

3rd October 2020

Mr I D Briggs
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Dear Ian

Sand Deposit at Sudbrook, near Ancaster, Lincolnshire, Extraction Scenario Clarification

I understand that you require clarification pertaining to the following paragraph in my recent Geological Statement on the Sudbrook deposit, in particular the part in bold italics:

*To maximise reserves Touchstone Geological Services Ltd has modelled extraction in the central parts of the site to 15m deep at initial 45° batters; this is achievable in terms of the capability of the 115t, 27m-reach long-reach excavator intended but would need to be confirmed by Geotechnical Assessment in terms of slope stability. **The other consequence of this scenario is that extraction would need to begin in central parts of the site and the perimeter shallower slopes cut in turn thereafter.***

My initial instruction was to demonstrate that it is possible to excavate to a depth of 15 metres and the scheme I produced does that however, that is not to say that my suggestion is the only possible working scenario. The word 'need' was ill-defined; I was considering cost-benefit to the operator through ease of working the mineral. I was expressing an opinion that it would be *simpler* to deal with the deeper mineral in the first instance and then excavate and dress the perimeter batters thereafter. By simpler I mean that the excavator would be able to keep to a 45° slope angle (or whatever angle to be confirmed by Geotechnical Assessment) for the duration of that part of the excavation and then switch to 18° to complete the profile around the perimeter. It is also simpler to excavate upwards when dressing final slopes than excavating downwards. However, whilst my suggested scheme may be more straight forward, there is no practical reason why the site cannot be worked to the submitted phases and direction of working, with the excavator periodically adopting different working angles.

I trust this clarifies my statement.

Yours sincerely,

Eddie Bailey BSc., CGeol FGS, EurGeol., FIQ
Director
Touchstone Geological Services Ltd