FLINT INDUSTRIES, Incorporated

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CASE STUDY

Application: **Sludge Cap**

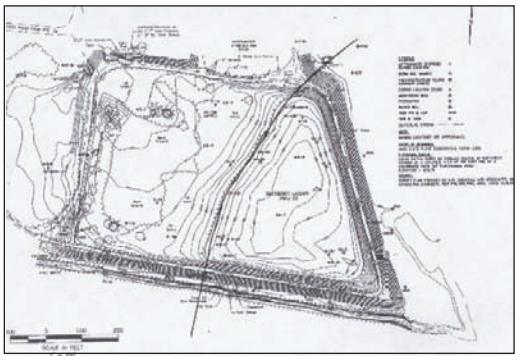
Customer: **Arizona Chemical Industrial Plant, Dover, Ohio**

Product: **Installation of Sludge Cap**

THE PROBLEM

The Dover Ohio facility of Arizona Chemical Company (a Subsidiary of International Paper) required a cost effective method of closure for its Old Wastewater Lagoon (SWMU 22) that contained ultra-high PH sludge with a reading of 11.8.

THE DESIGN



The engineering firm of ENSR was hired to overcome this hurdle and contacted Flint Industries for technical advice. Flint recommended a high strength polypropylene woven fabric with high PH resistance (GC 1000) manufactured by TC Mirafi. This product had a wide width (ASTM D-4595) value of approximately 1000 ppi in both Machine (MD) and Cross-machine (CMD) directions. Although rated as achieving seam strengths of 700 ppi (60%) with the use of a "j" seam, Flint was able to demonstrate its ability to produce seams of 700 ppi using a 2 row "prayer seam". As a result of our extensive sludge cap experience, Flint was selected to install the geotextiles.

THE TEAM

Flint performed the seaming by using a boom mounted double needle sewing machine mounted on a 6-wheeled ATV. Following behind the clearing and grubbing crew, Flint was able to make good production and averaged 5,000 square yards of installed geotextile per day.

THE RESULT

The site was divided into two zones; Area 1 to the west that was fairly dry and required one layer of GC 1000 with a second layer of FW 404 (for added filtration and strength) and Area 2 to the east that required three layers of GC 1000 oriented in different directions. Area 2 proved to be both the wettest and have the lowest "vane shears". Upon completion of backfill, the entire site was re-vegetated with local plant species.

OWNER
Arizona Chemical Company
(a Subsidiary of International Paper)

MANUFACTURER
T C Mirafi

INSTALLER
Flint Industries Inc