**Supplementary table 3.** In-situ stress of coal reservoirs in the Fukang area of southern Junggar Basin.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Well No. | Coal No. | Depth (m) | Permeability (mD) | Reservoir pressure (MPa) | Breakdown pressure (MPa) | Closing pressure (MPa) | tensile strength (MPa) | Maximum principal stress (MPa) | Minimum principal stress (MPa) | Vertical stress (MPa) | Total average stress (MPa) |
| CSD01 | B42 | 759 | 16.640  | 3.59  | 8.73  | 8.26  | 0.20  | 12.66  | 8.26  | 20.49  | 13.80  |
| FK17 | B45 | 825 | 7.140  | 7.61  | 18.99  | 16.11  | 0.20  | 21.93  | 16.11  | 22.28  | 20.11  |
| FK1 | X43 | 859 | 0.170  | 8.34  | 14.43  | 14.06  | 0.20  | 19.61  | 14.06  | 23.19  | 18.95  |
| X45 | 960 | 0.058  | 8.44  | 19.58  | 17.62  | 0.20  | 25.04  | 17.62  | 25.92  | 22.86  |
| CSD03 | B43 | 971 | 5.760  | 5.47  | 19.02  | 16.00  | 0.20  | 23.71  | 16.00  | 26.22  | 21.98  |
| CS11-X1 | B45 | 994 | 0.350  | 7.54  | 13.94  | 13.10  | 0.20  | 18.02  | 13.10  | 26.84  | 19.32  |
| FK6 | X45 | 1059 | 0.019  | 9.55  | 20.97  | 19.45  | 0.20  | 28.03  | 19.45  | 28.59  | 25.36  |
| CS15-X4 | B45 | 1414 | 0.009  | 13.61  | 25.03  | 24.67  | 0.20  | 35.57  | 24.67  | 38.18  | 32.81  |