

Grande 4-65 20-19 2CH Plan #0 Proposal Geodetic Report

(Def Plan)

Report Date: May 21, 2020 - 02:57 PM
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)
Structure / Slot: Crestone Peak 21-04S-65W (Grande North Pad) / Grande 4-65 20-19 2CH
Well: Grande 4-65 20-19 2CH
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Grande 4-65 20-19 2CH Plan #0
Survey Date: March 19, 2020
Tort / AHD / DDI / ERD Ratio: 104.726 ° / 11647.955 ft / 6.447 / 1.465
Coordinate Reference System: NAD83 Colorado State Plane, Central Zone, US Feet
Location Lat / Long: N 39° 41' 38.07240", W 104° 40' 31.41480"
Location Grid N/E Y/X: N 1678688.527 ftUS, E 3232046.953 ftUS
CRS Grid Convergence Angle: 0.5201 °
Grid Scale Factor: 0.99998939
Version / Patch: 2.10.810.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 263.671 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 28ft
TVD Reference Elevation: 5691.300 ft above MSL
Seabed / Ground Elevation: 5663.300 ft above MSL
Magnetic Declination: 8.573 °
Total Gravity Field Strength: 998.9112mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51550.035 nT
Magnetic Dip Angle: 66.336 °
Declination Date: May 18, 2020
Magnetic Declination Model: HDGM 2020
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 8.5733 °
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	0.00	N/A	1678688.53	3232046.95	39.693909	-104.675393
Build 1 DLS	100.00	0.00	231.34	100.00	0.00	0.00	0.00	0.00	1678688.53	3232046.95	39.693909	-104.675393	
	200.00	0.00	231.34	200.00	0.00	0.00	0.00	0.00	1678688.53	3232046.95	39.693909	-104.675393	
	250.00	0.00	231.34	250.00	0.00	0.00	0.00	0.00	1678688.53	3232046.95	39.693909	-104.675393	
	300.00	0.50	231.34	300.00	0.18	-0.14	-0.17	1.00	1678688.39	3232046.78	39.693909	-104.675394	
	400.00	1.50	231.34	399.98	1.66	-1.23	-1.53	1.00	1678687.29	3232045.43	39.693906	-104.675398	
Hold	449.80	2.00	231.34	449.76	2.94	-2.18	-2.72	1.00	1678686.33	3232044.25	39.693903	-104.675403	
	500.00	2.00	231.34	499.93	4.42	-3.27	-4.09	0.00	1678685.22	3232042.90	39.693900	-104.675408	
	600.00	2.00	231.34	599.87	7.37	-5.45	-6.81	0.00	1678683.02	3232040.19	39.693894	-104.675417	
	700.00	2.00	231.34	699.81	10.31	-7.63	-9.53	0.00	1678680.82	3232037.49	39.693888	-104.675427	
	800.00	2.00	231.34	799.75	13.26	-9.80	-12.25	0.00	1678678.61	3232034.79	39.693882	-104.675437	
Drop 1 DLS	900.00	2.00	231.34	899.69	16.21	-11.98	-14.98	0.00	1678676.41	3232032.09	39.693876	-104.675446	
	984.61	2.00	231.34	984.24	18.70	-13.82	-17.28	0.00	1678674.55	3232029.80	39.693871	-104.675454	
	1000.00	1.84	231.34	999.63	19.13	-14.15	-17.68	1.00	1678674.22	3232029.40	39.693870	-104.675456	
	1100.00	0.84	231.34	1099.60	21.12	-15.61	-19.51	1.00	1678672.74	3232027.58	39.693866	-104.675462	
	Hold Vertical	1184.41	0.00	231.34	1184.00	21.64	-16.00	-20.00	1.00	1678672.35	3232027.10	39.693865	-104.675464
1200.00		0.00	231.34	1199.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1300.00		0.00	231.34	1299.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1400.00		0.00	231.34	1399.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1500.00		0.00	231.34	1499.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1600.00		0.00	231.34	1599.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1700.00		0.00	231.34	1699.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1800.00		0.00	231.34	1799.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
1900.00		0.00	231.34	1899.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2000.00		0.00	231.34	1999.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2100.00		0.00	231.34	2099.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2200.00		0.00	231.34	2199.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2300.00		0.00	231.34	2299.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2400.00		0.00	231.34	2399.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2500.00		0.00	231.34	2499.59	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2500.41		0.00	231.34	2500.00	21.64	-16.00	-20.00	0.00	1678672.35	3232027.10	39.693865	-104.675464	
2600.00		1.99	209.99	2599.57	22.67	-17.50	-20.87	2.00	1678670.84	3232026.25	39.693861	-104.675467	
2700.00		3.99	209.99	2699.43	25.76	-22.02	-23.47	2.00	1678666.30	3232023.68	39.693849	-104.675476	
2800.00		5.99	209.99	2799.05	30.91	-29.56	-27.82	2.00	1678658.72	3232019.40	39.693828	-104.675492	
2900.00		7.99	209.99	2898.30	38.12	-40.10	-33.91	2.00	1678648.12	3232013.41	39.693799	-104.675513	
3000.00	9.99	209.99	2997.07	47.38	-53.63	-41.72	2.00	1678634.52	3232005.72	39.693762	-104.675541		
3100.00	11.99	209.99	3095.23	58.67	-70.15	-51.25	2.00	1678617.92	3231996.34	39.693716	-104.675575		
Hold	3200.00	13.99	209.99	3192.66	71.98	-89.62	-62.48	2.00	1678598.35	3231985.29	39.693663	-104.675615	
	3245.72	14.91	209.99	3236.93	78.74	-99.50	-68.19	2.00	1678588.41	3231979.67	39.693636	-104.675635	
	3300.00	14.91	209.99	3289.39	87.01	-111.59	-75.17	0.00	1678576.26	3231972.80	39.693603	-104.675660	
	3400.00	14.91	209.99	3386.02	102.24	-133.87	-88.02	0.00	1678553.86	3231960.15	39.693541	-104.675706	
	3500.00	14.91	209.99	3482.66	117.48	-156.15	-100.88	0.00	1678531.47	3231947.50	39.693480	-104.675751	
	3600.00	14.91	209.99	3579.29	132.71	-178.43	-113.74	0.00	1678509.07	3231934.84	39.693419	-104.675797	
	3700.00	14.91	209.99	3675.93	147.95	-200.71	-126.60	0.00	1678486.68	3231922.19	39.693358	-104.675843	
	3800.00	14.91	209.99	3772.56	163.18	-222.99	-139.45	0.00	1678464.28	3231909.53	39.693297	-104.675889	
	3900.00	14.91	209.99	3869.20	178.42	-245.27	-152.31	0.00	1678441.88	3231896.88	39.693236	-104.675934	
	4000.00	14.91	209.99	3965.83	193.65	-267.55	-165.17	0.00	1678419.49	3231884.22	39.693174	-104.675980	
	4100.00	14.91	209.99	4062.47	208.89	-289.83	-178.02	0.00	1678397.09	3231871.57	39.693113	-104.676026	
	4200.00	14.91	209.99	4159.10	224.12	-312.11	-190.88	0.00	1678374.70	3231858.91	39.693052	-104.676071	
	4300.00	14.91	209.99	4255.74	239.36	-334.39	-203.74	0.00	1678352.30	3231846.26	39.692991	-104.676117	
	4400.00	14.91	209.99	4352.37	254.60	-356.67	-216.60	0.00	1678329.91	3231833.61	39.692930	-104.676163	
	4500.00	14.91	209.99	4449.01	269.83	-378.95	-229.45	0.00	1678307.51	3231820.95	39.692869	-104.676208	
	4600.00	14.91	209.99	4545.64	285.07	-401.24	-242.31	0.00	1678285.11	3231808.30	39.692808	-104.676254	
	4700.00	14.91	209.99	4642.27	300.30	-423.52	-255.17	0.00	1678262.72	3231795.64	39.692746	-104.676300	
	4800.00	14.91	209.99	4738.91	315.54	-445.80	-268.03	0.00	1678240.32	3231782.99	39.692685	-104.676345	
	4900.00	14.91	209.99	4835.54	330.77	-468.08	-280.88	0.00	1678217.93	3231770.33	39.692624	-104.676391	
	5000.00	14.91	209.99	4932.18	346.01	-490.36	-293.74	0.00	1678195.53	3231757.68	39.692563	-104.676437	
5100.00	14.91	209.99	5028.81	361.24	-512.64	-306.60	0.00	1678173.14	3231745.02	39.692502	-104.676482		
5200.00	14.91	209.99	5125.45	376.48	-534.92	-319.46	0.00	1678150.74	3231732.37	39.692441	-104.676528		
5300.00	14.91	209.99	5222.08	391.71	-557.20	-332.31	0.00	1678128.35	3231719.71	39.692379	-104.676574		
5400.00	14.91	209.99	5318.72	406.95	-579.48	-345.17	0.00	1678105.95	3231707.06	39.692318	-104.676620		
5500.00	14.91	209.99	5415.35	422.18	-601.76	-358.03	0.00	1678083.55	3231694.41	39.692257	-104.676665		
5600.00	14.91	209.99	5511.99	437.42	-624.04	-370.89	0.00	1678061.16	3231681.75	39.692196	-104.676711		
5700.00	14.91	209.99	5608.62	452.65	-646.32	-383.74	0.00	1678038.76	3231669.10	39.692135	-104.676757		
5800.00	14.91	209.99	5705.26	467.89	-668.60	-396.60	0.00	1678016.37	3231656.44	39.692074	-104.676802		
5900.00	14.91	209.99	5801.89	483.12	-690.88	-409.46	0.00	1677993.97	3231643.79	39.692012	-104.676848		
6000.00	14.91	209.99	5898.53	498.36	-713.16	-422.32	0.00	1677971.58	3231631.13	39.691951	-104.676894		
6100.00	14.91	209.99	5995.16	513.59	-735.44	-435.17	0.00	1677949.18	3231618.48	39.691890	-104.676939		
6200.00	14.91	209.99	6091.80	528.83	-757.72	-448.03	0.00	1677926.78	3231605.82	39.691829	-104.676985		
6300.00	14.91	209.99	6188.43	544.06	-780.00	-460.89	0.00	1677904.39	3231593.17	39.691768	-104.677031		
6400.00	14.91	209.99	6285.07	559.30	-802.28	-473.75	0.00	1677881.99	3231580.51	39.691707	-104.677076		
6500.00	14.91	209.99	6381.70	574.53	-824.56	-486.60	0.00	1677859.60	3231567.86	39.691645	-104.677122		
6600.00	14.91	209.99	6478.34	589.77	-846.84	-499.46	0.00	1677837.20	3231555.21	39.691584	-104.677168		
6700.00	14.91	209.99	6574.97	605.00	-869.12	-512.32	0.00	1677814.81	3231542.55	39.691523	-104.677213		
6800.00	14.91	209.99	6671.61	620.24	-891.40	-525.18	0.00	1677792.41	3231529.90	39.691462	-104.677259		
6900.00	14.91	209.99	6768.24	635.47	-913.68	-538.03	0.00	1677770.02	3231517.24	39.691401	-104.677305		
7000.00	14.91	209.99	6868										

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7200.00	14.91	209.99	7058.14	681.18	-980.52	-576.61	0.00	1677702.83	3231479.28	39.691217	-104.677442
	7300.00	14.91	209.99	7154.78	696.41	-1002.80	-589.46	0.00	1677680.43	3231466.62	39.691156	-104.677488
	7400.00	14.91	209.99	7251.41	711.65	-1025.08	-602.32	0.00	1677658.04	3231453.97	39.691095	-104.677533
	7500.00	14.91	209.99	7348.05	726.88	-1047.36	-615.18	0.00	1677635.64	3231441.31	39.691034	-104.677579
KOP, Build/Turn 8 DLS	7503.27	14.91	209.99	7351.21	727.38	-1048.09	-615.60	0.00	1677634.91	3231440.90	39.691032	-104.677580
	7600.00	20.18	229.08	7443.48	748.52	-1069.82	-634.45	8.00	1677613.00	3231422.25	39.690972	-104.677647
	7700.00	26.87	240.18	7535.17	783.50	-1092.39	-667.14	8.00	1677590.14	3231389.76	39.690910	-104.677764
	7800.00	34.10	246.97	7621.31	831.15	-1114.63	-712.62	8.00	1677567.49	3231344.49	39.690849	-104.677925
	7900.00	41.59	251.60	7700.24	890.55	-1136.11	-770.00	8.00	1677545.49	3231287.30	39.690790	-104.678129
	8000.00	49.21	255.02	7770.42	960.54	-1156.40	-838.17	8.00	1677524.58	3231219.32	39.690734	-104.678371
	8100.00	56.91	257.73	7830.48	1039.76	-1175.12	-915.80	8.00	1677505.16	3231141.87	39.690683	-104.678647
	8200.00	64.66	260.00	7879.26	1126.66	-1191.90	-1001.37	8.00	1677487.61	3231056.45	39.690637	-104.678951
	8300.00	72.44	262.00	7915.80	1219.56	-1206.40	-1093.23	8.00	1677472.26	3230964.73	39.690597	-104.679278
	8400.00	80.24	263.83	7939.39	1316.64	-1218.36	-1189.59	8.00	1677459.43	3230868.49	39.690564	-104.679620
	8500.00	88.05	265.57	7949.58	1416.02	-1227.54	-1288.56	8.00	1677449.36	3230769.60	39.690539	-104.679972
TPZ Point, Turn 2 DLS	8524.92	90.00	266.00	7950.00	1440.92	-1229.37	-1313.41	8.00	1677447.30	3230744.78	39.690534	-104.680060
	8600.00	90.00	267.50	7950.00	1515.89	-1233.62	-1388.37	2.00	1677442.37	3230669.86	39.690522	-104.680326
	8700.00	90.00	269.50	7950.00	1615.53	-1236.24	-1488.33	2.00	1677438.85	3230569.93	39.690515	-104.680682
Hold to TD	8729.49	90.00	270.09	7950.00	1644.85	-1236.34	-1517.81	2.00	1677438.47	3230540.44	39.690515	-104.680786
	8800.00	90.00	270.09	7950.00	1714.92	-1236.23	-1588.33	0.00	1677437.95	3230469.93	39.690515	-104.681037
	8900.00	90.00	270.09	7950.00	1814.29	-1236.07	-1688.33	0.00	1677437.20	3230369.94	39.690516	-104.681392
	9000.00	90.00	270.09	7950.00	1913.67	-1235.91	-1788.33	0.00	1677436.45	3230269.94	39.690516	-104.681748
	9100.00	90.00	270.09	7950.00	2013.04	-1235.75	-1888.33	0.00	1677435.70	3230169.95	39.690516	-104.682103
	9200.00	90.00	270.09	7950.00	2112.41	-1235.59	-1988.33	0.00	1677434.95	3230069.95	39.690517	-104.682458
	9300.00	90.00	270.09	7950.00	2211.79	-1235.43	-2088.33	0.00	1677434.21	3229969.95	39.690517	-104.682814
	9400.00	90.00	270.09	7950.00	2311.16	-1235.27	-2188.33	0.00	1677433.46	3229869.96	39.690518	-104.683169
	9500.00	90.00	270.09	7950.00	2410.53	-1235.11	-2288.33	0.00	1677432.71	3229769.96	39.690518	-104.683524
	9600.00	90.00	270.09	7950.00	2509.90	-1234.96	-2388.33	0.00	1677431.96	3229669.97	39.690518	-104.683880
	9700.00	90.00	270.09	7950.00	2609.28	-1234.80	-2488.32	0.00	1677431.21	3229569.97	39.690519	-104.684235
	9800.00	90.00	270.09	7950.00	2708.65	-1234.64	-2588.32	0.00	1677430.46	3229469.97	39.690519	-104.684590
	9900.00	90.00	270.09	7950.00	2808.02	-1234.48	-2688.32	0.00	1677429.72	3229369.98	39.690520	-104.684946
	10000.00	90.00	270.09	7950.00	2907.40	-1234.32	-2788.32	0.00	1677428.97	3229269.98	39.690520	-104.685301
	10100.00	90.00	270.09	7950.00	3006.77	-1234.16	-2888.32	0.00	1677428.22	3229169.99	39.690520	-104.685656
	10200.00	90.00	270.09	7950.00	3106.14	-1234.00	-2988.32	0.00	1677427.47	3229069.99	39.690521	-104.686012
	10300.00	90.00	270.09	7950.00	3205.51	-1233.84	-3088.32	0.00	1677426.72	3228969.99	39.690521	-104.686367
	10400.00	90.00	270.09	7950.00	3304.89	-1233.68	-3188.32	0.00	1677425.98	3228870.00	39.690522	-104.686722
	10500.00	90.00	270.09	7950.00	3404.26	-1233.52	-3288.32	0.00	1677425.23	3228770.00	39.690522	-104.687078
	10600.00	90.00	270.09	7950.00	3503.63	-1233.36	-3388.32	0.00	1677424.48	3228670.01	39.690523	-104.687433
	10700.00	90.00	270.09	7950.00	3603.01	-1233.20	-3488.32	0.00	1677423.73	3228570.01	39.690523	-104.687788
	10800.00	90.00	270.09	7950.00	3702.38	-1233.04	-3588.32	0.00	1677422.98	3228470.01	39.690523	-104.688144
	10900.00	90.00	270.09	7950.00	3801.75	-1232.88	-3688.32	0.00	1677422.23	3228370.02	39.690524	-104.688499
	11000.00	90.00	270.09	7950.00	3901.12	-1232.72	-3788.32	0.00	1677421.49	3228270.02	39.690524	-104.688854
	11100.00	90.00	270.09	7950.00	4000.50	-1232.56	-3888.32	0.00	1677420.74	3228170.03	39.690525	-104.689210
	11200.00	90.00	270.09	7950.00	4099.87	-1232.40	-3988.32	0.00	1677419.99	3228070.03	39.690525	-104.689565
	11300.00	90.00	270.09	7950.00	4199.24	-1232.24	-4088.32	0.00	1677419.24	3227970.04	39.690525	-104.689920
	11400.00	90.00	270.09	7950.00	4298.62	-1232.08	-4188.32	0.00	1677418.49	3227870.04	39.690526	-104.690276
	11500.00	90.00	270.09	7950.00	4397.99	-1231.92	-4288.32	0.00	1677417.75	3227770.04	39.690526	-104.690631
	11600.00	90.00	270.09	7950.00	4497.36	-1231.77	-4388.32	0.00	1677417.00	3227670.05	39.690526	-104.690986
	11700.00	90.00	270.09	7950.00	4596.73	-1231.61	-4488.32	0.00	1677416.25	3227570.05	39.690527	-104.691342
	11800.00	90.00	270.09	7950.00	4696.11	-1231.45	-4588.32	0.00	1677415.50	3227470.06	39.690527	-104.691697
	11900.00	90.00	270.09	7950.00	4795.48	-1231.29	-4688.32	0.00	1677414.75	3227370.06	39.690528	-104.692052
	12000.00	90.00	270.09	7950.00	4894.85	-1231.13	-4788.32	0.00	1677414.00	3227270.06	39.690528	-104.692408
	12100.00	90.00	270.09	7950.00	4994.23	-1230.97	-4888.32	0.00	1677413.26	3227170.07	39.690528	-104.692763
	12200.00	90.00	270.09	7950.00	5093.60	-1230.81	-4988.32	0.00	1677412.51	3227070.07	39.690529	-104.693118
	12300.00	90.00	270.09	7950.00	5192.97	-1230.65	-5088.32	0.00	1677411.76	3226970.08	39.690529	-104.693474
	12400.00	90.00	270.09	7950.00	5292.34	-1230.49	-5188.32	0.00	1677411.01	3226870.08	39.690530	-104.693829
	12500.00	90.00	270.09	7950.00	5391.72	-1230.33	-5288.32	0.00	1677410.26	3226770.08	39.690530	-104.694184
	12600.00	90.00	270.09	7950.00	5491.09	-1230.17	-5388.32	0.00	1677409.52	3226670.09	39.690530	-104.694540
	12700.00	90.00	270.09	7950.00	5590.46	-1230.01	-5488.32	0.00	1677408.77	3226570.09	39.690531	-104.694895
	12800.00	90.00	270.09	7950.00	5689.84	-1229.85	-5588.32	0.00	1677408.02	3226470.10	39.690531	-104.695250
	12900.00	90.00	270.09	7950.00	5789.21	-1229.69	-5688.32	0.00	1677407.27	3226370.10	39.690531	-104.695606
	13000.00	90.00	270.09	7950.00	5888.58	-1229.53	-5788.32	0.00	1677406.52	3226270.10	39.690532	-104.695961
	13100.00	90.00	270.09	7950.00	5987.95	-1229.37	-5888.32	0.00	1677405.77	3226170.11	39.690532	-104.696316
	13200.00	90.00	270.09	7950.00	6087.33	-1229.21	-5988.32	0.00	1677405.03	3226070.11	39.690533	-104.696672
	13300.00	90.00	270.09	7950.00	6186.70	-1229.05	-6088.32	0.00	1677404.28	3225970.12	39.690533	-104.697027
	13400.00	90.00	270.09	7950.00	6286.07	-1228.89	-6188.32	0.00	1677403.53	3225870.12	39.690533	-104.697382
	13500.00	90.00	270.09	7950.00	6385.45	-1228.73	-6288.32	0.00	1677402.78	3225770.12	39.690534	-104.697738
	13600.00	90.00	270.09	7950.00	6484.82	-1228.58	-6388.32	0.00	1677402.03	3225670.13	39.690534	-104.698093
	13700.00	90.00	270.09	7950.00	6584.19	-1228.42	-6488.32	0.00	1677401.29	3225570.13	39.690534	-104.698448
	13800.00	90.00	270.09	7950.00	6683.56	-1228.26	-6588.32	0.00	1677400.54	3225470.14	39.690535	-104.698804
	13900.00	90.00	270.09	7950.00	6782.94	-1228.10	-6688.32	0.00	1677399.79	3225370.14	39.690535	-104.699159
	14000.00	90.00	270.09	7950.00	6882.31	-1227.94	-6788.32	0.00	1677399.04	3225270.14	39.690536	-104.699514
	14100.00	90.00	270.09	7950.00	6981.68	-1227.78	-6888.32	0.00	1677398.29	3225170.15	39.690536	-104.699870
	14200.00	90.00	270.09	7950.00	7081.06	-1227.62	-6988.32	0.00	1677397.54	3225070.15	39.690536	-104.700225
	14300.00	90.00	270.09	7950.00	7180.43	-1227.46	-7088.32	0.00	1677396.80	3224970.16	39.690537	-104.700580
	14400.00	90.00	270.09	7950.00	7279.80	-1227.30	-7188.32	0.00	1677396.05	3224870.16	39.690537	-104.700936
	14500.00	90.00	270.09	7950.00	7379.17	-1227.14	-728					

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	17500.00	90.00	270.09	7950.00	10360.36	-1222.36	-10288.31	0.00	1677372.85	3221770.29	39.690548	-104.711951
	17600.00	90.00	270.09	7950.00	10459.73	-1222.20	-10388.31	0.00	1677372.11	3221670.29	39.690548	-104.712306
	17700.00	90.00	270.09	7950.00	10559.11	-1222.04	-10488.31	0.00	1677371.36	3221570.30	39.690548	-104.712662
	17800.00	90.00	270.09	7950.00	10658.48	-1221.88	-10588.31	0.00	1677370.61	3221470.30	39.690549	-104.713017
	17900.00	90.00	270.09	7950.00	10757.85	-1221.72	-10688.31	0.00	1677369.86	3221370.30	39.690549	-104.713372
	18000.00	90.00	270.09	7950.00	10857.22	-1221.56	-10788.31	0.00	1677369.11	3221270.31	39.690549	-104.713728
	18100.00	90.00	270.09	7950.00	10956.60	-1221.40	-10888.31	0.00	1677368.36	3221170.31	39.690550	-104.714083
	18200.00	90.00	270.09	7950.00	11055.97	-1221.24	-10988.31	0.00	1677367.62	3221070.32	39.690550	-104.714438
Grande 4-65 20-19 2CH BHL	18222.40	90.00	270.09	7950.00	11078.23	-1221.20	-11010.71	0.00	1677367.45	3221047.92	39.690550	-104.714518

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 (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	13.500	9.625		NAL_MWD-NON_SLB-Depth Only	Original Hole / Grande 4-65 20-19 2CH Plan #0
	1	28.000	2200.000	1/100.000	13.500	9.625		NAL_MWD-NON_SLB	Original Hole / Grande 4-65 20-19 2CH Plan #0
	1	2200.000	18222.398	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG	Original Hole / Grande 4-65 20-19 2CH Plan #0