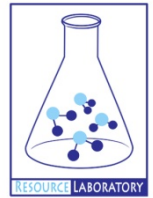




GROUNDWATER QUALITY ANALYSIS REPORT

Kandal - Lvea Aem - Barong (52A)



Barong is located in the district of Lvea Aem. The population of this commune is approximately 3361 (2004). Groundwater sample collection occurred in April 2007 and consisted of the sampling of 20 tube wells throughout the commune. The attached figure presents the location of Barong within Kandal as well as groundwater sample locations and exceedances of health-impacting contaminants (when applicable).

Groundwater Quality Rating

The groundwater quality rating for Barong is 52A. Therefore, the general safety of deep aquifer groundwater is poor and the aesthetic quality of the water is excellent, according to the contaminants measured and samples collected. The following two sections describe all major health and aesthetic contaminants that exceeded drinking water standards in at least one sample within the commune.

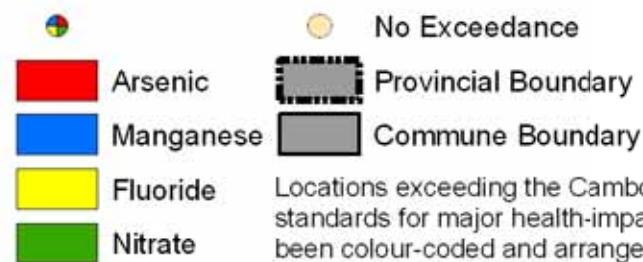
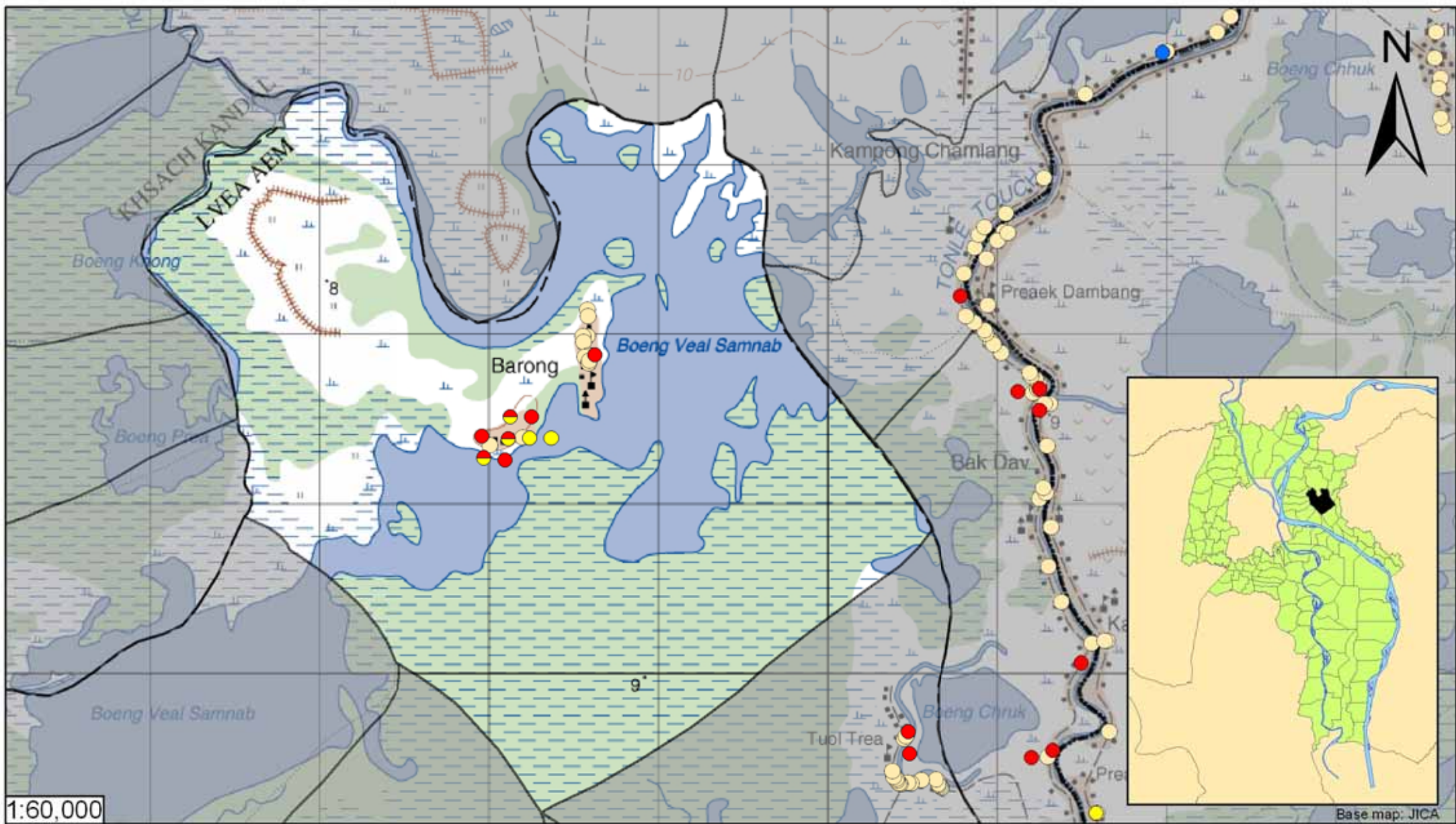
Contaminants of Potential Concern – Health

Arsenic - Elevated concentrations of Arsenic were observed within the commune. The estimated probability of encountering unacceptable concentrations of Arsenic (>50 ppb) in tube wells is 15%, based on the observed data. Long-term (5 to 10 year) exposure to elevated concentrations of Arsenic can cause arsenicosis (debilitating skin disease), increased risks of contracting cancer, as well as other negative health impacts.

Fluoride - Elevated concentrations of Fluoride were observed within the commune. The estimated probability of encountering unacceptable concentrations of Fluoride (>1.5 mg/L) in tube wells is 42%, based on the observed data. At concentrations greater than 1.5 mg/L, Fluoride can cause dental fluorosis and at concentrations greater than 4 mg/L, skeletal fluorosis can occur.

Contaminants of Potential Concern – Aesthetic

Turbidity - Elevated levels of Turbidity were observed within the commune. The estimated probability of encountering potentially unacceptable levels of Turbidity (>20 ntu) in tube wells is 2%, based on the observed data. Turbid or cloudy water appears unpleasant to the eye and is more likely have an unpleasant taste or odor. Turbidity can be reduced by filtration.



Tube Well Sample Locations and Health-Based Exceedances

Barong - Lvea Aem - Kandal - Cambodia

Resource Development International - Cambodia
www.rdic.org
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