

What is AMD?

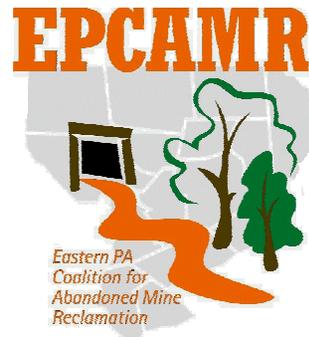


Acid Mine Drainage at the
Old Forge Bore Hole
in Old Forge, PA

Acid mine drainage, or AMD, is a form of water pollution usually caused by abandoned coal mines. Underground mining creates low areas that are prone to filling with water. In active mines, pumps operate to keep miners dry. When the pumps shut down, however, the mines fill up with water. That water dissolves pyrite, a mineral comprised of sulfur and iron that is found among the coal. When that water flows out of the mine and hits the air, the sulfur becomes sulfuric acid or gases off, creating a rotten egg smell. The iron rusts, leaving a film of iron oxide on the streambed, which greatly inhibits stream life.



Acid Mine Drainage at the
Jeddo Mine Tunnel
in Butler Township, PA

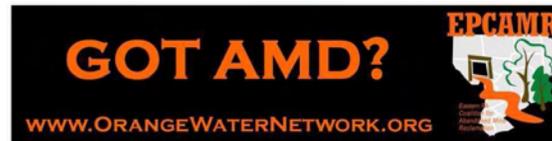


Pricing:

Tie-dyed t-shirts: \$10 donation

Iron oxide pigment: \$5 per 1 oz.

“Got AMD?” sticker: \$2 donation



For more information,
or to request packets
of iron oxide pigment
for your own projects,
contact Robert Hughes,
EPCAMR Executive Director:

101 South Main St.
Ashley, PA 18706
Phone: 570.371.3523
Fax: 570.371.3522
E-mail: rhughes@epcamr.org

<http://www.OrangeWaterNetwork.org>

From Pollution to Solution:

Acid Mine
Drainage
and
EPCAMR's

Iron Oxide
Resource
Recovery
Efforts



Uses of Iron Oxide:



Commercial Markets:

Chemical fertilizer, paint pigment, food coloring, animal vitamins, human supplements, chemotherapy...

Recovery Process:

1.) Iron oxide "sludge" is collected from AMD discharges.



2.) The sludge is left in a bucket by a dehumidifier to dry out into a packed powder.

3.) The powder is broken up and sifted through a sieve onto a baking sheet.



4.) Sheets of iron oxide powder are placed into a special drying oven for about an hour, to dry out fully and to change color, ranging from orange to yellow to deep purple-red.

5.) The cooked iron oxide powder is allowed to cool and then processed in an electric grinder into a fine, uniform powder.



6.) The finished product is sorted by weight to be used in projects or shipped off to other groups interested in using recovered iron oxide pigment!

Who is EPCAMR?

The Eastern Pennsylvania Coalition for Abandoned Mine Reclamation is a public, non-profit organization organized in 1996 to promote and facilitate reclamation and remediation of land and water adversely affected by past mining practices in eastern Pennsylvania.

EPCAMR has been practicing AMD iron oxide resource recovery since 2002, performing its first tie-dye workshop in 2003. Since that date, EPCAMR has:



- Coordinated more than **50 AMD tie-dye workshops**, facilitating the creation of more than **8000 tie-dyed t-shirts**;
- Distributed for free more than **500 pieces of iron oxide chalk** to area youth; and
- Provided iron oxide powder to other watershed organizations and environmental groups in **7 different states**.



CAUTION!

EPCAMR has its iron oxide sources laboratory-tested to ensure chemical purity. Many mine drainage discharges contain other, potentially dangerous metals, such as aluminum, cadmium, and arsenic.

Please, don't try this at home.