

Expert: Halt mining until pollution plugged

KUANTAN: The poorly-regulated mining of bauxite near here has resulted in the contamination of nearby waterways with heavy metals.

The results from a different set of laboratory analysis indicated high concentrations of aluminium in Sungai Pengorak, which recorded 0.7milligramme/litre (mg/l), 0.2 mg/l above the permissible level, placing it in the fifth-class of the National Water Quality Standards for Malaysia — the worst possible.

Samples taken from Pantai Pengorak, near Kampung Selamat, also showed alarming amounts of total suspended solids (TSS) at 462mg/l and turbidity at 174NTU, which explained the sea's muddy condition. The reading, according to the Malaysian Marine Water Quality Criteria and Standard, showed that the water quality at the port and oil and gas rigs off Pahang were much better.

Water expert Dr Zaki Zainudin said the laboratory results were consistent with the murky appearance of the water at the source.

"TSS and turbidity levels at the coastal zones are definitely much higher than the ambient levels. The elevation of the TSS and turbidity in

the water usually stems from sediment transport (earth, soil) either due to erosion or other activities.

"We are looking at only one aspect of the adverse impact. There may be others as well," he said, adding that more studies and analysis should be carried out on the polluted areas.

Zaki said mining activities at the affected areas should be halted altogether until the sources of pollution were plugged, and proper mitigating and management measures were introduced.

"If indeed the contamination is the result of mining activities, appropriate measures, such as the implementation of a comprehensive Erosion and Sediment Control Plan, must be carried out before we see further

damage. The effectiveness of the control measures should then be further assessed through continuous monitoring of the ambient water quality (river and coastal)."

Zaki's points were echoed by geochemistry and marine radiochemistry expert Professor Dr Che Abd Rahim Mohamed, who asked the authorities to build a sedimentation pond to trap the bauxite residues.

"They need to prepare several set-



Water expert Dr Zaki Zainudin



The dark red water in Sungai Pengorak.

ting ponds that can accommodate the bauxite residues and rainwater. The water can be released only after the sediments, which contain toxic materials, settle down in the ponds."

Another environmental expert, who declined to be named, said the "red sea" phenomenon and poor road conditions near Kuantan Port were evidence of poor management not by the operators only, but also the port management.

"The miners should conduct an Environmental Impact Assessment (EIA) and among the things that they need to control is the dispersion of dust."

The EIA would require them to determine the wind direction as part of the controlling measures.

"From there, the mining companies will need to come up with a mitigation plan to stop the dust from

settling in residential areas," the expert said, adding that lorries transporting the ore should also be properly sealed.

The expert added that the bauxite stockpiles kept at Kuantan Port, which he believed to be the cause of contamination in Sungai Pengorak, should be properly covered to reduce sediment run-off.

"Berms must be built around the stockpile. From the photos (taken by the NST team), it is clear that the berms are not designed for this purpose, that is to trap rainwater mixed with bauxite sediment from flowing into other water sources."

Mining companies, he added, should have a system at each site where every lorry leaving the area would first have to pass a wash area to prevent sediments from being tracked off the site.