



This unretouched photograph shows a reclaimed area as it looked in May, 1970, eight months after it was surface mined.

Surface mining can be done responsibly

There are many misconceptions about surface mining . . . especially as it is practiced in the mountains of eastern Kentucky. Our purpose here is simply to help you separate fact from fiction.

Despite claims to the contrary, seams of coal in mountainous terrain can be mined responsibly by surface methods. Such seams are, in fact, being surface mined right now in eastern Kentucky. Properly. Responsibly. And with prompt and successful reclamation of all areas disturbed in the process.

As surface-mine operators, we take seriously our environmental obligations to the people of Kentucky and the nation. We support strict adherence to proper surface-mining methods. And we endorse rigid enforcement of Kentucky's surface-mining and reclamation law.

The questions and answers that follow will give you a better understanding of the facts surrounding this issue. We hope you will take the time to read them.

Q. Isn't it true that surface mining will eventually ruin the mountains of eastern Kentucky, leaving gaping scars and turning the slopes into bare and sterile spoilbanks?

A. Far from it. Today land disturbed by surface-mining operations in eastern Kentucky must be effectively reclaimed under the law. We can, however, understand your concern. The public image of surface mining is anything but good . . . and not entirely undeserved.

In the past, abuse of land by some operators was fairly common. This was particularly true in the early years of surface mining and during World War II. In the mountains of Kentucky, such areas are called "orphan banks." Unfortunately, these eyesores constitute a legacy of abuse that we have inherited. But such irresponsible practices are no longer permitted.

Q. Why not? If it happened before, can't it happen again?

A. Not really. Today the law and regulations of the commonwealth carefully spell out reclamation and planting schedules for surface-mined land. Kentucky, in fact, has one of the strongest reclamation laws in the nation. Among other things, regulations under the law limit the amount of earth which can be displaced and require that exposed coal be covered with earth in a limited time or distance. In addition, the disturbed area must be seeded in the next planting season to obtain coverage of at least 70 per cent.

Even prior to the enactment of the law, many responsible operators made it a practice always to reclaim surface-mined land . . . not because they were required to do so . . . but because it was the right thing to do.

Q. What recourse is available should an operator choose to ignore the law?

A. The penalties are severe enough to insure that he will not. The law gives the director of the Kentucky Division of Reclamation the power to halt all operations whenever the requirements are not being met. In addition, the operator faces a minimum fine of \$1,000 a day while the violation exists. Compliance is further insured by requiring each operator to post a bond before work begins in amounts ranging from \$100 to \$500 an acre for every acre affected. If the area is not reclaimed properly, the bonds are forfeited and the proceeds placed in a special fund for reclamation of the area involved. Surface mining is no longer a "do-as-you-please" industry.

Q. How is surface mining done in mountainous country?

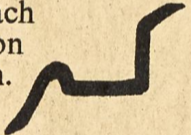
A. In eastern Kentucky, seams of coal appear as outcrops on mountain slopes . . . like icing in the middle of a layer cake. Most of the coal is removed from the interior of the mountain by deep-mining methods. However, weak rock formations make it too dangerous to deep mine coal near the outcrop. To get at this coal around the edge of the seam, a surface cut is made in the hillside. The operation is much like building a highway on a hillside, except that after the coal is removed, the area is graded and planted with vegetation instead of being paved with asphalt or concrete.

Q. Even so, isn't surface mining a destructive and unsightly business?

A. As practiced today, surface mining is far more constructive than destructive. But there's just no getting around the fact that land temporarily disturbed by surface mining isn't pretty. Whenever large quantities of earth are disturbed, the area is bound to be unsightly for a while. This is true whether you are moving earth to build a highway or a dam, digging a foundation for a building, or surface mining a seam of coal. Too often, however, critics of surface mining dwell solely on this part of the operation and ignore the work that has been done in reclaiming land for worthwhile and productive purposes. Bear in mind, too, that reclamation is prompt and all operations are carefully controlled.

Q. Controlled? Isn't the earth just pushed helter-skelter over the side of the mountain?

A. Every phase of surface mining, from initial cut to final grading and seeding, is planned and controlled. First, a cut is made along the side of the mountain to expose the seam of coal. However, the width of this cut or bench is limited by regulation, depending upon the degree of the slope. This in turn limits the amount of earth which is displaced. In many instances, a "box" cut is made to reduce the amount of spoil going over the side. In other words, only the first cut is allowed to fall down the slope. The overburden from each additional cut is then carefully built up on top of this initial layer of displaced earth. The result looks like this:



Q. But what about reclamation? Isn't this just a "hit-or-miss" proposition?

A. Definitely not. Reclamation is just as important to responsible operators as the mining phases of their operations. And they're doing a good job of it. It must be remembered, however, that there's no such thing as "instant" reclamation. Successful restoration of mined land takes time . . . time for seeds to germinate . . . for root systems to develop . . . for vegetation to take hold and thrive.

Reclamation of mined land in mountainous terrain is a relatively new science. But much progress has been made. Hydroseding techniques are now commonly used to seed and fertilize graded slopes and benches. Experiments have been undertaken with state and federal conservation agencies to determine the advantages of various seeds and legumes for specific reclamation needs: for restoring aesthetic beauty to the land . . . for stabilizing the soil against erosion . . . for quick cover while residual grasses and shrubs develop . . . for attracting wild game and bird life.

Q. What consideration is given to preventing the hazardous destruction of timberland?

A. Responsible surface-mine operators see to it that timber in a section to be mined is selectively cut and harvested prior to mining the coal. And although it is not required by law, many operators plant trees on the outcrops after the land is reclaimed to provide reforestation and more effective stabilization of the soil.

Q. Aren't landslides a common occurrence in areas that have been surface mined?

A. Landslides are always a possibility in mountainous terrain, whether or not land has been surface mined. But today's effective reclamation methods have vastly reduced the danger of serious landslides in surface-mined areas.

Q. How do you control silt and debris? Aren't they carried into the streams to cause flooding in the hollows?

A. Prior to beginning an operation, the operator is required to build silt basins and check dams to stop sediment and debris from clogging the streams. In addition,

earthmoving operations are planned to prevent as much as possible any disturbance to the natural watershed of the area. Then, after the coal has been mined, the disturbed area is graded and the high wall backfilled to a height of four feet above the coal seam being worked. Following grading, the area is fertilized and seeded with legumes and grasses.

Q. What are the dangers of acid mine water polluting the streams and killing fish and plant life?

A. Acid mine water is a problem of mining raw coal in some areas of the country, but not in eastern Kentucky where most deposits of coal have a low sulfur content. In those rare instances where acid mine water is found to be a problem, regulations require that impoundment basins be built to prevent this water from being released into streams or rivers.

Q. Is there any truth to the rumor that the mining industry plans to phase out deep-mining operations in eastern Kentucky in favor of surface mining?

A. None whatever. Underground mining always has been and will continue to be the principal source of the nation's coal needs. In eastern Kentucky, surface mining is employed only as an adjunct to deep mining and to recover valuable deposits of coal that could not be mined any other way. For a sizeable part, this coal is found in the perimeter or outcrop area of previously deep-mined seams.

Q. If the principal source of coal comes from deep mines, why surface mine at all? Isn't this being a bit greedy?

A. It might seem so. But most people, once they know the facts, agree that it is necessary. Today as never before coal is in critically short supply. America's industries depend upon it. So do you. More than half of the country's electricity is produced by coal. It is needed in vast quantities for making steel. And thousands of by-products come from coal: medicines, chemicals, plastics, nylon, cosmetics. Things you use every day.

At present, there are millions of tons of much-needed coal in eastern Kentucky that can be mined only by surface methods. Neither the mining industry nor the nation can afford to lose or neglect this valuable mineral resource. To obtain this coal we must disturb the land temporarily. This is one price we pay for our American standard of living. But we don't have to pay the price forever. Today, under the law, surface-mined land is always reclaimed—promptly, properly, responsibly.

Q. What other benefits result from surface-mining and reclamation activities in eastern Kentucky?

A. The creation of readily accessible and usable flat land in mountainous areas is one of the prime benefits that surface mining has to offer. Mined land that has been properly reclaimed can be used for many worthwhile purposes: home sites, industrial sites, cattle grazing, solid waste disposal, game preserves, and recreation and tourist areas.

Still another benefit is increased employment in an area where jobs are scarce. In the counties of eastern Kentucky, the surface-mining industry has provided thousands of men with good paying jobs . . . jobs that otherwise would not be available . . . that contribute to the support of many additional thousands . . . that help stem the flow of our young people to the mills and plants of the big cities.

As surface-mine operators, we have two responsible jobs to perform: to supply the nation with its demand for more coal . . . and to return surface-mined land to beneficial use. We intend to do both jobs well.

SURFACE MINING AND RECLAMATION ASSOCIATION

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Industry taking steps to take responsibility

The industry is taking steps to take responsibility for the environmental impact of its products. This includes efforts to reduce the carbon footprint of manufacturing and distribution, as well as initiatives to promote sustainable practices among consumers. Many companies are also investing in research and development to create more eco-friendly products.

Another key area of focus is the use of recycled materials in product design. By incorporating recycled plastics, metals, and other materials, manufacturers can significantly reduce the amount of waste sent to landfills. Additionally, many companies are implementing take-back programs to encourage customers to return used products for recycling.

Finally, the industry is working to improve its transparency and accountability. This involves providing detailed information about the environmental impact of products and the steps being taken to address these issues. By being open and honest about their practices, companies can build trust with consumers and demonstrate their commitment to sustainability.

By [Name]