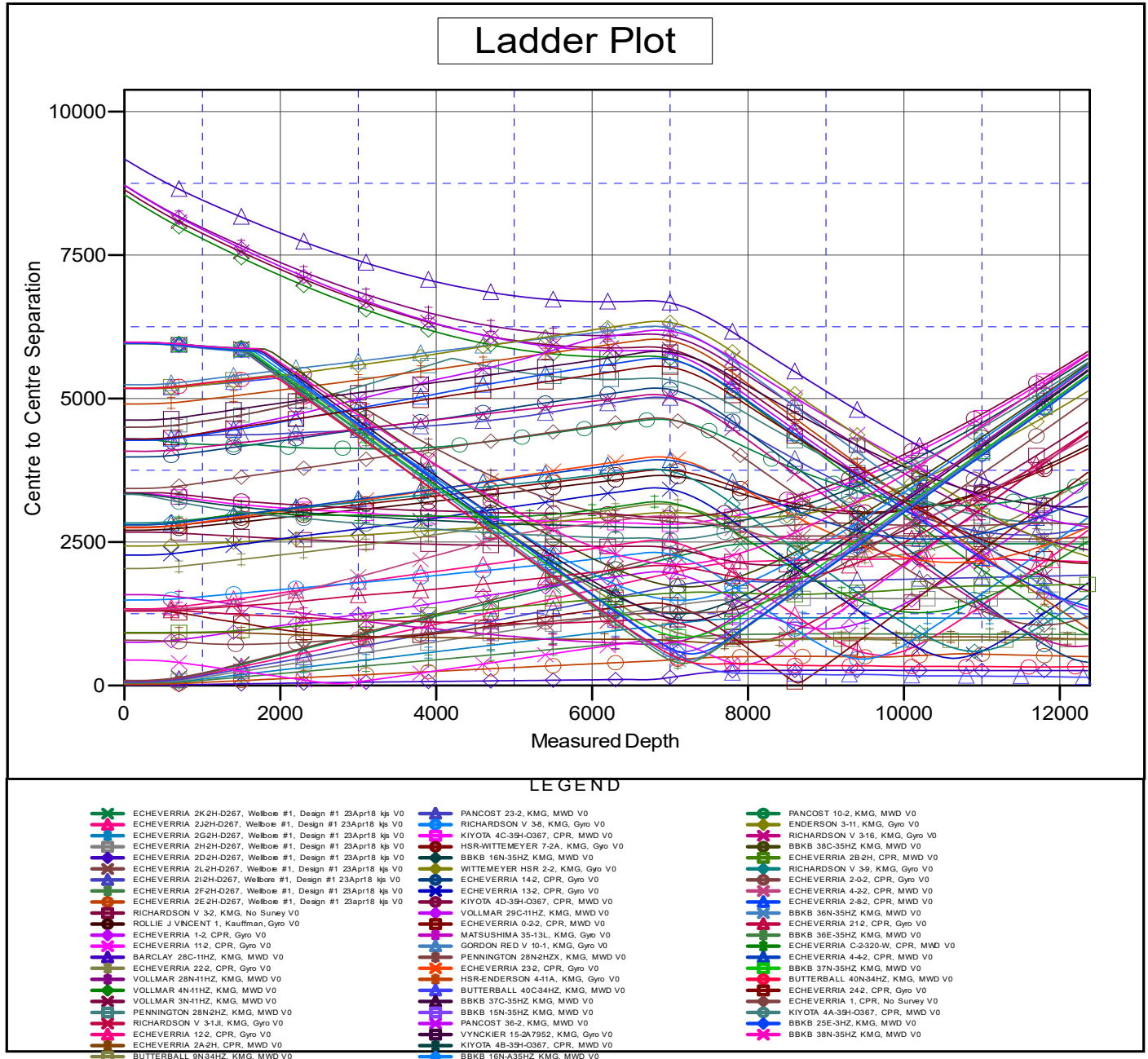
Anticollision Summary Report

Company: Crestone Peak Resources
Project: Sec 2 T2N-R67W
Reference Site: Echeverria Pad
Site Error: 0.00 usft
Reference Well: ECHEVERRIA 2C-2H-D267
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design #1 23Apr18 kjs

Local Co-ordinate Reference: Well ECHEVERRIA 2C-2H-D267
TVD Reference: WELL @ 4906.00usft (Original Well Elev)
MD Reference: WELL @ 4906.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.15 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4906.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.50000000

Coordinates are relative to: ECHEVERRIA 2C-2H-D267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



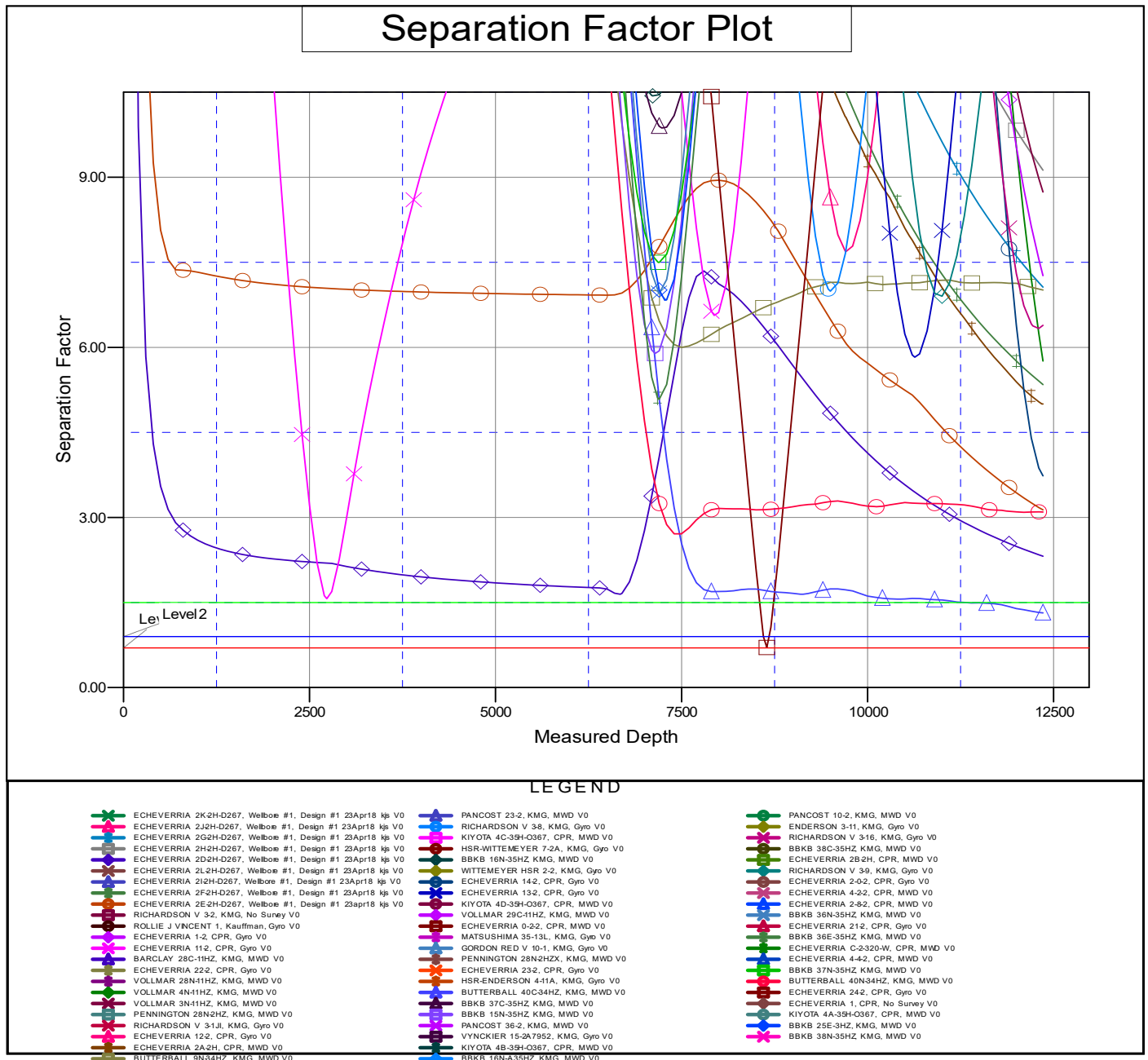
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2C-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4906.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4906.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2C-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4906.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.50000000

Coordinates are relative to: ECHEVERRIA 2C-2H-D267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation