

Project no: 2017_03_2015
Monitoring boreholes
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Dear Danie

Groundwater monitoring boreholes - Calvinia Ramskop Abattoir.

Proposed groundwater monitoring borehole coordinates are listed in **Table 1** below.

Table 1: Monitoring borehole coordinates

Borehole name	Latitude	Longitude	Depth (m)
CRA_MBH1_N	-31.471021°	19.761260°	40
CRA_MBH2_S	-31.471968°	19.760139°	40

The groundwater monitoring boreholes must be drilled according to the following specifications (**Figure 1**) (DWAF, 1998):

- 203 mm (8") air percussion to 12 m
- 177 mm OD / 168 mm ID solid mild steel casing to 12 m
- 165 mm air percussion drilling to 40 m
- 125 mm OD / 110 mm ID uPVC flush-thread solid casing (0 – 12 m)
- 125 mm OD / 110 mm ID uPVC flush-thread factory machine cut (1 mm slots) perforated casing (12 – 40 m)
- PVC end cap
- 3 – 7 mm silica based gravel pack
- Bentonite sanitary seal (5 m from top – 1 m thickness)
- 1 hour minimum air flush development
- Concrete plinth around borehole (1 m x 1 m)
- Marker pole
- Lockable steel cap

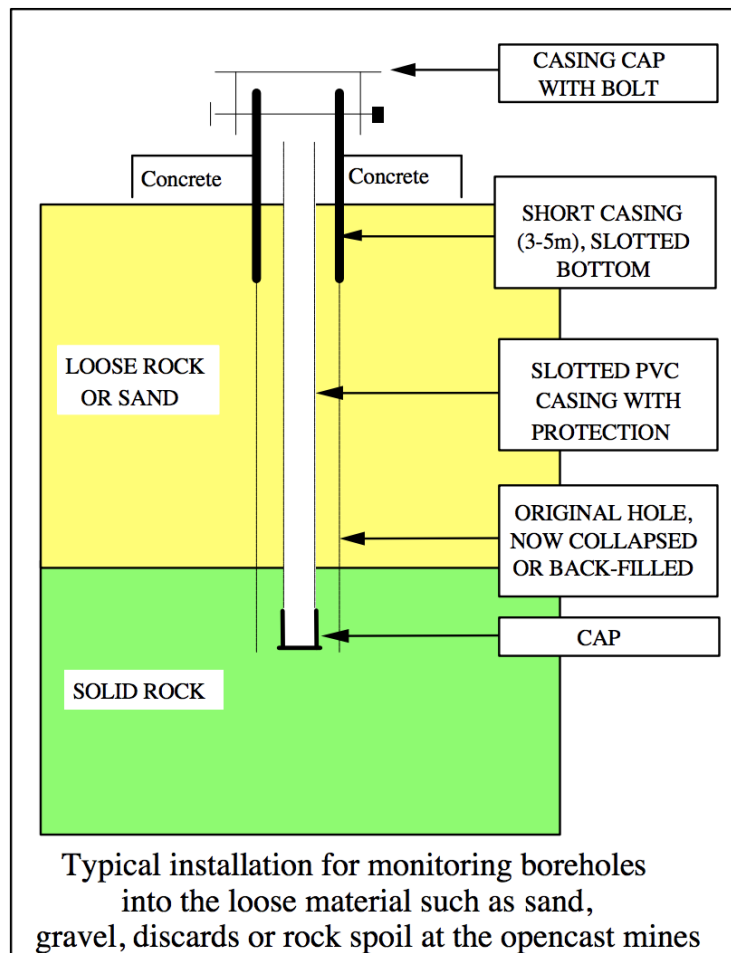


Figure 1: Proposed borehole monitoring borehole construction

Please do not hesitate to contact me if you have any questions.

Yours sincerely



Corné Engelbrecht
Project Hydrogeologist



Julian Conrad
Director

References:

Department of Water Affairs and Forestry, 1998. Waste Management Series: Minimum requirements for water monitoring at Waste Management Facilities (2nd Edition). Booklet 3/3.



Figure 2: Monitoring borehole positions.