

Re: District of St. Mary's Gegogan Transfer Station  
Proposed New C&D Cell #6

The District of St. Mary's is proposing to construct a new C&D Disposal Cell at the Gegogan Transfer Station (Figure #1). The proposed new cell, Cell #6, is to be located at the south end of the Transfer Station immediately south of Cell #3, as shown on Figures #2.

The proposed Cell #6 is roughly rectangular in shape 120 metres long by 20 to 30 metres wide. On May 12, two test pits were dug near the middle of Cell #6 to determine the type of soils present the immediately depth of the watertable (Figure #2). Test Pits #1 and #2 were dug to depth of from 3.2 to 3.4 metres below ground surface penetrating sandy, gravelly silt and clay from top to bottom. The bottom of the test pits were very dry on May 15.

The permeability (hydraulic conductivity) of the base of the test pits were measured with a Pask In-Situ Permeameter with the following results:

Test Pit #1:  $2 \times 10^{-6}$  cm/second  
Test Pit #2:  $4 \times 10^{-6}$  cm/second

Figure #3 provides profiles of the proposed Cell #6 with the depth of the base of Cell #6 being at least 1 metre above the highest, estimated depth of the watertable.

On the basis of regional geologic maps, the depth of bedrock is estimated to be from 10 to 20 metres.

An additional groundwater monitoring well is planned for a location of immediately down-gradient from the proposed Cell #6 at the location shown on Figure #2.

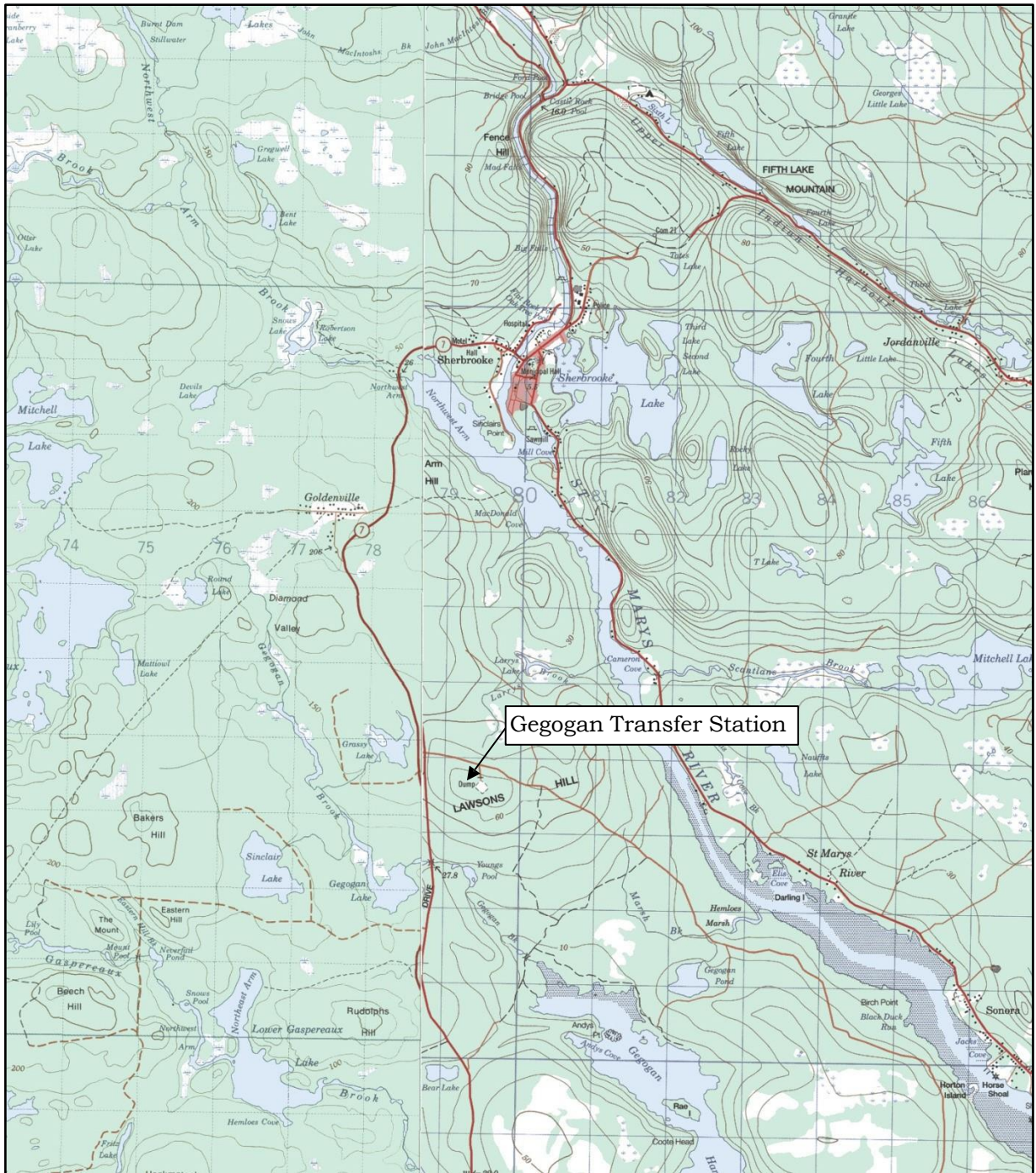
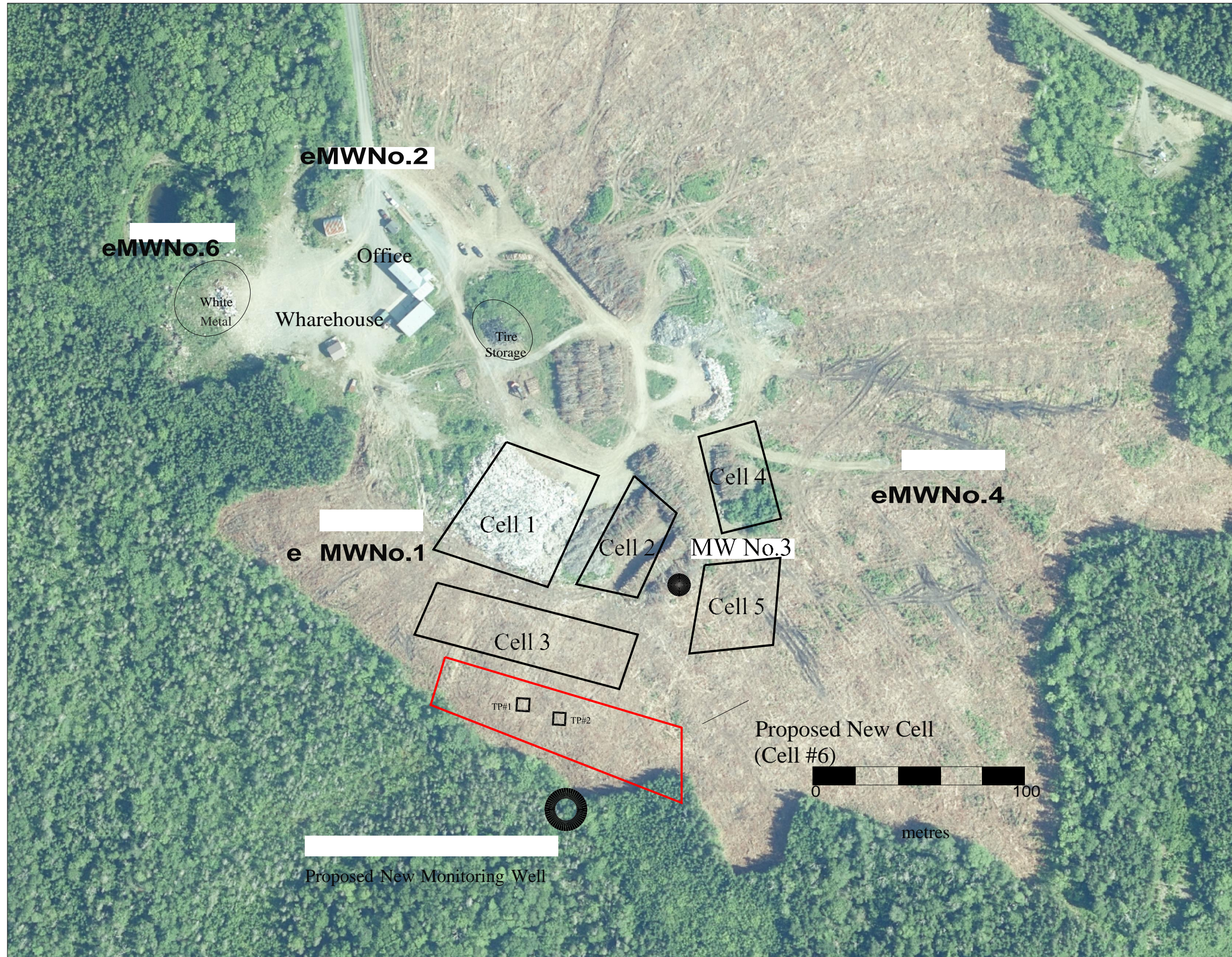


Figure #1 Location of Gegogan Transfer Station on Topographic Map



EXPLANATION

MWNo.2

**e** Monitoring Well



C&D Cells



W.G. Shaw & Associates Ltd.  
Consulting Geoscientists



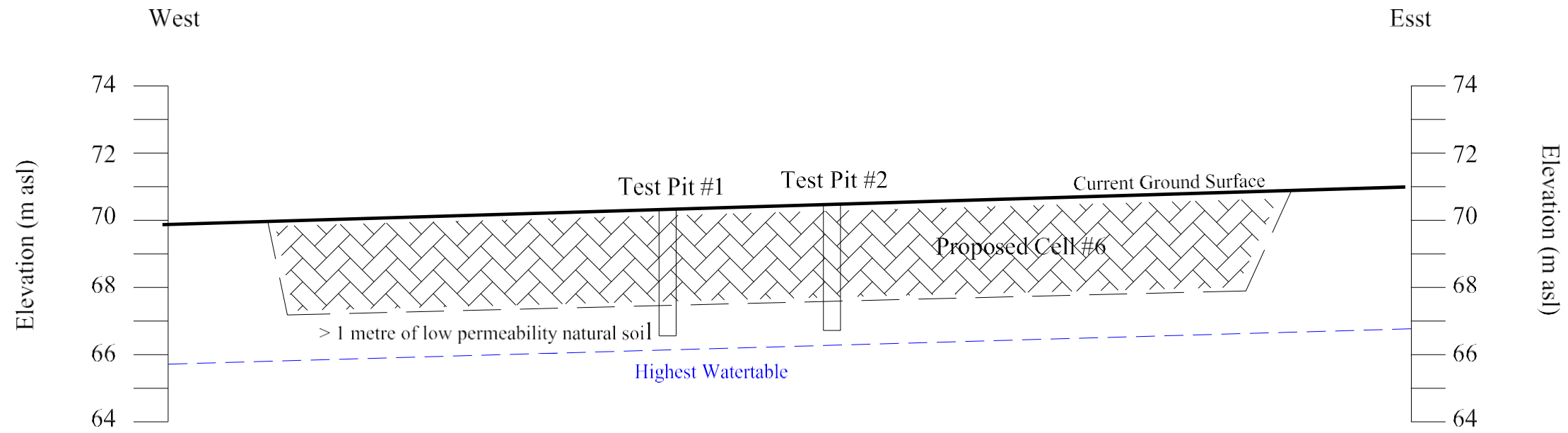
Antigonish, Nova Scotia  
Canada  
Phone: 902-863-1903

Gegogan Transfer Station

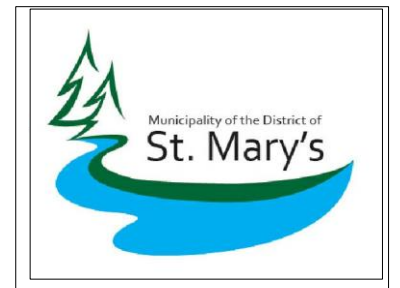
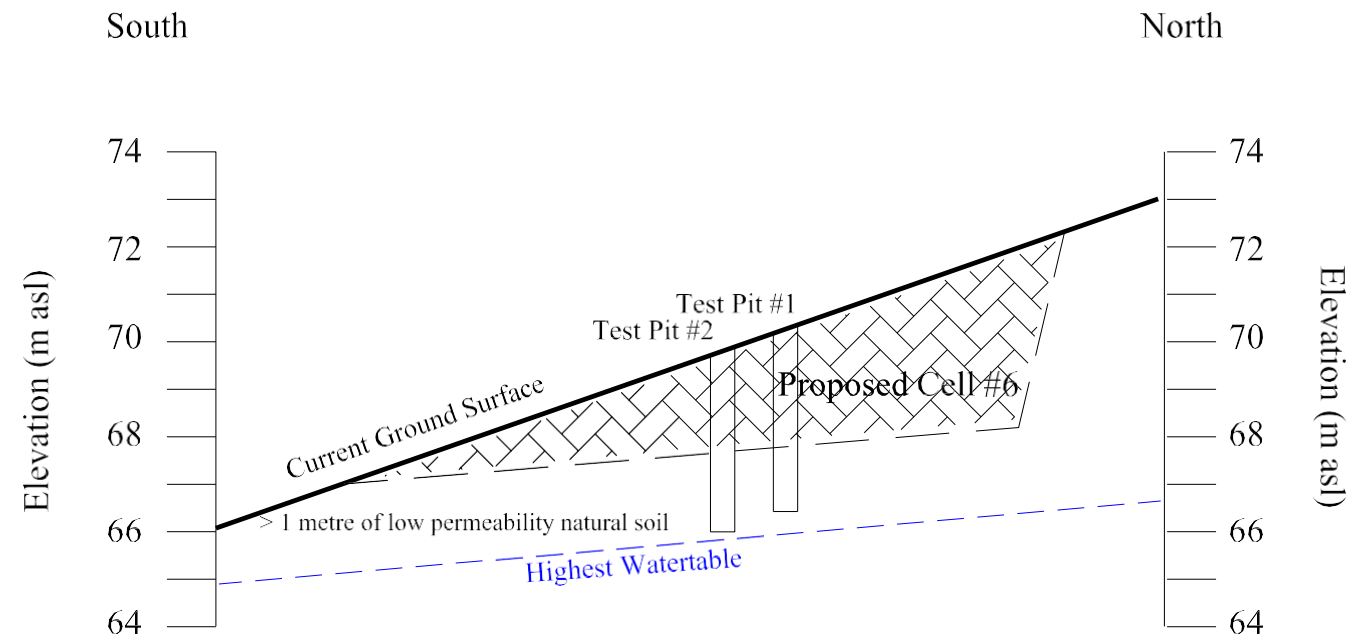
Groundwater Quality Monitoring

Figure #2

### East - West Profile



### North - South Profile



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Gegogan Transfer Station

Proposed Cell #6

**Figure #3**

May, 2023

Sincerely,

*William G. Shaw*

William G. Shaw, *P. Geo.*  
President

