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Mintworth Transport Ltd
P O Box 698
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Attn. Mr J L J Hurst

Dear John

Re. Former Apollo Lagoon

As requested, we have reviewed the results of monitoring by Peter Smith of the pre-loading operation being undertaken at the former Apollo Lagoon Site. The preloading soil fills have been in place since May 2009. The fill surface is at approximately 154 mAOD.

The attached plot shows the measured movements of monitoring points and confirms that, as would be anticipated, rates of movement are slowing significantly.

At the likely floor level for a new warehouse and assuming that the design floor loading would be 50 kPa, based on a logarithmic extrapolation of measured conditions, we estimate that the various areas of the site have reached a pre-compression settlement of between about 45 to 70 % of the estimated 20 year long term settlement under the current loading conditions, with an average of about 55 %.

As the design loading condition is less than the current loading condition, we also estimate that the required pre-compression settlement required to reduce the risk of future undue settlements would be in the range 48 to 60 % of the estimated 20 year settlement under current loading conditions. It follows that some of the treatment area has already reached this requirement but that in some areas further pre-compression is required.

A reasonable estimate of the further time required to achieve the required settlement in all areas is of the order of 1 year under current loading conditions.

It is likely that some form of additional ground improvement, such as vibro-replacement will be required below column base foundations, where applied loading will likely exceed 50 kPa.

We trust the above meets your present requirements, should you need any additional information, please do not hesitate to contact our office.

Sincerely,

J A Sladen CEng, CEnv, MICE, FGS

Director

