



# Acid Solutions®

## Contaminated Water Treatment Services

### **Completed Sand Mine remediation for 785 Megalitres held in 2 pit of 16.7 hectares treated in 6 days with 42 tonne of reagent.**

<b>Customer Name</b>	- South East Excavations
<b>Site Location</b>	- Northern New South Wales
<b>Site Problem</b>	- pH & acidity
<b>Water Volume</b>	- 785 megalitres
<b>Water pH</b>	- 3.0 & 3.3
<b>Acidity</b>	- 153mg/l & 84mg/l
<b>Suspended Solids</b>	- medium
<b>Treatment Objective</b>	- Remediation treatment for final environmental Signoff.
<b>What is causing the problem</b>	- Bulk Sand Extraction
<b>Dams/Pits</b>	- 2
<b>Length of water body</b>	- 380 metres & 260 metres
<b>Width of Water body</b>	- 330 metres & 225 metres
<b>Water Depth</b>	- Up to 9 metres & up to 3.5 metres
<b>Bottom Type</b>	- Lumpy/excavated
<b>Aquatic Flora</b>	- Nil
<b>Vehical Access and Flora</b>	- Road access
<b>Environmental Sensitivity</b>	- Contained and controlled
<b>Aquatic Life</b>	- None
<b>Drains or Streams nearby</b>	- Yes – environmental risk
<b>Regulatory requirements</b>	- Yes - discharge
<b>Treatment urgency</b>	- Yes – urgent



**9.5 and 7.2 hectare Contaminated Dams holding 785 megalitres**

## PROBLEM

A Sand Mining operation was excavating highly acidic sand deposits. Southeast Excavations was contracted to extract, wash and pump 700,000 cubic metres of sand, 7.5 kilometers to the Salt Development site in Northern New South Wales.

Treatment was required during extraction as well as final remediation of water on completion of the project. The water quality was in breach of license requirements due to the acidification of the water body from the sand washing during extraction.

The water was high in acidity with both pits having a pH of <3.0. The water was high in aluminium, ferrous iron, other dissolved metals and suspended solids.

## RESULTS

The CRAB treatment system accurately treated the 785 megalitres in the 2 contaminated pits with 42 tonne of reagent in less than 6 days. pH was raised, dissolved metals, acidity and suspended solids were reduced in accordance with license release and sign off requirements.

Post treatment water testing results showed contaminants were reduced to drinking water quality.

Acid Solutions has treated this site on several occasions in the last 28 months due to the large extraction rate and high acidity continually produced in the operation.



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