

CASE STUDY

Hume Mine Site #1 Bates County, Missouri

August 2010

**Prepared by
The Interstate Technology & Regulatory Council
Mining Waste Team**

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HUME MINE SITE #1, BATES COUNTY, MISSOURI

1. SITE INFORMATION

1.1 Contacts

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Continental Coal, Inc. (Owner)
10801 Mastin, Ste. 920
Overland Park, KS 66210

Hume Mine #1
Route 1, Box 15A
Hume, MO 64752

1.2 Name, Location, and Description

Hume Mine #1 (Hume Mine) is located in southwestern Bates County in western Missouri along the Kansas border (latitude 38.08322N, longitude 94.32219W, see Figure 1-1). Hume Mine was an open-pit surface coal mine comprising approximately 200 acres. Affected media include soil, sediment, surface water (e.g., stream, rivers, runoff, and drainage), and groundwater. Of the 200-acre mine site, approximately 95% has been reclaimed.

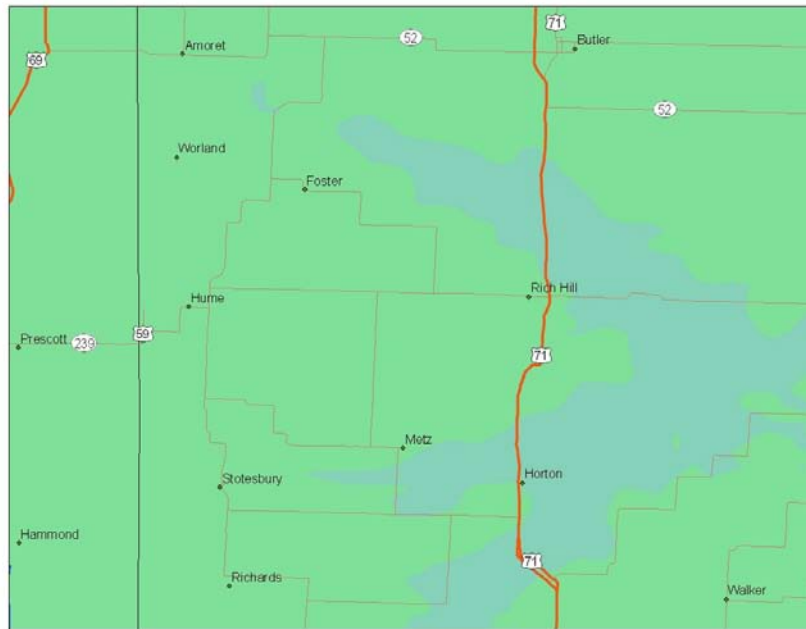


Figure 1-1. Map of the Hume Mine Site area. Created with ArcGIS Desktop Version 9.3.1.

2. REMEDIAL ACTION AND TECHNOLOGIES

At the Hume Mine, the primary impacts are from acidity. Reclamation of the site falls under the provisions of the Surface Mining Control and Reclamation Act (SMCRA). Two primary treatment technologies are in place at Hume Mine: backfilling/subaqueous disposal and capping/covers/grading. Backfilling/subaqueous disposal consists of filling the open pit once the resource (coal) is extracted. Capping/covers/grading consists of grading the mined area and covering with sub- and topsoils. Both treatment technologies have been operating for approximately five years. These treatment technologies are expected to be permanent remedial solutions. Site cleanup goals are based on the mitigation of human health risk and mitigation of ecological risk.

3. PERFORMANCE

Performance criteria included the reestablishment of soil productivity and the protection of groundwater and surface water systems as compared to baseline (i.e., premining) conditions. Field parameters are used to evaluate the geochemistry of the water.

4. COSTS

Cost of activities at this site are reported as a total:

- Capital: \$2,500/acre
- Operation and maintenance: \$2,500/acre

5. REGULATORY CHALLENGES

None encountered.

6. STAKEHOLDER CHALLENGES

None encountered.

7. OTHER CHALLENGES AND LESSONS LEARNED

No information available.

8. REFERENCES

None reported.