



GEOFABRICS CASE STUDY



GEOTUBE DEWATERING CONTAINER REDUCES COAL FINES VOLUME AND COSTS

PRODUCTS USED

SOLMAX GEOTUBE® DEWATERING CONTAINER GEOTEXTILE

- Made from an engineered textile that is designed for dewatering high moisture content sludge and sediment
- High flow rate allows residual materials to dewater, whilst containing solids
- Simple to use as there are no mechanical or moving parts that could breakdown or wear and tear
- Available in many sizes, depending on volume and space requirements
- Supported by design advice and guidance on polymer use for your sludge

PROJECT DESCRIPTION

Port Waratah Coal Services (PWCS) in Newcastle operates one of the world's largest coal export terminals. During routine operations, coal fines settle in dedicated ponds, leading to large volumes of fine slurry with high water content accumulating over time, making removal and disposal complex and costly.

In 2025, PWCS initiated a major clean-out of one of its key settlement ponds to maintain operational efficiency and ensure compliance with environmental standards. The project's goal was to extract and dewater the coal fines in a cost-effective and environmentally responsible manner, which was why Solmax Geotube dewatering container geotextile was selected.

OUR SOLUTION

A high-capacity dredge pump extracted the coal fines slurry from the settlement pond and pumped it to strategically placed Geotube dewatering containers. An in-line flocculant polymer was added during pumping to promote rapid binding of fine coal particles, improving solids retention and accelerating water release.

The laydown area was carefully prepared to capture drainage water, ensuring proper containment and preventing uncontrolled runoff. Over several weeks, the dewatering process allowed clear water to drain through the Geotube units, which was then collected for reuse within the facility or safely discharged.

The project successfully dewatered thousands of cubic metres of slurry, significantly reducing the weight and volume of the coal fines. This not only lowered transport and disposal costs but also made handling and storage safer and more manageable. The operation was completed without disrupting port activities or causing environmental incidents.



**Scalable
& reliable**
dewatering
solution

**Controlled
drainage
protects**
surrounding areas



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