

Table 4C. Average Sulfur of Roof and Floor (Raw, arb)

| Seam | Roof S (%) | Floor S (%) |
|-------------|-----------------------|------------------------|
| Allen | 0.11 | 0.08 |
| Apache | 0.14 | 0.25 |
| Maxwell | 0.20 | 0.10 |
| Blue | 0.08 | 0.20 |

Core Samples were collected from the 2010 drilling program to address the issues of acid-forming, toxic-forming and alkalinity producing materials and the analyses are submitted in the following sections of the permit document.

2.04.6(3a) (iii) (E)

The New Elk mine is planned to be a room and pillar operations. Previous mining in the region experienced local areas that were difficult to support because of weaker clay-rich strata in the immediate roof. Both the Allen and Apache Seams locally have a clay-rich carbonaceous roof that if not held during the initial cut will likely be included in the mining interval. The weaker clay-rich immediate roof strata range from 0 to approximately 2.5 feet thick. This weaker material if included in the run-of-mine product would be removed during the preparation process and transported to the waste storage site. The immediate roof of the Blue Seam consists of an approximately 2 to 3 foot thick coal/shale rash that is weaker and less competent than the overlying siltstone and sandstone. This rash will be cut down in the mining cycle similar to the Allen and Apache mining described above. The floor is a competent siltstone.

2.04.6(3a) (iv and v)

The New Elk Mine surface facilities have already have been built or are under refurbishing. The old workings of the Allen Mine, which extracted the Allen Seam, underlie these facilities in part. No further production mining is planned beneath these facilities except for minor development to reach a fan shaft within the Apache Seam. A core holes was drilled adjacent to this vent shaft and the data including core descriptions is submitted herein.