



Crestone Peak Resources



Plan 0

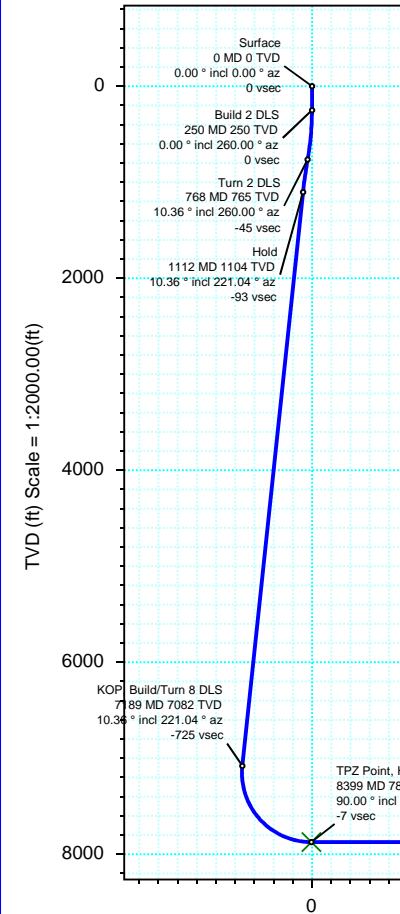
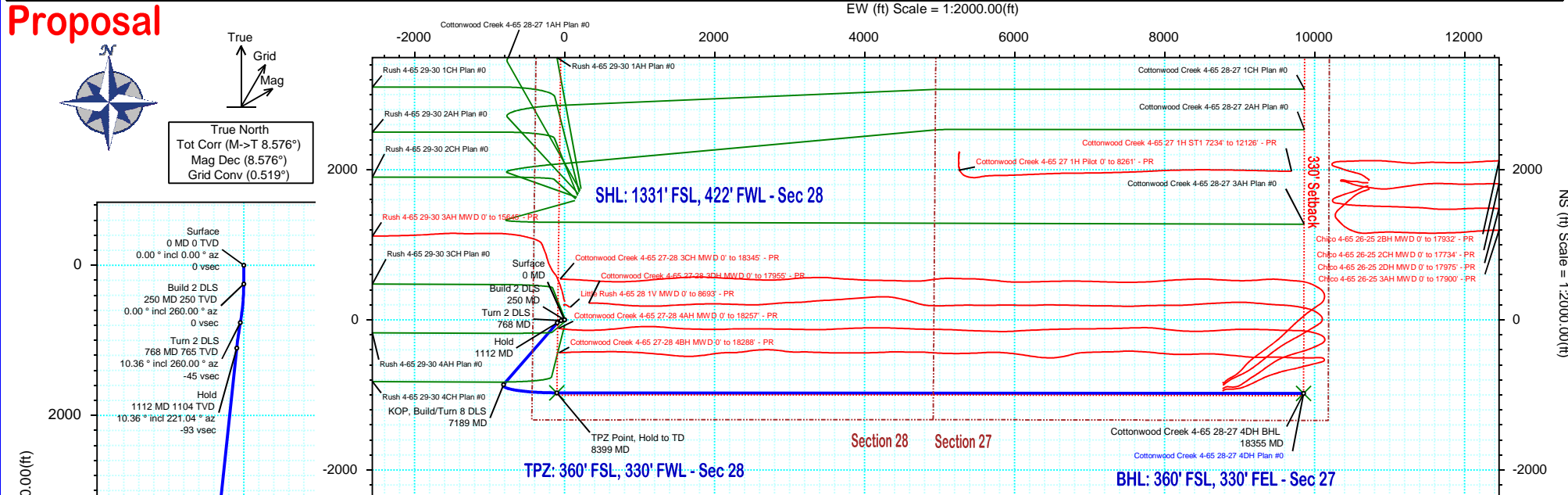
Borehole: Original Hole	Well: Cottonwood Creek 4-65 28-27 4DH	Field: CO, Arapahoe County (NAD 83 CZ)	Structure: Crestone Peak 28-04S-65W (Rush South Pad)
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Gravity & Magnetic Parameters		Surface Location NAD83 Colorado State Plane, Central Zone, US Feet			Miscellaneous		
Model: HDGM 2020	Dip: 66.348°	Date: 22-Jun-2020	Lat: N 39 40 15.84	Northing: 1670363.64ftUS	Grid Conv: 0.519°	Slot: Cottonwood Creek 4-65 28-27 4DH	TVD Ref: KB 28ft(5722.9ft above MSL)
MagDec: 8.576°	FS: 51553.033nT	Gravity FS: 998.911mgn (9.80665 Based)	Lon: W 104 40 37.62	Easting: 3231636.91ftUS	Scale Fact: 0.99998534	Plan: Cottonwood Creek 4-65 28-27 4DH Plan #0	

Proposal



True North
Tot Corr (M->T) 8.576°
Mag Dec (8.576°)
Grid Conv (0.519°)



Target Description		Surface Location						Local Coord	
Target Name	Grid Coord	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Rush Pad Sec 28-27		N 39 40 32.87	W 104 40 34.97	1672088.77	3231829.03	5722.90	36.32	1723.35	207.74
Rush Pad Sec 28-27 - 330' SB		N 39 40 32.87	W 104 40 34.97	1672088.77	3231829.03	5722.90	36.32	1723.35	207.74
Cottonwood Creek 4-65 28-27 4DH BHL		N 39 40 6.14	W 104 38 31.62	1669473.88	3241498.77	7875.00	9902.08	-979.07	9853.55
Cottonwood Creek 4-65 28-27 4DH TPZ		N 39 40 6.24	W 104 40 38.94	1669392.00	3231542.68	7875.00	-6.54	-970.77	-103.03

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	250.00	0.00	260.00	250.00	0.00	0.00	0.00	0.00
Turn 2 DLS	768.00	10.36	260.00	765.18	-44.97	-8.11	-45.99	2.00
Hold	1111.72	10.36	221.04	1103.71	-92.66	-36.81	-96.78	2.00
KOP, Build/Turn 8 DLS	7188.87	10.36	221.04	7081.85	-725.04	-860.78	-814.14	0.00
TPZ Point, Hold to TD	8398.53	90.00	90.05	7875.00	-6.54	-970.77	-103.03	8.00
Cottonwood Creek 4-65 28-27 4DH BHL	18355.12	90.00	90.05	7875.00	9902.08	-979.07	9853.55	0.00

Vertical Section (ft) Azim = 95.67° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

Cottonwood Creek 4-65 28-27 4DH Plan #0 Proposal Geodetic Report



(Def Plan)

Report Date: June 24, 2020 - 01:09 PM
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)
Structure / Slot: Crestone Peak 28-04S-65W (Rush South Pad) / Cottonwood Creek 4-65 28-27 4DH
Well: Cottonwood Creek 4-65 28-27 4DH
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Cottonwood Creek 4-65 28-27 4DH Plan #0
Survey Date: June 22, 2020
Tort / AHD / DDI / ERD Ratio: 114.007 ° / 11903.702 ft / 6.500 / 1.512
Coordinate Reference System: NAD83 Colorado State Plane, Central Zone, US Feet
Location Lat / Long: N 39° 40' 15.83760", W 104° 40' 37.62480"
Location Grid N/E Y/X: N 1670363.641 ftUS, E 3231636.915 ftUS
CRS Grid Convergence Angle: 0.5190 °
Grid Scale Factor: 0.99998534
Version / Patch: 2.10.810.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 95.674 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 28ft
TVD Reference Elevation: 5722.900 ft above MSL
Seabed / Ground Elevation: 5694.900 ft above MSL
Magnetic Declination: 8.576 °
Total Gravity Field Strength: 998.9112mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51553.033 nT
Magnetic Dip Angle: 66.348 °
Declination Date: June 22, 2020
Magnetic Declination Model: HDGM 2020
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 8.5762 °
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	1670363.64	3231636.91	39.671066	-104.677118
	100.00	0.00	260.00	100.00	0.00	0.00	0.00	0.00	1670363.64	3231636.91	39.671066	-104.677118
	200.00	0.00	260.00	200.00	0.00	0.00	0.00	0.00	1670363.64	3231636.91	39.671066	-104.677118
Build 2 DLS	250.00	0.00	260.00	250.00	0.00	0.00	0.00	0.00	1670363.64	3231636.91	39.671066	-104.677118
	300.00	1.00	260.00	300.00	-0.42	-0.08	-0.43	2.00	1670363.56	3231636.49	39.671066	-104.677120
	400.00	3.00	260.00	399.93	-3.78	-0.68	-3.87	2.00	1670362.92	3231633.05	39.671064	-104.677132
	500.00	5.00	260.00	499.68	-10.50	-1.89	-10.74	2.00	1670361.65	3231626.20	39.671061	-104.677156
	600.00	7.00	260.00	599.13	-20.56	-3.71	-21.03	2.00	1670359.74	3231615.92	39.671056	-104.677193
	700.00	9.00	260.00	698.15	-33.96	-6.12	-34.73	2.00	1670357.20	3231602.24	39.671049	-104.677241
Turn 2 DLS	768.00	10.36	260.00	765.18	-44.97	-8.11	-45.99	2.00	1670355.12	3231591.00	39.671044	-104.677281
	800.00	10.17	256.57	796.67	-50.41	-9.27	-51.58	2.00	1670353.91	3231585.43	39.671041	-104.677301
	900.00	9.81	245.21	895.16	-66.09	-14.89	-67.90	2.00	1670348.14	3231569.16	39.671025	-104.677359
	1000.00	9.85	233.48	993.71	-79.77	-23.55	-82.50	2.00	1670339.35	3231554.63	39.671001	-104.677411
	1100.00	10.28	222.28	1092.18	-91.43	-35.24	-95.38	2.00	1670327.54	3231541.86	39.670969	-104.677457
Hold	1111.72	10.36	221.04	1103.71	-92.66	-36.81	-96.78	2.00	1670325.95	3231540.48	39.670965	-104.677462
	1200.00	10.36	221.04	1190.55	-101.85	-48.78	-107.20	0.00	1670313.89	3231530.16	39.670932	-104.677499
	1300.00	10.36	221.04	1288.92	-112.26	-62.34	-119.00	0.00	1670300.23	3231518.48	39.670895	-104.677541
	1400.00	10.36	221.04	1387.29	-122.66	-75.90	-130.81	0.00	1670286.56	3231506.80	39.670858	-104.677583
	1500.00	10.36	221.04	1485.66	-133.07	-89.46	-142.61	0.00	1670272.90	3231495.12	39.670820	-104.677625
	1600.00	10.36	221.04	1584.03	-143.47	-103.02	-154.42	0.00	1670259.23	3231483.44	39.670783	-104.677667
	1700.00	10.36	221.04	1682.40	-153.88	-116.57	-166.22	0.00	1670245.57	3231471.76	39.670746	-104.677708
	1800.00	10.36	221.04	1780.77	-164.29	-130.13	-178.03	0.00	1670231.90	3231460.08	39.670709	-104.677750
	1900.00	10.36	221.04	1879.14	-174.69	-143.69	-189.83	0.00	1670218.24	3231448.40	39.670672	-104.677792
	2000.00	10.36	221.04	1977.52	-185.10	-157.25	-201.63	0.00	1670204.57	3231436.72	39.670634	-104.677834
	2100.00	10.36	221.04	2075.89	-195.50	-170.81	-213.44	0.00	1670190.91	3231425.04	39.670597	-104.677876
	2200.00	10.36	221.04	2174.26	-205.91	-184.37	-225.24	0.00	1670177.25	3231413.36	39.670560	-104.677918
	2300.00	10.36	221.04	2272.63	-216.32	-197.92	-237.05	0.00	1670163.58	3231401.67	39.670523	-104.677960
	2400.00	10.36	221.04	2371.00	-226.72	-211.48	-248.85	0.00	1670149.92	3231389.99	39.670485	-104.678002
	2500.00	10.36	221.04	2469.37	-237.13	-225.04	-260.66	0.00	1670136.25	3231378.31	39.670448	-104.678044
	2600.00	10.36	221.04	2567.74	-247.53	-238.60	-272.46	0.00	1670122.59	3231366.63	39.670411	-104.678086
	2700.00	10.36	221.04	2666.11	-257.94	-252.16	-284.26	0.00	1670108.92	3231354.95	39.670374	-104.678128
	2800.00	10.36	221.04	2764.48	-268.34	-265.72	-296.07	0.00	1670095.26	3231343.27	39.670337	-104.678170
	2900.00	10.36	221.04	2862.85	-278.75	-279.27	-307.87	0.00	1670081.59	3231331.59	39.670299	-104.678212
	3000.00	10.36	221.04	2961.22	-289.16	-292.83	-319.68	0.00	1670067.93	3231319.91	39.670262	-104.678254
	3100.00	10.36	221.04	3059.59	-299.56	-306.39	-331.48	0.00	1670054.26	3231308.23	39.670225	-104.678296
	3200.00	10.36	221.04	3157.97	-309.97	-319.95	-343.28	0.00	1670040.60	3231296.55	39.670188	-104.678337
	3300.00	10.36	221.04	3256.34	-320.37	-333.51	-355.09	0.00	1670026.94	3231284.87	39.670150	-104.678379
	3400.00	10.36	221.04	3354.71	-330.78	-347.07	-366.89	0.00	1670013.27	3231273.19	39.670113	-104.678421
	3500.00	10.36	221.04	3453.08	-341.19	-360.63	-378.70	0.00	1669999.61	3231261.51	39.670076	-104.678463
	3600.00	10.36	221.04	3551.45	-351.59	-374.18	-390.50	0.00	1669985.94	3231249.82	39.670039	-104.678505
	3700.00	10.36	221.04	3649.82	-362.00	-387.74	-402.31	0.00	1669972.28	3231238.14	39.670002	-104.678547
	3800.00	10.36	221.04	3748.19	-372.40	-401.30	-414.11	0.00	1669958.61	3231226.46	39.669964	-104.678589
	3900.00	10.36	221.04	3846.56	-382.81	-414.86	-425.91	0.00	1669944.95	3231214.78	39.669927	-104.678631
	4000.00	10.36	221.04	3944.93	-393.21	-428.42	-437.72	0.00	1669931.28	3231203.10	39.669890	-104.678673
	4100.00	10.36	221.04	4043.30	-403.62	-441.98	-449.52	0.00	1669917.62	3231191.42	39.669853	-104.678715
	4200.00	10.36	221.04	4141.67	-414.03	-455.53	-461.33	0.00	1669903.95	3231179.74	39.669815	-104.678757
	4300.00	10.36	221.04	4240.05	-424.43	-469.09	-473.13	0.00	1669890.29	3231168.06	39.669778	-104.678799
	4400.00	10.36	221.04	4338.42	-434.84	-482.65	-484.94	0.00	1669876.63	3231156.38	39.669741	-104.678841
	4500.00	10.36	221.04	4436.79	-445.24	-496.21	-496.74	0.00	1669862.96	3231144.70	39.669704	-104.678883
	4600.00	10.36	221.04	4535.16	-455.65	-509.77	-508.54	0.00	1669849.30	3231133.02	39.669667	-104.678924
	4700.00	10.36	221.04	4633.53	-466.06	-523.33	-520.35	0.00	1669835.63	3231121.34	39.669629	-104.678966
	4800.00	10.36	221.04	4731.90	-476.46	-536.88	-532.15	0.00	1669821.97	3231109.66	39.669592	-104.679008
	4900.00	10.36	221.04	4830.27	-486.87	-550.44	-543.96	0.00	1669808.30	3231097.97	39.669555	-104.679050
	5000.00	10.36	221.04	4928.64	-497.27	-564.00	-555.76	0.00	1669794.64	3231086.29	39.669518	-104.679092
	5100.00	10.36	221.04	5027.01	-507.68	-577.56	-567.57	0.00	1669780.97	3231074.61	39.669480	-104.679134
	5200.00	10.36	221.04	5125.38	-518.08	-591.12	-579.37	0.00	1669767.31	3231062.93	39.669443	-104.679176
	5300.00	10.36	221.04	5223.75	-528.49	-604.68	-591.17	0.00	1669753.65	3231051.25	39.669406	-104.679218
	5400.00	10.36	221.04	5322.13	-538.90	-618.24	-602.98	0.00	1669739.98	3231039.57	39.669369	-104.679260
	5500.00	10.36	221.04	5420.50	-549.30	-631.79	-614.78	0.00	1669726.32	3231027.89	39.669332	-104.679302
	5600.00	10.36	221.04	5518.87	-559.71	-645.35	-626.59	0.00	1669712.65	3231016.21	39.669294	-104.679344
	5700.00	10.36	221.04	5617.24	-570.11	-658.91	-638.39	0.00	1669698.99	3231004.53	39.669257	-104.679386
	5800.00	10.36	221.04	5715.61	-580.52	-672.47	-650.20	0.00	1669685.32	3230992.85	39.669220	-104.679428
	5900.00	10.36	221.04	5813.98	-590.93	-686.03	-662.00	0.00	1669671.66	3230981.17	39.669183	-104.679470
	6000.00	10.36	221.04	5912.35	-601.33	-699.59	-673.80	0.00	1669657.99	3230969.49	39.669145	-104.679512
	6100.00	10.36	221.04	6010.72	-611.74	-713.14	-685.61	0.00	1669644.33	3230957.80	39.669108	-104.679554
	6200.00	10.36	221.04	6109.09	-622.14	-726.70	-697.41	0.00	1669630.66	3230946.12	39.669071	-104.679595
	6300.00											

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7200.00	9.80	217.06	7092.81	-726.12	-862.29	-815.37	8.00	1669494.02	3230829.40	39.668699	-104.680014
	7300.00	8.13	164.90	7191.74	-728.04	-875.93	-818.66	8.00	1669480.35	3230826.23	39.668661	-104.680026
	7400.00	12.78	127.49	7290.16	-716.12	-889.51	-808.03	8.00	1669466.86	3230836.99	39.668624	-104.679988
	7500.00	19.69	112.71	7386.15	-690.56	-902.77	-783.66	8.00	1669453.82	3230861.47	39.668588	-104.679902
	7600.00	27.19	105.62	7477.85	-651.88	-915.45	-746.05	8.00	1669441.48	3230899.20	39.668553	-104.679768
	7700.00	34.90	101.45	7563.47	-600.83	-927.30	-695.93	8.00	1669430.09	3230949.43	39.668520	-104.679590
	7800.00	42.71	98.64	7641.34	-538.40	-938.10	-634.26	8.00	1669419.85	3231011.19	39.668491	-104.679371
	7900.00	50.57	96.56	7709.95	-465.80	-947.62	-562.25	8.00	1669410.98	3231083.28	39.668465	-104.679115
	8000.00	58.45	94.91	7767.97	-384.45	-955.69	-481.30	8.00	1669403.65	3231164.30	39.668442	-104.678828
	8100.00	66.36	93.51	7814.25	-295.93	-962.15	-392.98	8.00	1669397.99	3231252.67	39.668425	-104.678514
	8200.00	74.27	92.27	7847.92	-201.96	-966.87	-299.03	8.00	1669394.12	3231346.66	39.668412	-104.678180
	8300.00	82.19	91.13	7868.30	-104.38	-969.76	-201.25	8.00	1669392.11	3231444.46	39.668404	-104.677833
TPZ Point, Hold to TD	8398.53	90.00	90.05	7875.00	-6.54	-970.77	-103.03	8.00	1669392.00	3231542.68	39.668401	-104.677484
	8400.00	90.00	90.05	7875.00	-5.08	-970.77	-101.56	0.00	1669392.01	3231544.15	39.668401	-104.677479
	8500.00	90.00	90.05	7875.00	9.44	-970.85	-1.56	0.00	1669392.83	3231644.15	39.668401	-104.677124
	8600.00	90.00	90.05	7875.00	193.96	-970.94	98.44	0.00	1669393.65	3231744.14	39.668401	-104.676768
	8700.00	90.00	90.05	7875.00	293.48	-971.02	198.44	0.00	1669394.47	3231844.14	39.668400	-104.676413
	8800.00	90.00	90.05	7875.00	392.99	-971.10	298.44	0.00	1669395.30	3231944.13	39.668400	-104.676058
	8900.00	90.00	90.05	7875.00	492.51	-971.19	398.44	0.00	1669396.12	3232044.13	39.668400	-104.675703
	9000.00	90.00	90.05	7875.00	592.03	-971.27	498.44	0.00	1669396.94	3232144.12	39.668400	-104.675347
	9100.00	90.00	90.05	7875.00	691.55	-971.35	598.44	0.00	1669397.76	3232244.12	39.668399	-104.674992
	9200.00	90.00	90.05	7875.00	791.07	-971.44	698.44	0.00	1669398.59	3232344.11	39.668399	-104.674637
	9300.00	90.00	90.05	7875.00	890.59	-971.52	798.44	0.00	1669399.41	3232444.11	39.668399	-104.674282
	9400.00	90.00	90.05	7875.00	990.10	-971.60	898.44	0.00	1669400.23	3232544.10	39.668399	-104.673927
	9500.00	90.00	90.05	7875.00	1089.62	-971.69	998.44	0.00	1669401.05	3232644.10	39.668398	-104.673571
	9600.00	90.00	90.05	7875.00	1189.14	-971.77	1098.44	0.00	1669401.88	3232744.09	39.668398	-104.673216
	9700.00	90.00	90.05	7875.00	1288.66	-971.85	1198.44	0.00	1669402.70	3232844.09	39.668398	-104.672861
	9800.00	90.00	90.05	7875.00	1388.18	-971.94	1298.44	0.00	1669403.52	3232944.08	39.668398	-104.672506
	9900.00	90.00	90.05	7875.00	1487.69	-972.02	1398.44	0.00	1669404.34	3233044.08	39.668397	-104.672150
	10000.00	90.00	90.05	7875.00	1587.21	-972.10	1498.44	0.00	1669405.17	3233144.07	39.668397	-104.671795
	10100.00	90.00	90.05	7875.00	1686.73	-972.19	1598.44	0.00	1669405.99	3233244.07	39.668397	-104.671440
	10200.00	90.00	90.05	7875.00	1786.25	-972.27	1698.44	0.00	1669406.81	3233344.06	39.668397	-104.671085
	10300.00	90.00	90.05	7875.00	1885.77	-972.35	1798.44	0.00	1669407.63	3233444.06	39.668396	-104.670730
	10400.00	90.00	90.05	7875.00	1985.29	-972.44	1898.44	0.00	1669408.46	3233544.05	39.668396	-104.670374
	10500.00	90.00	90.05	7875.00	2084.80	-972.52	1998.44	0.00	1669409.28	3233644.05	39.668396	-104.670019
	10600.00	90.00	90.05	7875.00	2184.32	-972.60	2098.44	0.00	1669410.10	3233744.04	39.668396	-104.669664
	10700.00	90.00	90.05	7875.00	2283.84	-972.69	2198.44	0.00	1669410.92	3233844.04	39.668395	-104.669309
	10800.00	90.00	90.05	7875.00	2383.36	-972.77	2298.44	0.00	1669411.75	3233944.03	39.668395	-104.668953
	10900.00	90.00	90.05	7875.00	2482.88	-972.85	2398.44	0.00	1669412.57	3234044.03	39.668395	-104.668598
	11000.00	90.00	90.05	7875.00	2582.39	-972.94	2498.44	0.00	1669413.39	3234144.02	39.668395	-104.668243
	11100.00	90.00	90.05	7875.00	2681.91	-973.02	2598.44	0.00	1669414.21	3234244.02	39.668394	-104.667888
	11200.00	90.00	90.05	7875.00	2781.43	-973.10	2698.44	0.00	1669415.03	3234344.01	39.668394	-104.667533
	11300.00	90.00	90.05	7875.00	2880.95	-973.19	2798.44	0.00	1669415.86	3234444.01	39.668394	-104.667177
	11400.00	90.00	90.05	7875.00	2980.47	-973.27	2898.44	0.00	1669416.68	3234544.00	39.668394	-104.666822
	11500.00	90.00	90.05	7875.00	3079.99	-973.35	2998.44	0.00	1669417.50	3234644.00	39.668393	-104.666467
	11600.00	90.00	90.05	7875.00	3179.50	-973.44	3098.44	0.00	1669418.32	3234743.99	39.668393	-104.666112
	11700.00	90.00	90.05	7875.00	3279.02	-973.52	3198.44	0.00	1669419.15	3234843.99	39.668393	-104.665756
	11800.00	90.00	90.05	7875.00	3378.54	-973.60	3298.44	0.00	1669419.97	3234943.98	39.668393	-104.665401
	11900.00	90.00	90.05	7875.00	3478.06	-973.69	3398.44	0.00	1669420.79	3235043.98	39.668392	-104.665046
	12000.00	90.00	90.05	7875.00	3577.58	-973.77	3498.44	0.00	1669421.61	3235143.97	39.668392	-104.664691
	12100.00	90.00	90.05	7875.00	3677.10	-973.85	3598.44	0.00	1669422.44	3235243.97	39.668392	-104.664336
	12200.00	90.00	90.05	7875.00	3776.61	-973.94	3698.44	0.00	1669423.26	3235343.96	39.668392	-104.663980
	12300.00	90.00	90.05	7875.00	3876.13	-974.02	3798.44	0.00	1669424.08	3235443.96	39.668391	-104.663625
	12400.00	90.00	90.05	7875.00	3975.65	-974.10	3898.44	0.00	1669424.90	3235543.95	39.668391	-104.663270
	12500.00	90.00	90.05	7875.00	4075.17	-974.19	3998.44	0.00	1669425.73	3235643.95	39.668391	-104.662915
	12600.00	90.00	90.05	7875.00	4174.69	-974.27	4098.44	0.00	1669426.55	3235743.94	39.668390	-104.662559
	12700.00	90.00	90.05	7875.00	4274.20	-974.35	4198.44	0.00	1669427.37	3235843.94	39.668390	-104.662204
	12800.00	90.00	90.05	7875.00	4373.72	-974.44	4298.44	0.00	1669428.19	3235943.93	39.668390	-104.661849
	12900.00	90.00	90.05	7875.00	4473.24	-974.52	4398.44	0.00	1669429.02	3236043.93	39.668390	-104.661494
	13000.00	90.00	90.05	7875.00	4572.76	-974.61	4498.44	0.00	1669429.84	3236143.92	39.668389	-104.661139
	13100.00	90.00	90.05	7875.00	4672.28	-974.69	4598.44	0.00	1669430.66	3236243.92	39.668389	-104.660783
	13200.00	90.00	90.05	7875.00	4771.80	-974.77	4698.44	0.00	1669431.48	3236343.91	39.668389	-104.660428
	13300.00	90.00	90.05	7875.00	4871.31	-974.86	4798.44	0.00	1669432.31	3236443.91	39.668389	-104.660073
	13400.00	90.00	90.05	7875.00	4970.83	-974.94	4898.44	0.00	1669433.13	3236543.90	39.668388	-104.659718
	13500.00	90.00	90.05	7875.00	5070.35	-975.02	4998.44	0.00	1669433.95	3236643.90	39.668388	-104.659362
	13600.00	90.00	90.05	7875.00	5169.87	-975.11	5098.44	0.00	1669434.77	3236743.89	39.668388	-104.659007
	13700.00	90.00	90.05	7875.00	5269.39	-975.19	5198.44	0.00	1669435.59	3236843.89	39.668387	-104.658652
	13800.00	90.00	90.05	7875.00	5368.90	-975.27	5298.44	0.00	1669436.42	3236943.88	39.668387	-104.658297
	13900.00	90.00	90.05	7875.00	5468.42	-975.36	5398.44	0.00	1669437.24	3237043.88	39.668387	-104.657942
	14000.00	90.00	90.05	7875.00	5567.94	-975.44	5498.44	0.00	1669438.06	3237143.87	39.668387	-104.657586
	14100.00	90.00	90.05	7875.00	5667.46	-975.52	5598.44	0.00	1669438.88	3237243.87	39.668386	-104.657231
	14200.00	90.00	90.05	7875.00	5766.98	-975.61	5698.44	0.00	1669439.71	3237343.86	39.668386	-104.656876
	14300.00	90.00	90.05	7875.00	5866.50	-975.69	5798.44	0.00	1669440.53	3237443.86	39.668386	-104.656521
	14400.00	90.00	90.05	7875.00	5966.01	-975.77	5898.44	0.00	1669441.35	3237543.85	39.668385	-104.656165
	14500.00	90.00	90.05	7875.00	6065.53	-975.86	5998.44	0.00	1669442.17	3237643.84	39.668385	-104.655810
	14600.00	90.00	90.05	7875.00	6165.05	-975.94	6098.44	0.00	1669443.00	3237743.84	39.668385	-104.655455
	14700.00	90.00	90.05	7875.00	6264.57	-976.02	6198.44	0.00	1669443.82	3237843.83	39.668385	-104.655100
	14800.00	90.00	90.05	7875.00	6364.09	-976.11	6298.44	0.00	1669444.64	3237943.83	39.668384	-104.654745
	14900											

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	17900.00	90.00	90.05	7875.00	9449.15	-978.69	9398.44	0.00	1669470.14	3241043.67	39.668375	-104.643733
	18000.00	90.00	90.05	7875.00	9548.67	-978.77	9498.44	0.00	1669470.96	3241143.67	39.668374	-104.643377
	18100.00	90.00	90.05	7875.00	9648.19	-978.86	9598.44	0.00	1669471.78	3241243.66	39.668374	-104.643022
	18200.00	90.00	90.05	7875.00	9747.70	-978.94	9698.44	0.00	1669472.60	3241343.66	39.668374	-104.642667
	18300.00	90.00	90.05	7875.00	9847.22	-979.02	9798.44	0.00	1669473.43	3241443.65	39.668373	-104.642312
Cottonwood Creek 4-65 28-27 4DH BHL	18355.12	90.00	90.05	7875.00	9902.08	-979.07	9853.55	0.00	1669473.88	3241498.77	39.668373	-104.642116

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_PLUS_0.5_DEG-Depth Only	Original Hole / Cottonwood Creek 4-65 28-27 4DH Plan #0
	1	28.000	2000.000	1/100.000	13.500	9.625		NAL_MWD_PLUS_0.5_DEG	Original Hole / Cottonwood Creek 4-65 28-27 4DH Plan #0
	1	2000.000	18355.118	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG	Original Hole / Cottonwood Creek 4-65 28-27 4DH Plan #0

Cottonwood Creek 4-65 28-27 4DH Plan #0 Anti-Collision Summary Report

Analysis Date-24hr Time: June 24, 2020 - 13:10
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)
Structure: Crestone Peak 28-04S-65W (Rush South Pad)
Slot: Cottonwood Creek 4-65 28-27 4DH
Well: Cottonwood Creek 4-65 28-27 4DH
Borehole: Original Hole
Scan MD Range: 0.00ft - 18355.12ft

Analysis Method: 3D Least Distance
Reference Trajectory: Cottonwood Creek 4-65 28-27 4DH Plan #0 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: D&M AntiCollision Standard S002 v5.1/5.2
Min Pts: All local minima indicated.
Version / Patch: 2.10.810.1
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 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 Trajectories Summary

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

Results highlighted: Sep-Factor separation <= 1.50 ft

Cottonwood Creek 4-65 27-28 4BH MWD 0' to 18288' - PR (Def Survey)

8052.24	226.02	7900.96	7826.23	53.86	OSF1.50	0.00	0.00					Surface
8024.29	226.15	7872.92	7798.14	53.64	OSF1.50	28.00	28.00					WRP
1091.67	335.89	865.79	755.77	4.93	OSF1.50	7470.00	7357.72	OSF<5.00				Enter Alert
616.99	624.43	189.44	-7.44	1.48	OSF1.50	8170.00	7839.19		OSF<1.50			Enter Minor
556.23	695.76	91.36	-139.53	1.24	OSF1.50	8430.00	7875.00					MinPts
556.21	695.59	91.95	-139.38	1.20	OSF1.50	8440.00	7875.00					MinPt-CiCt
503.42	592.45	107.92	-89.02	1.27	OSF1.50	10110.00	7875.00					MinPt-O-ADP
503.12	592.12	107.84	-89.00	1.27	OSF1.50	10120.00	7875.00					MinPt-O-SF
502.87	591.79	107.81	-88.92	1.27	OSF1.50	10130.00	7875.00					MINPT-O-EOU
502.38	590.63	108.09	-88.25	1.28	OSF1.50	10170.00	7875.00					MinPt-CiCt
548.34	563.49	172.15	-15.15	1.46	OSF1.50	10730.00	7875.00					MinPt-CiCt
555.65	556.36	184.21	-0.71	1.50	OSF1.50	10880.00	7875.00		OSF>1.50			Exit Minor
555.01	518.76	208.64	36.25	1.61	OSF1.50	11540.00	7875.00					MinPts
554.81	518.54	208.59	36.28	1.61	OSF1.50	11550.00	7875.00					MINPT-O-EOU
554.54	517.04	209.32	37.50	1.61	OSF1.50	11590.00	7875.00					MinPt-CiCt
553.55	505.80	215.82	47.75	1.64	OSF1.50	11760.00	7875.00					MinPt-O-SF
553.12	505.39	215.66	47.73	1.64	OSF1.50	11770.00	7875.00					MinPt-O-ADP
550.99	502.88	215.21	48.12	1.64	OSF1.50	11830.00	7875.00					MINPT-O-EOU
545.82	494.81	215.41	51.00	1.66	OSF1.50	11980.00	7875.00					MINPT-O-EOU
541.44	477.05	222.87	64.39	1.70	OSF1.50	12350.00	7875.00					MinPt-CiCt
554.08	445.64	256.43	108.43	1.87	OSF1.50	13000.00	7875.00					MINPT-O-EOU
552.38	439.87	258.60	112.51	1.89	OSF1.50	13150.00	7875.00					MinPt-CiCt
537.96	423.85	254.86	114.11	1.91	OSF1.50	13490.00	7875.00					MinPt-O-SF
537.35	423.32	254.60	114.03	1.91	OSF1.50	13510.00	7875.00					MinPt-O-ADP
536.88	422.77	254.49	114.10	1.91	OSF1.50	13530.00	7875.00					MINPT-O-EOU
534.10	418.07	254.85	116.02	1.92	OSF1.50	13640.00	7875.00					MinPt-O-ADP
533.45	417.27	254.73	116.18	1.92	OSF1.50	13670.00	7875.00					MINPT-O-EOU
533.02	415.86	255.25	117.17	1.92	OSF1.50	13720.00	7875.00					MinPt-CiCt
474.79	375.91	223.65	98.88	1.90	OSF1.50	14980.00	7875.00					MinPts
546.87	368.55	300.63	178.32	2.23	OSF1.50	15450.00	7875.00					MinPts
522.08	361.04	280.85	161.04	2.17	OSF1.50	16750.00	7875.00					MinPt-CiCt
522.12	361.19	280.80	160.94	2.17	OSF1.50	16770.00	7875.00					MINPT-O-EOU
522.24	361.33	280.82	160.91	2.17	OSF1.50	16790.00	7875.00					MinPt-O-ADP
522.34	361.42	280.86	160.92	2.17	OSF1.50	16800.00	7875.00					MinPt-O-SF
483.80	374.58	233.55	109.23	1.94	OSF1.50	17740.00	7875.00					MinPt-CiCt
484.07	375.45	233.24	108.63	1.94	OSF1.50	17780.00	7875.00					MINPT-O-EOU
484.43	375.86	233.32	108.57	1.94	OSF1.50	17800.00	7875.00					MinPt-O-ADP
484.66	376.06	233.42	108.60	1.94	OSF1.50	17810.00	7875.00					MinPt-O-SF
472.87	390.41	212.06	82.46	1.82	OSF1.50	18320.00	7875.00					MinPt-CiCt
472.94	390.57	212.02	82.36	1.82	OSF1.50	18330.00	7875.00					MinPts
473.07	390.70	212.07	82.38	1.82	OSF1.50	18340.00	7875.00					MinPt-O-SF
473.42	390.80	212.35	82.62	1.82	OSF1.50	18355.12	7875.00					TD

Rush 4-65 29-30 4AH Plan #0 (Def Plan)

24.77	20.01	23.79	4.76	N/A	MAS = 6.10 (m)	0.00	0.00	CiCt<=15m<15.00				Warning Alert
24.77	20.01	23.77	4.76	1321.87	MAS = 6.10 (m)	28.00	28.00					Enter Alert
24.35	20.01	21.48	4.34	12.40	MAS = 6.10 (m)	410.00	409.92					WRP
24.41	20.01	21.38	4.40	11.50	MAS = 6.10 (m)	440.00	439.86					MinPts
28.29	20.01	24.50	8.28	9.72	MAS = 6.10 (m)	580.00	579.27					MINPT-O-EOU
49.05	20.01	44.62	29.04	13.94	MAS = 6.10 (m)	780.00	776.99					Exit Alert
197.83	20.01	188.88	177.82	24.72	MAS = 6.10 (m)	2000.00	1977.52					MinPt-O-SF
951.88	54.22	915.41	897.66	26.79	OSF1.50	7188.87	7081.85					MinPt-O-SF
958.86	54.97	921.89	903.89	26.62	OSF1.50	7260.00	7152.12					MinPt-O-SF
775.15	57.07	736.77	718.08	20.71	OSF1.50	7850.00	7676.89					MinPt-O-SF
774.09	56.89	735.84	717.20	20.74	OSF1.50	7890.00	7703.55					MinPts
774.09	56.84	735.87	717.26	20.76	OSF1.50	7900.00	7709.95					MinPt-CiCt
10078.49	63.35	10035.93	10015.14	242.40	OSF1.50	18355.12	7875.00					TD

Rush 4-65 29-30 3CH Plan #0 (Def Plan)

25.14	20.30	24.15	4.83	N/A	MAS = 6.19 (m)	0.00	0.00	CiCt<=15m<15.00				Warning Alert
25.14	20.30	24.15	4.83	13588.90	MAS = 6.19 (m)	28.00	28.00					Enter Alert
25.14	20.30	23.04	4.83	21.79	MAS = 6.19 (m)	240.00	240.00					WRP
25.16	20.30	22.96	4.86	19.88	MAS = 6.19 (m)	260.00	260.00					MinPts
34.62	20.30	31.48	14.32	15.53	MAS = 6.19 (m)	470.00	469.78					MINPT-O-EOU
38.79	20.30	35.38	18.49	15.56	MAS = 6.19 (m)	520.00	519.60					MinPt-O-SF
48.72	20.30	44.73	28.42	15.89	MAS = 6.19 (m)	620.00	618.97					MinPt-O-SF
1437.26	54.66	1400.49	1382.60	40.14	OSF1.50	7188.87	7081.85					Exit Alert
1417.98	56.75	1379.82	1361.23	38.12	OSF1.50	7880.00	7697.04					MinPt-O-SF
1417.24	56.71	1379.11	1360.53	38.12	OSF1.50	7910.00	7716.25					MinPt-O-SF
1416.94	56.68	1378.83	1360.26	38.13	OSF1.50	7940.00	7734.50					MinPts
1416.94	56.67	1378.83	1360.27	38.14	OSF1.50	7950.00	7740.36					MinPt-CiCt
1462.37	57.23	1423.89	1405.14	38.98	OSF1.50	8460.00	7875.00					MinPt-O-SF
1473.13	57.59	1434.41	1415.54	39.01	OSF1.50	8520.00	7875.00					MinPt-O-SF
10131.39	74.70	10081.26	10056.69	206.14	OSF1.50	18355.12	7875.00					TD

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		
Rush 4-65 29-30 4CH Plan #0 (Def Plan)													Warning Alert
	74.68	32.81	73.70	41.87	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	74.68	32.81	73.67	41.87	2551.65	MAS = 10.00 (m)	28.00	28.00				WRP	
	74.68	32.81	72.61	41.87	67.94	MAS = 10.00 (m)	230.00	230.00				MinPts	
	74.71	32.81	72.55	41.90	63.01	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	75.09	32.81	72.88	42.28	60.39	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	113.59	32.81	109.70	80.78	38.79	MAS = 10.00 (m)	800.00	796.67				MinPt-O-SF	
	178.41	32.81	167.65	145.60	18.16	MAS = 10.00 (m)	2010.00	1987.35				MinPt-O-SF	
	653.02	57.15	614.59	595.87	17.41	OSF1.50	7188.87	7081.85				MinPt-O-SF	
	652.84	57.63	614.10	595.21	17.26	OSF1.50	7330.00	7221.41				MinPt-O-SF	
	171.27	53.95	134.98	117.32	4.82	OSF1.50	7920.00	7722.44	OSF<5.00			Enter Alert	
	143.34	57.19	104.88	86.14	3.80	OSF1.50	8020.00	7778.19				MinPts	
	169.06	52.49	133.75	116.58	4.90	OSF1.50	8120.00	7822.02	OSF>5.00			Exit Alert	
	10050.37	60.88	10009.45	9989.49	251.67	OSF1.50	18355.12	7875.00				TD	
Cottonwood Creek 4-65 27-28 4AH MWD 0' to 1825' - PR (Def Survey)													Warning Alert
	7955.80	225.27	7805.02	7730.53	53.39	OSF1.50	0.00	0.00				Surface	
	7927.81	225.38	7776.95	7702.42	53.18	OSF1.50	28.00	28.00				WRP	
	1371.94	416.51	1092.93	955.43	4.97	OSF1.50	7170.00	7063.29	OSF<5.00			Enter Alert	
	838.10	706.32	366.69	131.79	1.78	OSF1.50	8630.00	7875.00				MinPt-O-SF	
	837.20	705.48	366.34	131.71	1.78	OSF1.50	8650.00	7875.00				MinPt-O-ADP	
	835.42	703.31	366.01	132.11	1.78	OSF1.50	8700.00	7875.00				MINPT-O-EOU	
	833.84	697.93	368.02	135.91	1.79	OSF1.50	8810.00	7875.00				MinPt-CtCt	
	859.87	617.69	447.54	242.18	2.09	OSF1.50	9980.00	7875.00				MinPt-O-SF	
	857.46	615.67	446.47	241.78	2.09	OSF1.50	10030.00	7875.00				MinPt-O-ADP	
	855.48	612.87	446.36	242.61	2.10	OSF1.50	10080.00	7875.00				MINPT-O-EOU	
	846.24	589.70	452.57	256.54	2.15	OSF1.50	10490.00	7875.00				MinPt-CtCt	
	853.11	550.34	485.69	302.77	2.33	OSF1.50	11140.00	7875.00				MinPt-CtCt	
	844.49	509.08	504.48	335.32	2.49	OSF1.50	11860.00	7875.00				MinPt-CtCt	
	854.88	442.94	559.06	411.95	2.90	OSF1.50	13120.00	7875.00				MinPt-O-ADP	
	853.32	441.10	558.72	412.23	2.91	OSF1.50	13170.00	7875.00				MINPT-O-EOU	
	829.15	407.10	557.22	422.06	3.06	OSF1.50	13980.00	7875.00				MinPt-O-ADP	
	825.49	402.62	556.54	422.87	3.08	OSF1.50	14110.00	7875.00				MINPT-O-EOU	
	821.24	397.94	555.41	423.30	3.10	OSF1.50	14250.00	7875.00				MinPt-O-ADP	
	820.46	397.02	555.25	423.44	3.11	OSF1.50	14290.00	7875.00				MINPT-O-EOU	
	820.04	396.13	555.42	423.91	3.11	OSF1.50	14340.00	7875.00				MinPt-CtCt	
	825.65	362.40	583.51	463.25	3.43	OSF1.50	16910.00	7875.00				MinPt-CtCt	
	825.76	362.80	583.36	462.96	3.42	OSF1.50	16940.00	7875.00				MINPT-O-EOU	
	825.86	362.93	583.37	462.93	3.42	OSF1.50	16950.00	7875.00				MinPt-O-ADP	
	826.78	363.53	583.90	463.25	3.42	OSF1.50	17000.00	7875.00				MinPt-O-SF	
	839.54	385.74	581.85	453.80	3.27	OSF1.50	18170.00	7875.00				MinPt-CtCt	
	840.19	388.31	580.78	451.88	3.25	OSF1.50	18290.00	7875.00				MINPT-O-EOU	
	840.28	388.43	580.79	451.85	3.25	OSF1.50	18290.00	7875.00				MinPts	
	837.68	387.19	579.02	450.50	3.25	OSF1.50	18355.12	7875.00				MinPts	
Cottonwood Creek 4-65 27-28 3DH MWD 0' to 1795' - PR (Def Survey)													Warning Alert
	8039.71	219.05	7893.07	7820.65	55.50	OSF1.50	0.00	0.00				Surface	
	8011.74	219.16	7865.03	7792.58	55.28	OSF1.50	28.00	28.00				WRP	
	1629.67	492.29	1299.89	1137.38	5.00	OSF1.50	7650.00	7521.52	OSF<5.00			Enter Alert	
	1202.59	688.66	742.99	513.91	2.62	OSF1.50	8820.00	7875.00				MinPts	
	1202.52	688.61	742.91	513.91	2.62	OSF1.50	8830.00	7875.00				MinPt-O-SF	
	1181.02	655.68	743.37	525.34	2.70	OSF1.50	9180.00	7875.00				MinPt-O-SF	
	1167.77	646.43	736.26	521.34	2.71	OSF1.50	9390.00	7875.00				MinPt-O-ADP	
	1165.18	643.31	735.77	521.86	2.72	OSF1.50	9460.00	7875.00				MINPT-O-EOU	
	1162.09	633.83	739.00	528.26	2.75	OSF1.50	9650.00	7875.00				MinPt-CtCt	
	1181.41	553.60	811.81	627.81	3.21	OSF1.50	10900.00	7875.00				MinPt-O-ADP	
	1180.63	552.70	811.63	627.93	3.21	OSF1.50	10930.00	7875.00				MINPT-O-EOU	
	1179.89	550.41	812.42	629.49	3.22	OSF1.50	11000.00	7875.00				MinPt-CtCt	
	1273.80	423.83	990.71	849.97	4.52	OSF1.50	12770.00	7875.00				MinPts	
	1170.62	426.26	885.91	744.36	4.13	OSF1.50	13330.00	7875.00				MinPt-O-SF	
	1168.25	424.92	884.44	743.33	4.13	OSF1.50	13410.00	7875.00				MinPt-O-ADP	
	1168.09	424.73	884.40	743.36	4.14	OSF1.50	13420.00	7875.00				MINPT-O-EOU	
	1167.76	423.21	885.08	744.54	4.15	OSF1.50	13480.00	7875.00				MinPt-CtCt	
	1173.99	398.46	907.81	775.53	4.43	OSF1.50	14130.00	7875.00				MinPt-CtCt	
	1173.22	382.87	917.44	790.35	4.61	OSF1.50	14600.00	7875.00				MinPt-O-ADP	
	1173.02	382.61	917.41	790.41	4.61	OSF1.50	14620.00	7875.00				MINPT-O-EOU	
	1172.89	382.21	917.54	790.67	4.62	OSF1.50	14650.00	7875.00				MinPt-CtCt	
	1175.79	367.96	929.98	807.89	4.81	OSF1.50	15230.00	7875.00				MINPT-O-EOU	
	1168.19	362.59	925.92	805.59	4.85	OSF1.50	15600.00	7875.00				MinPt-O-ADP	
	1168.09	362.47	925.91	805.62	4.85	OSF1.50	15620.00	7875.00				MINPT-O-EOU	
	1161.96	358.91	922.15	803.05	4.87	OSF1.50	16020.00	7875.00				MinPt-CtCt	
	1162.01	359.07	922.10	802.95	4.87	OSF1.50	16040.00	7875.00				MinPts	
	1162.52	359.33	922.43	803.19	4.87	OSF1.50	16080.00	7875.00				MinPt-O-SF	
	1174.38	358.69	934.72	815.69	4.93	OSF1.50	16600.00	7875.00				MinPt-CtCt	
	1174.51	359.07	934.60	815.44	4.92	OSF1.50	16650.00	7875.00				MINPT-O-EOU	
	1174.83	359.45	934.66	815.38	4.92	OSF1.50	16690.00	7875.00				MinPt-O-ADP	
	1177.01	360.48	936.15	816.53	4.91	OSF1.50	16780.00	7875.00				MinPt-O-SF	
	1178.67	380.25	924.63	798.42	4.66	OSF1.50	18040.00	7875.00				MinPt-O-SF	
	1177.67	379.83	923.91	797.84	4.66	OSF1.50	18050.00	7875.00				MinPts	
	1159.33	376.44	907.84	782.90	4.63	OSF1.50	18150.00	7875.00				MinPts	
	1105.87	375.90	854.74	729.97	4.43	OSF1.50	18355.12	7875.00				MinPts	
Cottonwood Creek 4-65 27-28 3CH MWD 0' to 1834' - PR (Def Survey)													Warning Alert
	7969.21	231.07	7814.56	7738.14	52.13	OSF1.50	0.00	0.00				Surface	
	7941.27	231.20	7786.54	7710.08	51.92	OSF1.50	28.00	28.00				WRP	
	1838.46	554.46	1468.15	1284.00	4.99	OSF1.50	7120.00	7014.10	OSF<5.00			Enter Alert	
	1516.20	719.59	1035.94	796.61	3.18	OSF1.50	8390.00	7874.76				MinPts	
	1506.51	704.65	1036.21	801.86	3.21	OSF1.50	8590.00	7875.00				MINPT-O-EOU	
	1484.20	679.62	1030.58	804.58	3.28	OSF1.50	8970.00	7875.00				MinPt-O-ADP	
	1481.74	676.59	1030.15	805.15	3.29	OSF1.50	9040.00	7875.00				MINPT-O-EOU	
	1479.14	666.62	1034.20	812.53	3.33	OSF1.50	9240.00	7875.00				MinPt-CtCt	
	1508.45	550.54	1140.85	957.91	4.12	OSF1.50	11000.00	7875.00				MinPt-O-ADP	
	1505.50	546.94	1140.33	958.56	4.14	OSF1.50	11090.00	7875.00				MINPT-O-EOU	
	1503.83	541.94	1142.00	961.89	4.17	OSF1.50	11220.00	7875.00				MinPt-CtCt	
	1523.37	484.93	1199.54	1038.43	4.72	OSF1.50	12110.00	7875.00				MinPt-O-SF	
	1519.38	483.27	1196.										

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		
1489.46	455.32	1195.37	1044.13	4.95	OSF1.50	12820.00	7875.00	OSF:5.00			Exit Alert		
1492.81	444.58	1195.86	1048.23	5.05	OSF1.50	12980.00	7875.00				MinPt-O-ADP		
1491.62	443.18	1195.63	1048.44	5.06	OSF1.50	13030.00	7875.00				MINPT-O-EOU		
1490.61	440.00	1196.73	1050.60	5.09	OSF1.50	13140.00	7875.00				MinPt-CtCt		
1524.73	412.46	1249.22	1112.27	5.56	OSF1.50	13750.00	7875.00				MinPt-O-ADP		
1524.21	411.85	1249.11	1112.36	5.57	OSF1.50	13780.00	7875.00				MINPT-O-EOU		
1480.86	387.80	1221.79	1093.06	5.75	OSF1.50	14460.00	7875.00				MinPt-O-SF		
1480.44	387.59	1221.52	1092.86	5.75	OSF1.50	14500.00	7875.00				MinPts		
1480.41	387.34	1221.65	1093.08	5.75	OSF1.50	14520.00	7875.00				MinPt-CtCt		
1485.99	362.30	1243.93	1123.69	6.17	OSF1.50	15610.00	7875.00				MinPt-O-SF		
1485.77	362.09	1243.84	1123.68	6.18	OSF1.50	15620.00	7875.00				MinPt-O-ADP		
1479.82	360.66	1238.84	1119.18	6.18	OSF1.50	15820.00	7875.00				MinPt-O-SF		
1478.57	359.97	1238.06	1118.60	6.18	OSF1.50	15980.00	7875.00				MinPts		
1478.58	359.97	1238.06	1118.61	6.18	OSF1.50	15990.00	7875.00				MinPt-O-SF		
1482.61	360.01	1242.07	1122.60	6.20	OSF1.50	16270.00	7875.00				MinPt-O-SF		
1522.81	362.95	1280.31	1159.88	6.31	OSF1.50	17000.00	7875.00				MinPt-O-SF		
1501.45	370.39	1253.98	1131.05	6.10	OSF1.50	17540.00	7875.00				MinPt-CtCt		
1501.90	371.84	1253.48	1130.06	6.08	OSF1.50	17600.00	7875.00				MINPT-O-EOU		
1502.48	372.54	1253.58	1129.95	6.07	OSF1.50	17630.00	7875.00				MinPt-O-ADP		
1520.67	379.19	1267.34	1141.48	6.03	OSF1.50	17940.00	7875.00				MinPt-O-SF		
1515.17	378.89	1262.04	1136.27	6.02	OSF1.50	18000.00	7875.00				MinPts		
1405.55	361.82	1163.80	1043.73	5.85	OSF1.50	18355.12	7875.00				MinPts		

Little Rush 4-65 28 1V MWD 0' to 8693' - PR (Def Survey)												
201.29	32.81	199.47	168.48	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
201.27	32.81	199.45	168.46	79632.59	MAS = 10.00 (m)	20.00	20.00				MinPts	
201.88	32.81	199.13	169.07	213.24	MAS = 10.00 (m)	210.00	210.00				WRP	
219.06	32.81	214.22	186.25	71.84	MAS = 10.00 (m)	800.00	796.67				MINPT-O-EOU	
426.59	32.81	417.81	393.78	59.28	MAS = 10.00 (m)	2100.00	2075.89				MinPt-O-SF	
1227.43	37.81	1201.69	1189.62	50.79	OSF1.50	6610.00	6512.41				MinPt-O-SF	
1302.54	40.09	1275.28	1262.45	50.71	OSF1.50	6960.00	6856.71				MinPt-O-SF	
1351.15	41.91	1322.67	1309.24	50.23	OSF1.50	7188.87	7081.85				MinPt-O-SF	
1142.70	46.54	1111.14	1096.16	38.09	OSF1.50	8570.00	7875.00				MinPt-CtCt	
1142.77	46.72	1111.09	1096.05	37.94	OSF1.50	8580.00	7875.00				MINPT-O-EOU	
1142.94	46.90	1111.14	1096.04	37.80	OSF1.50	8590.00	7875.00				MinPt-O-ADP	
1208.57	53.14	1172.61	1155.43	35.13	OSF1.50	8960.00	7875.00				MinPt-O-SF	
9854.32	55.92	9816.51	9798.40	272.11	OSF1.50	18355.12	7875.00				TD	

Rush 4-65 29-30 3AH MWD 0' to 15645' - PR (Def Survey)												
240.61	32.81	238.80	207.81	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
240.61	32.81	238.80	207.80	N/A	MAS = 10.00 (m)	20.00	20.00				MinPts	
240.61	32.81	238.79	207.80	43558.69	MAS = 10.00 (m)	28.00	28.00				WRP	
240.65	32.81	238.76	207.84	3139.95	MAS = 10.00 (m)	40.00	40.00				MINPT-O-EOU	
275.47	32.81	269.82	242.66	71.29	MAS = 10.00 (m)	810.00	806.51				MinPt-O-SF	
477.95	32.81	467.17	445.14	51.95	MAS = 10.00 (m)	2000.00	1977.52				MinPt-O-SF	
941.31	32.81	925.71	908.50	67.15	MAS = 10.00 (m)	4040.00	3984.28				MinPt-O-SF	
1033.54	32.81	1016.77	1000.74	68.02	MAS = 10.00 (m)	4340.00	4279.39				MinPt-O-SF	
1093.11	32.81	1075.46	1060.30	68.05	MAS = 10.00 (m)	4540.00	4476.14				MinPt-O-SF	
1327.64	32.81	1305.89	1294.83	65.82	MAS = 10.00 (m)	5360.00	5282.78				MinPt-O-SF	
1363.37	32.81	1340.98	1330.56	65.51	MAS = 10.00 (m)	5490.00	5410.66				MinPt-O-SF	
1426.63	34.20	1403.30	1392.43	65.58	OSF1.50	5710.00	5627.07				MinPt-O-SF	
1547.17	37.22	1521.82	1509.94	65.09	OSF1.50	6110.00	6020.56				MinPt-O-SF	
1676.30	40.17	1648.98	1636.12	65.13	OSF1.50	6520.00	6423.88				MinPt-O-SF	
1828.24	44.02	1798.36	1784.22	64.60	OSF1.50	7000.00	6896.06				MinPt-O-SF	
1943.27	45.21	1912.59	1898.05	66.78	OSF1.50	7400.00	7290.16				MinPt-O-SF	
2009.97	45.02	1979.43	1964.96	69.40	OSF1.50	7860.00	7683.71				MinPt-O-SF	
2409.71	61.93	2367.89	2347.78	59.87	OSF1.50	9450.00	7875.00				MinPt-O-SF	
8335.09	82.97	8279.24	8252.12	153.63	OSF1.50	16280.00	7875.00				MinPt-O-SF	
10353.69	83.95	10297.19	10269.74	188.57	OSF1.50	18355.12	7875.00				TD	

Cottonwood Creek 4-65 28-27 3AH Plan #0 (Def Plan)												
1596.59	32.81	1595.61	1563.78	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
1596.23	32.81	1595.21	1563.42	41548.57	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
1596.15	32.81	1595.14	1563.35	51454.42	MAS = 10.00 (m)	28.00	28.00				WRP	
1596.12	32.81	1594.08	1563.31	1513.88	MAS = 10.00 (m)	250.00	250.00				MinPts	
1596.19	32.81	1593.98	1563.38	1299.38	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
1592.51	32.81	1588.11	1559.70	465.76	MAS = 10.00 (m)	780.00	776.99				MinPts	
1592.53	32.81	1588.09	1559.72	460.31	MAS = 10.00 (m)	790.00	786.83				MINPT-O-EOU	
1703.28	32.81	1691.66	1670.47	160.08	MAS = 10.00 (m)	2100.00	2075.89				MinPt-O-SF	
2197.39	57.47	2158.74	2139.91	58.32	OSF1.50	7200.00	7092.81				MinPt-O-SF	
2257.33	54.70	1893.87	1712.63	6.22	OSF1.50	18355.12	7875.00				MinPts	

Rush 4-65 29-30 2CH Plan #0 (Def Plan)												
1619.75	32.81	1618.77	1586.94	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
1619.38	32.81	1618.36	1586.58	40614.22	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
1619.31	32.81	1618.29	1586.50	48508.07	MAS = 10.00 (m)	28.00	28.00				WRP	
1619.26	32.81	1617.23	1586.45	1539.87	MAS = 10.00 (m)	250.00	250.00				MinPts	
1619.38	32.81	1617.12	1586.57	1273.25	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
1888.80	32.81	1877.07	1855.99	175.60	MAS = 10.00 (m)	2230.00	2203.77				MinPt-O-SF	
2812.14	54.43	2775.52	2757.71	78.89	OSF1.50	7200.00	7092.81				MinPt-O-SF	
2849.92	57.53	2811.24	2792.39	75.58	OSF1.50	7740.00	7595.63				MinPt-O-SF	
2849.55	57.48	2810.90	2792.07	75.63	OSF1.50	7790.00	7633.94				MinPt-O-ADP	
2849.53	57.46	2810.89	2792.07	75.65	OSF1.50	7800.00	7641.34				MinPts	
2860.14	57.08	2821.76	2803.06	76.45	OSF1.50	8170.00	7839.19				MinPt-O-SF	
3483.49	86.25	3425.66	3397.24	61.27	OSF1.50	10290.00	7875.00				MinPt-O-SF	
3494.70	86.52	3436.69	3408.18	61.27	OSF1.50	10310.00	7875.00				MinPt-O-SF	
10413.15	113.92	10336.87	10299.23	138.30	OSF1.50	18355.12	7875.00				TD	

Cottonwood Creek 4-65 28-27 2AH Plan #0 (Def Plan)												
1643.00	32.81	1642.01	1610.19	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
1642.62	32.81	1641.59	1609.81	39788.97	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
1642.54	32.81	1641.52	1609.73	46041.31	MAS = 10.00 (m)	28.00	28.00				WRP	
1642.49	32.81	1640.45	1609.68	1566.05	MAS = 10.00 (m)	250.00	250.00				MinPts	
1642.56	32.81	1640.35	1609.75	1341.87	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
1912.67	32.81	1900.58	1879.86	172.20	MAS = 10.00 (m)	2230.00	2203.77				MinPt-O-SF	
2824.41	56.49	2786.42	2767.92	76.30	OSF1.50	7200.00	7092.81				MinPt-O-SF	
3514.32	54.76	3152.15	2971.56	9.73	OSF1.50	18355.12	7875.00				MinPts	

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		
Rush 4-65 29-30 2AH Plan #0 (Def Plan)													
	1666.26	32.81	1665.28	1633.45	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	1665.88	32.81	1664.85	1633.07	39055.39	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF
	1665.79	32.81	1664.77	1632.98	43947.83	MAS = 10.00 (m)	28.00	28.00					WRP
	1665.72	32.81	1663.70	1632.93	1592.37	MAS = 10.00 (m)	250.00	250.00					MinPts
	1665.85	32.81	1663.60	1633.05	1316.10	MAS = 10.00 (m)	300.00	300.00					MINPT-O-EOU
	2077.47	32.81	2065.17	2044.66	183.53	MAS = 10.00 (m)	2380.00	2351.32					MinPt-O-SF
	3321.20	54.38	3284.62	3266.82	93.26	OSF1.50	7200.00	7092.81					MinPt-O-SF
	4291.26	99.40	4224.66	4191.86	65.38	OSF1.50	10910.00	7875.00					MinPt-O-SF
	10570.96	130.09	10483.91	10440.88	122.81	OSF1.50	18355.12	7875.00					TD
Cottonwood Creek 4-65 28-27 1CH Plan #0 (Def Plan)													
	1689.60	32.81	1688.62	1656.80	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	1689.21	32.81	1688.19	1656.41	38404.02	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF
	1689.13	32.81	1688.10	1656.32	42155.26	MAS = 10.00 (m)	28.00	28.00					WRP
	1689.06	32.81	1687.03	1656.25	1618.89	MAS = 10.00 (m)	250.00	250.00					MinPts
	1689.14	32.81	1686.94	1656.33	1386.69	MAS = 10.00 (m)	290.00	290.00					MINPT-O-EOU
	2163.23	32.81	2150.43	2130.42	182.98	MAS = 10.00 (m)	2440.00	2410.35					MinPt-O-SF
	3509.07	56.47	3471.10	3452.60	94.83	OSF1.50	7200.00	7092.81					MinPt-O-SF
	3727.61	58.60	3688.22	3669.01	97.03	OSF1.50	8070.00	7801.66					MinPt-O-SF
	3836.32	66.21	3791.86	3770.12	88.20	OSF1.50	8620.00	7875.00					MinPts
	4055.63	544.57	3692.26	3511.06	11.13	OSF1.50	18355.12	7875.00					MinPts
Rush 4-65 29-30 1CH Plan #0 (Def Plan)													
	1712.96	32.81	1711.98	1680.16	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	1712.57	32.81	1711.54	1679.76	37821.94	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF
	1712.48	32.81	1711.45	1679.67	40604.05	MAS = 10.00 (m)	28.00	28.00					WRP
	1712.40	32.81	1710.38	1679.59	1645.54	MAS = 10.00 (m)	250.00	250.00					MinPts
	1712.48	32.81	1710.28	1679.67	1409.29	MAS = 10.00 (m)	290.00	290.00					MINPT-O-EOU
	2267.49	32.81	2254.73	2234.68	192.59	MAS = 10.00 (m)	2560.00	2528.39					MinPt-O-SF
	3791.01	54.67	3754.23	3736.34	105.89	OSF1.50	7200.00	7092.81					MinPt-O-SF
	3935.39	55.90	3897.79	3879.48	107.46	OSF1.50	7810.00	7648.64					MinPt-O-SF
	3975.53	58.78	3936.02	3916.75	103.15	OSF1.50	8400.00	7875.00					MINPT-O-EOU
	3975.69	58.98	3936.04	3916.71	102.80	OSF1.50	8420.00	7875.00					MinPt-O-ADP
	5021.88	111.19	4947.43	4910.69	68.34	OSF1.50	11450.00	7875.00					MinPt-O-SF
	10728.88	144.29	10632.36	10584.59	112.29	OSF1.50	18355.12	7875.00					TD
Cottonwood Creek 4-65 28-27 1AH Plan #0 (Def Plan)													
	1736.40	32.81	1735.42	1703.59	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	1736.00	32.81	1734.97	1703.19	37303.45	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF
	1735.90	32.81	1734.87	1703.09	39254.13	MAS = 10.00 (m)	28.00	28.00					WRP
	1735.82	32.81	1733.80	1703.01	1672.38	MAS = 10.00 (m)	250.00	250.00					MinPts
	1735.90	32.81	1733.71	1703.09	1432.06	MAS = 10.00 (m)	290.00	290.00					MINPT-O-EOU
	2430.16	32.81	2416.55	2397.35	192.39	MAS = 10.00 (m)	2710.00	2675.95					MinPt-O-SF
	4144.35	56.91	4106.08	4087.44	111.13	OSF1.50	7200.00	7092.81					MinPt-O-SF
	4419.21	59.22	4379.40	4359.98	113.79	OSF1.50	8050.00	7792.64					MinPt-O-SF
	4594.01	547.35	4228.78	4046.66	12.61	OSF1.50	18355.12	7875.00					MinPts
Rush 4-65 29-30 1AH Plan #0 (Def Plan)													
	1759.91	32.81	1758.93	1727.10	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	1759.49	32.81	1758.46	1726.68	35471.04	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF
	1759.39	32.81	1758.35	1726.58	36056.61	MAS = 10.00 (m)	28.00	28.00					WRP
	1759.28	32.81	1757.27	1726.48	1703.79	MAS = 10.00 (m)	250.00	250.00					MinPts
	1759.37	32.81	1757.18	1726.56	1458.51	MAS = 10.00 (m)	290.00	290.00					MINPT-O-EOU
	2518.03	32.81	2504.45	2485.22	199.94	MAS = 10.00 (m)	2770.00	2734.97					MinPt-O-SF
	4288.24	55.11	4251.18	4233.13	118.82	OSF1.50	7200.00	7092.81					MinPt-O-SF
	4532.20	59.44	4492.24	4472.75	116.27	OSF1.50	8410.00	7875.00					MinPt-CtCt
	4532.27	59.79	4492.12	4472.55	115.72	OSF1.50	8440.00	7875.00					MINPT-O-EOU
	4532.42	59.91	4492.16	4472.51	115.35	OSF1.50	8460.00	7875.00					MinPt-O-ADP
	5813.67	123.63	5730.92	5690.04	71.08	OSF1.50	12060.00	7875.00					MinPt-O-SF
	10914.22	158.11	10808.48	10756.11	104.19	OSF1.50	18355.12	7875.00					TD
Chico 4-65 26-25 3AH MWD 0' to 17900' - PR (Def Survey)													
	10857.82	32.81	10855.95	10825.02	185615.19	MAS = 10.00 (m)	0.00	0.00				Pass	MinPts
	10857.96	32.81	10856.06	10825.15	127151.41	MAS = 10.00 (m)	28.00	28.00					WRP
	10917.73	32.81	10913.19	10884.92	4008.97	MAS = 10.00 (m)	800.00	796.67					MinPt-O-SF
	11220.50	37.38	11195.04	11183.12	470.36	OSF1.50	5690.00	5607.40					MinPt-CtCt
	11220.60	37.69	11194.94	11182.91	466.39	OSF1.50	5740.00	5656.59					MINPT-O-EOU
	11220.70	37.81	11194.96	11182.89	464.81	OSF1.50	5760.00	5676.26					MinPt-O-ADP
	11317.84	46.78	11286.12	11271.06	375.74	OSF1.50	7200.00	7092.81					MinPt-O-SF
	2266.20	374.04	2015.21	1892.16	9.19	OSF1.50	18355.12	7875.00					MinPts
Chico 4-65 26-25 2DH MWD 0' to 17975' - PR (Def Survey)													
	10864.41	32.81	10862.48	10831.60	90595.91	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	10864.37	32.81	10862.42	10831.56	76388.65	MAS = 10.00 (m)	28.00	28.00					WRP
	10864.33	32.81	10862.36	10831.53	67074.13	MAS = 10.00 (m)	50.00	50.00					MinPt-O-SF
	10864.23	32.81	10861.84	10831.42	18912.91	MAS = 10.00 (m)	190.00	190.00					MinPts
	10864.27	32.81	10861.56	10831.46	12204.93	MAS = 10.00 (m)	260.00	260.00					MINPT-O-EOU
	10916.57	32.81	10912.21	10883.76	4287.28	MAS = 10.00 (m)	800.00	796.67					MinPt-O-SF
	11227.60	35.27	11203.55	11192.33	500.19	OSF1.50	5700.00	5617.24					MinPt-CtCt
	11227.70	35.56	11203.43	11192.10	495.41	OSF1.50	5750.00	5666.42					MINPT-O-EOU
	11227.86	35.79	11203.47	11192.07	492.59	OSF1.50	5780.00	5685.93					MinPt-O-ADP
	11323.59	45.11	11292.99	11278.49	390.39	OSF1.50	7200.00	7092.81					MinPt-O-SF
	2584.31	381.02	2329.17	2203.29	10.25	OSF1.50	18355.12	7875.00					MinPts
Chico 4-65 26-25 2CH MWD 0' to 17734' - PR (Def Survey)													
	10870.94	32.81	10868.96	10838.13	75271.37	MAS = 10.00 (m)	0.00	0.00				Pass	MinPts
	10870.97	32.81	10868.89	10838.16	40914.33	MAS = 10.00 (m)	28.00	28.00					WRP
	10871.18	32.81	10868.15	10838.37	8908.53	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EOU
	10871.27	32.81	10868.22	10838.47	8749.77	MAS = 10.00 (m)	270.00	270.00					MinPt-O-SF
	10924.00	32.81	10919.67	10891.20	4325.17	MAS = 10.00 (m)	800.00	796.67					MinPt-O-SF
	11136.88	32.81	11128.17	11104.07	1567.45	MAS = 10.00 (m)	2290.00	2262.79					MinPt-O-SF
	11369.70	32.81	11347.82	11336.89	560.79	MAS = 10.00 (m)	5510.00	5430.33					MinPts
	11369.81	32.81	11347.71	11337.01	554.50	MAS = 10.00 (m)	5560.00	5479.52					MINPT-O-EOU
	11487.50	43.69	11457.83	11443.80	409.33	OSF1.50	7200.00	7092.81					MinPt-O-SF
	2869.66	377.39	2616.94	2492.26	11.49	OSF1.50	18355.12	7875.00					MinPts

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		
Cottonwood Creek 4-65 27 1H ST1 7234' to 12126' - PR (Def Survey)													
	5714.19	32.81	5712.38	5681.39	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	MinPts
	5714.20	32.81	5712.37	5681.40	315499.26	MAS = 10.00 (m)	28.00	28.00					WRP
	5714.67	32.81	5711.77	5681.87	5238.92	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EOU
	5767.30	32.81	5761.99	5734.49	1650.70	MAS = 10.00 (m)	800.00	796.67					MinPt-O-SF
	6716.06	43.00	6686.86	6673.06	243.28	OSF1.50	7200.00	7092.81					MinPt-O-SF
	6573.42	40.10	6546.15	6533.39	256.09	OSF1.50	7840.00	7669.97					MinPt-O-SF
	2872.69	227.00	2720.74	2645.60	19.11	OSF1.50	13970.00	7875.00					MinPt-CiCt
	2873.45	229.36	2720.01	2644.09	18.91	OSF1.50	14040.00	7875.00					MINPT-O-EOU
	2874.28	230.34	2720.19	2643.95	18.84	OSF1.50	14070.00	7875.00					MinPt-O-ADP
	2903.03	249.03	2736.48	2654.00	17.59	OSF1.50	14490.00	7875.00					MINPT-O-EOU
	2905.28	251.68	2736.95	2653.59	17.42	OSF1.50	14560.00	7875.00					MinPt-O-ADP
	2947.14	338.09	2721.21	2609.05	13.13	OSF1.50	16090.00	7875.00					MINPT-O-EOU
	2955.45	350.43	2721.29	2605.01	12.70	OSF1.50	16290.00	7875.00					MINPT-O-EOU
	2959.78	486.56	2634.88	2473.23	9.15	OSF1.50	18190.00	7875.00					MinPt-CiCt
	2960.15	487.84	2634.39	2472.31	9.13	OSF1.50	18240.00	7875.00					MINPT-O-EOU
	2960.54	488.31	2634.46	2472.22	9.12	OSF1.50	18260.00	7875.00					MinPt-O-ADP
	2964.21	490.27	2636.82	2473.93	9.09	OSF1.50	18355.12	7875.00					MinPt-O-SF

Cottonwood Creek 4-65 27 1H Pilot 0' to 8261' - PR (Def Survey)													
Offset Trajectory	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Allow Dev. (ft)	Sep. Fact.	Controlling Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	Alert	Status
	5714.19	32.81	5712.38	5681.39	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	MinPts
	5714.20	32.81	5712.37	5681.40	315499.26	MAS = 10.00 (m)	28.00	28.00					WRP
	5714.67	32.81	5711.77	5681.87	5238.92	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EOU
	5767.30	32.81	5761.99	5734.49	1650.70	MAS = 10.00 (m)	800.00	796.67					MinPt-O-SF
	6716.06	43.00	6686.86	6673.06	243.28	OSF1.50	7200.00	7092.81					MinPt-O-SF
	2962.21	219.27	2815.50	2742.94	20.40	OSF1.50	13760.00	7875.00					MinPt-CiCt
	2962.85	221.26	2814.82	2741.61	20.22	OSF1.50	13820.00	7875.00					MINPT-O-EOU
	2963.63	222.20	2814.96	2741.43	20.14	OSF1.50	13850.00	7875.00					MinPt-O-ADP
	3035.21	235.95	2877.37	2799.26	19.42	OSF1.50	14420.00	7875.00					MinPt-O-SF
	5468.14	206.81	5329.73	5261.33	39.96	OSF1.50	18355.12	7875.00					TD

Chico 4-65 26-25 2BH MWD 0' to 17932' - PR (Def Survey)													
Offset Trajectory	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Allow Dev. (ft)	Sep. Fact.	Controlling Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	Alert	Status
	10878.05	32.81	10876.20	10845.25	288432.34	MAS = 10.00 (m)	0.00	0.00				Pass	MinPts
	10878.23	32.81	10876.35	10845.42	177119.48	MAS = 10.00 (m)	28.00	28.00					WRP
	10968.33	32.81	10962.74	10935.53	2902.79	MAS = 10.00 (m)	970.00	964.15					MinPt-O-SF
	10983.26	32.81	10977.65	10950.45	2897.05	MAS = 10.00 (m)	1070.00	1062.65					MinPt-O-SF
	11128.56	32.81	11119.92	11095.75	1582.13	MAS = 10.00 (m)	2100.00	2075.89					MinPt-O-SF
	11154.97	32.81	11146.36	11122.16	1593.52	MAS = 10.00 (m)	2290.00	2262.79					MinPt-O-SF
	11316.51	34.93	11292.69	11281.58	509.31	OSF1.50	5560.00	5479.52					MinPt-CiCt
	11316.61	35.25	11292.58	11281.36	504.42	OSF1.50	5610.00	5528.70					MINPT-O-EOU
	11316.78	35.45	11292.62	11281.34	501.53	OSF1.50	5640.00	5558.22					MinPt-O-ADP
	11429.61	45.64	11398.65	11383.97	389.26	OSF1.50	7200.00	7092.81					MinPt-O-SF
	3132.30	381.14	2877.67	2751.15	12.37	OSF1.50	18355.12	7875.00					MinPts