

9 pits (540 Megalitres) treated in 14 days with 85 tonne of reagent.

-9

Name -Name withheld

Site Location -South East Queensland

Site Problem -pH & Acidity

Water Volume
-Total of 540 megalitres
Water pH
-pH 2.84 and above
Acidity
-366mg/l and below

Suspended Solids -moderate

Treatment Objective -License compliance

What is causing the problem -Sand Mining

Dams/Pits

Length of water body -Many Width of Water body -Many

Water Depth -up to 3 metres
Bottom Type -Lumpy/snags
Aquatic Flora -Surrounding
Vehicle Access and Flora

Vehicle Access and Flora -Basic Access

Environmental Sensitivity -Contained until excess rainfall -None

Drains or Streams nearby -Nearby

Regulatory requirements -License suspension threatened

Urgency level -Extremely urgent





PROBLEM

A leading sand producer in south easy Queensland in 2004 required urgent treatment of their contaminated pit water to reduce acidity, raise pH and reduce metal contaminants to license requirements due to the Environmental Protection Authority imposing the threat of license suspension.

BACKGROUND

The site consisted of 9 pits, a total of 540 megalitres, ranging from 45 megalitres to 180 megalitres.

The acidity of these pits ranged from 85 mg/l to 366 mg/l with the pH's as low as 2.84. The water quality was poor with high levels of dissolved metals such as Aluminium, Iron, Copper and Arsenic.

Some pits remained from past excavation of sand and silica products and the others were still having product extracted.

Some of the pits had restrictive access with the largest being 8.5 hectares.

RESULTS

Acid Solutions treated the 540 megalitres in 9 seperate pits in a total of 14 days with 85.5 tonne of reagent.

Final water quality of all pits treated was above pH 7.5 with acidity, Metals and suspended solids achieving license requirements.

The treatment neutralised acidity and eliminated the possibility of license suspension in very short time.



freecall: 1800 11 ACID - <u>www.ACIDsolutions.com</u> - email <u>pH@ACIDsolutions.com</u> phone: +61 7 55 22 1789 - fax: +61 7 55 22 0706