Environmental Sludge Sampling

Southern Testing
Environmental & Geotechnical

INVESTIGATION

Southern Testing were approached with regards to the possibility of investigating three lagoons managed as part of sludge-dewatering activities associated with an adjoining WTW. The Client required confirmation of the depth profile and sludge characteristics, with samples of surface liquor, sludge, and the underlying clay taken at selected depth intervals, at approximately 80 locations across the lagoons.

The task was challenging due to the "unknown" depth of the lagoons and physical properties of the sludge; areas of open water, semi-solid liquids and dense grit banks were anticipated. Surface sludge / liquor levels also varied daily due to weather conditions and ongoing sludge-dewatering activities. Additionally, the risks of working over water, and with a hazardous waste material potentially containing E Coli and Salmonella had to be fully risk assessed at the design stage.

We proposed a flexible investigation strategy, which provided the Client with a range of probing and sampling equipment, on one rig, which could be easily interchanged dependent on the conditions encountered. This included our; Multisampler capable of taking samples from layered strata of sludge and sediment as well as from layered liquids; Mostap sampler enabling continuous undisturbed sludge samples to be recovered at discrete depths; and cased Windowless Sampler and Probing equipment to allow profiling and sampling of the underlying clay. A floating work platform was constructed from pontoons to allow drilling and sampling to be carried out safely within each of the lagoons. Movement and control of the working platform was achieved through uses of a series of control lines, land anchors and winches. Once in position, the hydraulically powered spud legs were lowered to hold position.

Acting as Principal Contractor we successfully completed the site works in less than 4 weeks. Laboratory Analysis was undertaken to determine physical, chemical and biological parameters of the sludge materials.

AGS ace THE ENVIRONMENTAL INDUSTRIES COMMISSION constructionline CHAS BSI ISO 9001 ISO 14001 BS18001

ST Consult
Environmental & Geotechnical

Southern Testing Laboratories Limited
Keeble House, Stuart Way, East Grinstead, West Sussex, RH19 4QA
Tel: 01342 333100 | Fax: 01342 410321 | www.southerntesting.co.uk

ST Consult is a Regional Office of Southern Testing
ST Consult, Twigden Barns, Brixworth Road, Creaton, Northamptonshire, NN6 8LU
Tel: 01604 500020 | Fax: 01604 500021 | www.stconsult.co.uk

Company Registration No: 02183217 VAT No: 367 4740 26