# Rockburst dataset

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Number | Project | *D*0/m | *σ*θmax/MPa | *σ*c/MPa | *σ*t/MPa | *W*et | Intensity | data sources |
| 1 | 天生桥二级水电站引水隧洞 | 9.58 | 30.000 | 88.700 | 3.700 | 6.600 | 中等岩爆 | [82] |
| 2 | 天生桥二级水电站引水隧洞 | 10.830 | 30.000 | 88.700 | 3.700 | 6.600 | 中等岩爆 | [82] |
| 3 | 渔子溪水电站引水隧洞 | 5.000 | 90.000 | 170.000 | 11.300 | 9.000 | 中-强岩爆 | [82] |
| 4 | 李家峡水电站地下洞室 | 7.000 | 11.000 | 115.000 | 5.000 | 5.700 | 无岩爆 | [82] |
| 5 | 锦平二级水电站引水隧洞 | 13.000 | 98.600 | 120.000 | 6.500 | 3.800 | 中-弱岩爆 | [82] |
| 6 | 挪威Sewage 隧道 | 2.980 | 75.000 | 180.000 | 8.300 | 5.000 | 中等岩爆 | [82] |
| 7 | 瑞典 Vietas 水电站引水隧洞 | 15.840 | 80.000 | 180.000 | 6.700 | 5.500 | 弱岩爆 | [82] |
| 8 | 日本关越隧道 | 10.400 | 89.000 | 236.000 | 8.300 | 5.000 | 中-强岩爆 | [82] |
| 9 | 二滩水电站 2 号支洞 | 14.410 | 90.000 | 220.000 | 7.400 | 7.300 | 弱岩爆 | [82] |
| 10 | 鲁布革水电站地下隧洞 | 8.000 | 34.000 | 150.000 | 5.400 | 7.800 | 无岩爆 | [82] |
| 11 | 太平驿水电站引水隧洞 | 9.600 | 62.600 | 165.000 | 9.400 | 9.000 | 中等岩爆 | [82] |
| 12 | 挪威 Heggura 公路隧道 | 7.130 | 62.500 | 175.000 | 7.250 | 5.000 | 中等岩爆 | [82] |
| 13 | 金川二矿区 | 4.720 | 60.000 | 66.500 | 9.700 | 2.200 | 弱岩爆 | [82] |
| 14 | 括苍山隧道 | 12.000 | 13.900 | 124.000 | 4.200 | 2.000 | 无岩爆 | [82] |
| 15 | 江边水电站引水隧洞0+550 | 8.400 | 91.425 | 157.630 | 11.960 | 6.270 | 强岩爆 | [83] |
| 16 | 江边水电站引水隧洞4+768 | 8.400 | 66.771 | 148.380 | 8.464 | 5.080 | 弱岩爆 | [83] |
| 17 | 江边水电站引水隧洞4+832 | 8.400 | 51.500 | 132.050 | 6.330 | 4.630 | 中等岩爆 | [83] |
| 18 | 江边水电站引水隧洞5+300 | 8.400 | 35.820 | 127.930 | 4.427 | 3.670 | 弱岩爆 | [83] |
| 19 | 江边水电站引水隧洞5+486 | 8.400 | 21.504 | 107.520 | 2.983 | 2.290 | 无岩爆 | [83] |
| 20 | 江边水电站引水隧洞7+366 | 8.400 | 18.318 | 96.410 | 2.011 | 1.870 | 无岩爆 | [83] |
| 21 | 江边水电站引水隧洞7+790 | 8.400 | 110.345 | 167.190 | 12.666 | 6.830 | 强岩爆 | [83] |
| 22 | 江边水电站引水隧洞7+806 | 8.400 | 26.061 | 118.460 | 3.510 | 2.890 | 弱岩爆 | [83] |
| 23 | 马路坪深埋硬岩矿山 | 4.672 | 63.800 | 110.000 | 4.500 | 6.310 | 中-弱岩爆 | [84]（巷道数据引自[85]） |
| 24 | 马路坪深埋硬岩矿山 | 4.672 | 2.600 | 20.000 | 3.000 | 1.390 | 无岩爆 | [84]（巷道断面引自[85]） |
| 25 | 马路坪深埋硬岩矿山 | 4.672 | 44.400 | 120.000 | 5.000 | 5.100 | 弱岩爆 | [84]（巷道断面引自[85]） |
| 26 | 马路坪深埋硬岩矿山 | 4.672 | 13.500 | 30.000 | 2.670 | 2.030 | 弱岩爆 | [84]（巷道断面引自[85]） |
| 27 | 马路坪深埋硬岩矿山 | 4.672 | 70.400 | 110.000 | 4.500 | 6.310 | 中等岩爆 | [84]（巷道断面引自[85]） |
| 28 | 马路坪深埋硬岩矿山 | 4.672 | 3.800 | 20.000 | 3.000 | 1.390 | 无岩爆 | [84]（巷道断面引自[85]） |
| 29 | 马路坪深埋硬岩矿山 | 4.672 | 57.600 | 120.000 | 5.000 | 5.100 | 中等岩爆 | [84]（巷道断面引自[85]） |
| 30 | 马路坪深埋硬岩矿山 | 4.672 | 19.500 | 30.000 | 2.670 | 2.030 | 中等岩爆 | [84]（巷道断面引自[85]） |
| 31 | 马路坪深埋硬岩矿山 | 4.672 | 81.400 | 110.000 | 4.500 | 6.310 | 强岩爆 | [84]（巷道断面引自[85]） |
| 32 | 马路坪深埋硬岩矿山 | 4.672 | 4.600 | 20.000 | 3.000 | 1.390 | 无岩爆 | [84]（巷道断面引自[85]） |
| 33 | 马路坪深埋硬岩矿山 | 4.672 | 73.200 | 120.000 | 5.000 | 5.100 | 中等岩爆 | [84]（巷道断面引自[85]） |
| 34 | 马路坪深埋硬岩矿山 | 4.672 | 30.000 | 30.000 | 2.670 | 2.030 | 强岩爆 | [84]（巷道断面引自[85]） |
| 35 | 括苍山隧道 K156+300 | 12.000 | 35.000 | 133.400 | 9.300 | 2.900 | 中-弱岩爆 | [86] |
| 36 | 括苍山隧道 K155+200~K156+178 | 12.000 | 13.900 | 124.000 | 4.220 | 2.040 | 无岩爆 | [86] |
| 37 | 括苍山隧道 K156+2178~K157+573 | 12.000 | 17.400 | 161.000 | 3.980 | 2.190 | 弱岩爆 | [86] |
| 38 | 括苍山隧道 K157+573~K158+078 | 12.000 | 19.000 | 153.000 | 4.480 | 2.110 | 弱岩爆 | [86] |
| 39 | 括苍山隧道 K158+078~K159+250 | 12.000 | 19.700 | 142.000 | 4.550 | 2.260 | 弱岩爆 | [86] |
| 40 | 大相岭隧道YK55+119 | 12.000 | 25.700 | 59.700 | 1.300 | 1.700 | 无岩爆 | [87] |
| 41 | 大相岭隧道YK55+154 | 12.000 | 26.900 | 62.800 | 2.100 | 2.400 | 弱岩爆 | [87] |
| 42 | 大相岭隧道YK55+819 | 12.000 | 40.400 | 72.100 | 2.100 | 1.900 | 弱岩爆 | [87] |
| 43 | 大相岭隧道YK55+854 | 12.000 | 39.400 | 65.200 | 2.300 | 3.400 | 中等岩爆 | [87] |
| 44 | 大相岭隧道YK56+080 | 12.000 | 38.200 | 71.400 | 3.400 | 3.600 | 中等岩爆 | [87] |
| 45 | 大相岭隧道YK56+109 | 12.000 | 45.700 | 69.100 | 3.200 | 4.100 | 中等岩爆 | [87] |
| 46 | 大相岭隧道YK56+177 | 12.000 | 35.800 | 67.800 | 3.800 | 4.300 | 中等岩爆 | [87] |
| 47 | 大相岭隧道YK56+343 | 12.000 | 39.400 | 69.200 | 2.700 | 3.800 | 中等岩爆 | [87] |
| 48 | 大相岭隧道YK56+374 | 12.000 | 40.600 | 66.600 | 2.600 | 3.700 | 中等岩爆 | [87] |
| 49 | 大相岭隧道YK56+421 | 12.000 | 39.000 | 70.100 | 2.400 | 4.800 | 强岩爆 | [87] |
| 50 | 大相岭隧道YK61+305 | 12.000 | 57.200 | 80.600 | 2.500 | 5.500 | 中等岩爆 | [87] |
| 51 | 大相岭隧道YK61+382 | 12.000 | 55.600 | 114.000 | 2.300 | 4.700 | 中等岩爆 | [87] |
| 52 | 大相岭隧道YK61+400 | 12.000 | 56.900 | 123.000 | 2.700 | 5.200 | 中等岩爆 | [87] |
| 53 | 大相岭隧道YK61+440 | 12.000 | 62.100 | 132.000 | 2.400 | 5.000 | 弱岩爆 | [87] |
| 54 | 大相岭隧道YK61+445 | 12.000 | 29.700 | 116.000 | 2.700 | 3.700 | 弱岩爆 | [87] |
| 55 | 大相岭隧道YK61+450 | 12.000 | 29.100 | 94.000 | 2.600 | 3.200 | 无岩爆 | [87] |
| 56 | 大相岭隧道YK61+493 | 12.000 | 27.800 | 90.000 | 2.100 | 1.800 | 弱岩爆 | [87] |
| 57 | 大相岭隧道YK61+827 | 12.000 | 30.300 | 88.000 | 3.100 | 3.000 | 中等岩爆 | [87] |
| 58 | 大相岭隧道YK56+451 | 12.000 | 41.600 | 67.600 | 2.700 | 3.700 | 中等岩爆 | [87] |
| 59 | 大相岭隧道YK56+479 | 12.000 | 40.100 | 72.100 | 2.300 | 2.300 | 中等岩爆 | [87] |
| 60 | 大相岭隧道YK61+201 | 12.000 | 58.200 | 83.600 | 2.600 | 2.600 | 强岩爆 | [87] |
| 61 | 大相岭隧道YK61+352 | 12.000 | 56.800 | 112.000 | 2.200 | 2.200 | 中等岩爆 | [87] |
| 62 | 中国会泽铅锌矿 | 3.569 | 34.150 | 54.200 | 12.100 | 3.170 | 弱岩爆 | [88] |
| 63 | 锦屏二级水电站长探硐桩号1+731 | 3.518 | 61.800 | 100.000 | \* | 2.000 | 无岩爆 | [89] |
| 64 | 锦屏二级水电站长探硐桩号1+731 | 3.518 | 51.080 | 100.000 | \* | 2.000 | 无岩爆 | [89] |
| 65 | 锦屏二级水电站长探硐桩号1+696 | 3.518 | 61.500 | 100.000 | \* | 2.000 | 无岩爆 | [89] |
| 66 | 锦屏二级水电站长探硐桩号0+568 | 3.518 | 26.120 | 80.000 | \* | 0.850 | 无岩爆 | [89] |
| 67 | 锦屏二级水电站长探硐桩号2+215 | 3.518 | 69.770 | 80.000 | \* | 0.850 | 弱岩爆 | [89] |
| 68 | 锦屏二级水电站长探硐桩号3+600 | 3.518 | 64.400 | 80.000 | \* | 0.850 | 无岩爆 | [89] |
| 69 | 锦屏二级水电站长探硐桩号0+600 | 3.518 | 22.940 | 80.000 | \* | 0.850 | 无岩爆 | [89] |
| 70 | 锦屏二级水电站长探硐桩号2+252 | 3.518 | 59.400 | 80.000 | \* | 0.850 | 无岩爆 | [89] |
| 71 | 锦屏二级水电站长探硐桩号1+560 | 3.518 | 58.600 | 105.000 | \* | 2.300 | 无岩爆 | [89] |
| 72 | 锦屏二级水电站长探硐桩号1+640 | 3.518 | 63.100 | 105.000 | \* | 2.300 | 弱岩爆 | [89] |
| 73 | 锦屏二级水电站长探硐桩号1+640 | 3.518 | 52.300 | 105.000 | \* | 2.300 | 无岩爆 | [89] |
| 74 | 锦屏二级水电站长探硐桩号3+650 | 3.518 | 89.800 | 105.000 | \* | 2.300 | 弱岩爆 | [89] |
| 75 | 锦屏二级水电站长探硐桩号3+356 | 3.518 | 55.900 | 105.000 | \* | 2.300 | 无岩爆 | [89] |
| 76 | 锦屏二级水电站长探硐桩号3+390 | 3.518 | 89.100 | 105.000 | \* | 2.300 | 弱岩爆 | [89] |
| 77 | 锦屏二级水电站长探硐桩号3+580 | 3.518 | 92.800 | 105.000 | \* | 2.300 | 弱岩爆 | [89] |
| 78 | 锦屏二级水电站长探硐桩号2+530 | 3.518 | 60.400 | 107.000 | \* | 3.100 | 弱岩爆 | [89] |
| 79 | 锦屏二级水电站长探硐桩号3+000 | 3.518 | 72.900 | 107.000 | \* | 3.100 | 弱岩爆 | [89] |
| 80 | 锦屏二级水电站长探硐桩号3+800 | 3.518 | 92.900 | 107.000 | \* | 3.100 | 中等岩爆 | [89] |
| 81 | 锦屏二级水电站长探硐桩号2+806 | 3.518 | 68.800 | 107.000 | \* | 3.100 | 无岩爆 | [89] |
| 82 | 锦屏二级水电站长探硐桩号2+880 | 3.518 | 72.800 | 107.000 | \* | 3.100 | 无岩爆 | [89] |
| 83 | 锦屏二级水电站长探硐桩号1+140 | 3.518 | 71.800 | 90.000 | \* | 3.000 | 无岩爆 | [89] |
| 84 | 秦岭终南山公路隧道竖井工程 | 13.320 | 43.100 | 122.000 | 5.380 | 3.310 | 弱岩爆 | [90] |
| 85 | 秦岭终南山公路隧道竖井工程 | 13.320 | 87.500 | 121.000 | 8.730 | 9.050 | 强岩爆 | [90] |
| 86 | 秦岭终南山公路隧道竖井工程 | 13.320 | 79.100 | 124.000 | 8.640 | 7.740 | 强岩爆 | [90] |
| 87 | 秦岭终南山公路隧道竖井工程 | 13.320 | 56.200 | 119.000 | 7.210 | 5.520 | 中等岩爆 | [90] |
| 88 | 秦岭终南山公路隧道竖井工程 | 13.320 | 62.800 | 120.000 | 6.450 | 4.160 | 中等岩爆 | [90] |
| 89 | 西秦岭隧道1支线 | 8.800 | 54.200 | 133.990 | 9.090 | 7.080 | 中等岩爆 | [82] |
| 90 | 西秦岭隧道2支线 | 5.9 | 70.300 | 128.520 | 8.730 | 6.430 | 中等岩爆 | [82] |
| 91 | 西秦岭隧道2支线 | 5.9 | 56.100 | 131.990 | 9.440 | 7.440 | 中等岩爆 | [82] |
| 92 | 江边水电站岩爆预测学习样本1 | 8.400 | 104.992 | 164.050 | \* | 8.410 | 强岩爆 | [91] |
| 93 | 江边水电站岩爆预测学习样本2 | 8.400 | 84.860 | 146.310 | \* | 5.130 | 中等岩爆 | [91] |
| 94 | 江边水电站岩爆预测学习样本3 | 8.400 | 39.558 | 131.860 | \* | 4.220 | 无岩爆 | [91] |
| 95 | 江边水电站岩爆预测学习样本4 | 8.400 | 81.318 | 147.850 | \* | 5.600 | 中等岩爆 | [91] |
| 96 | 江边水电站岩爆预测学习样本5 | 8.400 | 55.400 | 138.500 | \* | 5.380 | 弱岩爆 | [91] |
| 97 | 江边水电站岩爆预测学习样本6 | 8.400 | 60.578 | 140.880 | \* | 4.870 | 弱岩爆 | [91] |
| 98 | 江边水电站岩爆预测学习样本7 | 8.400 | 86.469 | 151.700 | \* | 7.260 | 中等岩爆 | [91] |
| 99 | 江边水电站岩爆预测学习样本8 | 8.400 | 51.327 | 135.070 | \* | 4.080 | 无岩爆 | [91] |
| 100 | 江边水电站岩爆预测学习样本9 | 8.400 | 109.364 | 160.830 | \* | 7.090 | 中等岩爆 | [91] |
| 101 | 江边水电站岩爆预测学习样本10 | 8.400 | 40.446 | 130.470 | \* | 3.960 | 无岩爆 | [91] |
| 102 | 江边水电站岩爆预测实例样本11 | 8.400 | 97.588 | 157.400 | \* | 7.200 | 中-强岩爆 | [91] |
| 103 | 江边水电站岩爆预测实例样本12 | 8.400 | 81.239 | 145.070 | \* | 5.790 | 无-弱岩爆 | [91] |
| 104 | 江边水电站岩爆预测实例样本13 | 8.400 | 56.687 | 138.260 | \* | 5.460 | 弱岩爆 | [91] |
| 105 | 江边水电站岩爆预测实例样本14 | 8.400 | 40.602 | 126.880 | \* | 4.150 | 无岩爆 | [91] |
| 106 | 江边水电站 | 8.400 | 59.568 | 116.800 | \* | 3.040 | 弱岩爆 | [92] |
| 107 | 江边水电站 | 8.400 | 105.884 | 168.070 | \* | 7.900 | 强岩爆 | [92] |
| 108 | 江边水电站 | 8.400 | 91.013 | 154.260 | \* | 4.850 | 中等岩爆 | [92] |
| 109 | 江边水电站 | 8.400 | 55.513 | 129.100 | \* | 3.410 | 弱岩爆 | [92] |
| 110 | 江边水电站 | 8.400 | 41.217 | 124.900 | \* | 3.960 | 无岩爆 | [92] |
| 111 | 江边水电站 | 8.400 | 47.527 | 125.070 | \* | 4.080 | 无岩爆 | [92] |
| 112 | 江边水电站 | 8.400 | 84.641 | 159.700 | \* | 5.150 | 中等岩爆 | [92] |
| 113 | 江边水电站 | 8.400 | 118.101 | 166.340 | \* | 8.320 | 强岩爆 | [92] |
| 114 | 江边水电站 | 8.400 | 58.835 | 143.500 | \* | 4.670 | 弱岩爆 | [92] |
| 115 | 江边水电站 | 8.400 | 37.390 | 128.930 | \* | 4.020 | 无岩爆 | [92] |
| 116 | 江边水电站 | 8.400 | 88.981 | 145.870 | \* | 7.160 | 中等岩爆 | [92] |
| 117 | 江边水电站 | 8.400 | 39.063 | 130.210 | \* | 4.210 | 无岩爆 | [92] |
| 118 | 江边水电站 | 8.400 | 60.290 | 140.210 | \* | 3.140 | 弱岩爆 | [92] |
| 119 | 江边水电站 | 8.400 | 80.960 | 137.220 | \* | 3.460 | 中等岩爆 | [92] |
| 120 | 江边水电站 | 8.400 | 110.193 | 159.700 | \* | 4.150 | 中等岩爆 | [92] |
| 121 | 福建九华山隧道 | 15.000 | 82.160 | 158.000 | 6.420 | 7.300 | 中-强岩爆 | [93] |
| 122 | 改建铁路成昆线老鼻山隧道 | 13.800 | 34.360 | 68.996 | \* | 3.932 | 中等岩爆 | [94] |
| 123 | 改建铁路成昆线老鼻山隧道 | 13.800 | 24.500 | 70.300 | \* | 2.034 | 弱岩爆 | [94] |
| 124 | 改建铁路成昆线老鼻山隧道 | 13.800 | 63.830 | 114.190 | \* | 4.525 | 中等岩爆 | [94] |
| 125 | 改建铁路成昆线老鼻山隧道 | 13.800 | 85.360 | 152.700 | \* | 4.525 | 中等岩爆 | [94] |
| 126 | 挪威西码隧道 | 20.000 | 47.300 | 175.000 | 8.200 | 5.000 | 中等岩爆 | [95]（部分与实例1-18重合，但相差不大） |
| 127 | 挪威Sewage隧道 | 3.000 | 73.500 | 175.000 | 8.100 | 4.800 | 中等岩爆 | [95] |
| 128 | 中国天生桥水电站引水隧洞1 | 9.580 | 29.700 | 90.000 | 3.600 | 6.500 | 中等岩爆 | [95] |
| 129 | 中国天生桥水电站引水隧洞2 | 10.83 | 29.700 | 90.000 | 3.600 | 6.500 | 中等岩爆 | [95] |
| 130 | 中国二滩水电站支洞 | 14.410 | 88.200 | 215.000 | 7.300 | 6.900 | 弱岩爆 | [95] |
| 131 | 中国锦屏水电站引水隧洞 | 13.000 | 97.200 | 120.000 | 6.400 | 4.000 | 中等岩爆 | [95] |
| 132 | 中国渔子溪水电站引水隧洞 | 5.000 | 87.500 | 165.000 | 10.900 | 8.800 | 中等岩爆 | [95] |
| 133 | 中国太平驿水电站地下硐室 | 10.000 | 59.400 | 165.000 | 9.300 | 8.900 | 弱岩爆 | [95] |
| 134 | 日本关越隧道 | 10.400 | 79.000 | 220.000 | 8.200 | 4.800 | 中等岩爆 | [95] |
| 135 | 瑞典Vietas水电站引水隧道 | 15.840 | 81.000 | 180.000 | 6.600 | 5.100 | 弱岩爆 | [95] |
| 136 | 中国巴玉隧道 | 9.780 | 74.200 | 190.000 | 8.900 | 7.100 | 强岩爆 | [95] |
| 137 | 乌兹别克斯坦卡姆奇克隧道 | 5.530 | 59.600 | 149.000 | 7.900 | 6.900 | 强岩爆 | [95] |
| 138 | 秦岭终南山公路隧道 | 7.200 | 37.400 | 181.000 | 6.900 | 7.100 | 强岩爆 | [95] |
| 139 | 桑珠岭隧道K175+950~K176+875 | 9.236 | 53.120 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 140 | 桑珠岭隧道K175+950~K176+875 | 9.236 | 52.170 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 141 | 桑珠岭隧道K175+950~K176+875 | 9.236 | 52.340 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 142 | 桑珠岭隧道K175+950~K176+875 | 9.236 | 50.380 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 143 | 桑珠岭隧道K176+875~K177+733 | 9.236 | 51.700 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 144 | 桑珠岭隧道K176+875~K177+733 | 9.236 | 51.140 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 145 | 桑珠岭隧道K176+875~K177+733 | 9.236 | 54.870 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 146 | 桑珠岭隧道K176+875~K177+733 | 9.236 | 53.730 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 147 | 桑珠岭隧道K178+544~K179+072 | 9.236 | 66.300 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 148 | 桑珠岭隧道K178+544~K179+072 | 9.236 | 68.400 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 149 | 桑珠岭隧道K178+544~K179+072 | 9.236 | 70.370 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 150 | 桑珠岭隧道K179+122~K179+667 | 9.236 | 66.120 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 151 | 桑珠岭隧道K179+122~K179+667 | 9.236 | 63.880 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 152 | 桑珠岭隧道K179+122~K179+667 | 9.236 | 66.720 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 153 | 桑珠岭隧道K179+667~K179+727 | 9.236 | 66.730 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 154 | 桑珠岭隧道K179+667~K179+727 | 9.236 | 65.380 | 130.000 | 3.900 | 4.300 | 中等岩爆 | [96] |
| 155 | 桑珠岭隧道K179+727~K179+747 | 9.236 | 65.380 | 130.000 | 3.900 | 4.300 | 弱岩爆 | [96] |
| 156 | 桑珠岭隧道K179+767~K179+012 | 9.236 | 65.200 | 130.000 | 3.700 | 4.600 | 强岩爆 | [96] |
| 157 | 桑珠岭隧道K180+012~K180+062 | 9.236 | 65.200 | 130.000 | 3.700 | 4.600 | 强岩爆 | [96] |
| 158 | 桑珠岭隧道K180+062~K180+743 | 9.236 | 60.850 | 130.000 | 3.700 | 4.600 | 强岩爆 | [96] |
| 159 | 桑珠岭隧道K180+062~K180+743 | 9.236 | 55.790 | 130.000 | 3.700 | 4.600 | 强岩爆 | [96] |
| 160 | 桑珠岭隧道K188+280~K180+896 | 9.236 | 53.950 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 161 | 桑珠岭隧道K188+280~K180+896 | 9.236 | 54.520 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 162 | 桑珠岭隧道K188+280~K180+896 | 9.236 | 51.270 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 163 | 桑珠岭隧道K188+896~K188+946 | 9.236 | 51.270 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 164 | 桑珠岭隧道K188+896~K188+946 | 9.236 | 49.230 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 165 | 桑珠岭隧道K189+946~K189+167 | 9.236 | 49.230 | 130.000 | 3.700 | 4.600 | 中等岩爆 | [96] |
| 166 | 桑珠岭隧道K189+167~K189+217 | 9.236 | 45.190 | 130.000 | 4.000 | 4.600 | 中等岩爆 | [96] |
| 167 | 桑珠岭隧道K189+217~K189+390 | 9.236 | 45.190 | 130.000 | 4.000 | 4.600 | 弱岩爆 | [96] |
| 168 | 桑珠岭隧道K189+217~K189+390 | 9.236 | 40.720 | 130.000 | 4.000 | 4.000 | 弱岩爆 | [96] |
| 169 | 桑珠岭隧道K189+430~K189+450 | 9.236 | 40.720 | 130.000 | 4.000 | 4.000 | 中等岩爆 | [96] |
| 170 | 桑珠岭隧道K189+450~K189+610 | 9.236 | 32.040 | 130.000 | 4.000 | 4.000 | 弱岩爆 | [96] |
| 171 | 雪峰山1号隧道DK247+000 | 7.100 | 39.600 | 90.000 | 2.000 | \* | 中等岩爆 | [97] |
| 172 | 雪峰山1号隧道DK247+750 | 7.100 | 28.500 | 80.000 | 1.200 | \* | 弱岩爆 | [97] |
| 173 | 雪峰山1号隧道DK248+770 | 7.100 | 28.400 | 90.000 | 1.200 | \* | 弱岩爆 | [97] |
| 174 | 雪峰山1号隧道DK253+000 | 7.100 | 21.200 | 60.000 | 1.200 | \* | 弱岩爆 | [97] |
| 175 | 括苍山隧道 K155+200~K156+178 | 12.000 | 13.900 | 124.000 | 4.220 | 2.040 | 无岩爆 | [98] |
| 176 | 括苍山隧道 K156+178~K157+573 | 12.000 | 17.400 | 161.000 | 3.980 | 2.190 | 弱岩爆 | [98] |
| 177 | 括苍山隧道 K157+573~K158+078 | 12.000 | 19.000 | 153.000 | 4.480 | 2.110 | 弱岩爆 | [98] |
| 178 | 括苍山隧道 K158+078~K159+250 | 12.000 | 19.700 | 142.000 | 4.550 | 2.260 | 弱岩爆 | [98] |
| 179 | 通渝隧道K21+740 | 10.640  10.640  10.640  10.640 | 43.620 | 78.100 | 3.200 | 6.000 | 弱岩爆 | [99] |
| 180 | 通渝隧道K21+720 | 47.560 | 80.300 | 3.500 | 5.000 | 弱岩爆 | [100] |
| 181 | 通渝隧道K21+212 | 44.710 | 82.400 | 4.700 | 6.600 | 弱岩爆 | [100] |
| 182 | 通渝隧道K21+680 | 47.560 | 58.500 | 3.500 | 5.000 | 弱岩爆 | [100] |
| 183 | 武隆隧道K5+780 | 11.700 | 47.560 | 58.500 | 3.500 | 5.000 | 弱岩爆 | [101]（洞径数据引自[102]） |
| 184 | 共和隧道试验段 | 11.000 | 42.400 | 50.000 | 6.100 | 5.300 | 弱岩爆 | [103] |
| 185 | 共和隧道K42+750断面 | 11.000 | 63.600 | 50.000 | 4.000 | 5.300 | 中等岩爆 | [103] |
| 186 | 茶林顶隧道工程 | 10.860 | 12.000 | 95.000 | 5.580 | 5.100 | 无岩爆 | [104] |
| 187 | 中国四川江边水电站硐室 | 8.400 | 116.878 | 162.330 | 12.298 | 5.230 | 强岩爆 | [105] |
| 188 | 中国四川江边水电站硐室 | 8.400 | 76.798 | 156.730 | 7.786 | 3.820 | 中等岩爆 | [105] |
| 189 | 中国四川江边水电站硐室 | 8.400 | 102.384 | 142.200 | 5.167 | 4.300 | 中等岩爆 | [105] |
| 190 | 中国四川江边水电站硐室 | 8.400 | 110.621 | 160.320 | 9.687 | 5.720 | 强岩爆 | [105] |
| 191 | 中国四川江边水电站硐室 | 8.400 | 40.992 | 97.600 | 6.297 | 3.200 | 弱岩爆 | [105] |
| 192 | 中国四川江边水电站硐室 | 8.400 | 81.751 | 125.770 | 12.140 | 5.750 | 中等岩爆 | [105] |
| 193 | 中国四川江边水电站硐室 | 8.400 | 86.565 | 146.720 | 7.825 | 4.200 | 中等岩爆 | [105] |
| 194 | 中国四川江边水电站硐室 | 8.400 | 118.771 | 162.700 | 5.478 | 3.820 | 中等岩爆 | [105] |
| 195 | 江边水电站引水隧洞0 + 250 | 8.400 | 33.150 | 106.940 | 5.840 | 2.150 | 弱岩爆 | [16] |
| 196 | 江边水电站引水隧洞0 + 300 | 8.400 | 9.740 | 88.510 | 2.160 | 1.770 | 无岩爆 | [16] |
| 197 | 江边水电站引水隧洞0 + 400 | 8.400 | 33.940 | 117.480 | 4.230 | 2.370 | 弱岩爆 | [16] |
| 198 | 江边水电站引水隧洞0 + 550 | 8.400 | 91.430 | 157.630 | 11.960 | 6.270 | 中等岩爆 | [16] |
| 199 | 江边水电站引水隧洞0 + 800 | 8.400 | 81.750 | 125.770 | 12.140 | 5.750 | 中等岩爆 | [16] |
| 200 | 江边水电站引水隧洞0 + 900 | 8.400 | 51.500 | 132.050 | 6.330 | 4.630 | 弱岩爆 | [16] |
| 201 | 江边水电站引水隧洞0 + 950 | 8.400 | 43.210 | 116.780 | 3.930 | 3.520 | 弱岩爆 | [16] |
| 202 | 江边水电站引水隧洞1 + 000 | 8.400 | 20.820 | 122.470 | 6.220 | 2.810 | 弱岩爆 | [16] |
| 203 | 江边水电站引水隧洞2 + 230 | 8.400 | 23.390 | 106.320 | 2.920 | 1.750 | 无岩爆 | [16] |
| 204 | 江边水电站引水隧洞2 + 250 | 8.400 | 19.140 | 106.310 | 2.760 | 2.030 | 弱岩爆 | [16] |
| 205 | 江边水电站引水隧洞2 + 300 | 8.400 | 18.320 | 96.410 | 2.010 | 1.870 | 无岩爆 | [16] |
| 206 | 江边水电站引水隧洞2 + 450 | 8.400 | 58.050 | 147.850 | 6.980 | 3.620 | 弱岩爆 | [16] |
| 207 | 江边水电站引水隧洞2 + 750 | 8.400 | 27.600 | 98.560 | 2.310 | 2.170 | 弱岩爆 | [16] |
| 208 | 江边水电站引水隧洞2 + 770 | 8.400 | 14.870 | 92.870 | 2.280 | 2.330 | 弱岩爆 | [16] |
| 209 | 江边水电站引水隧洞3 + 320 | 8.400 | 12.960 | 117.810 | 3.210 | 2.490 | 无岩爆 | [16] |
| 210 | 江边水电站引水隧洞3 + 450 | 8.400 | 14.360 | 102.580 | 2.260 | 1.810 | 无岩爆 | [16] |
| 211 | 江边水电站引水隧洞3 + 500 | 8.400 | 35.340 | 95.500 | 2.260 | 2.750 | 无岩爆 | [16] |
| 212 | 江边水电站引水隧洞3 + 530 | 8.400 | 19.200 | 106.650 | 2.750 | 1.870 | 无岩爆 | [16] |
| 213 | 江边水电站引水隧洞3 + 550 | 8.400 | 26.090 | 138.500 | 4.390 | 2.770 | 无岩爆 | [16] |
| 214 | 江边水电站引水隧洞3 + 700 | 8.400 | 86.560 | 146.720 | 7.830 | 4.200 | 中等岩爆 | [16] |
| 215 | 江边水电站引水隧洞3 + 710 | 8.400 | 89.520 | 146.750 | 7.540 | 4.700 | 中等岩爆 | [16] |
| 216 | 江边水电站引水隧洞3 + 990 | 8.400 | 30.950 | 123.790 | 4.470 | 2.570 | 弱岩爆 | [16] |
| 217 | 江边水电站引水隧洞4 + 050 | 8.400 | 26.250 | 119.340 | 2.900 | 2.380 | 弱岩爆 | [16] |
| 218 | 江边水电站引水隧洞4 + 080 | 8.400 | 29.110 | 116.450 | 4.600 | 2.840 | 弱岩爆 | [16] |
| 219 | 江边水电站引水隧洞4 + 300 | 8.400 | 61.420 | 107.750 | 3.450 | 3.150 | 弱岩爆 | [16] |
| 220 | 江边水电站引水隧洞4 + 420 | 8.400 | 98.020 | 148.520 | 6.660 | 3.230 | 中等岩爆 | [16] |
| 221 | 江边水电站引水隧洞4 + 450 | 8.400 | 46.220 | 140.070 | 7.640 | 3.690 | 中等岩爆 | [16] |
| 222 | 江边水电站引水隧洞4 + 470 | 8.400 | 39.820 | 128.460 | 6.210 | 2.400 | 弱岩爆 | [16] |
| 223 | 江边水电站引水隧洞4 + 580 | 8.400 | 80.840 | 144.350 | 7.460 | 6.130 | 中等岩爆 | [16] |
| 224 | 江边水电站引水隧洞4 + 780 | 8.400 | 66.770 | 148.380 | 8.460 | 5.080 | 弱岩爆 | [16] |
| 225 | 江边水电站引水隧洞5 + 720 | 8.400 | 11.750 | 83.960 | 2.210 | 2.150 | 无岩爆 | [16] |
| 226 | 江边水电站引水隧洞5 + 730 | 8.400 | 118.770 | 162.700 | 5.490 | 3.820 | 中等岩爆 | [16] |
| 227 | 江边水电站引水隧洞7 + 030 | 8.400 | 110.620 | 160.320 | 9.690 | 5.720 | 强岩爆 | [16] |
| 228 | 江边水电站引水隧洞7 + 330 | 8.400 | 121.090 | 159.330 | 11.290 | 11.60 | 强岩爆 | [16] |
| 229 | 江边水电站引水隧洞7 + 350 | 8.400 | 104.490 | 160.750 | 13.010 | 5.410 | 中等岩爆 | [16] |
| 230 | 江边水电站引水隧洞7 + 520 | 8.400 | 110.350 | 167.190 | 12.670 | 6.830 | 中等岩爆 | [16] |
| 231 | 江边水电站引水隧洞7 + 625 | 8.400 | 61.460 | 135.670 | 9.020 | 11.20 | 强岩爆 | [16] |
| 232 | 江边水电站引水隧洞7 + 705 | 8.400 | 40.560 | 140.830 | 8.390 | 3.630 | 弱岩爆 | [16] |
| 233 | 江边水电站引水隧洞7 + 750 | 8.400 | 102.380 | 142.200 | 5.170 | 4.300 | 弱岩爆 | [16] |
| 234 | 江边水电站引水隧洞7 + 950 | 8.400 | 40.990 | 97.600 | 6.300 | 3.200 | 弱岩爆 | [16] |
| 235 | 江边水电站引水隧洞8 + 010 | 8.400 | 38.850 | 105.700 | 2.830 | 3.080 | 弱岩爆 | [16] |
| 236 | 江边水电站引水隧洞8 + 050 | 8.400 | 35.820 | 127.930 | 4.430 | 3.670 | 弱岩爆 | [16] |
| 237 | 江边水电站引水隧洞8 + 250 | 8.400 | 26.060 | 118.460 | 3.510 | 2.890 | 弱岩爆 | [16] |
| 238 | 江边水电站引水隧洞8 + 350 | 8.400 | 16.210 | 135.070 | 7.050 | 2.490 | 弱岩爆 | [16] |
| 239 | 江边水电站引水隧洞8 + 380 | 8.400 | 34.890 | 151.700 | 7.470 | 3.170 | 弱岩爆 | [16] |
| 240 | 1#diversion tunnel 8+940~8+948 | 12.400 | 67.730 | 112.500 | 4.100 | 6.020 | 中等岩爆 | [106] |
| 241 | 2#diversion tunnel 8+310 | 13.000 | 64.430 | 112.500 | 3.400 | 5.800 | 弱岩爆 | [106] |
| 242 | 2#diversion tunnel 9+184~9+188 | 13.000 | 62.880 | 112.500 | 3.400 | 5.620 | 中等岩爆 | [106] |
| 243 | 3#diversion tunnel 8+809 | 12.400 | 54.510 | 99.590 | 4.100 | 3.260 | 强岩爆 | [106] |
| 244 | 3#diversion tunnel 6+607~6+614 | 12.400 | 52.080 | 112.500 | 3.400 | 4.680 | 中等岩爆 | [106] |
| 245 | 4#diversion tunnel 6+075~6+105 | 13.000 | 53.930 | 112.500 | 3.400 | 4.500 | 中等岩爆 | [106] |
| 246 | 4#diversion tunnel 8+827~8+818 | 13.000 | 68.980 | 112.500 | 4.100 | 5.320 | 中等岩爆 | [106] |
| 247 | Dawoshan Tunnel of Jinwen RailwayDW-1 | 14.720 | 14.490 | 70.210 | 2.040 | 3.105 | 弱岩爆 | [18]（洞径数据引自[107]) |
| 248 | Dawoshan Tunnel of Jinwen RailwayDW-2 | 14.720 | 17.790 | 81.800 | 2.450 | 3.604 | 弱岩爆 | [18]（洞径数据引自[107]) |
| 249 | Dawoshan Tunnel of Jinwen RailwayDW-3 | 14.720 | 22.210 | 90.000 | 3.100 | 4.300 | 弱岩爆 | [18]（洞径数据引自[107]) |
| 250 | Dawoshan Tunnel of Jinwen RailwayDW-4 | 14.720 | 25.620 | 99.600 | 3.420 | 4.602 | 中等岩爆 | [18]（洞径数据引自[107]) |
| 251 | Dawoshan Tunnel of Jinwen RailwayDW-5 | 14.720 | 25.920 | 72.800 | 2.600 | 4.403 | 中等岩爆 | [18]（洞径数据引自[107]) |
| 252 | Dawoshan Tunnel of Jinwen RailwayDW-6 | 14.720 | 26.680 | 46.800 | 1.800 | 2.701 | 中等岩爆 | [18]（洞径数据引自[107]) |
| 253 | 西康铁路秦岭隧道 | 8.8 | 48.700 | 180.000 | 8.300 | 5.000 | 强岩爆 | [108] |
| 254 | 西康铁路秦岭隧道 | 8.8 | 74.900 | 180.000 | 8.300 | 5.000 | 强岩爆 | [108] |
| 255 | 西康铁路秦岭隧道 | 8.8 | 62.400 | 175.000 | 7.300 | 5.000 | 强岩爆 | [108] |
| 256 | 西康铁路秦岭隧道 | 8.8 | 49.900 | 130.000 | 6.000 | 5.000 | 强岩爆 | [108] |
| 257 | 西康铁路秦岭隧道 | 8.8 | 62.900 | 115.000 | 1.500 | 5.700 | 强岩爆 | [108] |
| 258 | 西康铁路秦岭隧道 | 8.8 | 56.900 | 180.000 | 8.300 | 5.000 | 强岩爆 | [108] |
| 259 | 西康铁路秦岭隧道 | 8.8 | 59.900 | 200.000 | 9.800 | 5.000 | 中等岩爆 | [108] |
| 260 | 西康铁路秦岭隧道 | 8.8 | 88.900 | 236.000 | 8.300 | 5.000 | 非常强岩爆 | [108] |
| 261 | 西康铁路秦岭隧道 | 8.8 | 108.300 | 140.000 | 8.000 | 5.500 | 非常强岩爆 | [108] |
| 262 | 西康铁路秦岭隧道 | 8.8 | 89.900 | 220.000 | 7.400 | 7.300 | 中等岩爆 | [108] |
| 263 | 西康铁路秦岭隧道 | 8.8 | 29.900 | 89.000 | 3.700 | 6.600 | 强岩爆 | [108] |
| 264 | 西康铁路秦岭隧道 | 8.8 | 18.700 | 179.000 | 5.700 | 7.400 | 弱岩爆 | [108] |
| 265 | 西康铁路秦岭隧道 | 8.8 | 89.900 | 170.000 | 11.300 | 9.000 | 强岩爆 | [108] |
| 266 | 西康铁路秦岭隧道 | 8.8 | 54.100 | 136.000 | 9.200 | 7.100 | 强岩爆 | [108] |
| 267 | 西康铁路秦岭隧道 | 8.8 | 10.900 | 115.000 | 5.000 | 5.700 | 弱岩爆 | [108] |
| 268 | 西康铁路秦岭隧道 | 8.8 | 48.700 | 126.000 | 6.400 | 4.900 | 强岩爆 | [108] |
| 269 | 西康铁路秦岭隧道 | 8.8 | 91.200 | 231.000 | 7.300 | 7.200 | 中等岩爆 | [108] |
| 270 | 西康铁路秦岭隧道 | 8.8 | 92.900 | 227.000 | 8.600 | 5.200 | 强岩爆 | [108] |
| 271 | 西康铁路秦岭隧道 | 8.8 | 28.700 | 148.000 | 5.200 | 8.100 | 中等岩爆 | [108] |
| 272 | 西康铁路秦岭隧道 | 8.8 | 47.600 | 121.000 | 1.700 | 5.300 | 强岩爆 | [108] |
| 273 | 西康铁路秦岭隧道 | 8.8 | 43.300 | 123.000 | 6.000 | 5.000 | 中等岩爆 | [108] |
| 274 | 西康铁路秦岭隧道 | 8.8 | 55.300 | 176.000 | 7.300 | 9.300 | 强岩爆 | [108] |
| 275 | 西康铁路秦岭隧道 | 8.8 | 98.500 | 120.000 | 6.800 | 3.800 | 强岩爆 | [108] |
| 276 | 西康铁路秦岭隧道 | 8.8 | 33.900 | 150.000 | 5.400 | 7.800 | 弱岩爆 | [108] |
| 277 | 西康铁路秦岭隧道 | 8.8 | 47.900 | 120.000 | 1.500 | 5.800 | 强岩爆 | [108] |
| 278 | 西康铁路秦岭隧道 | 8.8 | 49.400 | 110.000 | 1.500 | 5.700 | 强岩爆 | [108] |
| 279 | 西康铁路秦岭隧道 | 8.8 | 79.900 | 180.000 | 6.700 | 5.500 | 中等岩爆 | [108] |
| 280 | 西康铁路秦岭隧道 | 8.8 | 56.000 | 130.000 | 9.300 | 7.400 | 强岩爆 | [108] |
| 281 | 西康铁路秦岭隧道 | 8.8 | 60.600 | 112.000 | 7.900 | 6.200 | 非常强岩爆 | [108] |
| 282 | 西康铁路秦岭隧道 | 8.8 | 62.500 | 165.000 | 9.400 | 9.000 | 中等岩爆 | [108] |
| 283 | 安禄隧道 | 14.686 | 17.390 | 102.300 | 1.300 | 6.580 | 中等岩爆 | [109]（断面数据引自[110]） |
| 284 | 安禄隧道 | 14.686 | 17.020 | 85.090 | 1.300 | 6.140 | 中等岩爆 | [109]（断面数据引自[110]） |
| 285 | 安禄隧道 | 14.686 | 16.700 | 83.500 | 1.300 | 6.530 | 中等岩爆 | [109]（断面数据引自[110]） |
| 286 | 安禄隧道 | 14.686 | 17.350 | 86.770 | 1.300 | 3.220 | 中等岩爆 | [109]（断面数据引自[110]） |
| 287 | 安禄隧道 | 14.686 | 16.870 | 80.330 | 1.300 | 6.920 | 中等岩爆 | [109]（断面数据引自[110]） |
| 288 | 邵怀高速公路雪峰山隧道 | 12.00 | 29.043 | 124.150 | 5.000 | 4.386 | 无岩爆 | [111] |
| 289 | 邵怀高速公路雪峰山隧道 | 12.00 | 40.867 | 139.000 | 6.000 | 0.808 | 无岩爆 | [111] |
| 290 | 邵怀高速公路雪峰山隧道 | 12.00 | 50.088 | 124.000 | 5.000 | 6.525 | 弱岩爆 | [111] |
| 291 | 邵怀高速公路雪峰山隧道 | 12.00 | 59.089 | 88.250 | 3.600 | 6.135 | 中等岩爆 | [111] |
| 292 | 邵怀高速公路雪峰山隧道 | 12.00 | 62.126 | 124.000 | 5.000 | 4.615 | 弱岩爆 | [111] |
| 293 | 邵怀高速公路雪峰山隧道 | 12.00 | 40.902 | 88.250 | 3.600 | 4.615 | 弱岩爆 | [111] |
| 294 | 邵怀高速公路雪峰山隧道 | 12.00 | 22.931 | 88.250 | 3.600 | 0.808 | 无岩爆 | [111] |
| 295 | 南水北调西线工程 | 10.00 | 18.640 | 70.000 | 4.850 | 7.270 | 强岩爆 | [112] |
| 296 | 南水北调西线工程 | 10.00 | 18.200 | 60.000 | 1.900 | 2.840 | 弱岩爆 | [112] |
| 297 | 南和沟矿区巷道 | 3.413 | 36.100 | 82.050 | \* | 1.683 | 中等岩爆 | [113] |
| 298 | 南和沟矿区巷道 | 3.413 | 36.100 | 57.130 | \* | 2.750 | 强岩爆 | [113] |
| 299 | 南和沟矿区巷道 | 3.413 | 36.100 | 69.660 | \* | 3.900 | 强岩爆 | [113] |
| 300 | 南和沟矿区巷道 | 3.413 | 36.100 | 66.240 | \* | 2.031 | 强岩爆 | [113] |
| 301 | 金川二矿区巷道 | 4.72 | 60 | 135 | 15.04 | 4.86 | 弱岩爆 | [114] |
| 302 | 金川二矿区巷道 | 4.72 | 60 | 66.49 | 9.72 | 2.15 | 弱岩爆 | [114] |
| 303 | 金川二矿区巷道 | 4.72 | 60 | 106.38 | 11.2 | 6.11 | 弱岩爆 | [114] |
| 304 | 金川二矿区巷道 | 4.72 | 60 | 86.03 | 7.14 | 2.85 | 弱岩爆 | [114] |
| 305 | 金川二矿区巷道 | 4.72 | 60 | 145.19 | 9.3 | 3.5 | 弱岩爆 | [114] |
| 306 | 金川二矿区巷道 | 4.72 | 60 | 136.79 | 10.42 | 2.12 | 弱岩爆 | [114] |
| 307 | 多雄拉隧道 | 9.13 | 87.310 | 137.700 | 9.620 | 7.140 | 强岩爆 | [115] |
| 308 | 多雄拉隧道 | 9.13 | 87.310 | 137.700 | 9.620 | 3.570 | 中等岩爆 | [115] |
| 309 | 多雄拉隧道 | 9.13 | 87.310 | 94.400 | 9.160 | 7.140 | 中等岩爆 | [115] |
| 310 | 多雄拉隧道 | 9.13 | 87.310 | 94.400 | 9.160 | 3.570 | 弱岩爆 | [115] |

注：“\*”表示为缺失值

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