

MEMO

To:	Natalie Kotyck
From:	Garry T. Hunter, M.A.Sc., P.Eng.
Date:	October 4, 2024
File:	21-407
Subject	Strada – Tatham Infiltration Letter September 27, 2024

Natalie,

This communication continues the iterative Peer Review of the proposed Strada Quarry pending application.

Tatham Infiltration Testing Letter of Sept 27, 2024 to Strada.

1. Is the Lift 1 bench ranging in size from 27 to 54 m, the width (pg 1) ?
2. Is Strada really going to mix Lift 2 Ancaster Chert (concrete alkali aggregate reaction) with the high quality Lift 3 Gasport Rock (pg 1)?
3. The Lift 2 and 3 combination proposed implies a vertical operating face in excess of 25 m (476 - 442 m = 34 m), is this Tatham Design compliant with Ministry of Labour regulations?
4. How do you rationalize the Tatham Table 1 (pg 2) and Table 2 (pg 3) estimated on site hydraulic conductivities with the Model assumed Shelburne area Groundwater Model Layer 2 'Tavistock Till' Hydraulic Conductivity at 5×10^{-7} m/ s on Table 4.3 pg D-104? All but one of the Tatham estimates are a full order of magnitude greater (10^{-6}) than estimated for the Model Layer 2.
5. **This data indicates the Model Layer 2 Hydraulic Conductivity should be increased by an order of magnitude regardless of the Till nomenclature.**
6. Why is the Tatham deep Gasport Hydraulic Barrier Design now different than proposed (as revised) at the Aug 30, 2024 virtual meeting with Strada's Geotechnical Engineering Consultant? **GEMTEC at this meeting described construction of deep aquifer (Gasport) vertical barrier walls requiring a vertical core of 10^{-9} hydraulic conductivity.**
7. The design of high pressure (50 m) deep aquifer vertical barrier walls is a very serious geotechnical engineering issue. This would appear to be outside the domain of a Geoscience Intern and a Hydrogeologist as well as the Groundwater Modellers.
8. **Has GEMTEC updated their July 31, 2024 Report?**