

Geotechnical Project Experience

Geotechnical Survey and Groundwater Study

Furnished labor, equipment, material, and supervision to perform a soil and rock sampling and geotechnical investigation in accordance with the latest edition of ASTM D-420, Standard Recommended Practice for Investigating and Sampling Soil and Rock for Engineering Purposes. Prepared a written report with boring logs and laboratory



test results. Soil samples were obtained in accordance with the requirements of ASTM D1586 for granular soils and ASTM D1587 for cohesive soils. Rock coring was performed in accordance with ASTM D2113. Rock coring was continuous until the boring termination depth was reached. Coring

was performed using a wireline core barrel system. Completed each boring as a groundwater monitoring well and performed falling head test to estimate water flow. Fast track project. *Q&S received letter of commendation.*



Offshore Geotechnical Investigation

Q&S staff obtained permitting, coordinated /monitored off shore drilling and CPT work on board the drill ship, provided divers to assist in anchor handling operations and drilling, provided precision navigation with a D-GPS to sampling locations, and prepared Marine Health and Safety Plans. Saved over \$100K dollars during fieldwork. *Q&S received a letter of recommendation for "outstanding work", ability to resolve problems, and innovative approach to technical challenges.*



CPT work on board the drill ship, provided divers to assist in anchor handling operation

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Seafloor Coring and Sampling

Q&S used divers to drive a Ogeechee Sand Corer (core sampler) about 1.8 meters into the seafloor bottom in order to collect core samples from six separate locations along the footprint of a proposed breakwater running parallel to the coast line. Information regarding the upper 1.8 meters of sand is required for the engineering design phase of the breakwater. Due to sand density, Q&S had to use casing and multiple drives to reach the desired depth. The options to use divers to collect the cores in lieu of a vibro-core technology saved the client tens of thousands of dollars in mobilization and equipment fees. *Q&S received letter of commendation*



On shore Geotechnical Investigation

Q&S prepared a Health and Safety Plan, coordinated drilling, and completed a geotechnical investigation. The purpose of the geotechnical investigations was to provide factual data related to the geologic condition underneath the proposed locations of 3 LNG above ground tanks. The field activities included, drilling; core sample collection; visual inspection / logging of the core samples, transfer of core samples from the sampling device to core boxes, shipping of core samples to a soils laboratory, down hole seismic survey; and geologic mapping of a paleo-sea cliff adjacent to the tanks.



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Offshore Geotechnical Investigation

Provided multi disciplinary environmental, marine geophysics, and offshore geotechnical services. Performed water quality base line survey, collected sediment samples prior to offshore drilling, evaluated environmental impacts for offshore drilling, served as client representative during marine geophysical survey and offshore drilling geotechnical investigation. Prior to geotechnical drilling, collected sediment samples and oceanographic data, evaluated offshore drilling equipment, performed safety audits in vessel prior to departure, evaluated impacts associated with offshore work, obtained permitting to perform offshore drilling, and helped prepared HSE plans for marine operations. As client representative, made shipboard decisions and provided client with regular updates and independent field log.



Wind Energy Project Geotechnical Investigation

Q&S completed a subsurface investigation designed to provide an accurate description of the material encountered, and define changes in the material characteristic with depths. Cohesionless soils were sampled using a split barrel sampler, and cohesive soils were sampled with a thin walled tube sampler. The subsurface investigation included approximately 150 LF of coring and excavation of 15 test pits.



About Our Organization...

Q&S was founded in 1999, as a (HUB Zone / SDB / DBE) that provides added value / resources of a large firm, and flexibility / cost effectiveness of a small business. Q&S is dedicated to providing *Quality* and *Service (Q&S)* in the environmental, geotechnical, and oceanographic fields. Our definition of *Quality* is deliverables that meet or exceed expectations. Our definition of *Service* are deliverables that are provided on schedule, safely, and within the agreed upon budget. Q&S provides on shore and offshore geotechnical services in the USA and Mexico.

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