

## Fraser 3-64 33-32 4AH Plan #0 Proposal Geodetic Report

(Def Plan)

**Report Date:** August 24, 2021 - 02:41 PM  
**Client:** Crestone Peak Resources  
**Field:** CO, Adams County (NAD 83 NZ)  
**Structure / Slot:** Crestone Peak 33-03S-64W (Fraser Pad) / Fraser 3-64 33-32 4AH  
**Well:** Fraser 3-64 33-32 4AH  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** Fraser 3-64 33-32 4AH Plan #0  
**Survey Date:** August 19, 2021  
**Tort / AHD / DDI / ERD Ratio:** 112.547 ° / 11768.951 ft / 6.492 / 1.551  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 39° 44' 40.64280", W 104° 32' 55.99320"  
**Location Grid N/E Y/X:** N 1151254.838 ftUS, E 3267450.380 ftUS  
**CRS Grid Convergence Angle:** 0.6145 °  
**Grid Scale Factor:** 0.99999561  
**Version / Patch:** 2.10.824.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 265.659 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 13ft  
**TVD Reference Elevation:** 5599.400 ft above MSL  
**Seabed / Ground Elevation:** 5586.400 ft above MSL  
**Magnetic Declination:** 8.330 °  
**Total Gravity Field Strength:** 998.9379mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51494.716 nT  
**Magnetic Dip Angle:** 66.339 °  
**Declination Date:** August 19, 2021  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North→True North:** 8.3300 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1151254.84	3267450.38	39.744623	-104.548887
Build 2 DLS	100.00	0.00	125.88	100.00	0.00	0.00	0.00	0.00	1151254.84	3267450.38	39.744623	-104.548887
	200.00	0.00	125.88	200.00	0.00	0.00	0.00	0.00	1151254.84	3267450.38	39.744623	-104.548887
	300.00	2.00	125.88	299.98	-1.33	-1.02	1.41	2.00	1151253.83	3267451.81	39.744620	-104.548882
	400.00	4.00	125.88	399.84	-5.33	-4.09	5.65	2.00	1151250.81	3267456.08	39.744612	-104.548867
	500.00	6.00	125.88	499.45	-11.98	-9.20	12.72	2.00	1151245.78	3267463.19	39.744598	-104.548842
	600.00	8.00	125.88	598.70	-21.29	-16.34	22.59	2.00	1151238.74	3267473.14	39.744578	-104.548807
	700.00	10.00	125.88	697.47	-33.23	-25.51	35.27	2.00	1151229.71	3267485.92	39.744553	-104.548762
	800.00	12.00	125.88	795.62	-47.80	-36.69	50.73	2.00	1151218.70	3267501.50	39.744522	-104.548707
	819.52	12.39	125.88	814.70	-50.95	-39.10	54.07	2.00	1151216.32	3267504.86	39.744516	-104.548695
	900.00	12.39	125.88	893.31	-64.14	-49.22	68.06	0.00	1151206.35	3267518.96	39.744488	-104.548645
Hold	1000.00	12.39	125.88	990.98	-80.52	-61.80	85.45	0.00	1151193.96	3267536.48	39.744453	-104.548583
	1100.00	12.39	125.88	1088.65	-96.91	-74.37	102.83	0.00	1151181.57	3267554.00	39.744419	-104.548521
	1200.00	12.39	125.88	1186.32	-113.29	-86.95	120.22	0.00	1151169.18	3267571.52	39.744384	-104.548459
	1300.00	12.39	125.88	1283.99	-129.68	-99.52	137.60	0.00	1151156.80	3267589.04	39.744350	-104.548398
	1400.00	12.39	125.88	1381.66	-146.06	-112.10	154.99	0.00	1151144.41	3267606.56	39.744315	-104.548336
	1500.00	12.39	125.88	1479.33	-162.44	-124.67	172.38	0.00	1151132.02	3267624.08	39.744281	-104.548274
	1600.00	12.39	125.88	1577.00	-178.83	-137.25	189.76	0.00	1151119.63	3267641.60	39.744246	-104.548212
	1700.00	12.39	125.88	1674.67	-195.21	-149.82	207.15	0.00	1151107.25	3267659.12	39.744212	-104.548150
	1800.00	12.39	125.88	1772.35	-211.60	-162.40	224.53	0.00	1151094.86	3267676.64	39.744177	-104.548089
	1900.00	12.39	125.88	1870.02	-227.98	-174.97	241.92	0.00	1151082.47	3267694.16	39.744143	-104.548027
	2000.00	12.39	125.88	1967.69	-244.37	-187.55	259.31	0.00	1151070.08	3267711.68	39.744108	-104.547965
	2100.00	12.39	125.88	2065.36	-260.75	-200.12	276.69	0.00	1151057.70	3267729.20	39.744074	-104.547903
	2200.00	12.39	125.88	2163.03	-277.13	-212.70	294.08	0.00	1151045.31	3267746.72	39.744039	-104.547841
	2300.00	12.39	125.88	2260.70	-293.52	-225.27	311.47	0.00	1151032.92	3267764.24	39.744005	-104.547779
	2400.00	12.39	125.88	2358.37	-309.90	-237.85	328.85	0.00	1151020.53	3267781.76	39.743970	-104.547718
	2500.00	12.39	125.88	2456.04	-326.29	-250.42	346.24	0.00	1151008.15	3267799.28	39.743936	-104.547656
	2600.00	12.39	125.88	2553.71	-342.67	-263.00	363.62	0.00	1150995.76	3267816.80	39.743901	-104.547594
	2700.00	12.39	125.88	2651.38	-359.06	-275.57	381.01	0.00	1150983.37	3267834.32	39.743866	-104.547532
	2800.00	12.39	125.88	2749.05	-375.44	-288.15	398.40	0.00	1150970.98	3267851.84	39.743832	-104.547470
	2900.00	12.39	125.88	2846.73	-391.83	-300.72	415.78	0.00	1150958.60	3267869.36	39.743797	-104.547408
	3000.00	12.39	125.88	2944.40	-408.21	-313.30	433.17	0.00	1150946.21	3267886.88	39.743763	-104.547347
	3100.00	12.39	125.88	3042.07	-424.59	-325.87	450.55	0.00	1150933.82	3267904.40	39.743728	-104.547285
	3200.00	12.39	125.88	3139.74	-440.98	-338.45	467.94	0.00	1150921.43	3267921.92	39.743694	-104.547223
	3300.00	12.39	125.88	3237.41	-457.36	-351.02	485.33	0.00	1150909.05	3267939.44	39.743659	-104.547161
	3400.00	12.39	125.88	3335.08	-473.75	-363.60	502.71	0.00	1150896.66	3267956.96	39.743625	-104.547099
	3500.00	12.39	125.88	3432.75	-490.13	-376.17	520.10	0.00	1150884.27	3267974.48	39.743590	-104.547037
	3600.00	12.39	125.88	3530.42	-506.52	-388.75	537.49	0.00	1150871.88	3267992.00	39.743556	-104.546975
	3700.00	12.39	125.88	3628.09	-522.90	-401.32	554.87	0.00	1150859.49	3268009.52	39.743521	-104.546914
	3800.00	12.39	125.88	3725.76	-539.29	-413.90	572.26	0.00	1150847.11	3268027.04	39.743487	-104.546852
	3900.00	12.39	125.88	3823.43	-555.67	-426.47	589.64	0.00	1150834.72	3268044.56	39.743452	-104.546790
	4000.00	12.39	125.88	3921.10	-572.05	-439.04	607.03	0.00	1150822.33	3268062.08	39.743418	-104.546728
	4100.00	12.39	125.88	4018.78	-588.44	-451.62	624.42	0.00	1150809.94	3268079.60	39.743383	-104.546667
	4200.00	12.39	125.88	4116.45	-604.82	-464.19	641.80	0.00	1150797.56	3268097.12	39.743349	-104.546605
	4300.00	12.39	125.88	4214.12	-621.21	-476.77	659.19	0.00	1150785.17	3268114.64	39.743314	-104.546543
	4400.00	12.39	125.88	4311.79	-637.59	-489.34	676.57	0.00	1150772.78	3268132.16	39.743280	-104.546481
	4500.00	12.39	125.88	4409.46	-653.98	-501.92	693.96	0.00	1150760.39	3268149.68	39.743245	-104.546419
	4600.00	12.39	125.88	4507.13	-670.36	-514.49	711.35	0.00	1150748.01	3268167.20	39.743211	-104.546357
	4700.00	12.39	125.88	4604.80	-686.74	-527.07	728.73	0.00	1150735.62	3268184.72	39.743176	-104.546296
	4800.00	12.39	125.88	4702.47	-703.13	-539.64	746.12	0.00	1150723.23	3268202.24	39.743142	-104.546234
	4900.00	12.39	125.88	4800.14	-719.51	-552.22	763.51	0.00	1150710.84	3268219.76	39.743107	-104.546172
	5000.00	12.39	125.88	4897.81	-735.90	-564.79	780.89	0.00	1150698.46	3268237.28	39.743072	-104.546110
	5100.00	12.39	125.88	4995.48	-752.28	-577.37	798.28	0.00	1150686.07	3268254.80	39.743038	-104.546048
	5200.00	12.39	125.88	5093.15	-768.67	-589.94	815.66	0.00	1150673.68	3268272.32	39.743003	-104.545986
	5300.00	12.39	125.88	5190.83	-785.05	-602.52	833.05	0.00	1150661.29	3268289.84	39.742969	-104.545925
	5400.00	12.39	125.88	5288.50	-801.44	-615.09	850.44	0.00	1150648.91	3268307.36	39.742934	-104.545863
	5500.00	12.39	125.88	5386.17	-817.82	-627.67	867.82	0.00	1150636.52	3268324.88	39.742900	-104.545801
	5600.00	12.39	125.88	5483.84	-834.20	-640.24	885.21	0.00	1150624.13	3268342.40	39.742865	-104.545739
	5700.00	12.39	125.88	5581.51	-850.59	-652.82	902.59	0.00	1150611.74	3268359.92	39.742831	-104.545677
	5800.00	12.39	125.88	5679.18	-866.97	-665.39	919.98	0.00	1150599.36	3268377.44	39.742796	-104.545615
	5900.00	12.39	125.88	5776.85	-883.36	-677.97	937.37	0.00	1150586.97	3268394.96	39.742762	-104.545554
	6000.00	12.39	125.88	5874.52	-899.74	-690.54	954.75	0.00	1150574.58	3268412.48	39.742727	-104.545492
	6100.00	12.39	125.88	5972.19	-916.13	-703.12	972.14	0.00	1150562.19	3268430.00	39.742693	-104.545430
	6200.00	12.39	125.88	6069.86	-932.51	-715.69	989.53	0.00	1150549.81	3268447.52	39.742658	-104.545368
	6300.00	12.39	125.88	6167.53	-948.90	-728.27	1006.91	0.00	1150537.42	3268465.04	39.742624	-104.545306
	6400.00	12.39	125.88	6265.20	-965.28	-740.84	1024.30	0.00	1150525.03	3268482.56	39.742589	-104.545244
	6500.00	12.39	125.88	6362.88	-981.66	-753.42	1041.68	0.00	1150512.64	3268500.08	39.742555	-104.545183
	6600.00	12.39	125.88	6460.55	-998.05	-765.99	1059.07	0.00	1150500.26	3268517.60	39.742520	-104.545121
	6700.00	12.39	125.88	6558.22	-1014.43	-778.57	1076.46	0.00	1150487.87	3268535.12	39.742486	-104.545059
	6800.00	12.39	125.88	6655.89	-1030.82	-791.14	1093.84	0.00	1150475.48	3268552.64	39.742451	-104.544997
	6900.00	12.39	125.88	6753.56	-1047.20	-803.72	1111.23	0.00	1150463.09	3268570.16	39.742417	-104.544935
KOP, Build/Turn 8 DLS	6900.48	12.39	125.88	6754.03	-1047.28	-803.78	1111.31	0.00	1150463.03	3268570.24	39.742416	-104.544935
7000.00		7.46	163.99	6852.13	-1056.76	-816.26	1121.76	8.00	1150450.66	3268580.83	39.742382	-104.544898
7100.00		9.19	220.45	6951.22	-1052.44	-828.60	1118.37	8.00	1150438.28	3268577.56	39.742348	-104.544910
7200.00		15.51	244.33	7048.92	-1034.33	-840.49	1101.11	8.00	1150426.21	3268560.44	39.742316	-104.544971
7300.00		22.89	253.90	7143.32	-1002.79	-851.69	1070.33	8.00	1150414.68	3268529.78	39.742285	-104.545081
7400.00		30.57	258.91	7232.57	-958.42	-861.99	1026.62	8.00	1150403.92	3268486.18	39.742257	-104.545252

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
TPZ Point, Hold to TD	7500.00	38.37	262.05	7314.96	-902.10	-871.18	970.83	8.00	1150394.12	3268430.49	39.742231	-104.545435
	7600.00	46.23	264.26	7388.86	-834.92	-879.10	904.06	8.00	1150385.49	3268363.81	39.742210	-104.545672
	7700.00	54.13	265.95	7452.85	-758.18	-885.58	827.59	8.00	1150378.19	3268287.41	39.742192	-104.545944
	7800.00	62.04	267.34	7505.68	-673.38	-890.50	742.92	8.00	1150372.36	3268202.80	39.742178	-104.546245
	7900.00	69.97	268.53	7546.31	-582.17	-893.76	651.69	8.00	1150368.12	3268111.62	39.742169	-104.546570
	8000.00	77.90	269.61	7573.96	-486.32	-895.30	555.69	8.00	1150365.55	3268015.64	39.742165	-104.546911
	8100.00	85.84	270.62	7588.10	-387.71	-895.09	456.78	8.00	1150364.70	3267916.73	39.742166	-104.547263
	8152.44	90.00	271.15	7590.00	-335.53	-894.28	404.39	8.00	1150364.95	3267864.33	39.742168	-104.547449
	8200.00	90.00	271.15	7590.00	-288.19	-893.33	356.84	0.00	1150365.39	3267816.78	39.742171	-104.547618
	8300.00	90.00	271.15	7590.00	-188.65	-891.33	256.86	0.00	1150366.32	3267716.78	39.742176	-104.547974
	8400.00	90.00	271.15	7590.00	-89.11	-889.33	156.88	0.00	1150367.25	3267616.79	39.742182	-104.548329
	8500.00	90.00	271.15	7590.00	10.43	-887.33	56.90	0.00	1150368.18	3267516.79	39.742187	-104.548685
	8600.00	90.00	271.15	7590.00	109.98	-885.33	-43.08	0.00	1150369.11	3267416.80	39.742193	-104.549040
	8700.00	90.00	271.15	7590.00	209.52	-883.33	-143.06	0.00	1150370.03	3267316.80	39.742198	-104.549396
	8800.00	90.00	271.15	7590.00	309.06	-881.33	-243.04	0.00	1150370.96	3267216.81	39.742204	-104.549751
	8900.00	90.00	271.15	7590.00	408.60	-879.33	-343.02	0.00	1150371.89	3267116.81	39.742209	-104.550107
	9000.00	90.00	271.15	7590.00	508.14	-877.33	-443.00	0.00	1150372.82	3267016.82	39.742215	-104.550462
	9100.00	90.00	271.15	7590.00	607.68	-875.32	-542.98	0.00	1150373.75	3266916.82	39.742220	-104.550818
	9200.00	90.00	271.15	7590.00	707.23	-873.32	-642.96	0.00	1150374.67	3266816.83	39.742226	-104.551173
	9300.00	90.00	271.15	7590.00	806.77	-871.32	-742.94	0.00	1150375.60	3266716.83	39.742231	-104.551529
	9400.00	90.00	271.15	7590.00	906.31	-869.32	-842.92	0.00	1150376.53	3266616.84	39.742236	-104.551884
	9500.00	90.00	271.15	7590.00	1005.85	-867.32	-942.90	0.00	1150377.46	3266516.84	39.742242	-104.552240
	9600.00	90.00	271.15	7590.00	1105.39	-865.32	-1042.88	0.00	1150378.39	3266416.85	39.742247	-104.552595
	9700.00	90.00	271.15	7590.00	1204.93	-863.32	-1142.86	0.00	1150379.31	3266316.85	39.742253	-104.552951
	9800.00	90.00	271.15	7590.00	1304.48	-861.32	-1242.84	0.00	1150380.24	3266216.86	39.742258	-104.553307
	9900.00	90.00	271.15	7590.00	1404.02	-859.32	-1342.82	0.00	1150381.17	3266116.86	39.742264	-104.553662
	10000.00	90.00	271.15	7590.00	1503.56	-857.32	-1442.80	0.00	1150382.10	3266016.86	39.742269	-104.554018
	10100.00	90.00	271.15	7590.00	1603.10	-855.32	-1542.78	0.00	1150383.03	3265916.87	39.742275	-104.554373
	10200.00	90.00	271.15	7590.00	1702.64	-853.32	-1642.76	0.00	1150383.95	3265816.87	39.742280	-104.554729
	10300.00	90.00	271.15	7590.00	1802.18	-851.32	-1742.74	0.00	1150384.88	3265716.88	39.742286	-104.555084
	10400.00	90.00	271.15	7590.00	1901.73	-849.32	-1842.72	0.00	1150385.81	3265616.88	39.742291	-104.555440
	10500.00	90.00	271.15	7590.00	2001.27	-847.32	-1942.70	0.00	1150386.74	3265516.89	39.742297	-104.555795
	10600.00	90.00	271.15	7590.00	2100.81	-845.32	-2042.68	0.00	1150387.67	3265416.89	39.742302	-104.556151
	10700.00	90.00	271.15	7590.00	2200.35	-843.32	-2142.66	0.00	1150388.60	3265316.90	39.742308	-104.556506
	10800.00	90.00	271.15	7590.00	2299.89	-841.31	-2242.64	0.00	1150389.52	3265216.90	39.742313	-104.556862
	10900.00	90.00	271.15	7590.00	2399.43	-839.31	-2342.62	0.00	1150390.45	3265116.91	39.742319	-104.557217
	11000.00	90.00	271.15	7590.00	2498.98	-837.31	-2442.60	0.00	1150391.38	3265016.91	39.742324	-104.557573
	11100.00	90.00	271.15	7590.00	2598.52	-835.31	-2542.58	0.00	1150392.31	3264916.92	39.742330	-104.557928
	11200.00	90.00	271.15	7590.00	2698.06	-833.31	-2642.56	0.00	1150393.24	3264816.92	39.742335	-104.558284
	11300.00	90.00	271.15	7590.00	2797.60	-831.31	-2742.54	0.00	1150394.16	3264716.93	39.742340	-104.558640
	11400.00	90.00	271.15	7590.00	2897.14	-829.31	-2842.52	0.00	1150395.09	3264616.93	39.742346	-104.558995
	11500.00	90.00	271.15	7590.00	2996.68	-827.31	-2942.50	0.00	1150396.02	3264516.94	39.742351	-104.559351
	11600.00	90.00	271.15	7590.00	3096.23	-825.31	-3042.48	0.00	1150396.95	3264416.94	39.742357	-104.559706
	11700.00	90.00	271.15	7590.00	3195.77	-823.31	-3142.46	0.00	1150397.88	3264316.95	39.742362	-104.560062
	11800.00	90.00	271.15	7590.00	3295.31	-821.31	-3242.44	0.00	1150398.80	3264216.95	39.742368	-104.560417
	11900.00	90.00	271.15	7590.00	3394.85	-819.31	-3342.42	0.00	1150399.73	3264116.96	39.742373	-104.560773
	12000.00	90.00	271.15	7590.00	3494.39	-817.31	-3442.40	0.00	1150400.66	3264016.96	39.742379	-104.561128
12100.00	90.00	271.15	7590.00	3593.94	-815.31	-3542.38	0.00	1150401.59	3263916.97	39.742384	-104.561484	
12200.00	90.00	271.15	7590.00	3693.48	-813.31	-3642.36	0.00	1150402.52	3263816.97	39.742390	-104.561839	
12300.00	90.00	271.15	7590.00	3793.02	-811.31	-3742.34	0.00	1150403.45	3263716.98	39.742395	-104.562195	
12400.00	90.00	271.15	7590.00	3892.56	-809.31	-3842.32	0.00	1150404.37	3263616.98	39.742400	-104.562550	
12500.00	90.00	271.15	7590.00	3992.10	-807.30	-3942.30	0.00	1150405.30	3263516.99	39.742406	-104.562906	
12600.00	90.00	271.15	7590.00	4091.64	-805.30	-4042.28	0.00	1150406.23	3263416.99	39.742411	-104.563261	
12700.00	90.00	271.15	7590.00	4191.19	-803.30	-4142.26	0.00	1150407.16	3263317.00	39.742417	-104.563617	
12800.00	90.00	271.15	7590.00	4290.73	-801.30	-4242.24	0.00	1150408.09	3263217.00	39.742422	-104.563972	
12900.00	90.00	271.15	7590.00	4390.27	-799.30	-4342.22	0.00	1150409.01	3263117.01	39.742428	-104.564328	
13000.00	90.00	271.15	7590.00	4489.81	-797.30	-4442.20	0.00	1150409.94	3263017.01	39.742433	-104.564684	
13100.00	90.00	271.15	7590.00	4589.35	-795.30	-4542.18	0.00	1150410.87	3262917.02	39.742439	-104.565039	
13200.00	90.00	271.15	7590.00	4688.89	-793.30	-4642.16	0.00	1150411.80	3262817.02	39.742444	-104.565395	
13300.00	90.00	271.15	7590.00	4788.44	-791.30	-4742.14	0.00	1150412.73	3262717.03	39.742449	-104.565750	
13400.00	90.00	271.15	7590.00	4887.98	-789.30	-4842.12	0.00	1150413.65	3262617.03	39.742455	-104.566106	
13500.00	90.00	271.15	7590.00	4987.52	-787.30	-4942.10	0.00	1150414.58	3262517.04	39.742460	-104.566461	
13600.00	90.00	271.15	7590.00	5087.06	-785.30	-5042.08	0.00	1150415.51	3262417.04	39.742466	-104.566817	
13700.00	90.00	271.15	7590.00	5186.60	-783.30	-5142.06	0.00	1150416.44	3262317.05	39.742471	-104.567172	
13800.00	90.00	271.15	7590.00	5286.14	-781.30	-5242.04	0.00	1150417.37	3262217.05	39.742477	-104.567528	
13900.00	90.00	271.15	7590.00	5385.69	-779.30	-5342.02	0.00	1150418.29	3262117.06	39.742482	-104.567883	
14000.00	90.00	271.15	7590.00	5485.23	-777.30	-5442.00	0.00	1150419.22	3262017.06.			

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
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Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	13.000	1/100.000	13.500	9.625	NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Hole / Fraser 3-64 33-32 4AH Plan #0
	1	13.000	2200.000	1/100.000	13.500	9.625	NAL_MWD_PLUS_0.5_DEG	Original Hole / Fraser 3-64 33-32 4AH Plan #0
	1	2200.000	17797.147	1/100.000	8.500	5.500	NAL_MWD_PLUS_0.5_DEG	Original Hole / Fraser 3-64 33-32 4AH Plan #0



# Crestone Peak Resources

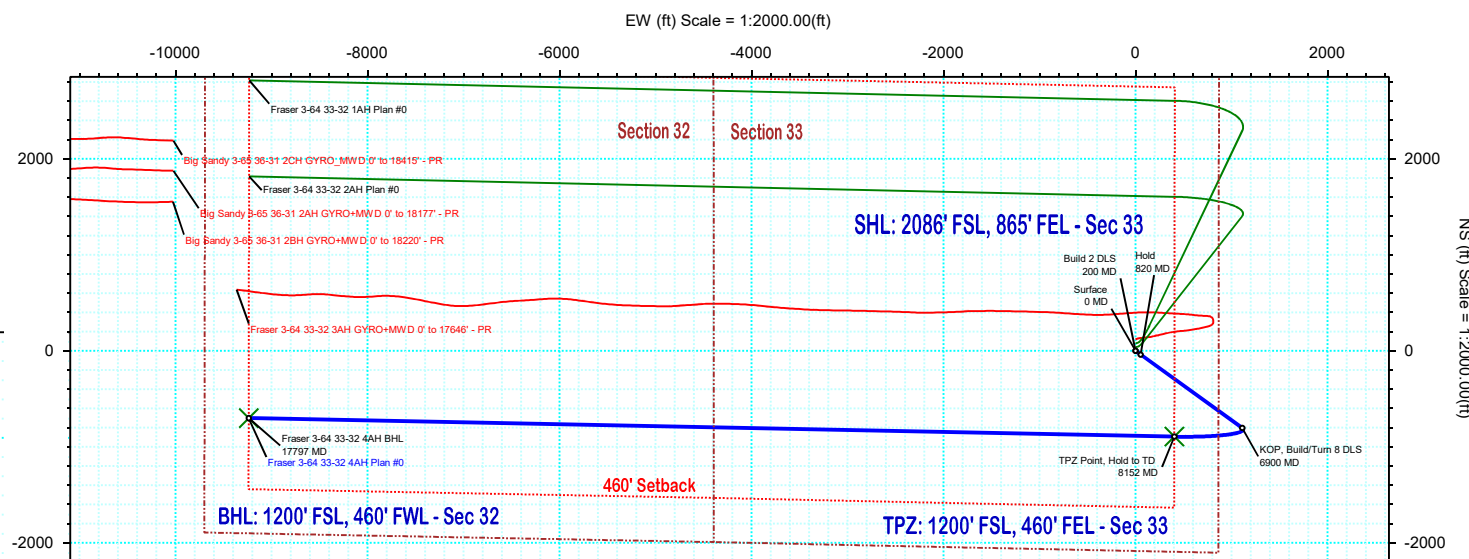
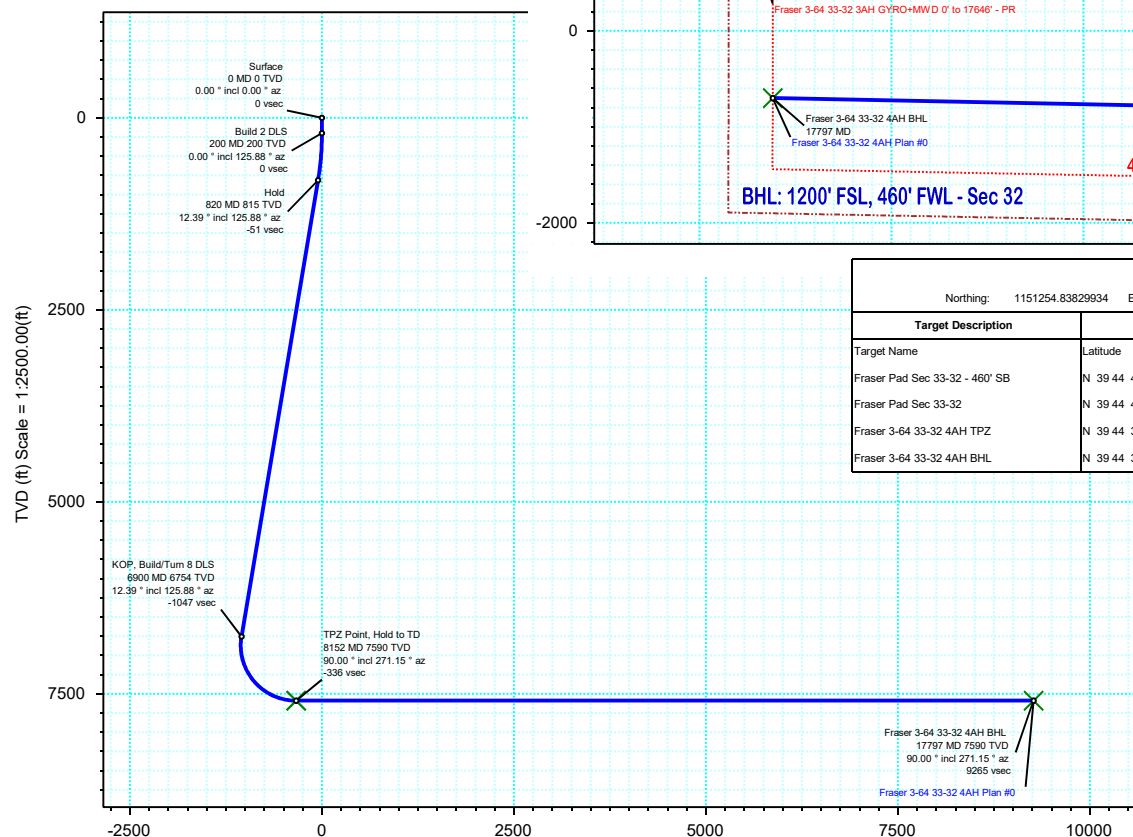
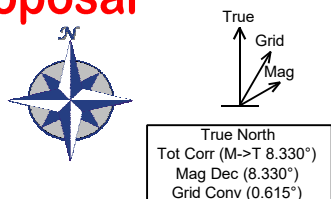
Schlumberger

Plan 0

Borehole:	Well:	Field:	Structure:
Original Hole	Fraser 3-64 33-32 4AH	CO, Adams County (NAD 83 NZ)	Crestone Peak 33-03S-64W (Fraser Pad)

Gravity & Magnetic Parameters					Surface Location					NAD83 Colorado State Plane, Northern Zone, US Feet					Miscellaneous			
Model:	HDGM 2021	Dip:	66.339°	Date:	19-Aug-2021	Lat:	N 39 44 40.64	Northing:	1151254.84ftUS	Grid Conv:	0.6145°	Slot:	Fraser 3-64 33-32 4AH	TVD Ref:	KB 13ft(5599.4ft above MSL)			
MagDec:	8.33°	FS:	51494.716nT	Gravity FS:	998.938mgn (9.80665 Based)	Lon:	W 104 32 55.99	Easting:	3267450.38ftUS	Scale Fact:	0.99999561	Plan:	Fraser 3-64 33-32 4AH Plan #0					

Proposal



Surface Location								
Northing: 1151254.83829934			Easting: 3267450.38009386			VSec Azimuth: 265.66		
Target Description	Latitude		Longitude		Northing		Easting	
Fraser Pad Sec 33-32 - 460' SB	N 39 44 41.43	W 104 32 55.99	1151334.97	3267449.52	5599.40	-6.07	80.14	0.00
Fraser Pad Sec 33-32	N 39 44 41.43	W 104 32 55.99	1151334.97	3267449.52	5599.40	-6.07	80.14	0.00
Fraser 3-64 33-32 4AH TPZ	N 39 44 31.80	W 104 32 50.82	1150364.95	3267864.33	7590.00	-335.53	-894.28	404.39
Fraser 3-64 33-32 4AH BHL	N 39 44 33.69	W 104 34 54.26	1150454.46	3258220.10	7590.00	9264.97	-701.33	-9238.39

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	200.00	0.00	125.88	200.00	0.00	0.00	0.00	0.00
Hold	819.52	12.39	125.88	814.70	-50.95	-39.10	54.07	2.00
KOP, Build/Turn 8 DLS	6900.48	12.39	125.88	6754.03	-1047.28	-803.78	1111.31	0.00
TPZ Point, Hold to TD	8152.44	90.00	271.15	7590.00	-335.53	-894.28	404.39	8.00
Fraser 3-64 33-32 4AH BHL	17797.15	90.00	271.15	7590.00	9264.97	-701.33	-9238.39	0.00

Vertical Section (ft) Azim = 265.66° Scale = 1:2500.00(ft) Origin = 0N/-S, 0E/-W

## Fraser 3-64 33-32 4AH Plan #0 Anti-Collision Summary Report

**Analysis Date-24hr Time:** August 24, 2021 - 14:43  
**Client:** Crestone Peak Resources  
**Field:** CO, Adams County (NAD 83 NZ)  
**Structure:** Crestone Peak 33-03S-64W (Fraser Pad)  
**Slot:** Fraser 3-64 33-32 4AH  
**Well:** Fraser 3-64 33-32 4AH  
**Borehole:** Original Hole  
**Scan MD Range:** 0.00ft - 17797.15ft

**Analysis Method:** 3D Least Distance  
**Reference Trajectory:** Fraser 3-64 33-32 4AH Plan #0 (Def Plan)  
**Depth Interval:** Every 10.00 Measured Depth (ft)  
**Rule Set:** NAL Procedure: D&M AntiCollision Standard S002  
**Min Pts:** All local minima indicated.  
**Version / Patch:** 2.10.824.0  
**Database \ Project:** us1164app01\drilling-CO, Adams County 2.10

**Trajectory Error Model:** ICSWSA0 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

Fraser 3-64 33-32 2AH Plan #0  
(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	39.08	7.82	17593.13	MAS = 9.83 (m)	13.00	13.00		WRP				
40.07	32.25	38.18	7.82	43.26	MAS = 9.83 (m)	200.00	200.00		MinPts				
40.08	32.25	38.17	7.83	42.04	MAS = 9.83 (m)	210.00	210.00		MINPT-O-EQU				
49.00	32.25	46.24	16.75	26.94	MAS = 9.83 (m)	490.00	489.50	CtCt<=15m>15.00	Exit Alert				
72.00	32.25	67.93	39.75	22.97	MAS = 9.83 (m)	680.00	677.76		MinPt-O-SF				
2147.13	79.42	2093.85	2067.71	41.04	OSF1.50	6900.48	6754.03		MinPt-O-SF				
2497.98	67.93	2452.36	2430.05	55.94	OSF1.50	8180.00	7590.00		MinPt-O-SF				
2516.59	720.33	2036.04	1796.26	5.25	OSF1.50	17797.15	7590.00		MinPts				

Fraser 3-64 33-32 3AH  
GYRO+MWD 0' to 17646' - PR  
(Def Survey)

Warning Alert

120.31	32.81	119.33	87.50	N/A	MAS = 10.00 (m)	0.00	0.00		Surface				
120.31	32.81	119.33	87.50	N/A	MAS = 10.00 (m)	10.00	10.00		MinPts				
120.31	32.81	119.33	87.50	86586.58	MAS = 10.00 (m)	13.00	13.00		WRP				
120.38	32.81	119.27	87.57	1005.86	MAS = 10.00 (m)	50.00	50.00		MINPT-O-EQU				
122.48	32.81	120.70	89.67	153.40	MAS = 10.00 (m)	300.00	299.98		MinPt-O-SF				
337.04	32.81	328.93	304.23	47.17	MAS = 10.00 (m)	1670.00	1645.37		MinPt-O-SF				
447.62	32.81	436.97	414.81	46.22	MAS = 10.00 (m)	2200.00	2163.03		MinPt-O-SF				
1043.30	43.81	1013.76	999.49	36.51	OSF1.50	6000.00	5874.52		MinPt-CtCt				
1043.61	45.80	1012.75	997.82	34.90	OSF1.50	6100.00	5972.19		MINPT-O-EQU				
1044.06	46.36	1012.82	997.70	34.48	OSF1.50	6130.00	6001.49		MinPt-O-ADP				
1113.46	59.80	1073.26	1053.68	28.37	OSF1.50	6880.00	6734.02		MinPt-O-SF				
1264.02	57.45	1225.39	1206.57	33.55	OSF1.50	7600.00	7388.86		MinPts				
1267.69	59.35	1247.80	1228.34	33.07	OSF1.50	8170.00	7590.00		MinPt-CtCt				
1288.13	60.47	1247.49	1227.66	32.46	OSF1.50	8220.00	7590.00		MINPT-O-EQU				
1288.73	61.19	1247.61	1227.54	32.09	OSF1.50	8250.00	7590.00		MinPt-O-ADP				
1291.01	63.17	1248.56	1227.83	31.11	OSF1.50	8320.00	7590.00		MinPt-O-ADP				
1255.45	103.09	1186.39	1152.36	18.43	OSF1.50	9000.00	7590.00		MinPt-CtCt				
1262.31	119.33	1182.44	1142.99	15.99	OSF1.50	9270.00	7590.00		MINPT-O-EQU				
1274.47	165.45	1163.84	1109.02	11.61	OSF1.50	9840.00	7590.00		MinPt-CtCt				
1240.49	243.62	1077.75	996.88	7.66	OSF1.50	10830.00	7590.00		MinPt-CtCt				
1246.34	313.77	1036.83	932.57	5.97	OSF1.50	11700.00	7590.00		MinPt-CtCt				
1257.19	351.93	1022.24	905.26	5.37	OSF1.50	12220.00	7590.00		MINPT-O-EQU				
1263.69	360.58	1022.97	903.11	5.27	OSF1.50	12340.00	7590.00		MinPt-O-ADP				
1286.98	386.93	1028.70	900.05	5.00	OSF1.50	12660.00	7590.00	OSF<5.00	Enter Alert				
1252.02	464.56	941.98	787.46	4.05	OSF1.50	13550.00	7590.00		MinPt-CtCt				
1251.83	476.82	933.62	775.01	3.94	OSF1.50	13700.00	7590.00		MinPt-CtCt				
1257.63	499.41	924.36	758.22	3.78	OSF1.50	14020.00	7590.00		MINPT-O-EQU				
1262.75	505.78	925.23	756.97	3.75	OSF1.50	14120.00	7590.00		MinPt-O-ADP				
1211.12	633.90	788.19	577.22	2.87	OSF1.50	15620.00	7590.00		MinPt-CtCt				
1211.97	636.48	787.32	575.49	2.86	OSF1.50	15680.00	7590.00		MINPT-O-EQU				
1212.98	637.67	787.54	575.31	2.86	OSF1.50	15710.00	7590.00		MinPt-O-ADP				
1215.54	639.42	788.93	576.11	2.85	OSF1.50	15760.00	7590.00		MinPt-O-SF				
1258.65	654.70	822.05	604.15	2.85	OSF1.50	16110.00	7590.00		MinPt-O-SF				
1264.93	721.91	803.33	563.02	2.67	OSF1.50	16690.00	7590.00		MinPt-CtCt				
1286.62	727.11	801.55	559.50	2.66	OSF1.50	16790.00	7590.00		MINPT-O-EQU				
1289.71	730.76	802.21	558.95	2.65	OSF1.50	16860.00	7590.00		MinPt-O-ADP				
1287.88	780.99	766.89	506.89	2.47	OSF1.50	17410.00	7590.00		MinPt-CtCt				
1289.38	785.67	765.27	503.71	2.46	OSF1.50	17500.00	7590.00		MINPT-O-EQU				
1290.89	787.55	765.53	503.34	2.46	OSF1.50	17540.00	7590.00		MinPt-O-ADP				
1299.17	793.76	769.67	505.41	2.46	OSF1.50	17670.00	7590.00		MinPt-O-SF				
1311.11	800.10	777.38	511.01	2.46	OSF1.50	17797.15	7590.00		TD				

Big Sandy 3-65 36-31 2BH  
GYRO+MWD 0' to 18220' - PR  
(Def Survey)

Warning Alert

12687.79	200.41	12552.14	12487.38	97.92	OSF1.50	0.00	0.00		Surface				
12679.99	200.42	12544.33	12479.57	97.86	OSF1.50	13.00	13.00		WRP				
11331.04	221.73	11179.59	11109.31	80.54	OSF1.50	5510.00	5395.93		MinPt-CtCt				
11331.18	222.16	11179.43	11109.02	80.39	OSF1.50	5570.00	5454.54		MINPT-O-EQU				
11331.36	222.37	11179.47	11108.99	80.31	OSF1.50	5600.00	5483.84		MinPt-O-ADP				
2785.89	845.47	2218.30	1940.41	4.99	OSF1.50	16960.00	7590.00	OSF<5.00	Enter Alert				
2380.35	982.42	1723.18	1397.94	3.65	OSF1.50	17797.15	7590.00		MinPts				

Big Sandy 3-65 36-31 2AH  
GYRO+MWD 0' to 18177' - PR  
(Def Survey)

Warning Alert

12702.70	223.02	12551.98	12479.69	87.82	OSF1.50	0.00	0.00		Surface				
12694.95	223.05	12544.20	12471.91	87.75	OSF1.50	13.00	13.00		WRP				
11384.91	253.93	11212.06	11130.98	70.15	OSF1.50	5430.00	5317.80		MinPt-CtCt				
11385.05	254.38	11211.89	11130.67	70.02	OSF1.50	5490.00	5376.40		MINPT-O-EQU				
11385.23	254.61	11211.92	11130.63	69.96	OSF1.50	5520.00	5405.70		MinPt-O-ADP				
2976.37	901.20	2372.36	2075.17	4.99	OSF1.50	17100.00	7590.00	OSF<5.00	Enter Alert				
2884.84	993.68	2020.58	1691.16	4.07	OSF1.50	17797.15	7590.00		MinPts				

...Fraser 3-64 33-32 4AH\Original Hole\Fraser 3-64 33-32 4AH Plan #0

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		
Big Sandy 3-65 36-31 2CH GYRO MWD 0' to 18415' - PR (Def Survey)													
												Warning Alert	
	12777.32	242.90	12613.45	12534.42	80.80	OSF1.50	0.00	0.00				Surface	
	12769.57	242.95	12605.66	12526.62	80.74	OSF1.50	13.00	13.00				WRP	
	11465.16	281.99	11273.72	11183.17	63.25	OSF1.50	5440.00	5327.56				MinPt-CtCt	
	11465.34	282.48	11273.56	11182.86	63.14	OSF1.50	5500.00	5386.17				MINPT-O-EOU	
	11465.54	282.73	11273.60	11182.82	63.09	OSF1.50	5530.00	5415.47				MinPt-O-ADP	
	3154.05	952.18	2516.87	2201.87	5.00	OSF1.50	17320.00	7590.00	OSF<5.00			Enter Alert	
	2986.35	1002.88	2316.32	1963.48	4.48	OSF1.50	17797.15	7590.00				MinPts	
Fraser 3-64 33-32 1AH Plan #0 (Def Plan)													
												Pass	
	80.14	32.81	79.16	47.33	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	80.14	32.81	79.15	47.33	50898.99	MAS = 10.00 (m)	13.00	13.00				WRP	
	80.14	32.81	78.25	47.33	87.66	MAS = 10.00 (m)	200.00	200.00				MinPts	
	80.15	32.81	78.24	47.34	85.17	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
	156.74	32.81	151.16	123.93	33.88	MAS = 10.00 (m)	880.00	873.77				MinPt-O-SF	
	2896.93	78.09	2844.54	2818.84	56.34	OSF1.50	6900.48	6754.03				MinPt-O-SF	
	3434.03	69.29	3387.51	3364.74	75.39	OSF1.50	8580.00	7590.00				MinPt-O-SF	
	3457.76	69.83	3410.88	3387.94	75.32	OSF1.50	8660.00	7590.00				MinPt-O-SF	
	3517.02	721.19	3035.90	2795.83	7.32	OSF1.50	17797.15	7590.00				MinPts	
CCIAS #2 1-4 0' to 8312' - DRY (Def Survey)													
												Pass	
	4630.35	32.81	4628.19	4597.54	13366.19	MAS = 10.00 (m)	0.00	0.00				Surface	
	4630.35	32.81	4627.90	4597.54	7290.65	MAS = 10.00 (m)	13.00	13.00				WRP	
	4630.35	32.81	4623.17	4597.54	862.76	MAS = 10.00 (m)	200.00	200.00				MinPts	
	4637.00	32.81	4616.30	4604.19	245.35	MAS = 10.00 (m)	540.00	539.20				MINPT-O-EOU	
	4645.40	40.22	4617.98	4605.18	181.33	OSF1.50	710.00	707.31				MinPt-O-ADP	
	1842.91	505.25	1505.23	1337.66	5.49	OSF1.50	12320.00	7590.00				MinPt-CtCt	
	1843.23	506.03	1505.06	1337.20	5.48	OSF1.50	12350.00	7590.00				MINPT-O-EOU	
	1843.45	506.28	1505.11	1337.17	5.48	OSF1.50	12360.00	7590.00				MinPt-O-ADP	
	1850.25	509.12	1510.11	1341.12	5.47	OSF1.50	12480.00	7590.00				MinPt-O-SF	
	5783.26	488.80	5456.86	5294.47	17.80	OSF1.50	17797.15	7590.00				TD	
Big Sandy 3-65 36-31 1DH GYRO+MWD 0' to 15399' - PR (Def Survey)													
												Pass	
	14924.13	126.34	14838.13	14797.79	184.91	OSF1.50	0.00	0.00				Surface	
	14917.52	126.34	14831.51	14791.17	184.84	OSF1.50	13.00	13.00				MinPt-O-SF	
	13949.47	131.28	13859.12	13818.19	170.31	OSF1.50	5050.00	4946.65				MinPt-CtCt	
	13949.53	131.45	13859.06	13818.08	170.09	OSF1.50	5090.00	4985.72				MINPT-O-EOU	
	13949.60	131.54	13859.07	13818.06	169.99	OSF1.50	5110.00	5005.25				MinPt-O-ADP	
	4060.22	450.65	3754.16	3609.57	13.98	OSF1.50	17797.15	7590.00				MinPts	
Crow 3-64 29-30-25 4BH Plan #0 (Def Plan)													
												Pass	
	6717.85	32.81	6716.87	6685.04	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6717.76	32.81	6716.76	6684.96	262252.81	MAS = 10.00 (m)	13.00	13.00				WRP	
	6643.16	32.81	6635.83	6610.35	1045.39	MAS = 10.00 (m)	750.00	746.63				MinPts	
	6643.17	32.81	6635.81	6610.36	1042.12	MAS = 10.00 (m)	760.00	756.44				MINPT-O-EOU	
	6887.11	58.11	6848.04	6829.00	180.81	OSF1.50	6900.48	6754.03				MinPt-O-SF	
	4499.54	566.06	4121.78	3933.47	11.94	OSF1.50	17797.15	7590.00				MinPts	