

# Client Project Submission Form

Civil Engineering Design Course ENGI - 8700

Memorial University

Faculty of Engineering and Applied Science

St. John's NL, Canada A1B 3X5

To be submitted to Instructor: Stephen Bruneau, sbruneau@enr.mun.ca, 737-2119

## CLIENT

COMPANY	BAE-NEWPLAN GROUP LTD	address	1133 Topsail Rd, Mount Pearl, NL A1N 5G2	
Client Engineer	Ray Bailey	phone	368-0118	email <a href="mailto:ray.bailey@snclavalin.com">ray.bailey@snclavalin.com</a>
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## Proposed Project Title

Tailings Dam Design

## Description of Project

Design of a tailings management system for a fluorspar mining project. The design will incorporate two dams to control effluent from the milling process, a main dam and a polishing pond dam.

## Requirement of Student Group

The scope of work will include site seismic evaluation, geotechnical and hydrogeological site characterization, design criteria, dam design, drawings, technical specifications, material take off, cost estimate and final report. The student group will work with the consultant to define design aspects such as total tailings capacity, density, freeboard requirements, watershed characteristics, discharge levels etc. Once the basic design parameters are finalized the type of dam will have to be determined (earthfill, concrete, low permeability core, HDPE liner etc.). Stability analysis along with preliminary hydrological analysis will have to be performed to evaluate the freeboard, spillway and diversion ditch design. Design drawings showing plan and typical dam cross sections will be required.

## COMMENTS, CONDITIONS, RESTRICTIONS QUESTIONS

Geotechnical data may not be available but the consultant will provide sufficient information for preliminary design purposes.