



Crestone Peak Resources

Schlumberger

Plan 1

Borehole:	Well:	Field:	Structure:
Original Hole	Arkansas 4-65 3-2 3CH	CO, Arapahoe County (NAD 83 CZ)	Crestone Peak 03-04S-64W (Arkansas 4-65 3-2 Pad)

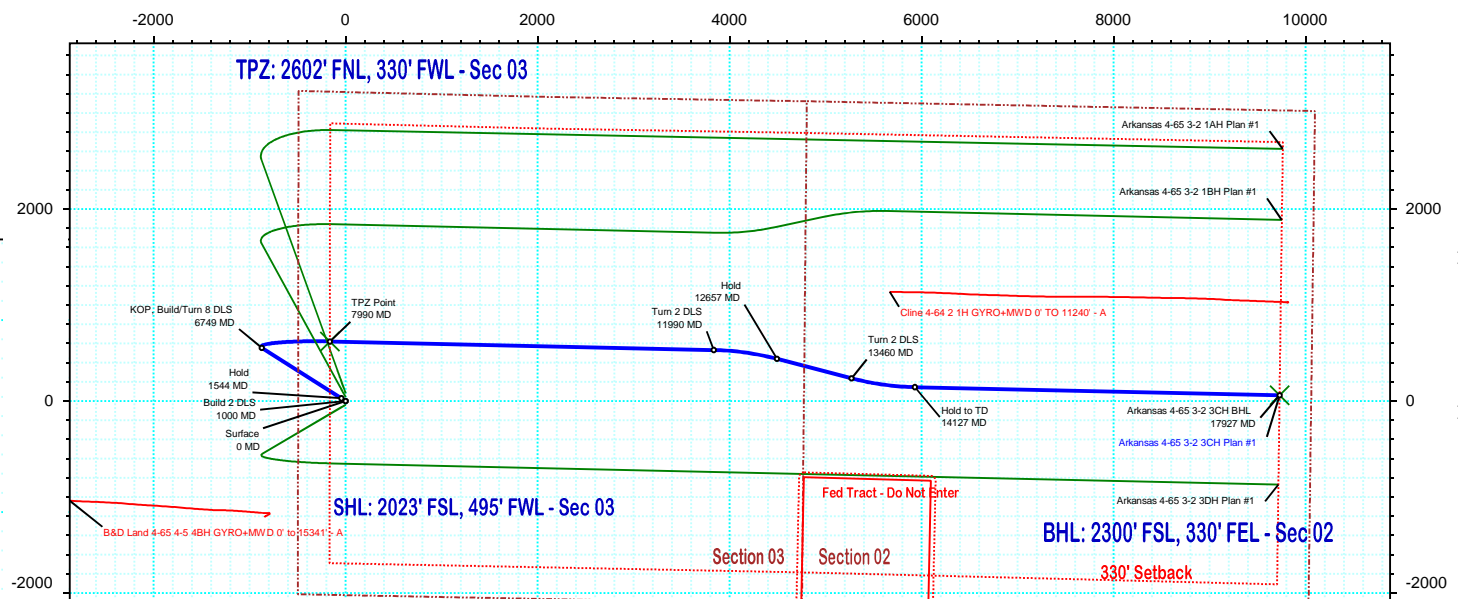
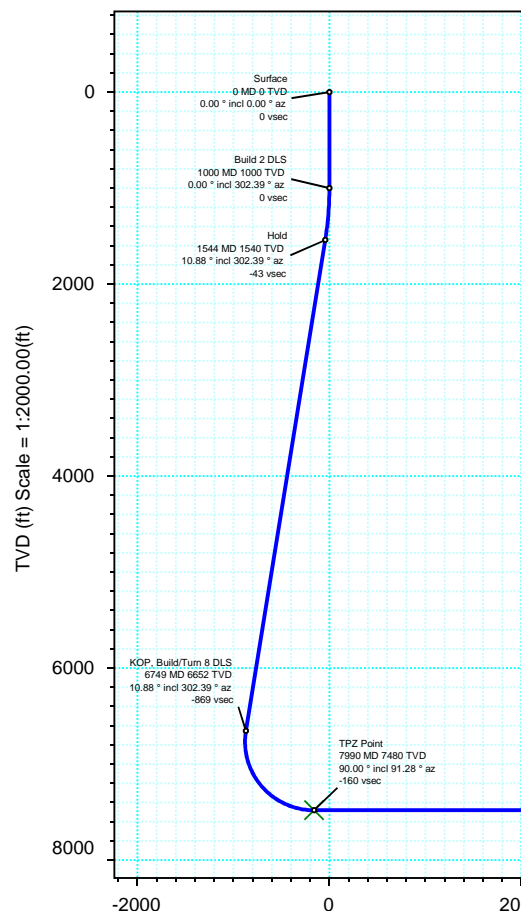
Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM 2021	Dip:	66.356°	Date:	21-Jul-2021	Lat:	N 39 43 47.94	Northing:	1692190.08ftUS	Grid Conv:	0.6029°
MagDec:	8.335°	FS:	51513.577nT	Gravity FS:	998.935mgm (9.80665 Based)	Lon:	W 104 32 38.66	Easting:	3268861.55ftUS	Scale Fact:	0.9999961
								Slot:	Arkansas 4-65 3-2 3CH	TVD Ref:	KB 13ft(5624.2ft above MSL)
								Plan:	Arkansas 4-65 3-2 3CH Plan #1		

Proposal

EW (ft) Scale = 1:2000.00(ft)



True North
Tot Corr (M->T 8.335°)
Mag Dec (8.335°)
Grid Conv (0.603°)



Target Description		Grid Coord		Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD
Arkansas 4-65 3-2 Pad Sec 2-3	N 39 43 48.72	W 104 32 38.66	1692269.86	3268860.99	5624.20
Arkansas 4-65 3-2 Pad - Fed Tract 2 - 50'	N 39 43 48.72	W 104 32 38.66	1692269.86	3268860.99	5624.20
Arkansas 4-65 3-2 Pad Sec 2-3 - 330' SB	N 39 43 48.72	W 104 32 38.66	1692269.86	3268860.99	5624.20
Arkansas 4-65 3-2 Pad - Fed Tract 2	N 39 43 48.72	W 104 32 38.66	1692269.86	3268860.99	5624.20
Arkansas 4-65 3-2 3CH BHL	N 39 43 48.50	W 104 30 34.14	1692351.49	3276588.95	7480.00
Arkansas 4-65 3-2 3CH TPZ	N 39 43 54.06	W 104 32 40.76	1692808.30	3268690.79	7480.00

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Build 2 DLS	1000.00	0.00	302.39	1000.00	0.00	0.00	0.00	0.00
Hold	1543.75	10.88	302.39	1540.49	-43.28	27.56	-43.44	2.00
KOP, Build/Turn 8 DLS	6748.92	10.88	302.39	6652.18	-869.33	553.62	-872.71	0.00
TPZ Point	7990.12	90.00	91.28	7480.00	-160.49	619.99	-164.25	8.00
Turn 2 DLS	11990.12	90.00	91.28	7480.00	3837.90	530.63	3834.75	0.00
Hold	12657.24	90.00	104.62	7480.00	4496.54	438.56	4493.96	2.00
Turn 2 DLS	13459.62	90.00	104.62	7480.00	5271.69	236.00	5270.35	0.00
Hold to TD	14126.74	90.00	91.28	7480.00	5930.33	143.93	5929.57	2.00
Arkansas 4-65 3-2 3CH BHL	17926.74	90.00	91.28	7480.00	9728.80	59.04	9728.62	0.00

Vertical Section (ft) Azim = 89.65° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

Arkansas 4-65 3-2 3CH Plan #1 Proposal Geodetic Report



(Def Plan)

Report Date: July 21, 2021 - 02:43 PM
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)
Structure / Slot: Crestone Peak 03-04S-64W (Arkansas 4-65 3-2 Pad) / Arkansas 4-65 3-2 3CH
Well: Arkansas 4-65 3-2 3CH
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Arkansas 4-65 3-2 3CH Plan #1
Survey Date: July 21, 2021
Tort / AHD / DDI / ERD Ratio: 136.856 ° / 11712.959 ft / 6.585 / 1.566
Coordinate Reference System: NAD83 Colorado State Plane, Central Zone, US Feet
Location Lat / Long: N 39° 43' 47.93520", W 104° 32' 38.65920"
Location Grid N/E Y/X: N 1692190.082 ftUS, E 3268861.553 ftUS
CRS Grid Convergence Angle: 0.6029 °
Grid Scale Factor: 0.9999961
Version / Patch: 2.10.825.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 89.652 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 13ft
TVD Reference Elevation: 5624.200 ft above MSL
Seabed / Ground Elevation: 5611.200 ft above MSL
Magnetic Declination: 8.335 °
Total Gravity Field Strength: 998.9352mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51513.577 nT
Magnetic Dip Angle: 66.356 °
Declination Date: July 21, 2021
Magnetic Declination Model: HDGM 2021
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 8.3352 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	-5624.20	0.00	0.00	0.00	N/A	1692190.08	3268861.55	39.729982	-104.544072
	100.00	0.00	302.39	100.00	-5524.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	200.00	0.00	302.39	200.00	-5424.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	300.00	0.00	302.39	300.00	-5324.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	400.00	0.00	302.39	400.00	-5224.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	500.00	0.00	302.39	500.00	-5124.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	600.00	0.00	302.39	600.00	-5024.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	700.00	0.00	302.39	700.00	-4924.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	800.00	0.00	302.39	800.00	-4824.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	900.00	0.00	302.39	900.00	-4724.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
Build 2 DLS	1000.00	0.00	302.39	1000.00	-4624.20	0.00	0.00	0.00	0.00	1692190.08	3268861.55	39.729982	-104.544072
	1100.00	2.00	302.39	1099.98	-4524.22	-1.47	0.93	-1.47	2.00	1692191.00	3268860.07	39.729985	-104.544077
	1200.00	4.00	302.39	1199.84	-4424.36	-5.87	3.74	-5.89	2.00	1692193.76	3268855.62	39.729992	-104.544093
	1300.00	6.00	302.39	1299.45	-4324.75	-13.20	8.41	-13.25	2.00	1692198.35	3268848.21	39.730005	-104.544119
	1400.00	8.00	302.39	1398.70	-4225.50	-23.45	14.93	-23.54	2.00	1692204.77	3268837.86	39.730023	-104.544156
	1500.00	10.00	302.39	1497.47	-4126.73	-36.61	23.31	-36.75	2.00	1692213.01	3268824.56	39.730046	-104.544203
	1543.75	10.88	302.39	1540.49	-4083.71	-43.28	27.56	-43.44	2.00	1692217.18	3268817.82	39.730058	-104.544226
	1600.00	10.88	302.39	1595.73	-4028.47	-52.20	33.24	-52.41	0.00	1692222.77	3268808.86	39.730073	-104.544258
	1700.00	10.88	302.39	1693.93	-3930.27	-68.07	43.35	-68.34	0.00	1692232.71	3268792.76	39.730101	-104.544315
	1800.00	10.88	302.39	1792.14	-3832.06	-83.94	53.46	-84.27	0.00	1692242.65	3268776.73	39.730129	-104.544372
Hold	1900.00	10.88	302.39	1890.34	-3733.86	-99.81	63.56	-100.20	0.00	1692252.59	3268760.69	39.730156	-104.544428
	2000.00	10.88	302.39	1988.55	-3635.65	-115.68	73.67	-116.13	0.00	1692262.53	3268744.65	39.730184	-104.544485
	2100.00	10.88	302.39	2086.75	-3537.45	-131.55	83.78	-132.06	0.00	1692272.47	3268728.62	39.730212	-104.544542
	2200.00	10.88	302.39	2184.96	-3439.24	-147.42	93.88	-147.99	0.00	1692282.40	3268712.58	39.730240	-104.544598
	2300.00	10.88	302.39	2283.16	-3341.04	-163.29	103.99	-163.93	0.00	1692292.34	3268696.54	39.730267	-104.544655
	2400.00	10.88	302.39	2381.36	-3242.84	-179.16	114.10	-179.86	0.00	1692302.28	3268680.51	39.730295	-104.544711
	2500.00	10.88	302.39	2479.57	-3144.63	-195.03	124.20	-195.79	0.00	1692312.22	3268664.47	39.730323	-104.544768
	2600.00	10.88	302.39	2577.77	-3046.43	-210.90	134.31	-211.72	0.00	1692322.16	3268648.43	39.730351	-104.544825
	2700.00	10.88	302.39	2675.98	-2948.22	-226.77	144.42	-227.65	0.00	1692332.10	3268632.40	39.730378	-104.544881
	2800.00	10.88	302.39	2774.18	-2850.02	-242.64	154.52	-243.58	0.00	1692342.03	3268616.36	39.730406	-104.544938
	2900.00	10.88	302.39	2872.38	-2751.82	-258.51	164.63	-259.51	0.00	1692351.97	3268600.32	39.730434	-104.544995
	3000.00	10.88	302.39	2970.59	-2653.61	-274.38	174.74	-275.45	0.00	1692361.91	3268584.29	39.730462	-104.545051
	3100.00	10.88	302.39	3068.79	-2555.41	-290.25	184.84	-291.38	0.00	1692371.85	3268568.25	39.730489	-104.545108
	3200.00	10.88	302.39	3167.00	-2457.20	-306.12	194.95	-307.31	0.00	1692381.79	3268552.21	39.730517	-104.545165
	3300.00	10.88	302.39	3265.20	-2359.00	-321.99	205.06	-323.24	0.00	1692391.73	3268536.17	39.730545	-104.545221
	3400.00	10.88	302.39	3363.40	-2260.80	-337.86	215.16	-339.17	0.00	1692401.66	3268520.14	39.730573	-104.545278
	3500.00	10.88	302.39	3461.61	-2162.59	-353.73	225.27	-355.10	0.00	1692411.60	3268504.10	39.730600	-104.545335
	3600.00	10.88	302.39	3559.81	-2064.39	-369.60	235.38	-371.04	0.00	1692421.54	3268488.06	39.730628	-104.545391
	3700.00	10.88	302.39	3658.02	-1966.18	-385.47	245.48	-386.97	0.00	1692431.48	3268472.03	39.730656	-104.545448
	3800.00	10.88	302.39	3756.22	-1867.98	-401.34	255.59	-402.90	0.00	1692441.42	3268455.99	39.730684	-104.545504
	3900.00	10.88	302.39	3854.43	-1769.77	-417.21	265.70	-418.83	0.00	1692451.35	3268439.95	39.730711	-104.545561
	4000.00	10.88	302.39	3952.63	-1671.57	-433.08	275.80	-434.76	0.00	1692461.29	3268423.92	39.730739	-104.545618
	4100.00	10.88	302.39	4050.83	-1573.37	-448.95	285.91	-450.69	0.00	1692471.23	3268407.88	39.730767	-104.545674
	4200.00	10.88	302.39	4149.04	-1475.16	-464.82	296.02	-466.62	0.00	1692481.17	3268391.84	39.730795	-104.545731
	4300.00	10.88	302.39	4247.24	-1376.96	-480.69	306.12	-482.56	0.00	1692491.11	3268375.81	39.730822	-104.545788
	4400.00	10.88	302.39	4345.45	-1278.75	-496.56	316.23	-498.49	0.00	1692501.05	3268359.77	39.730850	-104.545844
	4500.00	10.88	302.39	4443.65	-1180.55	-512.43	326.34	-514.42	0.00	1692510.98	3268343.73	39.730878	-104.545901
	4600.00	10.88	302.39	4541.85	-1082.35	-528.30	336.44	-530.35	0.00	1692520.92	3268327.70	39.730906	-104.545958
	4700.00	10.88	302.39	4640.06	-984.14	-544.17	346.55	-546.28	0.00	1692530.86	3268311.66	39.730933	-104.546014
	4800.00	10.88	302.39	4738.26	-885.94	-560.04	356.66	-562.21	0.00	1692540.80	3268295.62	39.730961	-104.546071
	4900.00	10.88	302.39	4836.47	-787.73	-575.91	366.76	-578.14	0.00	1692550.74	3268279.58	39.730989	-104.546128
	5000.00	10.88	302.39	4934.67	-689.53	-591.78	376.87	-594.08	0.00	1692560.68	3268263.55	39.731017	-104.546184
	5100.00	10.88	302.39	5032.87	-591.33	-607.65	386.97	-610.01	0.00	1692570.61	3268247.51	39.731044	-104.546241
	5200.00	10.88	302.39	5131.08	-493.12	-623.52	397.08	-625.94	0.00	1692580.55	3268231.47	39.731072	-104.546297
	5300.00	10.88	302.39	5229.28	-394.92	-639.39	407.19	-641.87	0.00	1692590.49	3268215.44	39.731100	-104.546354
	5400.00	10.88	302.39	5327.49	-296.71	-655.26	417.29	-657.80	0.00	1692600.43	3268199.40	39.731128	-104.546411
	5500.00	10.88	302.39	5425.69	-198.51	-671.13	427.40	-673.73	0.00	1692610.37	3268183.36	39.731155	-104.546467
	5600.00	10.88	302.39	5523.89	-100.31	-687.00	437.51	-689.66	0.00	1692620.31	3268167.33	39.731183	-104.546524
	5700.00	10.88	302.39	5622.10	-2.10	-702.87	447.61	-705.60	0.00	1692630.24	3268151.29	39.731211	-104.546581
	5800.00	10.88	302.39	5720.30	96.10	-718.74	457.72	-721.53	0.00	1692640.18	3268135.25	39.731239	-104.546637
	5900.00	10.88	302.39	5818.51	194.31	-734.61	467.83	-737.46	0.00	1692650.12	3268119.22	39.731266	-104.546694
	6000.00	10.88	302.39	5916.71	292.51	-750.48	477.93	-753.39	0.00	1692660.06	3268103.18	39.731294	-104.546751
	6100.00	10.88	302.39	6014.92	390.72	-766.35	488.04	-769.32	0.00	1692670.00	3268087.14	39.731322	-104.546807
	6200.00	10.88	302.39	6113.12	488.92	-782.22	498.15	-785.25	0.00	1692679.94	3268071.11	39.731349	-104.546864
	6300.00	10.88	302.39	6211.32	587.12	-798.09	508.25	-801.19	0.00	1692689.87	3268055.07	39.731377	-104.546921
	6400.00	10.88	302.39	6309.53	685.33	-813.96	518.36	-817.12	0.00	1692699.81	3268039.03	39.731405	-104.546977
	6500.00	10.88	302.39	6407.73	783.53	-829.83	528.47	-833.05	0.00	1692709.75	3268023.00	39.731433	-104.547034
	6600.00	10.88	302.39	6505.94	881.74	-845.70	538.57	-848.98	0.00	1692719.69	3268006.96	39.731460	-104.547091
	6700.00	10.88	302.39	6604.14	979.94	-861.57	548.68	-864.91	0.00	1692729.63	3267990.92	39.731488	-104.547147
	KOP, Build/Turn 8 DLS	6748.92	10.88	302.39	6								

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	8200.00	90.00	91.28	7480.00	1855.80	49.31	615.30	45.57	0.00	1692805.82	3268900.65	39.731671	-104.543910
	8300.00	90.00	91.28	7480.00	1855.80	149.27	613.07	145.55	0.00	1692804.64	3269000.64	39.731665	-104.543555
	8400.00	90.00	91.28	7480.00	1855.80	249.23	610.83	245.52	0.00	1692803.46	3269100.64	39.731659	-104.543199
	8500.00	90.00	91.28	7480.00	1855.80	349.19	608.60	345.50	0.00	1692802.28	3269200.63	39.731653	-104.542844
	8600.00	90.00	91.28	7480.00	1855.80	449.15	606.36	445.47	0.00	1692801.10	3269300.62	39.731647	-104.542488
	8700.00	90.00	91.28	7480.00	1855.80	549.11	604.13	545.45	0.00	1692799.91	3269400.61	39.731640	-104.542133
	8800.00	90.00	91.28	7480.00	1855.80	649.07	601.90	645.42	0.00	1692798.73	3269500.61	39.731634	-104.541777
	8900.00	90.00	91.28	7480.00	1855.80	749.03	599.66	745.40	0.00	1692797.55	3269600.60	39.731628	-104.541422
	9000.00	90.00	91.28	7480.00	1855.80	848.98	597.43	845.37	0.00	1692796.37	3269700.59	39.731622	-104.541066
	9100.00	90.00	91.28	7480.00	1855.80	948.94	595.20	945.35	0.00	1692795.19	3269800.58	39.731616	-104.540711
	9200.00	90.00	91.28	7480.00	1855.80	1048.90	592.96	1045.32	0.00	1692794.01	3269900.57	39.731610	-104.540355
	9300.00	90.00	91.28	7480.00	1855.80	1148.86	590.73	1145.30	0.00	1692792.82	3270000.57	39.731604	-104.540000
	9400.00	90.00	91.28	7480.00	1855.80	1248.82	588.49	1245.28	0.00	1692791.64	3270100.56	39.731597	-104.539644
	9500.00	90.00	91.28	7480.00	1855.80	1348.78	586.26	1345.25	0.00	1692790.46	3270200.55	39.731591	-104.539289
	9600.00	90.00	91.28	7480.00	1855.80	1448.74	584.03	1445.23	0.00	1692789.28	3270300.54	39.731585	-104.538934
	9700.00	90.00	91.28	7480.00	1855.80	1548.70	581.79	1545.20	0.00	1692788.10	3270400.54	39.731579	-104.538578
	9800.00	90.00	91.28	7480.00	1855.80	1648.66	579.56	1645.18	0.00	1692786.92	3270500.53	39.731573	-104.538223
	9900.00	90.00	91.28	7480.00	1855.80	1748.62	577.32	1745.15	0.00	1692785.73	3270600.52	39.731567	-104.537867
	10000.00	90.00	91.28	7480.00	1855.80	1848.58	575.09	1845.13	0.00	1692784.55	3270700.51	39.731561	-104.537512
	10100.00	90.00	91.28	7480.00	1855.80	1948.54	572.86	1945.10	0.00	1692783.37	3270800.51	39.731554	-104.537156
	10200.00	90.00	91.28	7480.00	1855.80	2048.50	570.62	2045.08	0.00	1692782.19	3270900.50	39.731548	-104.536801
	10300.00	90.00	91.28	7480.00	1855.80	2148.46	568.39	2145.05	0.00	1692781.01	3271000.49	39.731542	-104.536445
	10400.00	90.00	91.28	7480.00	1855.80	2248.42	566.16	2245.03	0.00	1692779.83	3271100.48	39.731536	-104.536090
	10500.00	90.00	91.28	7480.00	1855.80	2348.38	563.92	2345.00	0.00	1692778.64	3271200.48	39.731530	-104.535734
	10600.00	90.00	91.28	7480.00	1855.80	2448.34	561.69	2444.98	0.00	1692777.46	3271300.47	39.731524	-104.535379
	10700.00	90.00	91.28	7480.00	1855.80	2548.30	559.45	2544.95	0.00	1692776.28	3271400.46	39.731517	-104.535024
	10800.00	90.00	91.28	7480.00	1855.80	2648.26	557.22	2644.93	0.00	1692775.10	3271500.45	39.731511	-104.534668
	10900.00	90.00	91.28	7480.00	1855.80	2748.22	554.99	2744.90	0.00	1692773.92	3271600.45	39.731505	-104.534313
	11000.00	90.00	91.28	7480.00	1855.80	2848.18	552.75	2844.88	0.00	1692772.74	3271700.44	39.731499	-104.533957
	11100.00	90.00	91.28	7480.00	1855.80	2948.14	550.52	2944.85	0.00	1692771.55	3271800.43	39.731493	-104.533602
	11200.00	90.00	91.28	7480.00	1855.80	3048.10	548.28	3044.83	0.00	1692770.37	3271900.42	39.731487	-104.533246
	11300.00	90.00	91.28	7480.00	1855.80	3148.06	546.05	3144.80	0.00	1692769.19	3272000.42	39.731480	-104.532891
	11400.00	90.00	91.28	7480.00	1855.80	3248.02	543.82	3244.78	0.00	1692768.01	3272100.41	39.731474	-104.532535
	11500.00	90.00	91.28	7480.00	1855.80	3347.98	541.58	3344.75	0.00	1692766.83	3272200.40	39.731468	-104.532180
	11600.00	90.00	91.28	7480.00	1855.80	3447.94	539.35	3444.73	0.00	1692765.64	3272300.39	39.731462	-104.531824
	11700.00	90.00	91.28	7480.00	1855.80	3547.90	537.12	3544.70	0.00	1692764.46	3272400.39	39.731456	-104.531469
	11800.00	90.00	91.28	7480.00	1855.80	3647.86	534.88	3644.68	0.00	1692763.28	3272500.38	39.731450	-104.531114
	11900.00	90.00	91.28	7480.00	1855.80	3747.81	532.65	3744.65	0.00	1692762.10	3272600.37	39.731443	-104.530758
	11990.12	90.00	91.28	7480.00	1855.80	3837.90	530.63	3834.75	0.00	1692761.03	3272690.48	39.731438	-104.530403
	12000.00	90.00	91.48	7480.00	1855.80	3847.77	530.44	3844.63	2.00	1692760.90	3272700.36	39.731437	-104.530047
	12100.00	90.00	93.48	7480.00	1855.80	3947.65	528.07	3944.53	2.00	1692757.63	3272800.30	39.731425	-104.530047
	12200.00	90.00	95.48	7480.00	1855.80	4047.29	518.27	4044.22	2.00	1692750.87	3272900.07	39.731404	-104.529693
	12300.00	90.00	97.48	7480.00	1855.80	4146.57	506.99	4143.57	2.00	1692740.64	3272999.54	39.731373	-104.529340
	12400.00	90.00	99.48	7480.00	1855.80	4245.39	492.25	4242.48	2.00	1692726.94	3273098.59	39.731332	-104.528988
	12500.00	90.00	101.48	7480.00	1855.80	4343.60	474.06	4340.80	2.00	1692709.79	3273197.10	39.731282	-104.528639
	12600.00	90.00	103.48	7480.00	1855.80	4441.10	452.46	4438.44	2.00	1692689.21	3273294.96	39.731223	-104.528291
	12657.24	90.00	104.62	7480.00	1855.80	4496.54	438.56	4493.96	2.00	1692675.90	3273350.63	39.731185	-104.528094
	12700.00	90.00	104.62	7480.00	1855.80	4537.85	427.77	4535.34	0.00	1692665.54	3273392.11	39.731155	-104.527947
	12800.00	90.00	104.62	7480.00	1855.80	4634.46	402.52	4632.10	0.00	1692641.32	3273489.13	39.731086	-104.527603
	12900.00	90.00	104.62	7480.00	1855.80	4731.06	377.28	4728.86	0.00	1692617.09	3273586.15	39.731017	-104.527259
	13000.00	90.00	104.62	7480.00	1855.80	4827.67	352.03	4825.62	0.00	1692592.87	3273683.17	39.730947	-104.526915
	13100.00	90.00	104.62	7480.00	1855.80	4924.28	326.79	4922.38	0.00	1692568.64	3273780.20	39.730878	-104.526571
	13200.00	90.00	104.62	7480.00	1855.80	5020.88	301.54	5019.14	0.00	1692544.42	3273877.22	39.730808	-104.526227
	13300.00	90.00	104.62	7480.00	1855.80	5117.49	276.30	5115.90	0.00	1692520.19	3273974.24	39.730739	-104.525883
	13400.00	90.00	104.62	7480.00	1855.80	5214.09	251.05	5212.67	0.00	1692495.97	3274071.26	39.730670	-104.525539
	13459.62	90.00	104.62	7480.00	1855.80	5271.69	236.00	5270.35	0.00	1692481.53	3274129.10	39.730628	-104.525334
	13500.00	90.00	103.81	7480.00	1855.80	5310.77	226.08	5308.50	2.00	1692472.02	3274168.35	39.730601	-104.525195
	13600.00	90.00	101.81	7480.00	1855.80	5408.14	203.90	5407.00	2.00	1692450.87	3274266.08	39.730540	-104.524848
	13700.00	90.00	99.81	7480.00	1855.80	5506.24	185.14	5505.22	2.00	1692433.14	3274364.49	39.730489	-104.524499
	13800.00	90.00	97.81	7480.00	1855.80	5604.96	169.82	5604.03	2.00	1692418.86	3274463.46	39.730447	-104.524147
	13900.00	90.00	95.81	7480.00	1855.80	5704.18	157.95	5703.32	2.00	1692408.04	3274562.86	39.730414	-104.523794
	14000.00	90.00	93.81	7480.00	1855.80	5803.77	149.56	5802.96	2.00	1692400.69	3274662.59	39.730391	-104.523440
	14100.00	90.00	91.81	7480.00	1855.80	5903.61	144.65	5902.84	2.00	1692396.83	3274762.51	39.730377	-104.523085
	14126.74	90.00	91.28	7480.00	1855.80	5930.33	143.93	5929.57	2.00	1692396.39	3274789.24	39.730375	-104.522990
	14200.00	90.00	91.28	7480.00	1855.80	6003.56	142.29	6002.81	0.00	1692395.53	3274862.50	39.730371	-104.522730
	14300.00	90.00	91.28	7480.00	1855.80	6103.52	140.06	6102.79	0.00	1692394.35	3274962.49	39.730364	-104.522374
	14400.00	90.00	91.28	7480.00	1855.80	6203.48	137.82	6202.76	0.00	1692393.16	3275062.48	39.730358	-104.522019
	14500.00	90.00	91.28	7480.00	1855.80	6303.44	135.59	6302.74	0.00	1692391.98	3275162.48	39.730352	-104.521663
	14600.00	90.00	91.28	7480.00	1855.80	6403.40	133.36	6402.71	0.00	1692390.80	3275262.47	39.730346	-104.521308
	14700.00	90.00	91.28	7480.00	1855.80	6503.36	131.12	6502.69	0.00	1692389.62	3275362.46	39.730340	-104.520952
	14800.00	90.00	91.28	7480.00	1855.80	6603.32	128.89	6602.66	0.00	1692388.44	3275462.45	39.730333	-104.520597
	14900.00	90.00	91.28	7480.00	1855.80	6703.28	126.65	6702.64	0.00	1692387.26	3275562.45	39.730327	-104.520241
	15000.00	90.00	91.28	7480.00	1855.80								

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
		1	13.000	2200.000	1/100.000	13.500	9.625		NAL_MWD-NON_SLB		Original Hole / Arkansas 4-65 3-2 3CH Plan #1		
		1	2200.000	17926.736	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG		Original Hole / Arkansas 4-65 3-2 3CH Plan #1		

Arkansas 4-65 3-2 3CH Plan #1 Anti-Collision Summary Report

Analysis Date-24hr Time: July 21, 2021 - 14:45
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)

Analysis Method: 3D Least Distance
Reference Trajectory: Arkansas 4-65 3-2 3CH Plan #1 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)

Structure: Crestone Peak 03-04S-64W (Arkansas 4-65 3-2 Pad)
Slot: Arkansas 4-65 3-2 3CH
Well: Arkansas 4-65 3-2 3CH
Borehole: Original Hole
Scan MD Range: 0.00ft - 17926.74ft

Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: All local minima indicated.
Version / Patch: 2.10.825.0
Database \ Project: localhost\drilling-Colorado

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan: Not performed!
 Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Arkansas 4-65 3-2 3DH Plan #1
(Def Plan)

Warning Alert

40.07	32.25	39.09	7.82	N/A	MAS = 9.83 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
40.07	32.25	39.09	7.82	N/A	MAS = 9.83 (m)	13.00	13.00					WRP	
40.07	32.25	33.16	7.82	6.59	MAS = 9.83 (m)	1000.00	1000.00					MinPts	
40.09	32.25	33.14	7.84	6.56	MAS = 9.83 (m)	1010.00	1010.00					MINPT-O-EQU	
40.72	32.25	33.61	8.47	6.49	MAS = 9.83 (m)	1060.00	1060.00					MinPt-O-SF	
48.84	32.25	41.47	16.59	7.50	MAS = 9.83 (m)	1220.00	1219.78	CtCt<=15m>15.00				Exit Alert	
1095.91	70.09	1048.86	1025.83	23.77	OSF1.50	6748.92	6652.18					MinPt-O-SF	
1194.42	359.23	954.60	835.19	5.00	OSF1.50	12657.24	7480.00	OSF<5.00				Enter Alert	
932.55	464.66	622.45	467.89	3.01	OSF1.50	14126.74	7480.00					MinPt-CtCt	
932.66	744.70	435.86	187.96	1.88	OSF1.50	17926.74	7480.00					MinPts	

Arkansas 4-65 3-2 1BH Plan #1
(Def Plan)

Warning Alert

40.07	32.25	39.09	7.82	N/A	MAS = 9.83 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
40.07	32.25	39.09	7.82	175935.27	MAS = 9.83 (m)	13.00	13.00					WRP	
40.07	32.25	36.36	7.82	14.35	MAS = 9.83 (m)	490.00	490.00					MinPts	
40.13	32.25	36.24	7.88	13.46	MAS = 9.83 (m)	520.00	520.00					MINPT-O-EQU	
47.53	32.25	42.42	15.28	11.28	MAS = 9.83 (m)	720.00	720.00					MinPt-O-SF	
48.98	32.25	43.75	16.73	11.30	MAS = 9.83 (m)	740.00	740.00	CtCt<=15m>15.00				Exit Alert	
280.25	32.25	264.12	248.00	18.44	MAS = 9.83 (m)	2200.00	2184.96					MinPt-O-SF	
1022.63	75.80	971.77	946.83	20.48	OSF1.50	6748.92	6652.18					MinPt-O-SF	
1223.13	65.90	1178.87	1157.23	28.24	OSF1.50	7990.12	7480.00					MinPt-CtCt	
1225.09	318.79	1012.24	906.30	5.78	OSF1.50	12060.00	7480.00					MINPT-O-EQU	
1227.47	321.64	1012.72	905.84	5.74	OSF1.50	12100.00	7480.00					MinPt-O-ADP	
1272.73	341.11	1044.99	931.61	5.61	OSF1.50	12390.00	7480.00					MinPt-O-SF	
1828.60	549.66	1461.83	1278.94	5.00	OSF1.50	15260.00	7480.00	OSF<5.00				Enter Alert	
1828.68	746.04	1330.95	1082.64	3.68	OSF1.50	17926.74	7480.00					MinPts	

Cline 4-64 2 1H GYRO-MWD
0 TO 11240' - A (Def Survey)

Warning Alert

9422.39	86.65	9364.02	9335.74	166.57	OSF1.50	0.00	0.00					Surface	
9412.13	86.81	9353.65	9325.32	166.06	OSF1.50	13.00	13.00					WRP	
7550.97	79.47	7497.46	7471.50	145.43	OSF1.50	2890.00	2862.56					MinPt-O-SF	
7541.32	79.37	7487.88	7461.95	145.43	OSF1.50	2910.00	2882.20					MinPt-O-SF	
6609.68	67.34	6563.14	6542.35	158.84	OSF1.50	6530.00	6437.19					MinPt-O-ADP	
6609.67	67.32	6563.14	6542.35	158.87	OSF1.50	6540.00	6447.01					MinPts	
1094.78	336.42	867.72	758.36	4.97	OSF1.50	13110.00	7480.00	OSF<5.00				Enter Alert	
963.93	455.22	659.29	508.71	3.19	OSF1.50	13700.00	7480.00					MinPt-CtCt	
965.31	460.01	657.69	505.30	3.16	OSF1.50	13760.00	7480.00					MINPT-O-EQU	
966.32	461.22	657.96	505.10	3.15	OSF1.50	13780.00	7480.00					MinPt-O-ADP	
969.15	463.04	659.73	506.11	3.15	OSF1.50	13820.00	7480.00					MinPt-O-SF	
982.33	449.16	682.16	533.17	3.29	OSF1.50	14570.00	7480.00					MinPt-O-SF	
978.73	448.21	679.28	530.52	3.28	OSF1.50	14780.00	7480.00					MinPts	
977.65	447.34	678.76	530.31	3.29	OSF1.50	14960.00	7480.00					MinPt-O-SF	
977.61	447.30	678.74	530.30	3.29	OSF1.50	14970.00	7480.00					MinPt-O-ADP	
974.98	447.52	675.96	527.44	3.28	OSF1.50	15230.00	7480.00					MinPt-CtCt	
975.02	447.76	675.87	527.26	3.27	OSF1.50	15260.00	7480.00					MINPT-O-EQU	
975.18	447.96	675.91	527.22	3.27	OSF1.50	15290.00	7480.00					MinPt-O-ADP	
975.86	448.47	676.28	527.39	3.27	OSF1.50	15360.00	7480.00					MinPt-O-SF	
976.16	448.89	676.25	527.27	3.27	OSF1.50	15460.00	7480.00					MinPt-CtCt	
976.59	450.07	675.92	526.52	3.26	OSF1.50	15560.00	7480.00					MINPT-O-EQU	
977.69	451.36	676.19	526.33	3.26	OSF1.50	15660.00	7480.00					MinPt-O-ADP	
991.67	466.68	679.90	524.98	3.19	OSF1.50	16440.00	7480.00					MinPt-CtCt	
995.01	486.38	670.11	508.63	3.07	OSF1.50	17030.00	7480.00					MinPt-CtCt	
985.98	504.88	648.74	481.10	2.93	OSF1.50	17470.00	7480.00					MinPt-CtCt	
986.88	507.91	647.71	478.97	2.92	OSF1.50	17550.00	7480.00					MINPT-O-EQU	
988.01	509.26	647.96	478.75	2.91	OSF1.50	17590.00	7480.00					MinPt-O-ADP	
991.45	511.87	649.67	479.58	2.91	OSF1.50	17680.00	7480.00					MinPt-O-SF	
1019.33	511.37	677.88	507.96	2.99	OSF1.50	17926.74	7480.00					TD	

Arkansas 4-65 3-2 1AH Plan #1
(Def Plan)

Pass

79.78	32.81	78.79	46.97	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
79.78	32.81	78.79	46.97	N/A	MAS = 10.00 (m)	13.00	13.00					WRP	
79.78	32.81	76.00	46.97	28.27	MAS = 10.00 (m)	500.00	500.00					MinPts	
79.84	32.81	75.95	47.03	27.10	MAS = 10.00 (m)	520.00	520.00					MINPT-O-EQU	
103.10	32.81	96.98	70.29	19.91	MAS = 10.00 (m)	880.00	880.00					MinPt-O-SF	
1769.41	77.65	1717.32	1691.76	34.60	OSF1.50	6748.92	6652.18					MinPt-O-SF	
2215.10	327.18	1996.66	1887.92	10.18	OSF1.50	12120.00	7480.00					MINPT-O-EQU	
2219.31	332.21	1997.51	1887.10	10.05	OSF1.50	12190.00	7480.00					MinPt-O-ADP	
2567.24	750.04	2066.89	1817.20	5.14	OSF1.50	17926.74	7480.00					MinPts	

B&D Land 4-65 4-5 4BH
GYRO-MWD 0' to 15341' - A
(Def Survey)

Pass

1466.08	32.81	1464.27	1433.27	N/A	MAS = 10.00 (m)	0.00	0.00					MinPts	
1466.08	32.81	1464.26	1433.28	120705.12	MAS = 10.00 (m)	13.00	13.00					WRP	

...Arkansas 4-65 3-2 3CH\Original Hole\Arkansas 4-65 3-2 3CH Plan #1

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
1466.17	32.81	1464.23	1433.36	9643.60	MAS = 10.00 (m)		60.00	60.00				MINPT-O-EQU	
1466.67	32.81	1464.19	1433.86	2185.30	MAS = 10.00 (m)		160.00	160.00				MINPT-O-EQU	
1469.91	32.81	1463.99	1437.10	357.65	MAS = 10.00 (m)		900.00	900.00				MINPT-O-EQU	
1470.72	32.81	1462.46	1437.91	228.08	MAS = 10.00 (m)		1480.00	1477.76				MinPts	
1471.40	32.81	1461.99	1436.59	193.50	MAS = 10.00 (m)		1660.00	1654.65				MINPT-O-EQU	
1475.05	32.81	1461.82	1442.24	129.13	MAS = 10.00 (m)		2190.00	2175.14				MINPT-O-EQU	
1732.12	52.65	1696.48	1679.47	50.85	OSF1.50		6800.00	6702.59				MinPt-O-SF	
1767.51	50.74	1733.15	1716.77	53.91	OSF1.50		7250.00	7132.13				MinPt-O-SF	
2008.08	43.45	1978.58	1964.63	71.92	OSF1.50		8150.00	7480.00				MinPt-O-SF	
2036.72	43.61	2007.12	1993.12	72.68	OSF1.50		8220.00	7480.00				MinPt-O-SF	
2090.05	44.56	2059.81	2045.49	72.92	OSF1.50		8340.00	7480.00				MinPt-O-SF	
2153.55	45.89	2122.43	2107.67	72.90	OSF1.50		8470.00	7480.00				MinPt-O-SF	
2217.08	47.29	2185.02	2169.79	72.74	OSF1.50		8590.00	7480.00				MinPt-O-SF	
2273.37	48.57	2240.46	2224.81	72.56	OSF1.50		8690.00	7480.00				MinPt-O-SF	
2332.49	49.89	2298.70	2282.61	72.41	OSF1.50		8790.00	7480.00				MinPt-O-SF	
2381.70	50.96	2347.19	2330.73	72.33	OSF1.50		8870.00	7480.00				MinPt-O-SF	
2432.49	52.03	2397.27	2380.46	72.31	OSF1.50		8950.00	7480.00				MinPt-O-SF	
2471.57	52.81	2435.83	2418.76	72.35	OSF1.50		9010.00	7480.00				MinPt-O-SF	
6114.42	79.86	6060.64	6034.56	117.16	OSF1.50		13310.00	7480.00				MinPt-O-SF	
6193.42	80.03	6139.53	6113.39	118.45	OSF1.50		13400.00	7480.00				MinPt-O-SF	
10602.70	84.45	10545.87	10518.26	191.95	OSF1.50		17926.74	7480.00				TD	