Subject: Attachments: FW: Some findings from the test bores at the sala cemetery ECM_19936995_v3_Rotorua Cemetery bore holes testing August 2023.docx

From: Rob Pitkethley
Sent: Tuesday, 15 August 2023 12:43 pm
To: Stephanie Kelly <<u>Stephanie.Kelly@rotorualc.nz</u>>
Subject: FW: Some findings from the test bores at the sala cemetery

Hi Steph

We got some bore holes dug the other day.

The water table in two of the three bore holes was higher than that need for a standard burial grave.

The water table this morning in these two holes was 1.85 and 1.82m below the surface. A standard grave needs to be 2m deep.

We also know that recent Jan-Feb ground water levels at the closest bore monitoring site were 20cm higher than they are now, so if we put this across the Sala St site it would relate to a ground water level only 1.62m to 1.65m below surface level.

From: Robert Atkinson <<u>Robert.Atkinson@rotorualc.nz</u>>
Sent: Tuesday, 15 August 2023 12:03 pm
To: Rob Pitkethley <<u>Rob.Pitkethley@rotorualc.nz</u>>
Cc: Tux Teaeki <<u>Tux.Teaeki@infracore.co.nz</u>>
Subject: Some findings from the test bores at the sala cemetery

Hi Rob,

Attached is my take away from the bores at the corner of Sala Street and Te Ngai Roads.

Cheers Robbie

Robert Atkinson Asset Management and Renewals Advisor Active and Engaged Communities

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<u>Rotorua Cemetery – Water Table Test Bore Investigation</u>

Dated: 14 August 2023

<u>Hole 1</u>



Initial hole picture. No sign of water egress or wet soils.

Depth 2m, Ambient temp 15.8 degrees and no gas emissions recorded.



Follow up photo next morning

No sign of water egress into hole.

<u>Hole 2</u>



Initial hole picture. Water present in bottom of hole. 250mm of wet muddy soil retrieved from bottom of hole during drilling operation.

Depth 2m, Ambient Temp 17.8 degrees and no gas emissions recorded



Follow up photo next morning

Water present in bottom of hole – depth recoded at 150mm.

<u>Hole 3</u>



Initial hole picture. Water present in bottom of hole. 350mm of wet muddy soil retrieved from bottom of hole during drilling operations.

Depth 2.1m Ambient Temp 20.3 degrees and no gas emissions recorded



Follow up photo next morning

Water present in bottom of hole – depth recorded at 185mm.

Holes drilled by TallyHo Industries on the 14 August 2023.

My thoughts on these findings are that it would be challenging to dig a double depth plot given the lower bore section was wet and muddy in two of them. This would make stopping the grave from collapsing without shoring difficult and if there had been a period of wet weather prior to this then potentially the coffin would be sitting in water at the bottom of the grave near sites two and three.

This is based on the need to dig a grave the day before the burial is scheduled.

Robert Atkinson – Asset Management and Renewals Advisor

