



Industry Support for Mining Environmental Professionals News, Technical, Safety, Training and Innovation Information

“ *Helping mining environmental professionals maintain best practice in a changing technical and regulatory environment* ”

www.alsglobal.com

Safety News - Change in preservative to improve safety

Oil & grease sample containers have historically contained liquid acid to act as a microbial inhibitor. Without preservation bacteria can consume the lipids & simple aliphatic hydrocarbons within Oil & Grease. ALS has validated & substituted sulfuric acid for sodium bisulfate powder to reduce the OH&S risks associates with potential leaks or breakages during transport. Sodium Bisulfate acidifies when in contact with water to form Sulfuric Acid, equivalent to the existing preservation technique. Although the risk of exposure is reduced, Sodium Bisulfate is still corrosive in the presence of moisture and appropriate PPE is recommended.



Technical Support Feature - Remote Access to Results via Mobile Webtrieve™ Application

ALS has developed an application to bring the long established Webtrieve™ to your smart phone via iPhone & Android. The main feature is access to results and key ALS information while in the field or offsite. The Mobile Webtrieve™ is in a user-friendly mobile format to access the 20 most recent work orders, their status, access to the sample handling/preservation guide plus access to ALS contact & site details. To obtain the app' click on the link below.

[iPhone](#)

[Android](#)



Training / Industry News

Industry Training is designed to support professionals and build knowledge. Further sessions are planned in 2013 and mining clients continue to be welcomed.

Key Topics Include

- Getting the most from your Laboratory
- Sample Preservation, Chilling & Holding Times -Tips & Traps
- Field Techniques to Maximize Quality
- Laboratory Quality Control & Quality Assurance
- Understanding Guideline requirements & Interpreting Analytical reports



Training Schedule for 2013 (please contact us)

- Brisbane: August 2013
- Melbourne: September 2013
- Perth : TBA
- Sydney: TBA

For technical support, training etc. please [Contact us](#)

Quarterly Feature – Using Automatic Weather Stations to Manage Mine Site Dust

Monitoring of air quality can be of high importance for the health and safety of mine staff and surrounding communities. Having the ability to measure meteorological parameters enables operators to understand the distribution, movement and air quality in and around mine sites. Measuring can also occur pre-operation to obtain background data for CEMP's or EIS's. Measurement can be via meteorological instrumentation (automated weather stations) installed at strategic locations. The typical setup and installation of an automatic weather station (AWS, aka MET Station) consists of standard and specialised sensors on a mast and controlled by a data collection platform. Installations are to standards (BOM, ABC etc) and guidelines with sensors exposed to produce a true representation of atmospheric conditions. With the addition of dust measuring equipment, air-borne particulates data can be obtained.



(Con't on the next page..)

Quarterly Feature Article (continued)

Using Automatic Weather Stations to Manage Mine Site Dust

The following parameters can be measured:

Wind Speed & Direction	Ambient air quality
Dust and Noise	Evaporation & Rainfall
Air temperature	Soil Moisture/ Temp
Relative Humidity	Lightning activity
Barometric Pressure	Solar Radiation

Monitoring Dust Plumes

Traditional dust monitoring has been achieved via dust deposition gauges or stand-alone monitors. A disadvantage of these systems is that data is available only when the operator visits the site to manually recover data or samples for subsequent analysis. By combining dust monitors with telemetered automatic weather stations, real time information can be obtained for the management of dust emissions.

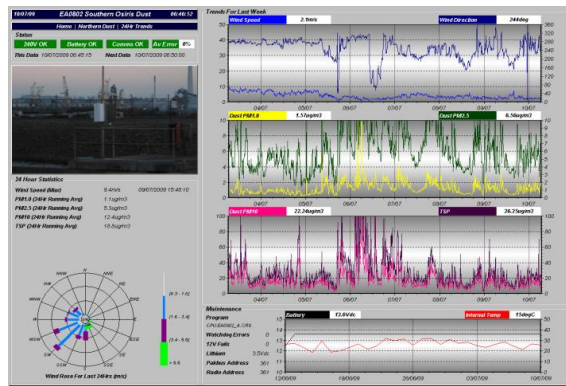


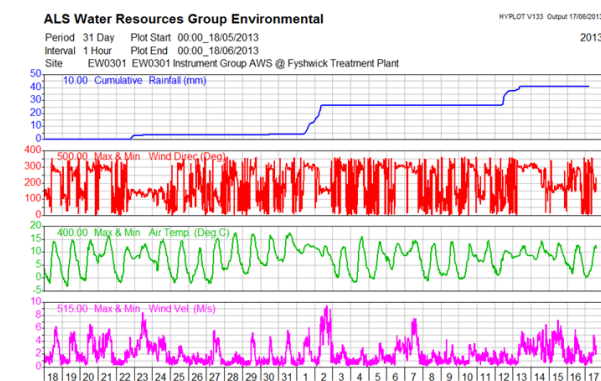
Fig. 2: Real-Time data produced by an AWS.

For example, if certain mine operations were scheduled for less windy days or favourable wind directions, real time data can feed back into dust suppression systems either automatically (e.g. sprinkler systems) or manually (e.g. water truck).

AWS stations may be installed at key locations to monitor dust (including PM1, PM2.5, PM10 and TSP particulate size). Data is fed into the data logger and transmitted via telemetry network to the client computer network with data available on the client intranet using customised web pages, tailored specifically for the application. This provides authorised users with up to date information on dust levels and trends.



Fig. 1: 10m AWS with rain gauge & hi-volume sampler.



For a system demonstration of an active AWS site on the ALS data Web Portal (in Canberra) please click on the link below and follow directions. Below is a screen shot of the demonstration showing real time data for Rainfall, wind direction, temperature and wind velocity including a link.



Fig. 3 Example Dust Plume Trend, as shown in the aerial photo wind speed and direction is prevalent toward the water body.

<https://portal.alsglobal.com/web.htm>

Click on + drop down box next to Demo AWS Sites
Click on active AWS system – 'EW0301 Instgrp Fyshwick'

Brisbane, Sydney, Melbourne (Springvale), Perth, Newcastle, Roma, Darwin, Adelaide, Townsville, Mackay, Gladstone, Wollongong, Nowra, Mudgee
Water Resources Group: Canberra, Bendigo, Geelong, Melbourne (Scoresby), Wangaratta, Traralgon

www.alsglobal.com

Technical Enviromail Links

Enviromail 07 - Acid Rock Drainage
Enviromail 20 - Arsenic and Selenium Speciation in water
Enviromail 25 - Webtrieve data access
Enviromail 33 - Column Leaching ABCCs
Enviromail 35 - Bioavailable Metals in sediment
Enviromail 39 - Radionuclides in Water soil and sediment
Enviromail 45 - Efficiency Improvements in water sampling
Enviromail 46 - Extended Ferrous Iron Holding Times in water
Enviromail 51 - TRH and BTEXN to meet the draft NEPM
Enviromail 61 - Cyanide Data Quality
Enviromail 62 - Cyanide - Field techniques
Lab News - Sample Freight and Logistics

Guideline/Regulation Links

ANZECC Guidelines (document 4a: an introduction)
Volume 1 - The Guidelines (chapters 1-7)
Volume 2 - Aquatic ecosystems (chapter 8)
Volume 3 - Primary Industries (chapter 9)
Mining Environmental Guidelines WA - 2006
QLD Department of Environment Guidelines
NSW Environmental Management of Exploration, mining...
Lab News - DERM Water Conditions for Coal Mines

ALS Australian Environmental Locations Supporting Mining

Adelaide
Bendigo
Brisbane
Darwin
Gladstone
Mackay
Melbourne
Mudgee
Newcastle
Perth
Rockhampton
Roma
Sydney
Townsville
Wollongong

**For site addresses
and contact details,
click here**

ALS LINKS

COC

Pocket guide

MSDS Links

(go to Australia, then
expand on MSDS)