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## SONIC DRILLING – WATER MANAGEMENT SUMMARY

The VanMars Drilling approach to sonic drill water management stems from a problematic, yet essential, part of the sonic drilling process. Each project requires the answer to the following questions: *where is the water coming from?* and *where is the water going?* At VanMars we answer those questions for you. As Municipalities become more stringent with water use permits and urban sites get tighter, the answer to this question becomes ever more valuable.

### Where is the water coming from?

We have customized our support trucks to provide all the water you would require for a day(s) drilling. Water requirements vary widely depending on soil conditions; however, we typically use about 75L of water per m of drilling or about 12 m per 1000L tote (which we can provide). VanMars eliminates the need for hydrant permits. We can bring fresh water to site each day.

### Where is the water going?

Our sonic drill rigs have been customized to independently run a large SPX40 Peristaltic Hose pump on it's own hydraulic circuit (no reduction in capacity during drilling). The SPX40 can effectively move excess drill cuttings and silt-laden water and return it into 1000L totes for future disposal. By managing the excess water, we eliminate the need for a Hydrovac truck to sit idle beside the sonic drill all day. Removing a full-time hydrovac truck from a project provides cost savings, space savings, site access and removes another step from the planning process.

### Project Completion

For clean drill return water, we can collect the totes and dump them at an approved facility. For smaller 1-2 day projects we can take the totes at the end of the project (assuming it is clean water). For larger projects, we can swap out fresh totes on an as needed basis. Additionally, we can leave the totes onsite for further analysis potentially saving more budget on water that may have been assumed contaminated but has been confirmed to be clean. Sometimes it makes sense to use a hydro-vac truck, in those situations, we can provide that as well.

Unless otherwise specified during the cost estimating process, all return water will be assumed to be clean.

For VanMars to remove and dispose of any contaminated return water or soil cuttings, a Site Profile form must be provided to VanMars prior to the start of the drilling project. Delays in the receipt of the Site Profile may result in project delays. As a drilling company, we are generally not made aware of reason for drilling nor the level/type of contaminants that are/may be present in the groundwater and soil.



Disposal will be on the clients account, or on VanMars account (with markup). Location of the disposal facility, with respect to the job site location, may affect final billing amount.

Drill return water suspected/confirmed to be contaminated **cannot** be legally transported in 1000 L totes and must be transported in UN drums (which we can provide) or in a hydrovac truck (which we can provide).

At VanMars we strive to innovate in ways to make consultants lives easier. Ask us how we can make your project run smooth from start to finish!

Table 1. VanMars Drilling Sonic Drilling Water Management Decision Tree

