

Lithologic Study of Deep Borehole in the Lower Chao Phraya Basin: Suphanburi Province

Vanachawan Hunyek; Ocpasorn Occarach; Jurarud Yanawongsa;
Thachthanadetch Ngandee; Pongpat Chairat, and Kriangsak Pirarai

Bureau of Groundwater Exploration and Potential Assessment
Department of Groundwater Resources, Ministry of Natural Resources and Environment





List of Contents

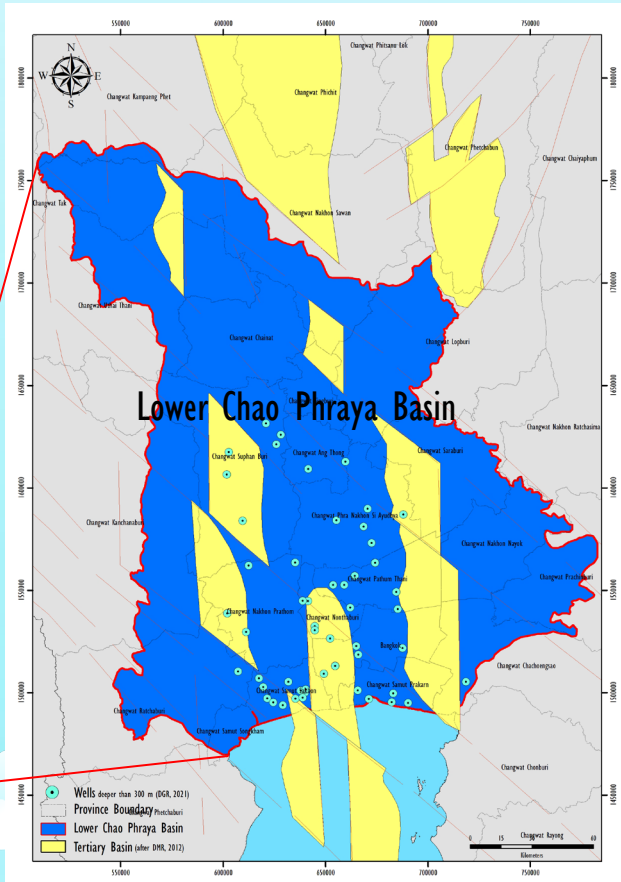
01 Introduction

02 Methodology

03 Results

04 Conclusions

Introduction



highest potential sedimentary groundwater basin

related to Tertiary Basin
(500 to 7,000-meter-thick sediment deposits)

most groundwater investigations
developed at a depth of less than 400 m

Objectives

— to explore the lithology and interpret the electric logging data at a depth of more than 400 m



to prepare the guidelines for future groundwater development particularly in Suphanburi Province

Methodology

Site Selection



Drilling and Collecting Data



Data Interpretation/Results



Discussion and Conclusions

Site Selection

Bangkok Metropolitan and the nearby areas¹

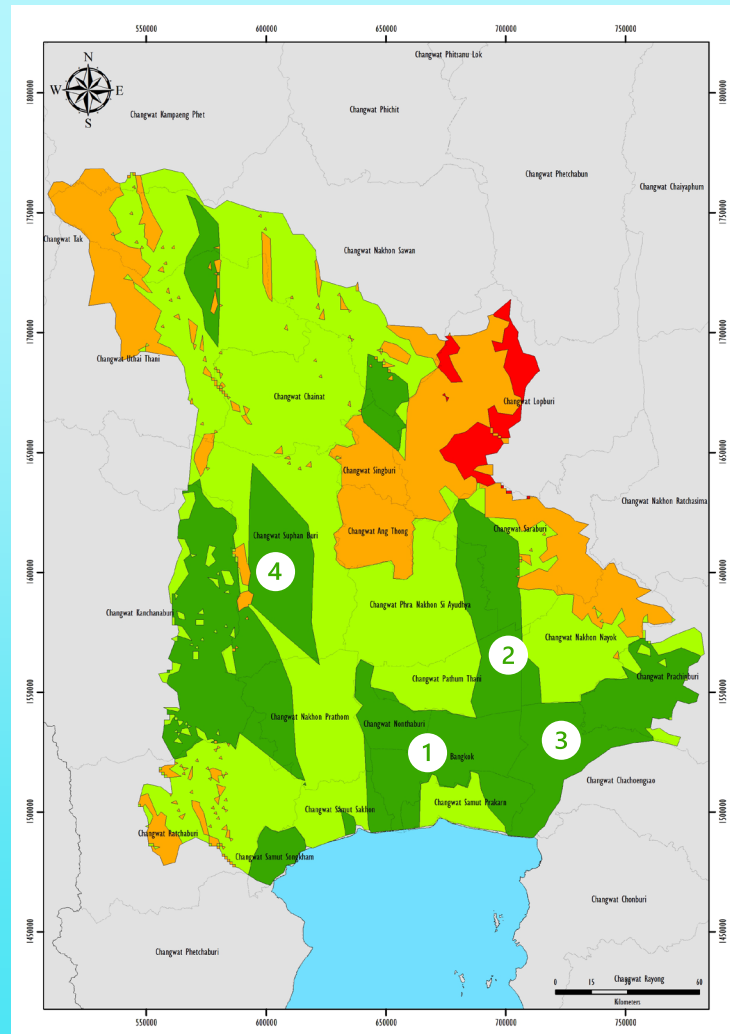
Pathum Thani, Ayuttaya²

- limited space; mostly private area

Chachoengsao, Prachinburi³

- DGR's EEC project - bedrock is founded (<300 m)

Kanchanaburi, Suphanburi⁴

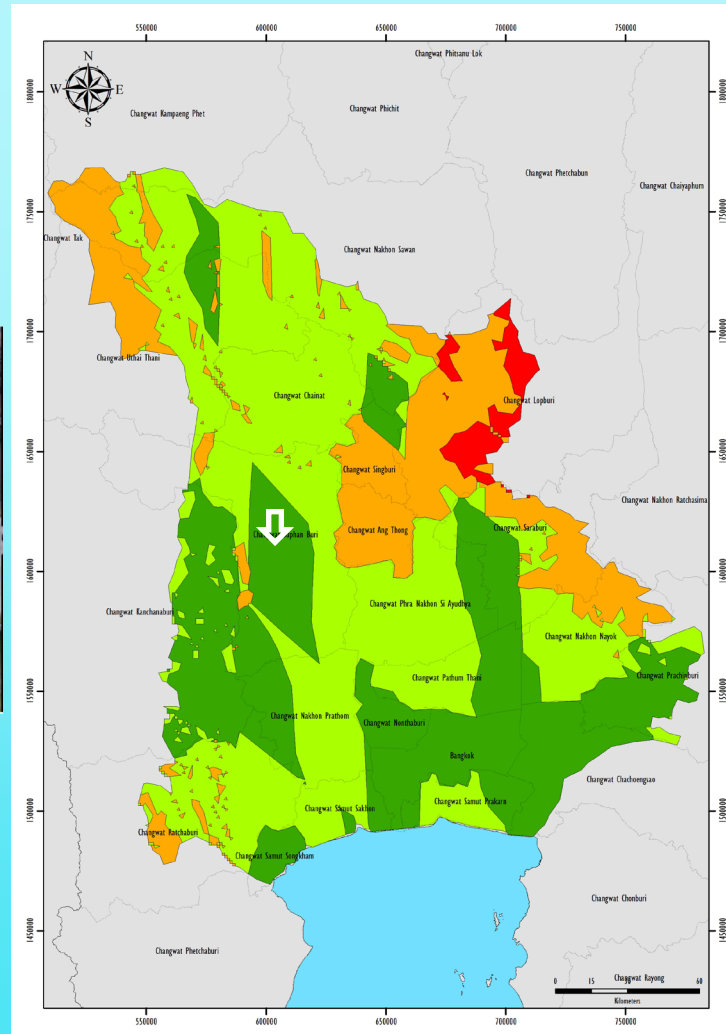


Site Selection



Suphanburi National Sports Center of the Disabled Person
Bangpho Subdistrict, Muang District, Suphanburi Province
(UTM 47P 614487E 1602780N)

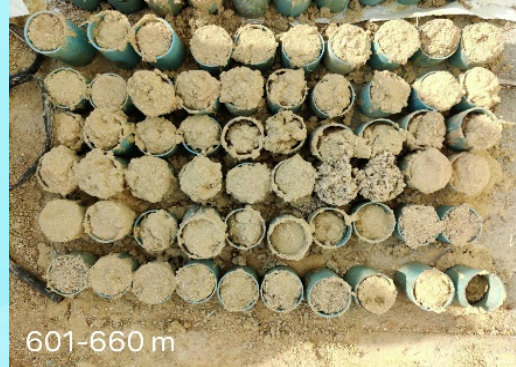
More than 8,000 people in Bangpho Subdistrict need more water supply



Drilling and Collecting Data



Results

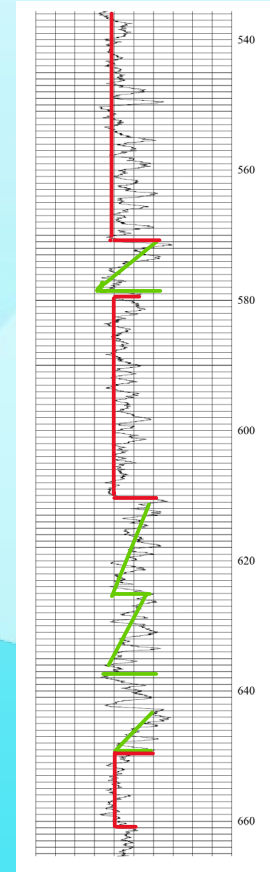
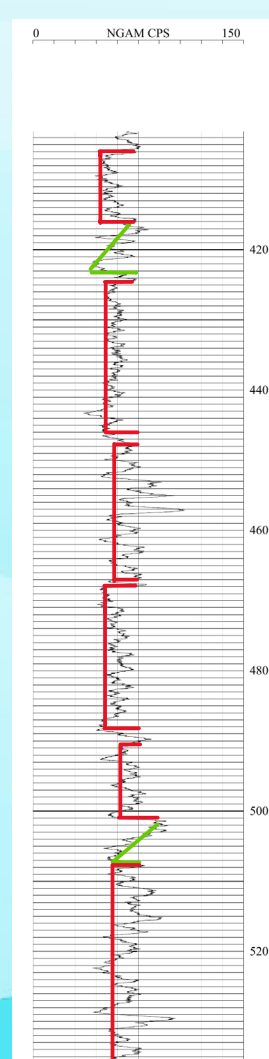


All samples are **sediments**,
including several layers of gravel, sand, and clay

bedrock is not presented

Results

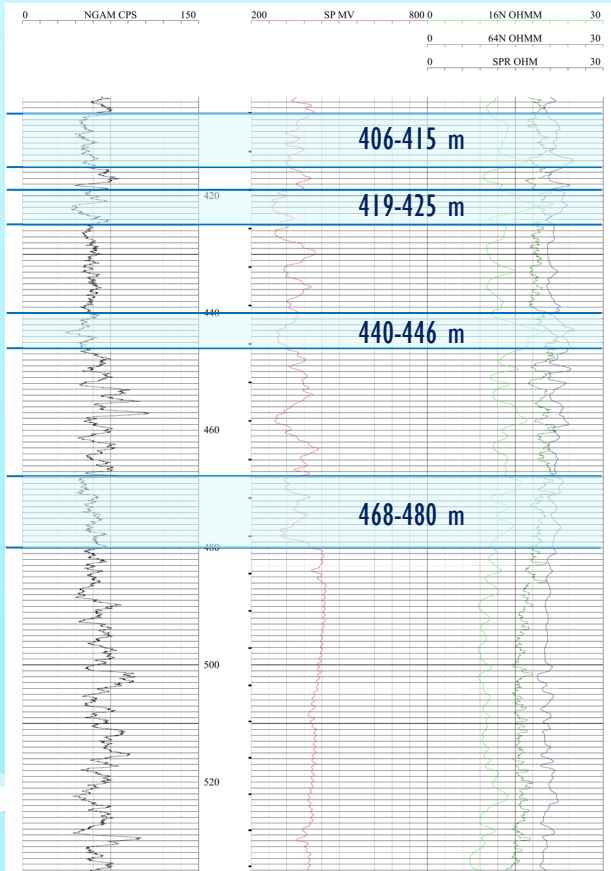
mostly shows **cylindrical shapes** with some bell shapes of gamma-ray log signatures that refer to the **fluvial channel's environment** [Cant (1992)]



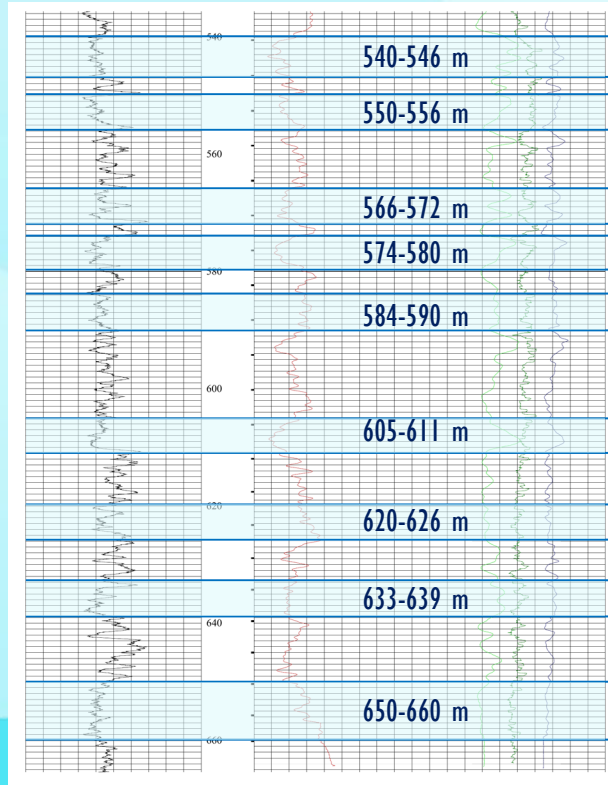
Cylindrical shapes

Bell shapes

Results



at the depth of **400 to 660 meters**
more than 10 layers of groundwater potential zones



Conclusions

Several layers of gravel, sand, and clay



fluvial channel's environment



groundwater potential zones

At the depth of 400 to 660 meters

more than 10 layers of groundwater potential zones

For Future Works

Valuable information for **future groundwater exploration and investigation** particularly in Suphanburi Province

Rock description coupling with e-logging interpretation can be used for studying the **correlation** between deep groundwater aquifers in the **Lower Chao Phraya Basin**



Acknowledgements



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**Thank You
for your attention**