



22 June 2023

UPL CHEMICAL SPILL

**SOP ON THE REINSTATEMENT OF EXCAVATED TRIAL PITS
UNDER THE WAREHOUSE FLOOR SLAB (REVISION 1)**

1. Introduction

Core samples and samples obtained from the direct push probing of the soils under the warehouse floor slab show a general pattern of low contamination levels. However, it was decided to sample the areas showing the highest contamination levels by means of open trial pits. These were excavated and sampled in accordance with the relevant SOP, but changed circumstances require a different approach to the closure procedure described in that SOP.

This SOP sets out the methods and safeguards to be employed during works necessary to carry out the trial pit closure.

2. Trial Pit Positions

Two trial pits were excavated; these are:

Transverse Mercator (Lo 31)

Name	Y	X
C12A	-6297.938	3287704.276
C17A	-6341.834	3287611.101

1. Trial Pit Description.

Each trial pit is 1m x 1m x 1m deep (depth below the floor slab).

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The trial pit excavated at position C12A was found to be dry and thus the initial closure procedure is applicable for this excavation.

The trial pit excavated at position C17A was found to have seepage and this necessitates a change in closure procedures for this excavation. (Repurposing the trail hole as a scavenger well.) In the interests of completeness, both closure methods are described in this SOP.

2. Trial Pit C17A Closure

The trial pit at position C17A shall be permanently closed in the following manner:

- a) Open HDPE covering.
- b) Scarify smooth cut edge of concrete.
- c) Backfill with 10:1 cement concrete mix in 250 layers.
- d) Place layer of 100 micron plastic over concrete underlay to slab
- e) Drill and dowel into existing slab.
- f) Apply wet to dry epoxy to mating surface.
- g) Close opening with 25 mPa concrete to full thickness of floor slab.
- h) Steel float surface.
- i) Reinstate evaporation pond if necessary.

3. Trial Pit C12A Repurposing as a Scavenger Well.

The trial pit at position C17A shall be re-purposed as a scavenger well by:

- a) Open HDPE cover.
- b) Excavate pit down to shale layer
- c) Form sump (as shown on the drawing) with imported clay.
- d) Line the clay plug with USB green plastic sheeting.
- e) Install 160 dia slotted pipe in centre of well.
- f) Fill the well with clean Umgeni sand to 75mm below the surface.
- g) Top with a 75mm concrete seal layer.

4. Excavation

Excavation shall be carried out in accordance with the trial pit excavation SOP and all excavated material shall be disposed at DCLM.

5. PPE

PPE shall be worn in accordance with the Trial Pit Excavation SOP.

6. Drawing

The attached drawing depicts the scavenger well on completion.

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For and on behalf of Waterscience (Pty) Ltd

TRIAL PIT CONVERSION TO SCAVENGER WELL.

