MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES

TASMANIAN ACID DRAINAGE RECONNAISSANCE

DISTRIBUTION OF LOW pH AND HIGH METAL SURFACE WATERS IN WATERSHEDS IMPACTED BY ABANDONED MINES

SCALE 1:500000

0 10 20 30 40 50 km

Grid: Australian Map Grid, Zone 55.

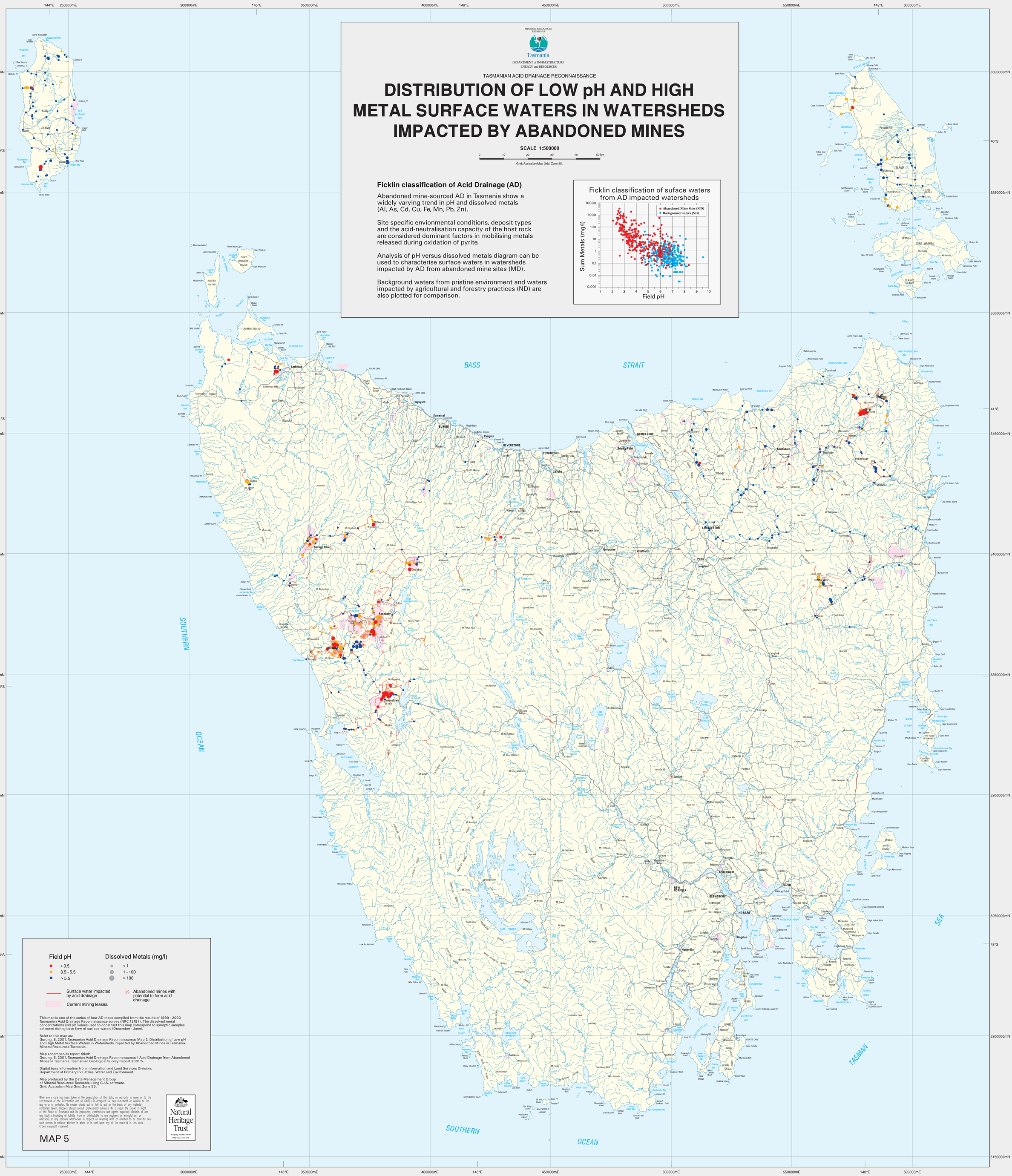
Ficklin classification of Acid Drainage (AD)

Abandoned mine-sourced AD in Tasmania show a widely varying trend in pH and dissolved metals (Al, As, Cd, Cu, Fe, Mn, Pb, Zn).

Site specific envionmental conditions, deposit types and the acid-neutralisation capacity of the host rock are considered dominant factors in mobilising metals released during oxidation of pyrite.

Analysis of pH versus dissolved metals diagram can be used to characterise surface waters in watersheds impacted by AD from abandoned mine sites (MD).

Background waters from pristine environment and waters impacted by agricultural and forestry practices (ND) are also plotted for comparison.


BASS STRAIT
SOUTHERN OCEAN
TASMAN SEA
Smithton
Wynyard
Somerset
BURNIE
Penguin
ULVERSTONE
DEVONPORT
Latrobe
George Town
Beaconsfield
Scottsdale
LAUNCESTON
Deloraine
Westbury
Perth
Longford
Savage River
Rosebery
Queenstown
Zeehan
Strahan
Bridgewater
NEW NORFOLK
GLENORCHY
HOBART
Sorell
Kingston
Huonville
Dover
Bicheno
Swansea
Triabunna
Orford
Buckland
Dunalley
Eaglehawk Neck
Tarraleah
Derwent Bridge
Tullah
Waratah
Zeehan
Strahan
Queenstown
Rosebery
Savage River
Smithton
Wynyard
Burnie
Ulverstone
Devonport
Launceston
Hobart