

STATION 7

# Skyview Laboratory, Inc.

P.O. BOX 273      ROUTE 30      JENNERSTOWN, PA 15547

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LOYALHANNA WATERSHED  
P.O. BOX 561  
LIGONIER PA 15658

Date collected: 12/7/94  
Time : 11:45  
Analysis date 12/7/94

Source: XXXXXXXXXX sample # 2

| TEST         | RESULT |       |
|--------------|--------|-------|
| pH           | 2.91   |       |
| Alkalinty    | 0      |       |
| Acidity      | 926    | ppm   |
| Manganese    | 7.53   | ppm   |
| Total Iron   | 237.4  | ppm   |
| Ferrous Iron | 33.0   | ppm   |
| Sulfate      | 950.0  | ppm   |
| Aluminum     | 30.8   | ppm   |
| Conductivity | 1050   | mmhos |

ppm = parts per million. 1 ppm = 1 pound per million pounds of water.

water quality is affected by the combination of chemical characteristics of the water

App: AM

OSM Data

TABLE 2  
WATER QUALITY ALONG LAUREL RUN, AUGUST 31, 1995  
(Values in milligrams per liter except where noted; sample locations are shown on Figure 3)

| SAMPLE #                                      | 1    | 2     | 3                 | 4                 | 5                | 7                | 8                |
|-----------------------------------------------|------|-------|-------------------|-------------------|------------------|------------------|------------------|
| Flow (gal/min)                                | 0.8  | 2.2   | estimated<br>0.25 | estimated<br>0.25 | estimated<br>3.0 | estimated<br>5.0 | estimated<br>5.0 |
| Spec. Cond., field<br>(micromhos/cm)          | 136  | 911   | 48                | 750               | 148              | 1974             | 125              |
| Temperature (C°)                              | 14.8 | 14.0  | 18.6              | 18                | 19.5             | 13.4             | 21.7             |
| Eh (millivolts)                               | 326  | 400   | 380               | 290               |                  | 410              | 317              |
| pH (lab)                                      | 4.87 | 3.6   | 4.68              | 3.92              | 4.41             | 2.96             | 5.80             |
| Spec. Cond., lab<br>(micromhos/cm)            | 150  | 1200  | 61                | 1250              | 190              | 2400             | 180              |
| Total Dis. Solids                             | 50   | 603   |                   | 493               | 50               | 1787             | 91               |
| Alkalinity<br>(mg/l CaCO <sub>3</sub> Eq.)    | 1.6  |       | <1                |                   |                  |                  | 4.9              |
| Total Acidity<br>(mg/l CaCO <sub>3</sub> Eq.) | <10  | 153   | <10               | 168               | <10              | 1034             | <10              |
| Total Iron                                    | 0.47 | 35.31 | 0.17              | 70.66             | 0.33             | 302.76           | 1.33             |
| Total Aluminum                                | 1.13 | 9.27  | 0.36              | 3.83              | 0.93             | 62.48            | 1.9              |
| Total Manganese                               | 0.90 | 15.02 | 0.46              | 10.28             | 2.25             | 4.76             | 0.20             |

| SAMPLE #       | 1    | 2     | 3    | 4     | 5    | 7      | 8     |
|----------------|------|-------|------|-------|------|--------|-------|
| Dis. Iron      | 0.06 | 34.54 | 0.09 | 68.93 | 0.06 | 306.02 | 3.33  |
| Dis. Aluminum  | 0.90 | 9.28  | 0.22 | 3.60  | 0.73 | 64.36  | 18.37 |
| Dis. Manganese | 0.96 | 14.97 | 0.47 | 10.23 | 2.28 | 4.83   | 0.13  |
| Calcium        | 6.23 | 41.11 | 1.45 | 36.99 | 7.80 | 30.27  | 12.63 |
| Magnesium      | 3.46 | 38.80 | 1.15 | 31.74 | 4.94 | 27.26  | 10.30 |
| Sodium         | 5.53 | 7.08  | 0.94 | 3.82  | 2.71 | 1.77   | 2.45  |
| Potassium      | 1.71 | 3.10  | 0.64 | 2.32  | 1.35 | 1.33   | 1.41  |
| Sulfate        | 31.4 | 403.1 | 10.3 | 368.5 | 44.5 | 1166.6 | 211.1 |
| Bicarbonate    | 2.0  |       | <1   |       |      |        |       |
| Chloride       | 9.6  | 14.3  | 3.7  | 10    | 6.3  | 5.1    | 4.4   |

Sample location descriptions are as follows:

- #1, Spring house at head of Laurel Run;
- #2 Mine drainage at head of Laurel Run, 50 yards from #1;
- #3 Left Fork near head of Laurel Run;
- #4 Mine drainage on Laurel Run, 100 yards downstream from #2;
- #5 Laurel Run at road crossing upstream of Freidland Mine;
- #6 Freidland Mine drainage;
- #7 Laurel Run 150 yards downstream from Freidland Mine drainage;
- #8 Laurel Run at mouth.