GROUNDWATER QUALITY ANALYSIS REPORT

Prey Veng - Peam Chor - Svay Phluoh (56A)

Svay Phluoh is located in the district of Peam Chor. The population of this commune is approximately 8067 (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 Svay Phluoh within Prey Veng as well as groundwater sample locations and exceedances of health-impacting contaminants (when applicable).

Groundwater Quality Rating

The groundwater quality rating for Svay Phluoh is 56A. 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

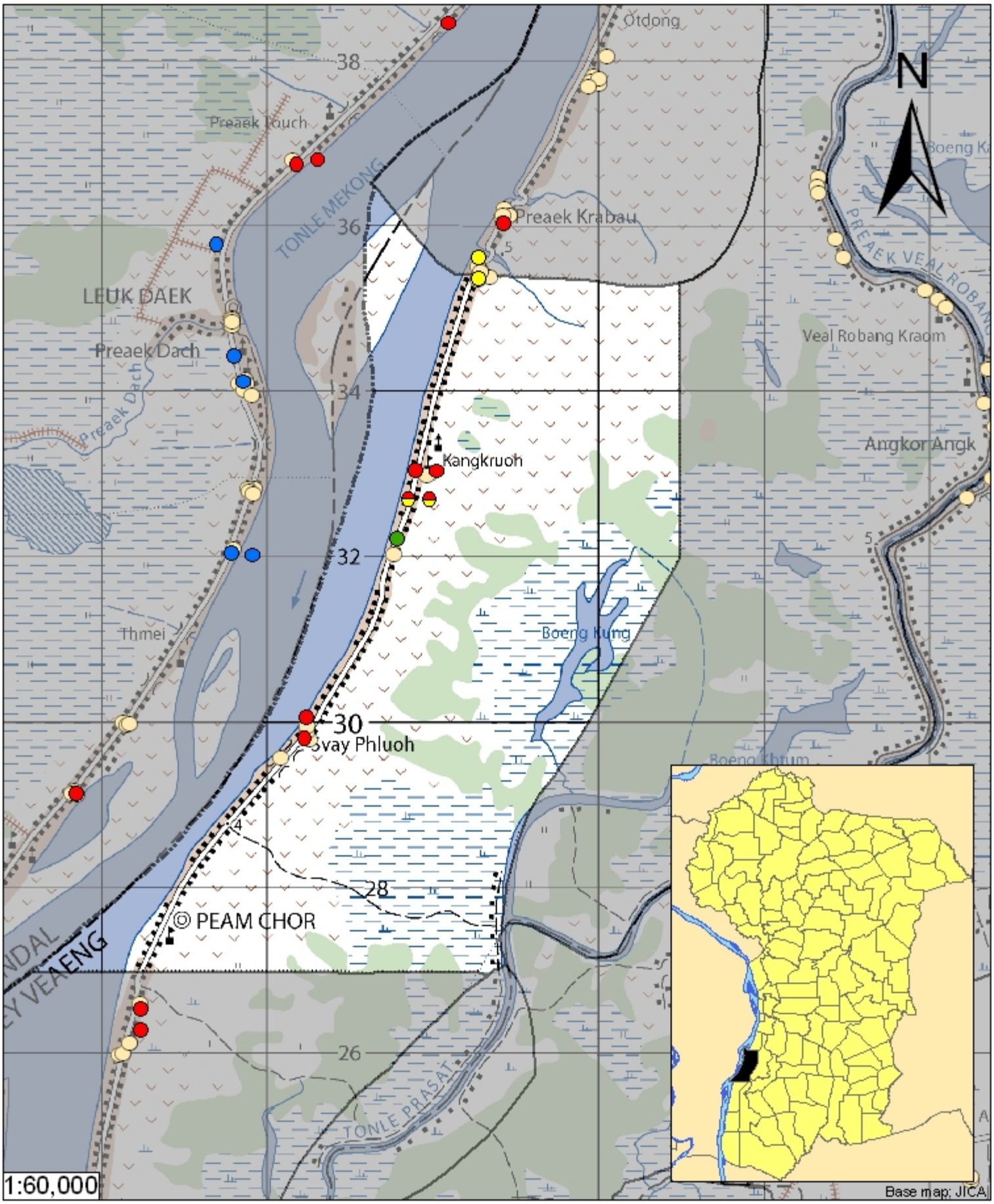
Arsenic - Elevated concentrations of Arsenic were observed within the commune. The estimated probability of encountering unacceptable concentrations of Arsenic (>50 ppb) in tube wells is 20%, based on the observed data. Long-term (5 to 10 year) exposure to elevated concentrations of Arsenic can cause arsenicosis (debilitating skin disease), increased risks of contracting cancer, as well as other negative health impacts.

Nitrate - Elevated concentrations of Nitrate were observed within the commune. The estimated probability of encountering unacceptable concentrations of Nitrate (>50 mg/L) in tube wells is 1%, based on the observed data. Short-term exposure to elevated concentrations can cause blue-baby syndrome in infants.

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 30%, 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

No aesthetic-impacting contaminants of concern were observed within this commune.



Arsenic

Manganese

Fluoride

Nitrate

No Exceedance

Province Boundary

Commune Boundary

Locations exceeding the Cambodian water quality standards for major health-impacting contaminants have been colour-coded and arranged such that they do not overlap.

Tube Well Sample Locations and Health-Based Exceedances

Svay Phluoh - Peam Chor - Prey Veng - Cambodia

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