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November 25, 2016
Project Number: PWS60032.01

Mr. Stuart Stephens
Senior Geologist
Doray Minerals Limited
Level 3, 41-43 Ord Street
West Perth WA 6005

Dear Stuart,

RE: Preliminary Hydrogeological Assessment for Turnberry Mine

Introduction

Doray Minerals Limited (DRM) is conducting a comprehensive mineral resource exploration program to assess the commercial viability of developing an open pit gold mine at the Turnberry Prospect (Turnberry). Turnberry is located approximately 40-45 km northeast of the town of Meekatharra in the Murchison Province, and is approximately 15 km southeast of DRM's Andy Well Mine. The proposed Turnberry mine consists of two pit areas – the North and South Pits.

During recent drilling programs, DRM observed significant groundwater inflows and is concerned that management of groundwater during mining (in the form of pit dewatering and pit slope stability and depressurisation) will constrain the proposed mining operations.

CDM Smith Australia Pty Ltd (CDM Smith) is providing hydrogeological support to DRM by assessing the potential groundwater management requirements at Turnberry. This letter provides a summary of the existing environment, description of the work completed to date, preliminary assessment of the potential groundwater management risks at Turnberry, and CDM Smith's recommendations for hydrogeological investigations to further assess the groundwater management requirements.

Existing Environment

Climate, Topography and Drainage

The climate of the Murchison Province is arid. Maximum daily temperatures range from approximately 19°C in June and July to 38°C in January. The long-term (1944-2016) mean annual rainfall recorded at the Meekatharra airport is 239 mm/y, with most rainfall occurring between January and June (Bureau of Meteorology, 2016).

The Project area is located in an area of relatively flat to undulating terrain, with a mean elevation of approximately 520 m above sea level and a maximum elevation of 570 m. Shallow breakaways are present over many granite outcrops, and represent the old plateau surface, which originally formed part of an extensive watershed and was later elevated and dissected by erosion (Pirajno et al., 1998).

The Yalgar River, a tributary of the Murchison River, is located to the northwest of Turnberry, which flows to the west to a confluence with Hope River.

Geology

Turnberry is located within a largely buried, northerly-trending greenstone belt (referred to as the Gnaweeda Greenstone Belt (GGB)) located to the east of the Meekatharra-Mt Magnet Greenstone Belt (also referred to as the Meekatharra-Wydgee Greenstone Belt) (Figure 1).

The GGB is host to a mixed succession of mafic, gabbro, siltstones and felsic volcaniclastics. The geology consists of an extensive colluvial overburden overlying deeply weathered north-south trending, steeply dipping, volcanic and sedimentary rocks (Ray and Teakle, 2011).

The GGB is structurally complex due to its multiphase history of ductile and brittle deformation. The area is dominated by NNE shears, which are sub-parallel to stratigraphy and offset by a number of NW-SE trending structures which can be seen in the airborne magnetic imagery. This relationship is evident at the Turnberry Prospect where mineralised zones are dislocated into three identified gold occurrences: Turnberry South, Central and North. The NNE trending shearing is interpreted sub-parallel to stratigraphy and is largely concentrated within the sediments and boundaries of more competent mafic and gabbro bodies in the stratigraphy (DRM, 2016).

The Turnberry mineralisation is north-south trending and appears to cross-cut the various lithologies. Mineralisation has been interpreted by DRM to manifest differently according to the host lithological unit, and several discontinuous sub-parallel lenses occur. The continuation of structures and stratigraphy that host mineralisation at Turnberry are interpreted to extend to the north and south (DRM, 2016).

To the west, the GGB is bounded by a 10-15 km wide unit of gneissic and massive granitoids with gneissic foliation that lies sub-parallel to lithological units within the greenstones. These granitoids separate the GGB from the Meekatharra-Wydgee Greenstone Belt further west. To the east, the GGB is bounded by granitoids that are, in part, intrusive (Ray and Teakle, 2011).

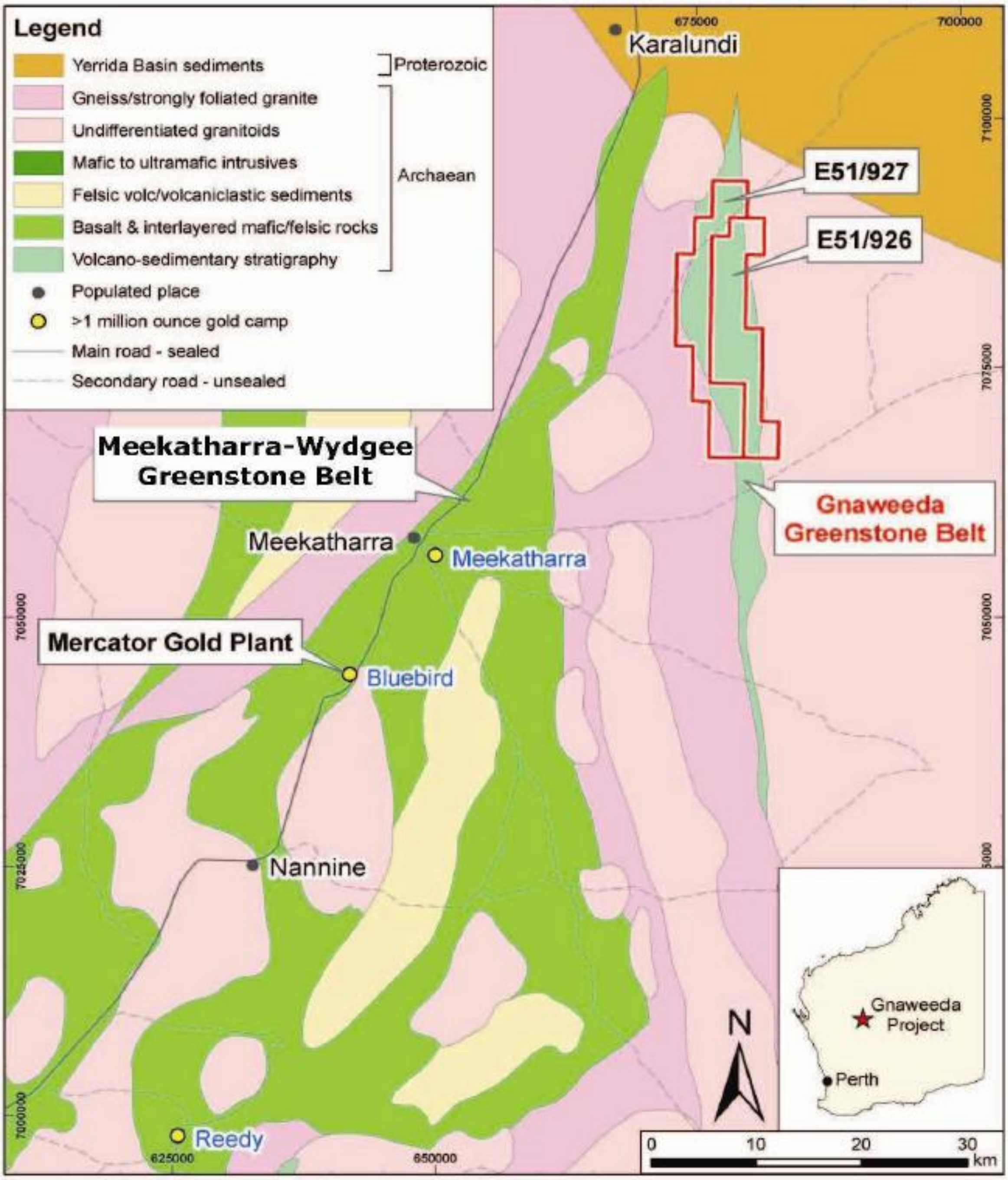


Figure 1 Simplified Geology and Location Plan (Ray and Teakle, 2011)

Hydrogeology

Turnberry is located within the Murchison River Basin and within the Meekatharra subarea of the East Murchison Groundwater Area managed by the Department of Water (DoW).

Groundwater occurrence in the area can be grouped into three aquifer categories: surficial, sedimentary and fractured rock aquifers. Locally, most domestic and stock water requirements are met from small supplies of fresh to brackish groundwater sourced from colluvium, valley-fill alluvium, and calcrete aquifers. Away from the drainage lines, low yielding supplies can be sourced from colluvial hillslope wash, weathered bedrock and from fractures and shear zones within the bedrock. Bore yields from fractured rock aquifers are variable and water quality is mostly related to bedrock type (i.e. salinities are generally higher in greenstone than in the granitoids) (Hennig et al, 1994).

Historical hydrogeological investigations have identified artesian groundwater conditions in the Project area and suggest that the quality of the groundwater in the Turnberry area is relatively fresh and potable (Ray and Teakle, 2011).

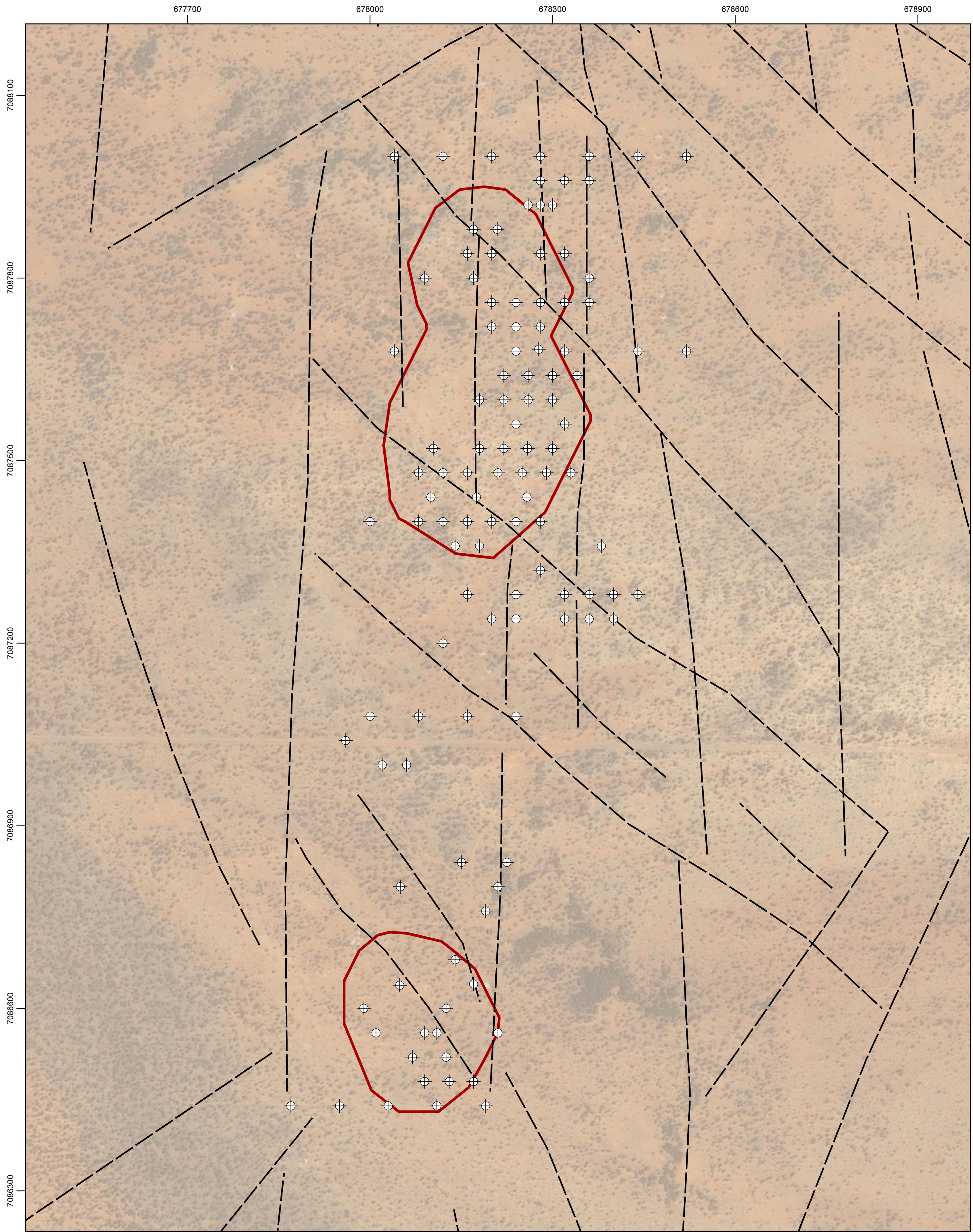
Groundwater occurrence within the weathering profile, fractures in the bedrock and associated with shear zones, quartz veins and dykes appear to be the main sources for groundwater inflow observed during drilling at Turnberry.

DRM Drilling Programs

DRM are conducting a mineral exploration drilling program using air-core (AC) and reverse circulation (RC) drilling methods. Drilling transects have been selected to test across the greenstone stratigraphy to the north, south and east of Turnberry, which has been poorly explored in the past. The mineral exploration drilling is targeting the along-strike extension of potentially mineralised stratigraphy and structures that host the Turnberry mineralisation, as well as immediately to the east of Turnberry where a similar magnetic-package of rocks and structural relationship exists. The mineral exploration drill holes to date are oriented to the west at a 60° inclination, targeting a steeply dipping stratigraphic package (DRM, 2016). The location of the drill holes is presented on Figure 2.

Significant groundwater inflows have been observed during drilling at the South and North Pit areas at Turnberry, as well as in the central area. Higher than expected quantities of groundwater were intercepted when the the drilling program in the South Pit area commenced. Following discussions with CDM Smith, DRM has been measuring airlift yields at regular depth-intervals during drilling, using either a v-notch weir or timed-bucket test to measure flow (measuring the time to fill a container of known volume). Airlift yields measured in drill holes in the North Pit and central areas provide an indication of aquifer yield and assist with developing a conceptual understanding of the hydrogeology of the area.

Anecdotal information from DRM indicates that drilling in the South Pit area generally intercepted zones with larger water inflows, and that airlift yields and groundwater inflow volumes seem to reduce towards the north. In addition, DRM observed that the west side of the greenstone belt and drilling program area was generally 'wetter', suggesting higher permeability and larger potential groundwater yields.



Legend

- RC drillhole
- Structural interpretation (Doray Minerals, 2016)
- Pit outlines

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Kilometers

Scale @ A4 1:8,000
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Figure 2
RC drillhole locations

PROJECTION
GDA 1994 MGA Zone 50

DATA SOURCE
Doray Minerals, 2016
ESRI basemaps

CDM Smith

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Preliminary Hydrogeological Assessment

Airlift yields recorded with depth during the mineral exploration drilling program have been used to prepare airlift yield profiles over the depth of holes (after the drilled metres are corrected to vertical depth) and then spatial patterns analysed to assess the following:

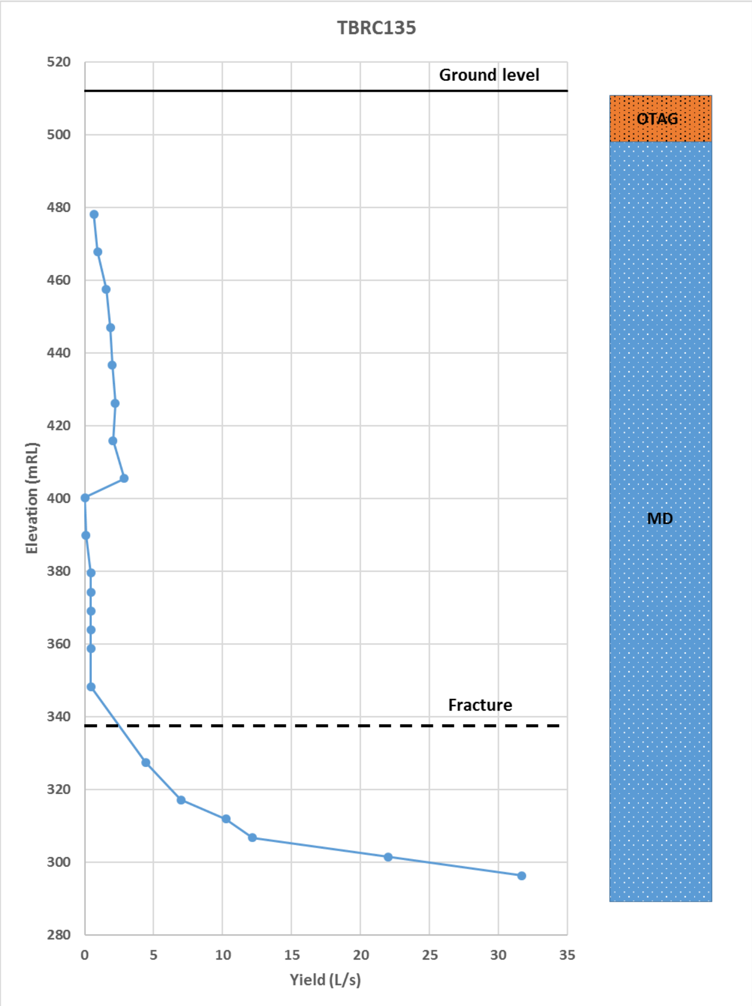
- Correlation between the airlift yield and lithology drilled.
- Correlation between airlift yield and depth below ground / elevation (i.e. weathered zone or key fracture zone).
- Structural influences on yield.

The airlift yield depth profiles are provided in Appendix A, with an example presented as Figure 3. There is no correlation apparent between airlift yield and depth below ground or elevation. First water strikes observed during drilling usually occur within the moderately or highly weathered profile of the geology (upper 15-35 m).

In general, drill holes with higher yields (>1 L/s) are located within dolerite (MD), gabbro (MG) or quartz porphyry (PFQ). Drill holes that intercepted siltstone (SSL), shale (SHL), basalt (MB), felsic volcanics (FV/FVC) (except for TBRC160) and talc-chlorite ultramafic rock (UTC) generally show 'insignificant' quantities of groundwater or yields <1 L/s. The higher observed yields occur mostly where fractures are intercepted or intersection with quartz veins at depth.

Some drill holes do not encounter significant water during drilling and do not have airlift yield information. Conversely, some drill holes (e.g. TBRC131 and TBRC160) intercept apparent highly transmissive zones and fractures that are in hydraulic connection with other drill holes, such that drilling caused 'blow outs' at neighbouring drill holes. Holes in which blow outs occurred were abandoned and yield information could not always be recorded due to either lost returns or unsafe conditions.

Measured airlift yields range from zero up to 15-30 L/s (TBRC135). Airlift yield measurements are approximate measurements of yield potential and data from DRM indicates that the large yields recorded at TBRC135 (measured using a v-notch weir) may not be accurate due to full and overflowing sumps. Nonetheless, these measurements are valuable in providing an indication of high yields at those locations.



Litho code	Definition
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SSL	Siltstone
FVC	Felsic volcanic rocks
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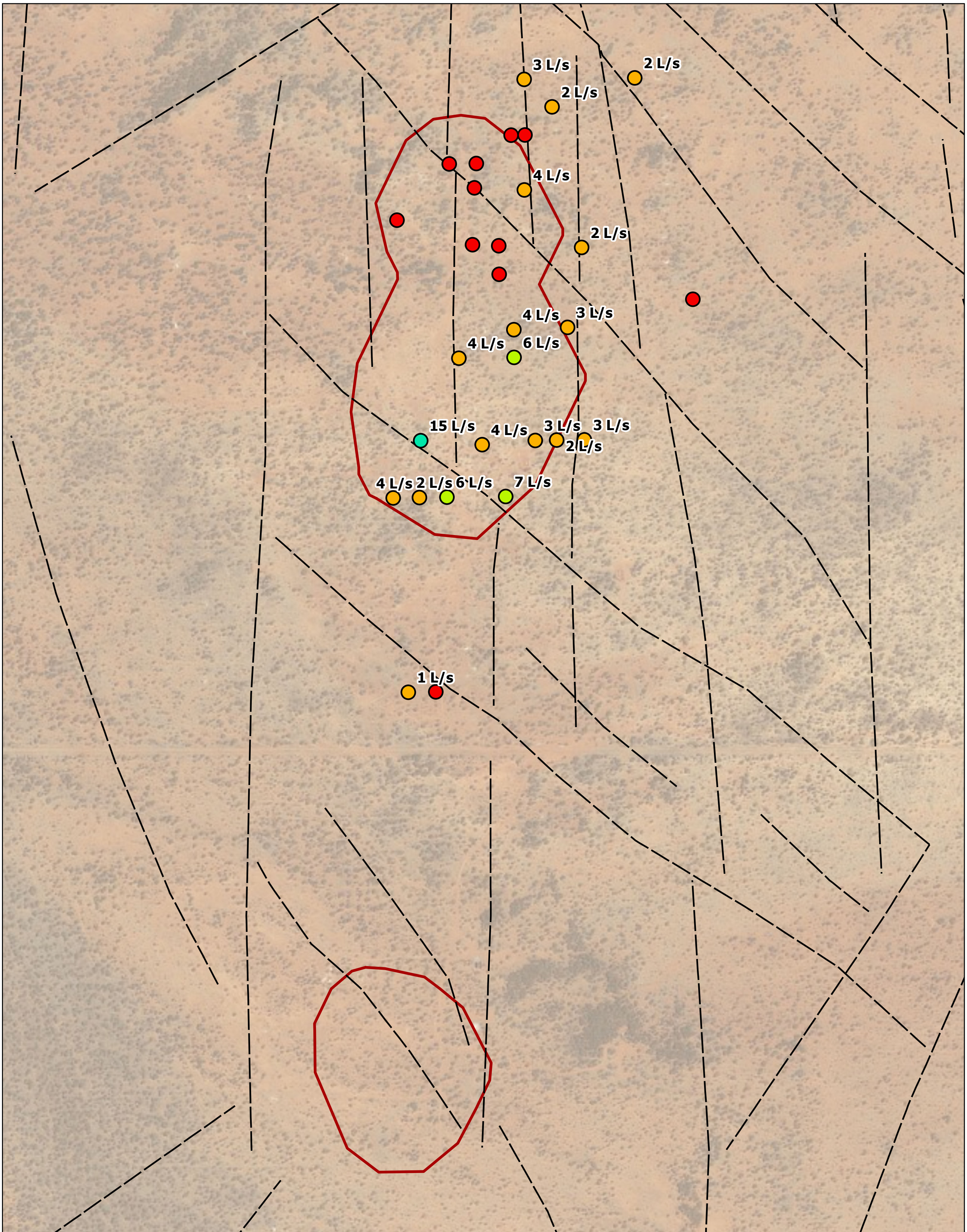
FTA	Felsic Tuff
PQ	Quartz porphyry
PFQ	Quartz porphyry
MM	Undifferentiated mafic
MB	Basalt
MD	Dolerite
MG	Gabbro
UTC	Talc-chlorite ultramafic rock

Figure 3 TBRC135 Airlift Yield Depth Profile

Figure 4 presents the spatial distribution of the maximum airlift yields recorded during drilling at each drill hole (where data are available). It can be seen that aquifer yields and associated permeability appears to correlate to lineaments and structure. This result also supports the anecdotal information from DRM that yield potentials reduce to the north.

Based on the information available to date, it appears that mining at Turnberry will require management of groundwater inflows.



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Kilometers

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Legend

Measured Yield L/s

- "No significant water"
- 1 - 4
- 5 - 9
- 10 - 15

Structural interpretation (Doray Minerals, 2016)

Pit outlines

Figure 4

RC drillhole measured yield data

PROJECTION
GDA 1994 MGA Zone 50

DATA SOURCE
Doray Minerals, 2016
ESRI basemaps

CDM Smith

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Upcoming Drilling Program

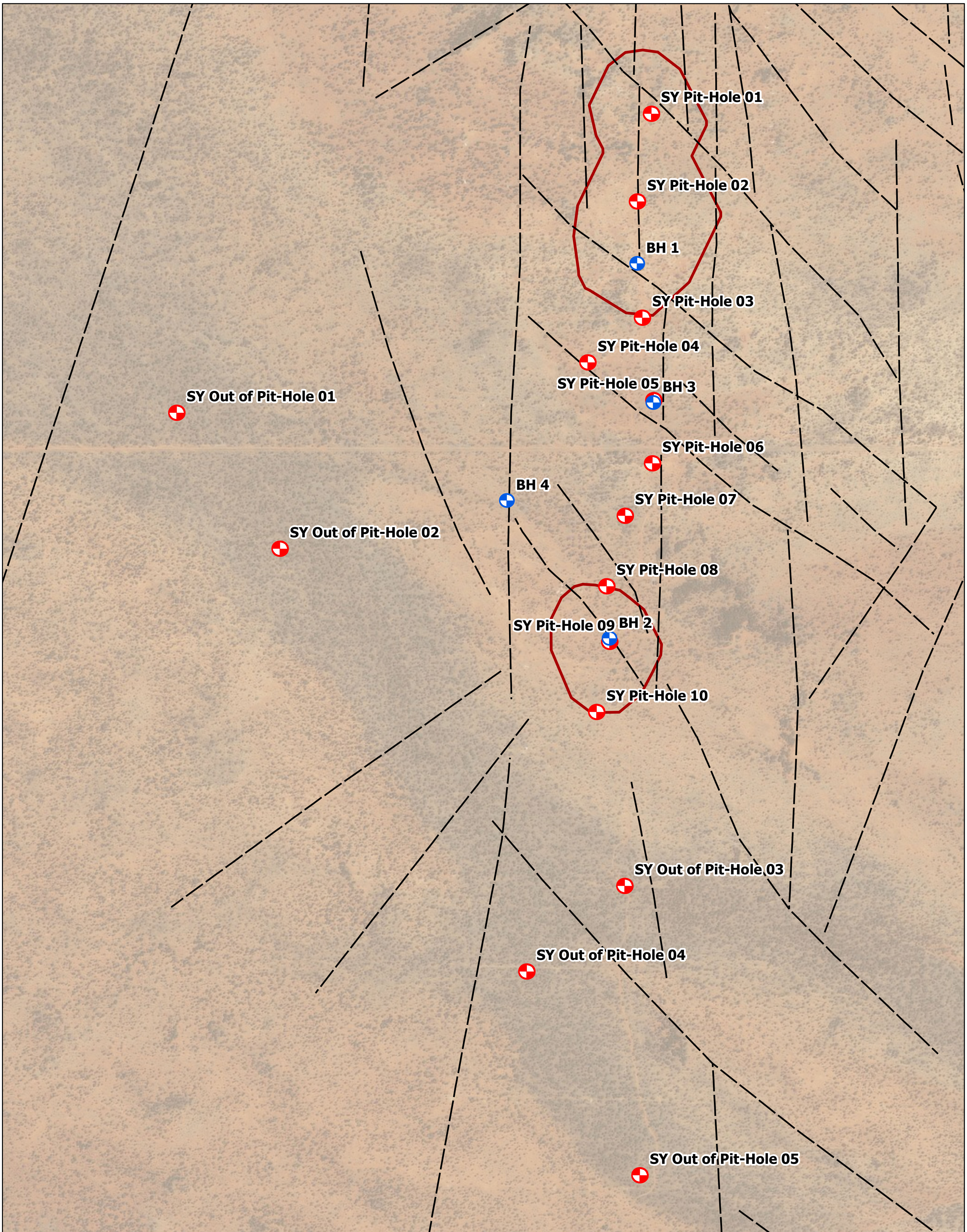
MWH Global is currently working with DRM to drill and install observation wells for stygofauna monitoring purposes. This program is expected to commence at the end of November 2016 or December 2016. MWH Global has proposed 15 monitoring locations across the Turnberry area with some located in the North Pit and South Pit areas, and others located outside of the mining area. The installation requirement for the stygofauna monitoring locations is a minimum casing diameter of 80 mm PVC, installed to a minimum depth of 15-20 m below the static water level. These wells will provide opportunity for gathering more data to assist in the hydrogeological assessment. CDM Smith is working with DRM and MWH Global to design a program that will provide important information for the stygofauna survey and sampling, and the hydrogeological investigation.

The Section below presents CDM Smith's recommendations for further work.

Recommendations

CDM Smith recommend that four of the proposed stygofauna drilling locations also be used for hydrogeological drilling investigation purposes. The proposed locations are presented on Figure 5. The proposed hydrogeological drilling locations target areas of inferred structure, including the intersection of structures, with a proposed drilling location in the North Pit area, South Pit area, central area and one out-of-pit location NW of the South Pit. We would like to move one of the proposed out-of-pit stygofauna drill locations (Hole 01 or 02) to the proposed out-of-pit hydrogeological location (BH4). This would require moving the proposed stygofauna location by either 500-800 m.

The proposed hydrogeological drill holes are all located on transects that have approval for disturbance and drilling.



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Kilometers

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Legend

- Proposed hydrogeological hole
- Proposed stygofauna hole
- Structural interpretation (Doray Minerals, 2016)
- Pit outlines

Figure 5
Proposed drilling locations

PROJECTION
GDA 1994 MGA Zone 50

DATA SOURCE
Doray Minerals, 2016
ESRI basemaps

CDM Smith

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The following points summarise the work that we propose for the hydrogeological drilling locations. Details regarding well completion diagrams and materials will be discussed with DRM and MWH Global in the coming days.

- CDM Smith hydrogeologist to be on site during drilling, well installation and aquifer testing (airlift recovery tests).
- Install a pressure transducer data logger (PTDL) within neighbouring open mineral resource drill holes to be used as monitoring locations during drilling, airlift testing and recovery. We propose to do this by installing threaded 50 mm diameter PVC within the open hole (to protect the PTDL). We propose that this equipment be installed in, and removed from drill holes adjacent to each proposed hydrogeological drilling location.
- Vertical holes drilled to a nominal depth of 100 m below ground level. Airlift yields will be measured and recorded during drilling to identify inflow zones.
- As the hydrogeological target for this drilling will be the fractured bedrock, we propose to have open hole completion below the weathered zone. This will require the following rough approach (refer Figure 6):
    - Drill and install protective surface at the top 3-6 m of the hole, and seal in place.
    - Drill below this depth to the base of the weathered zone (approximately 30 m) and install blank casing to depth (without an end cap). Seal and secure the blank casing using cement. The diameter of this blank casing will need to be sufficient to allow drilling through the casing and to conduct airlift recovery tests (6" diameter).
    - Once the cement has cured, drill through the base of the cased section and drill to depth. The remaining length of hole will be open / uncased.
- Once the well is completed, the drilling rods will be removed and the groundwater level will recover / stabilise for approximately 1 hour (or overnight).
- While the groundwater level is recovering, the CDM Smith hydrogeologist will install a PTDL to allow monitoring of groundwater levels during the airlift recovery test.
- After the 1 hour stabilizing period, perform an airlift recovery test by lowering the drilling rods back into the well and airlift the well at a constant air pressure for approximately 30 minutes. During this time, the hydrogeologist will regularly measure the airlift discharge rate or yield (either using a v-notch weir or timed-bucket test) and will record field water quality parameters (electrical conductivity (EC) and pH). It is also proposed that a water sample be collected towards the end of the airlifting

period and sent to a laboratory for water quality analysis (major ions) with four samples in total (one from each well).

- At the end of the 30 minutes airlifting time, the air will be shut-off and the groundwater level will be allowed to recover for approximately 60 minutes. The installed PTDL will record the changes in the groundwater level.

- At the completion of the airlift recovery test, the drilling rods / airline can be removed from the well and move to the next location.

Based on the pace of the current RC drilling program, we assume that the hydrogeological drilling, well installation and airlift recovery testing will take approximately 1-2 days per well (6-8 days in total), depending on drilling conditions encountered.

In addition to the dedicated hydrogeological drilling program, we recommend that DRM continue to measure and record airlift yields during mineral exploration drilling. Continued collation of the airlift yield and lithological data observed during drilling will assist with developing a conceptual understanding of the site hydrogeology and assessing the potential requirements for mine water management.

Hydrogeological data collected during the dedicated hydrogeological drilling program, mineral exploration program and stygofauna well installation program will be used to estimate hydraulic properties and to develop a conceptual hydrogeological model that will be used for preliminary groundwater inflow estimates.

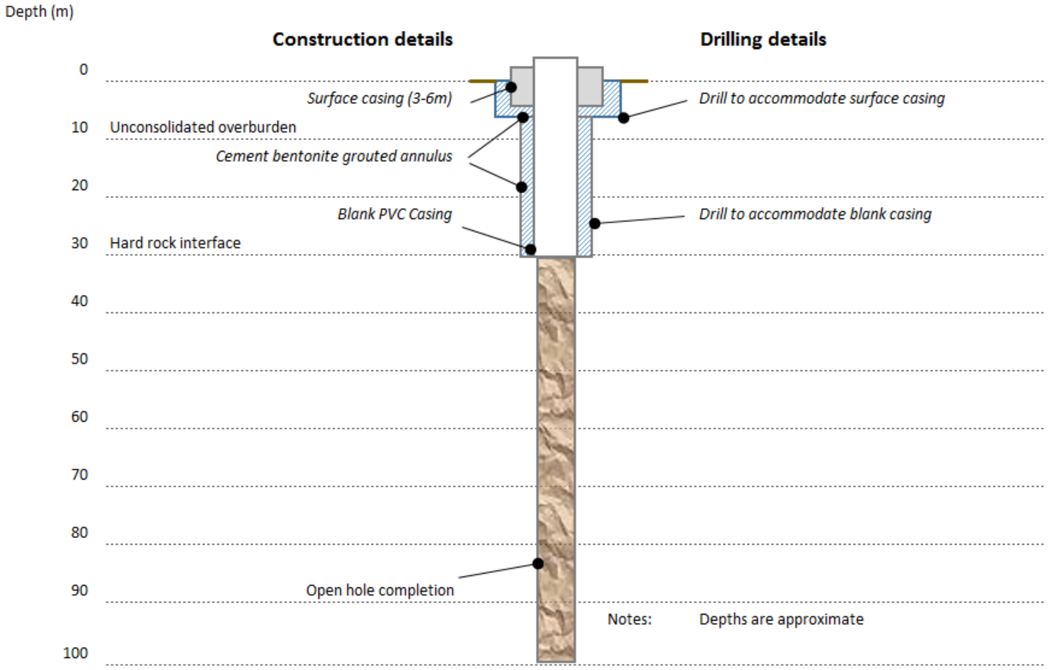

Figure 6 Preliminary Nominal Well Design

Request for Additional Information

To assist with the groundwater study, the following information is also requested (if and when available):

- Site aeromagnetic imagery data (personnel from CDM Smith's Perth office can come to DRM's office to transfer a copy to an external hard-drive).
- Pit outlines in georeferenced file format (preferably ESRI ArcGIS format).
- Pit depth information in georeferenced file format (preferably as contour lines, with elevation attributes in ESRI ArcGIS format).
- Lithological logs from all completed mineral exploration drill holes.
- Measured airlift yield data with depth from all future drill holes (including the stygofauna drilling program).
- Site geological cross-sections created by DRM and / or geological model (once available).

Summary

Upon completion of the hydrogeological drilling and testing program, CDM Smith will analyse the site data to estimate bulk hydraulic parameters for the Project area and calculate preliminary mine inflow estimates. Based on discussions with DRM, the preliminary mine inflow assessment will be used, in conjunction with the mineral resource assessment, to evaluate the viability of an open pit mine at the Turnberry Prospect.

If DRM advance further with the Project, additional and more detailed hydrogeological drilling and testing investigations will be required to assist DRM with the design and installation of a mine dewatering system.

We trust that this report meets your requirements. If you have any comments or questions, please do not hesitate to contact the undersigned or Paul Howe on 0407 740 559.

Kind Regards,

KH

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Principal Modeller – Project Manager

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Reference List

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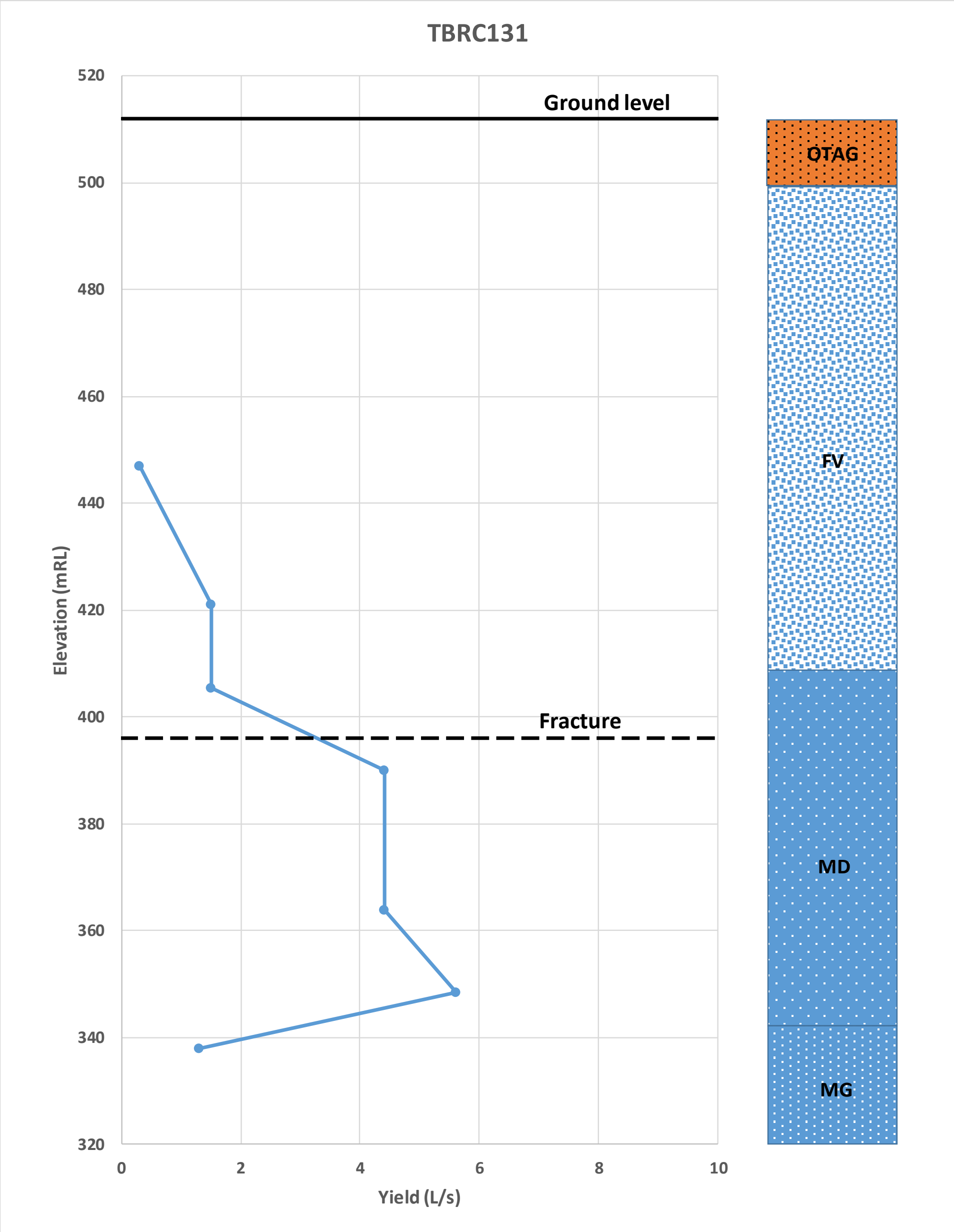

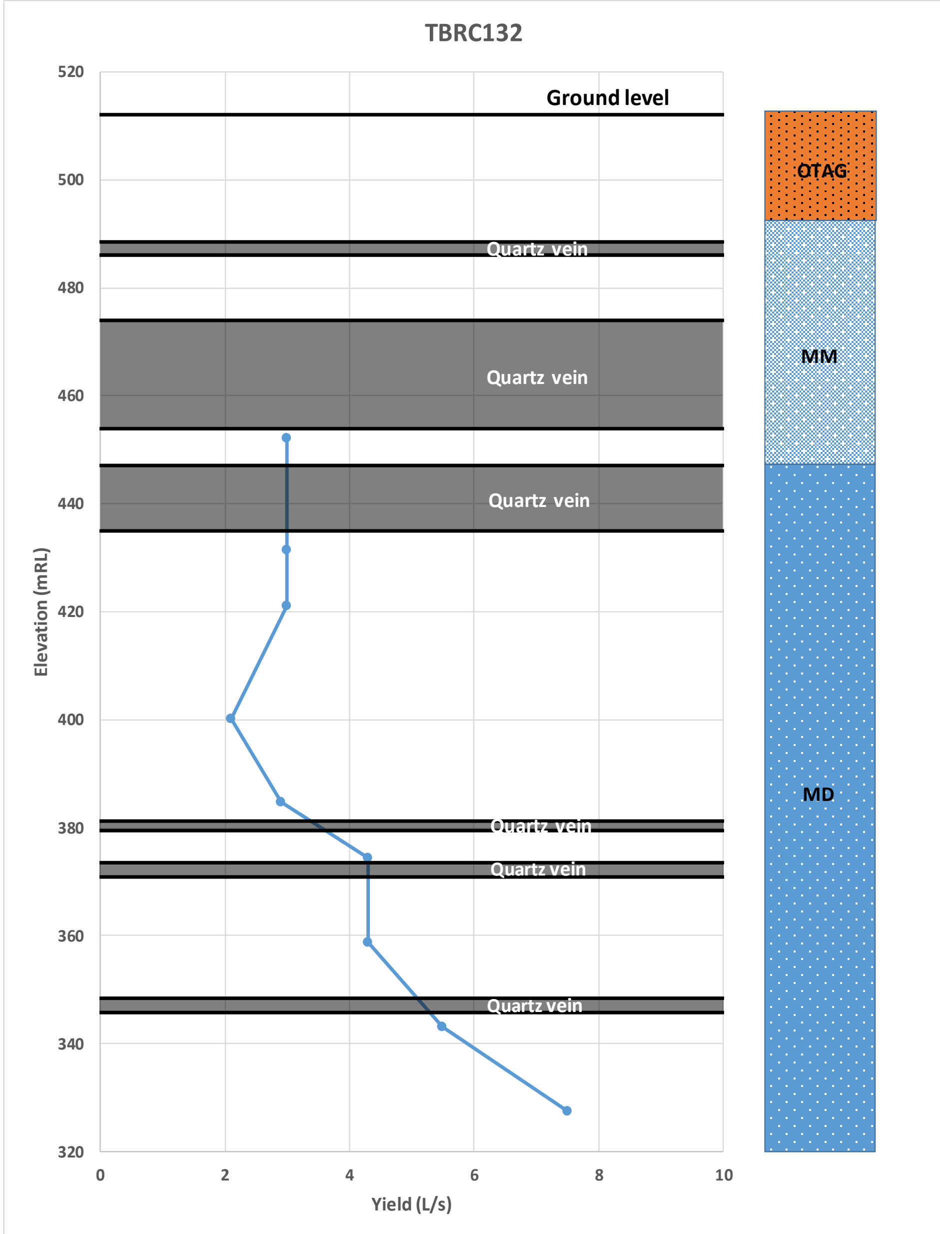

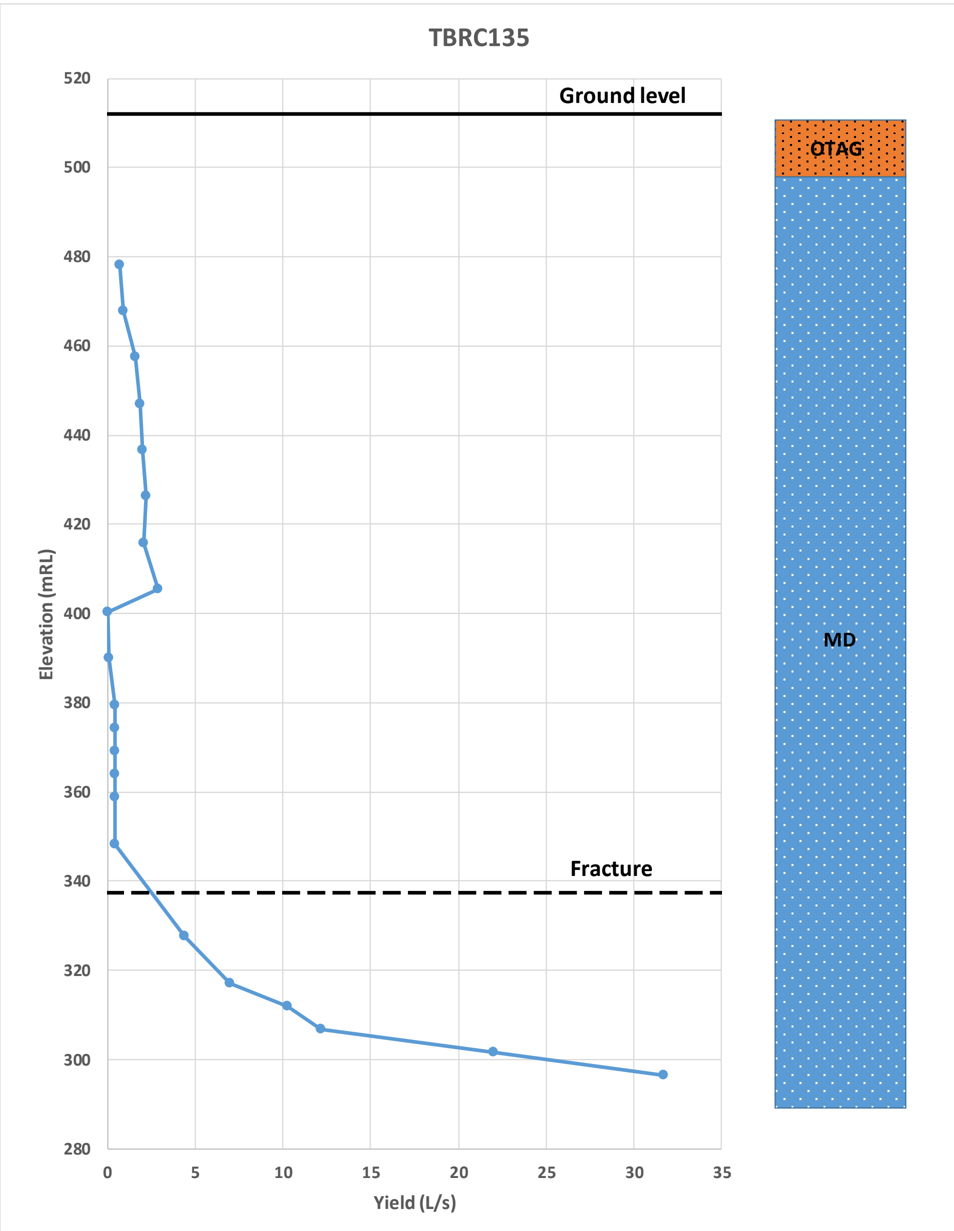

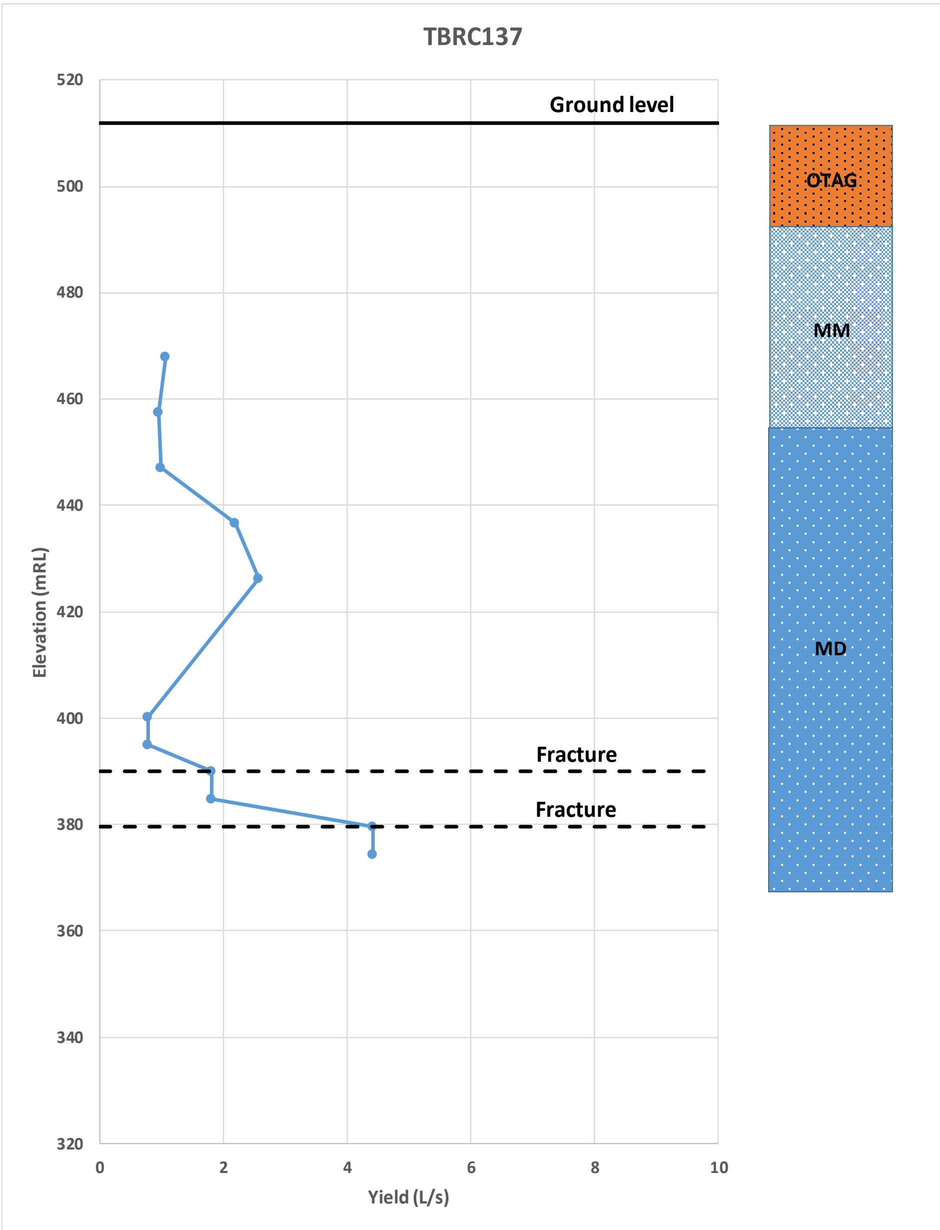

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OTAG	Overburden transported alluvium - gravel		PQ	Quartz porphyry	
OTCO	Overburden transported colluvium		PFQ	Quartz porphyry	
LSU	Upper saprolite		MM	Undifferentiated mafic	
SSL	Siltstone		MB	Basalt	
FVC	Felsic volcanic rocks		MD	Dolerite	
FV	Undivided felsic volcanic rocks		MG	Gabbro	
FTA	Felsic Tuff		UTC	Talc-chlorite ultramafic rock	

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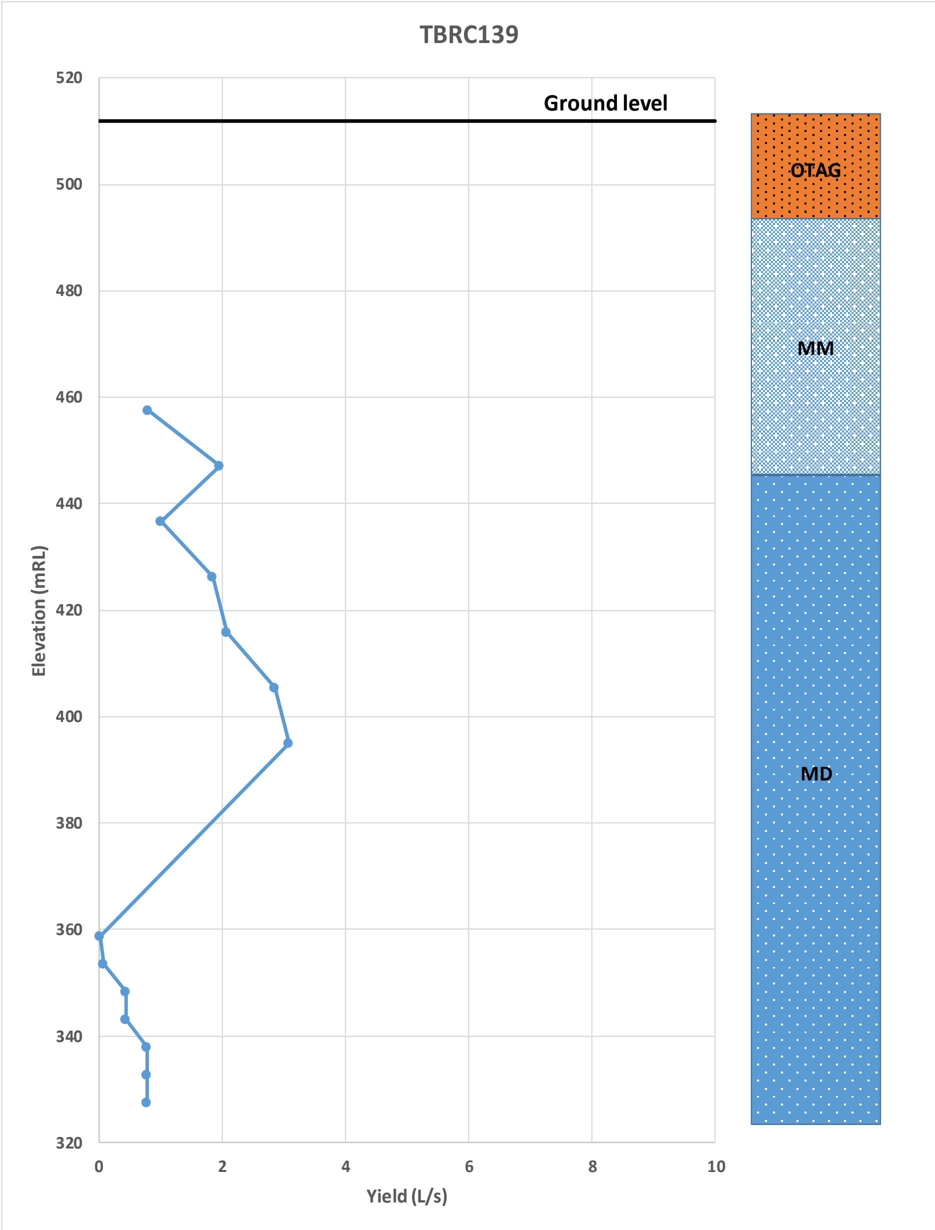

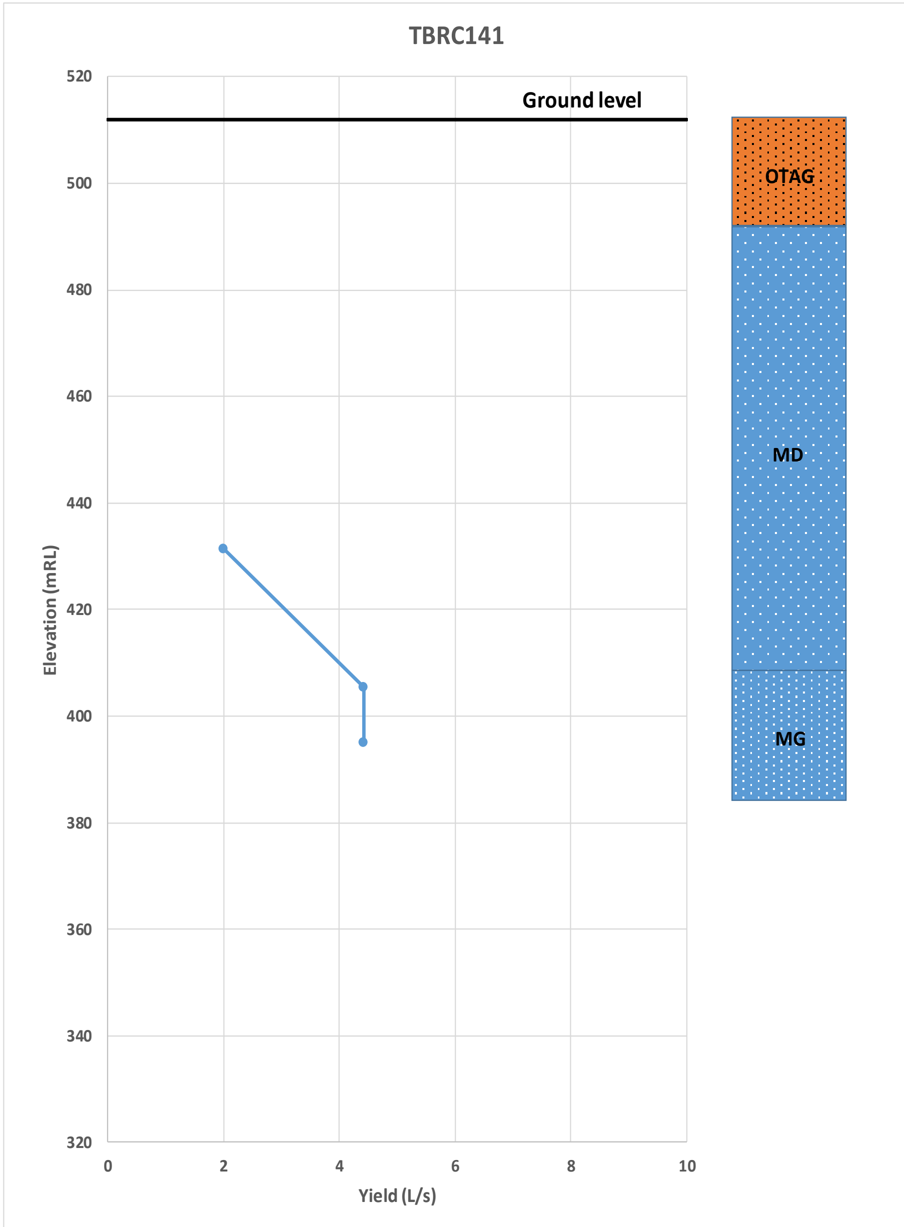

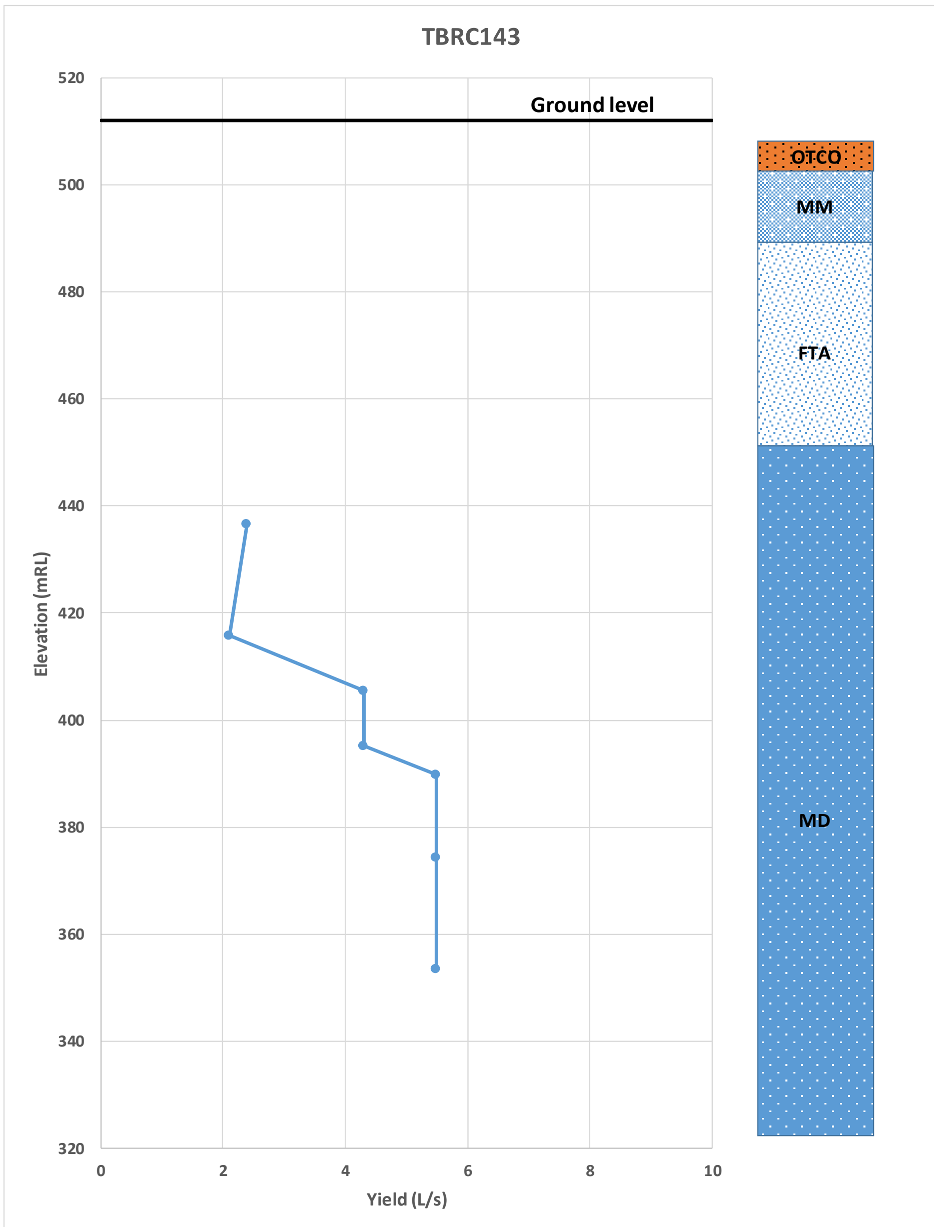

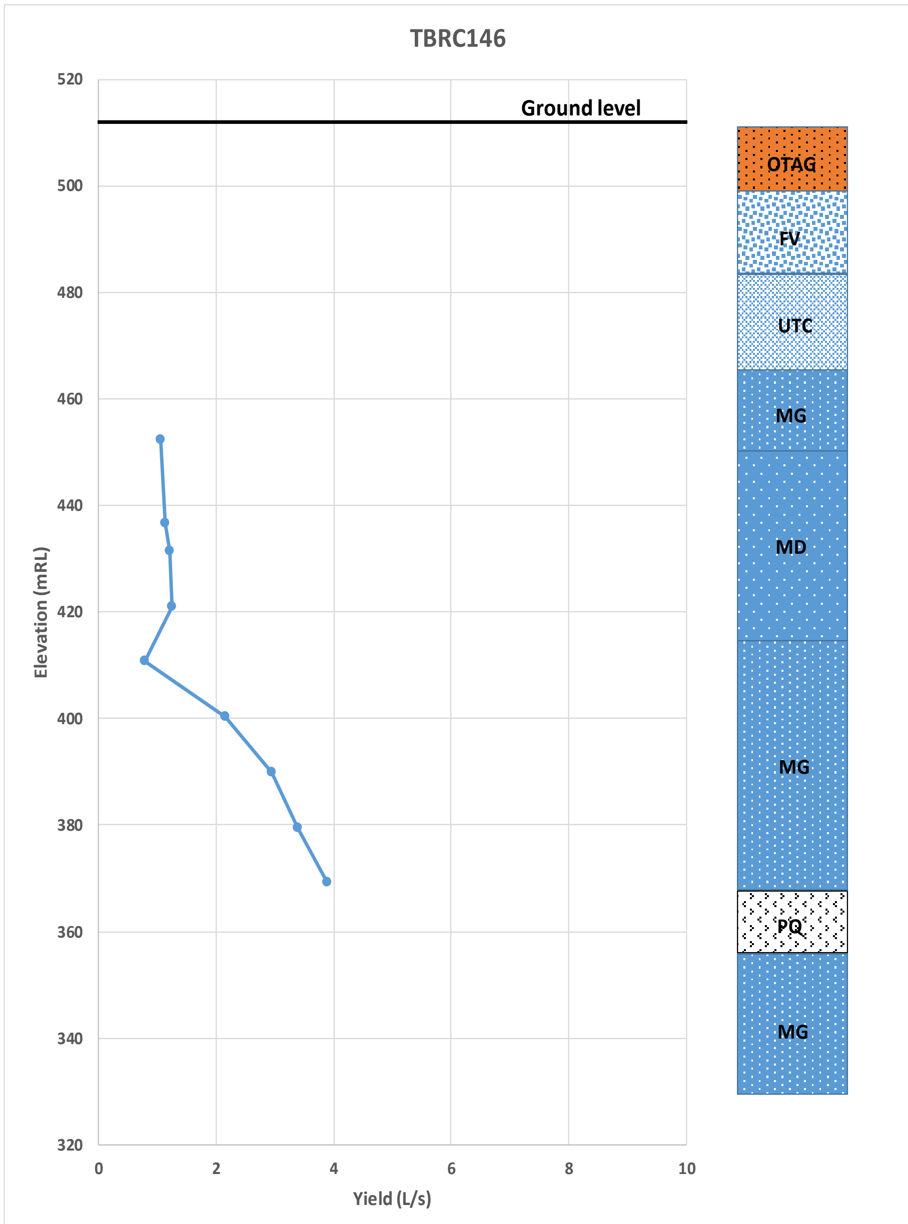

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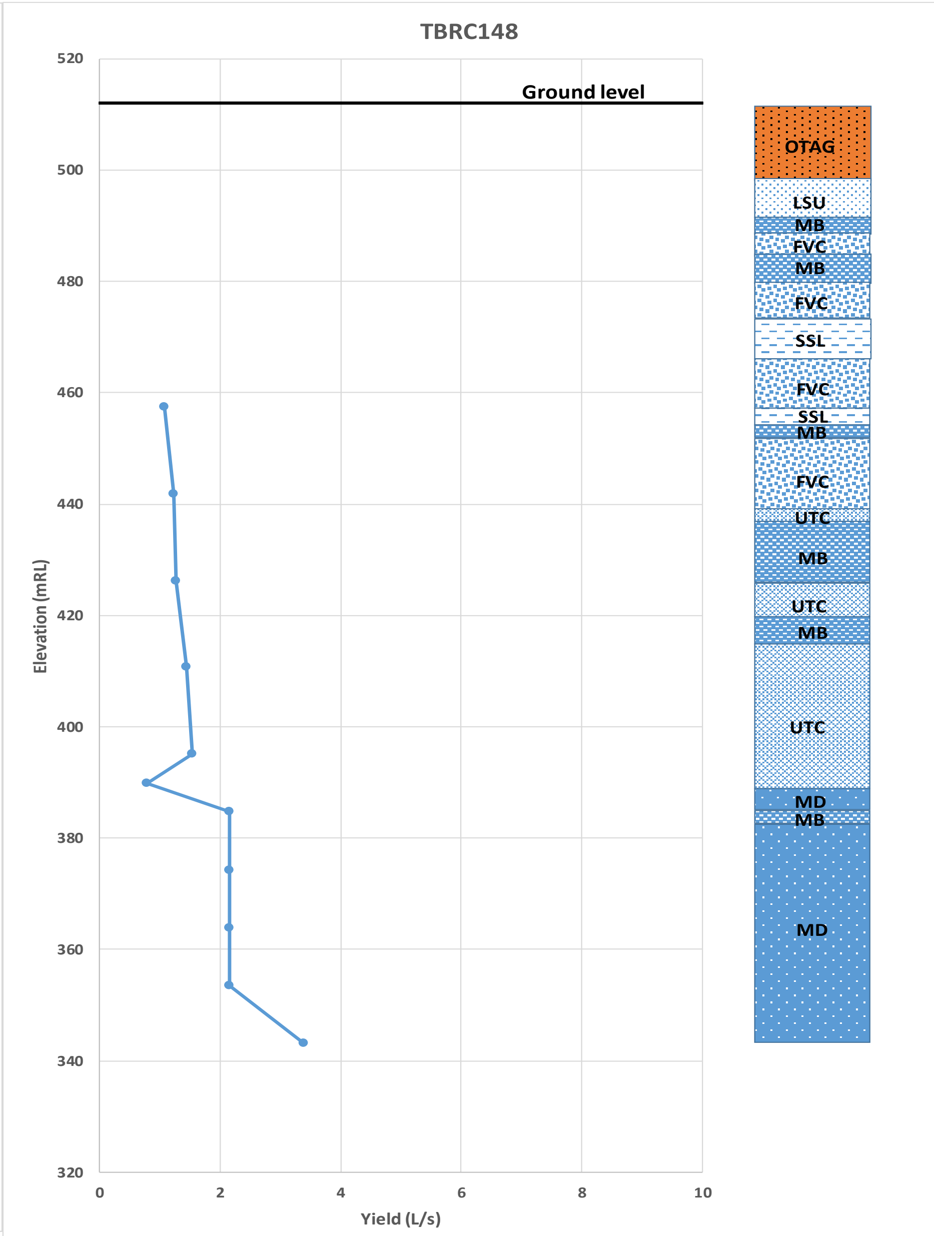

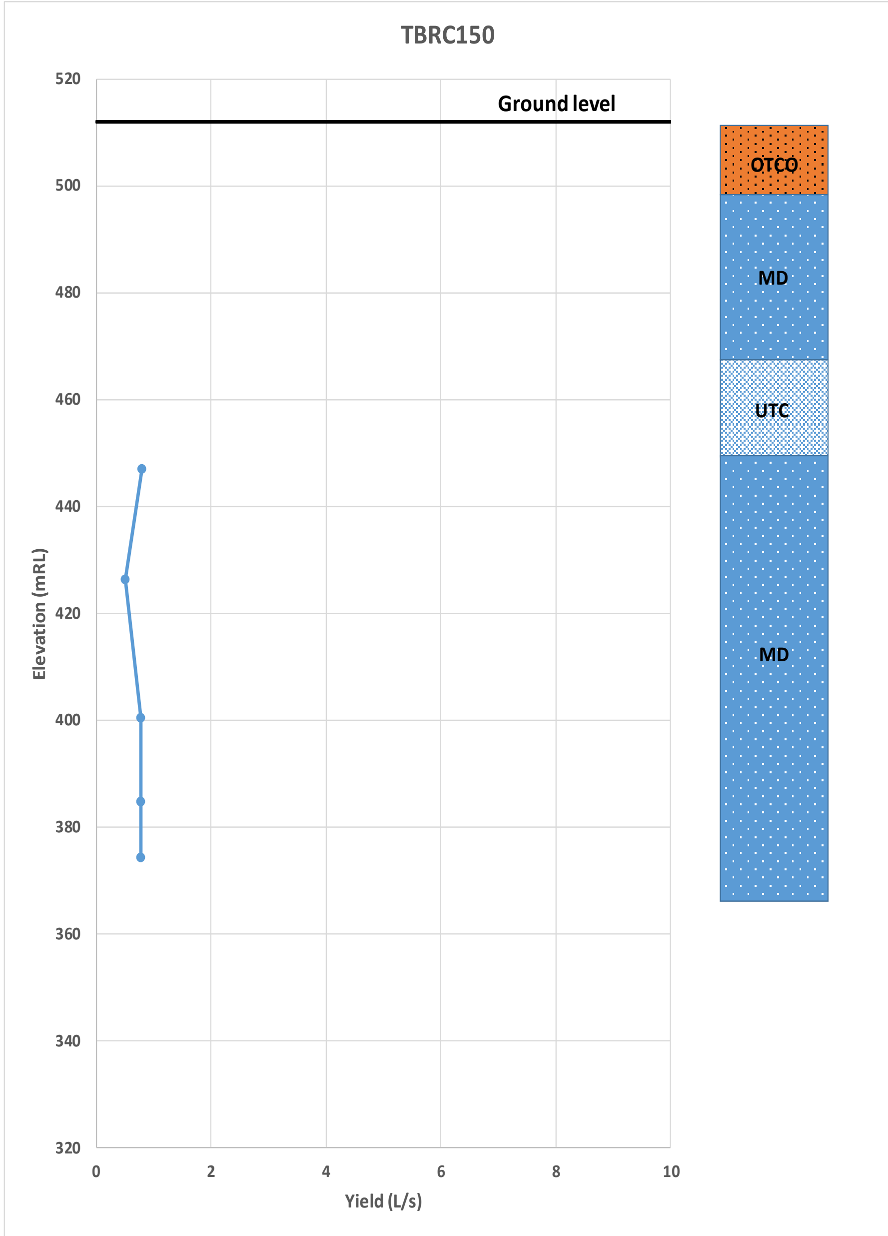

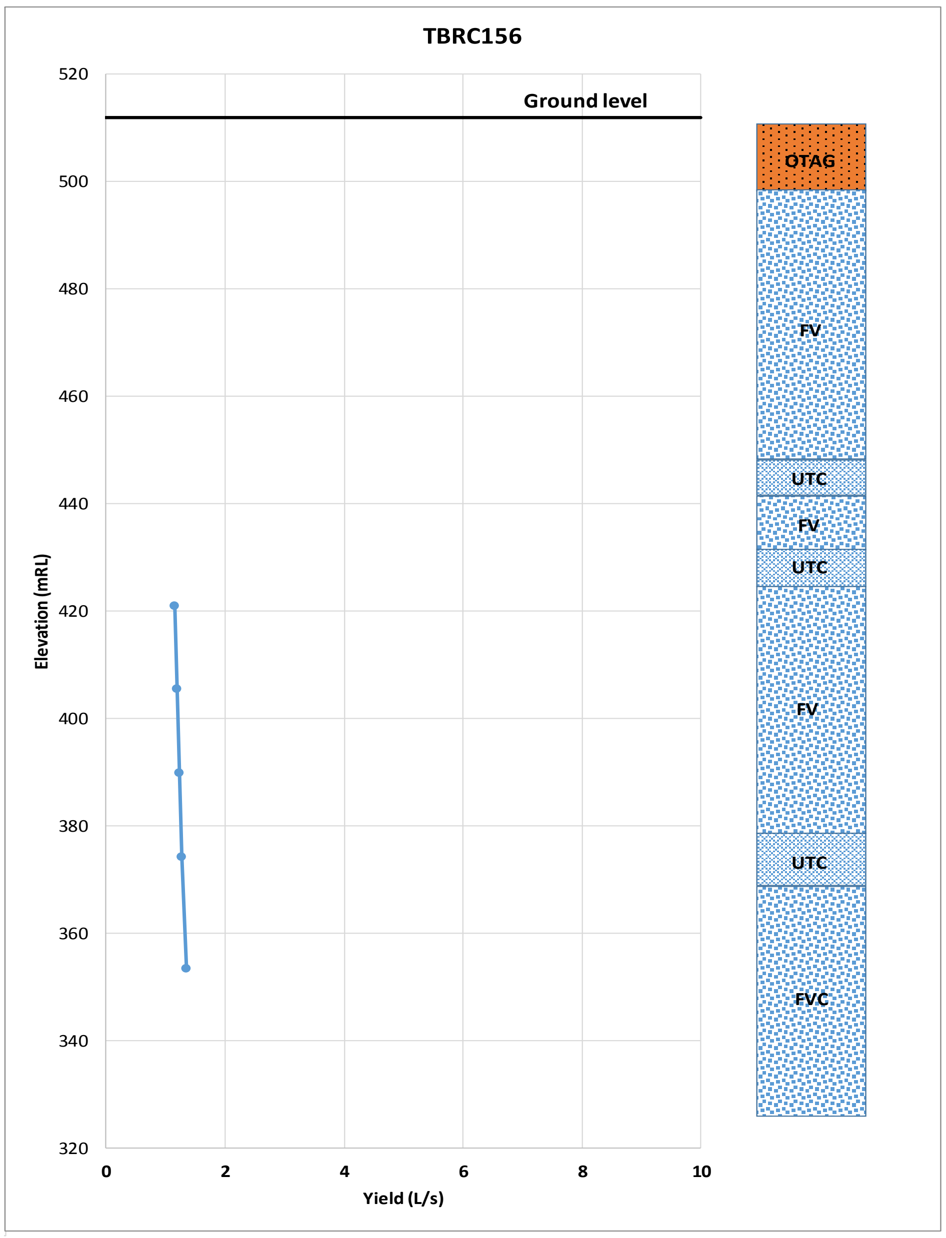

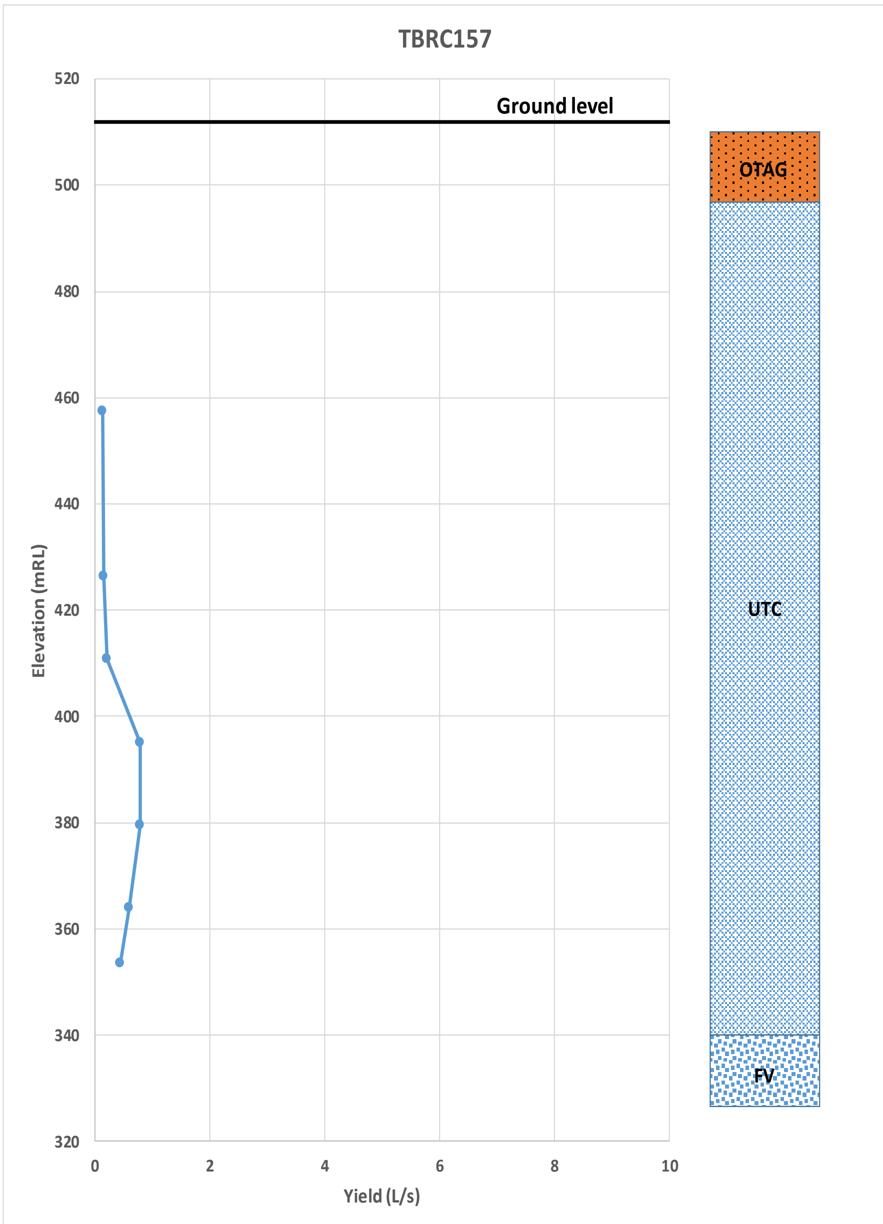

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[illegible]	Felsic Tuff		UTC	Talc-chlorite ultramafic rock	

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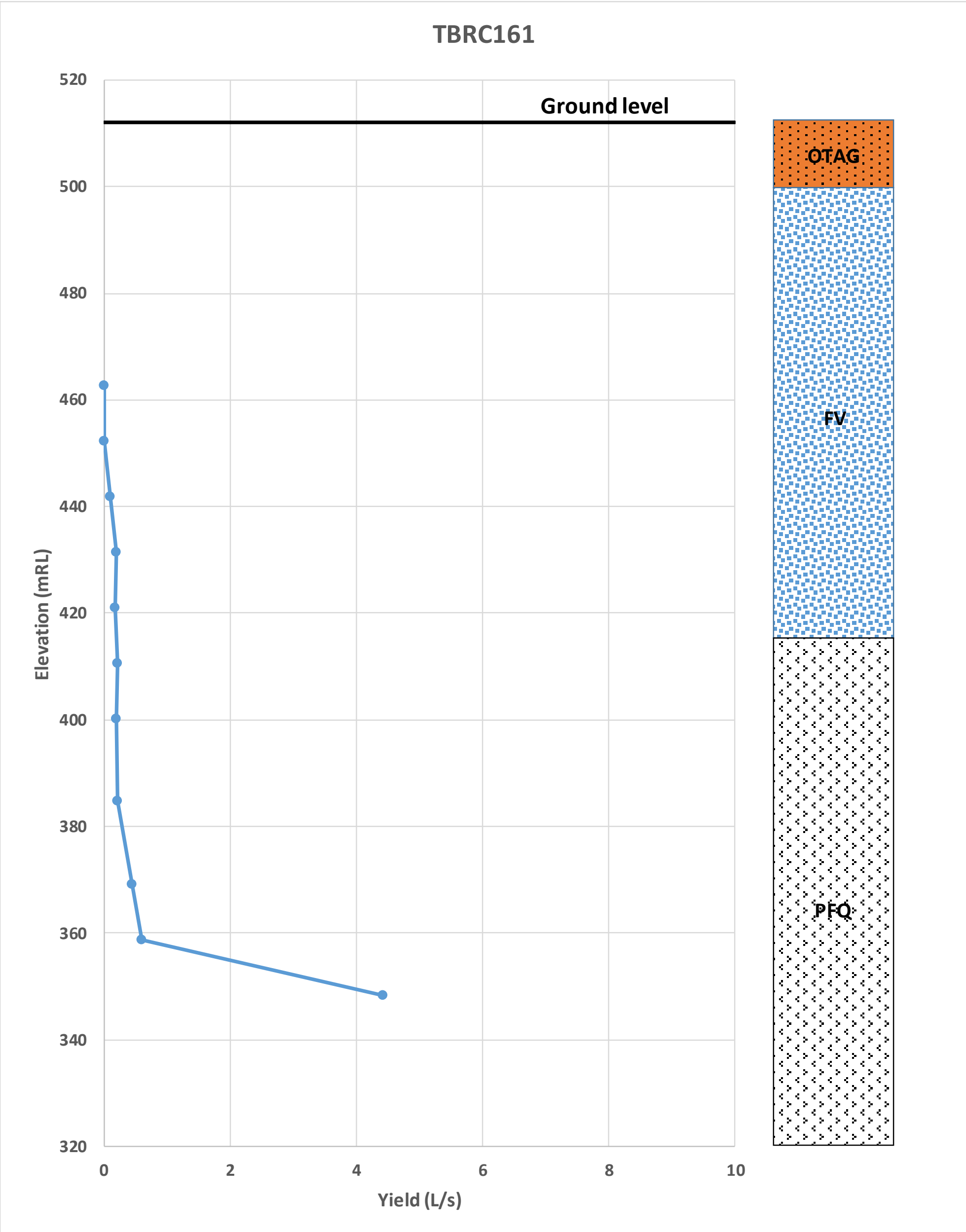
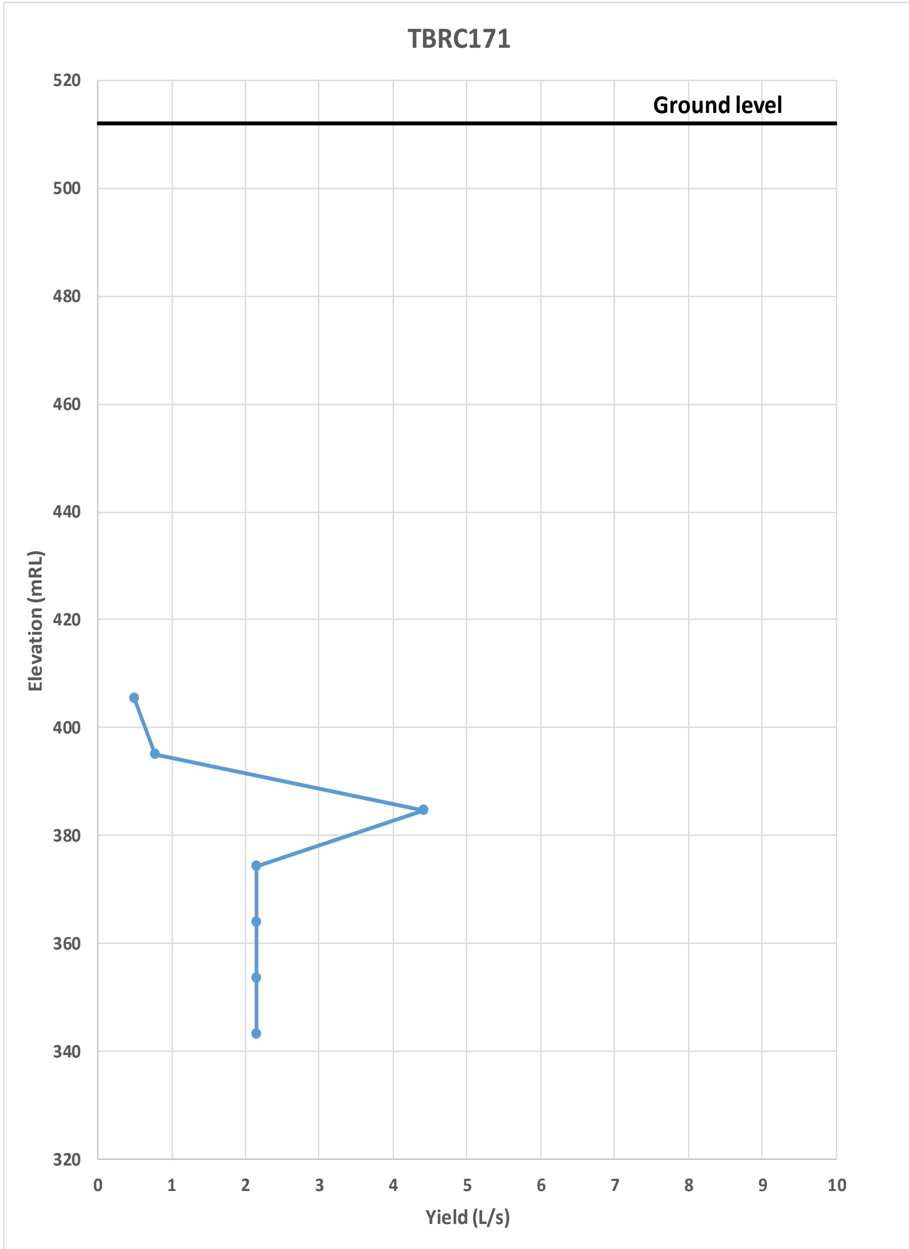
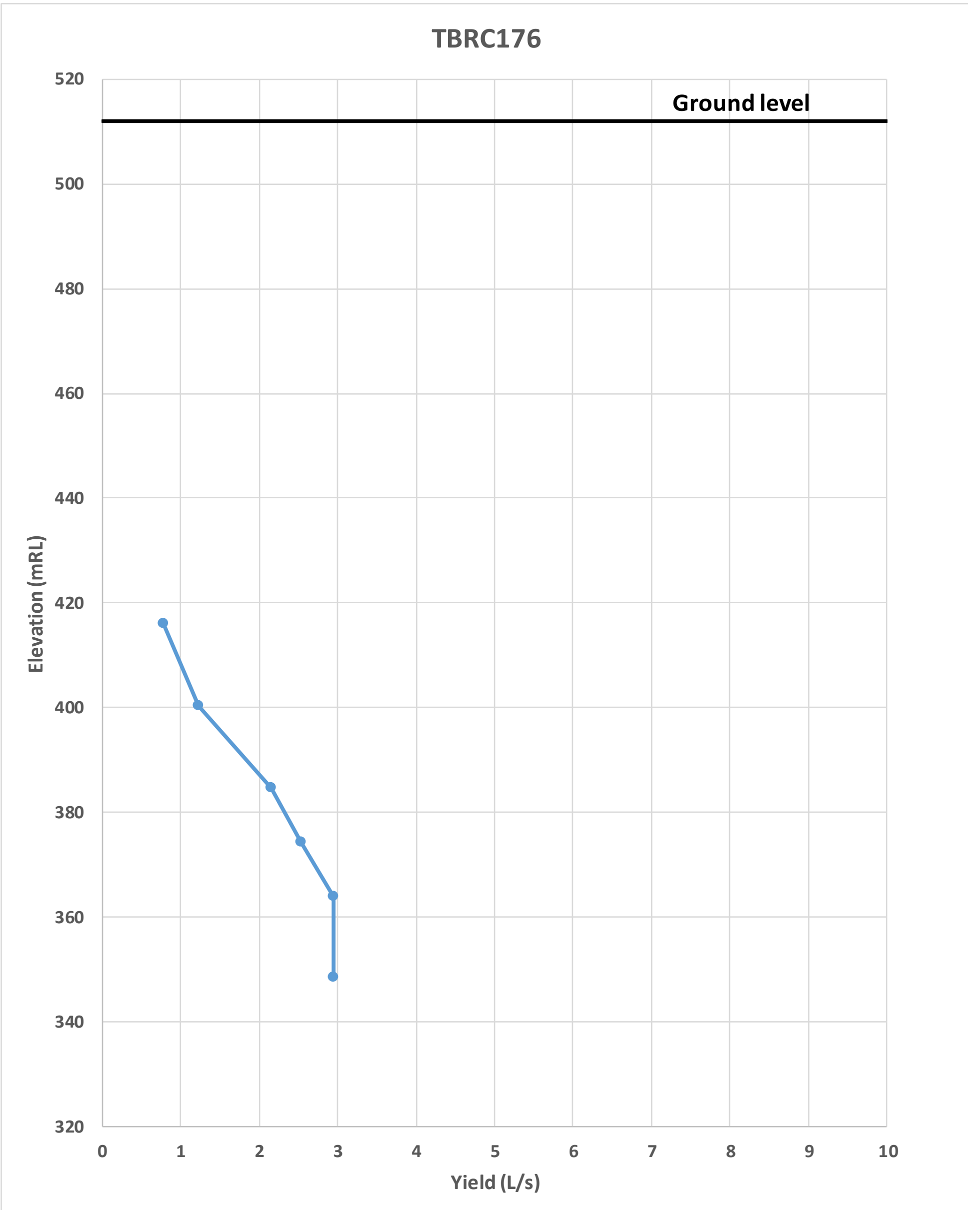
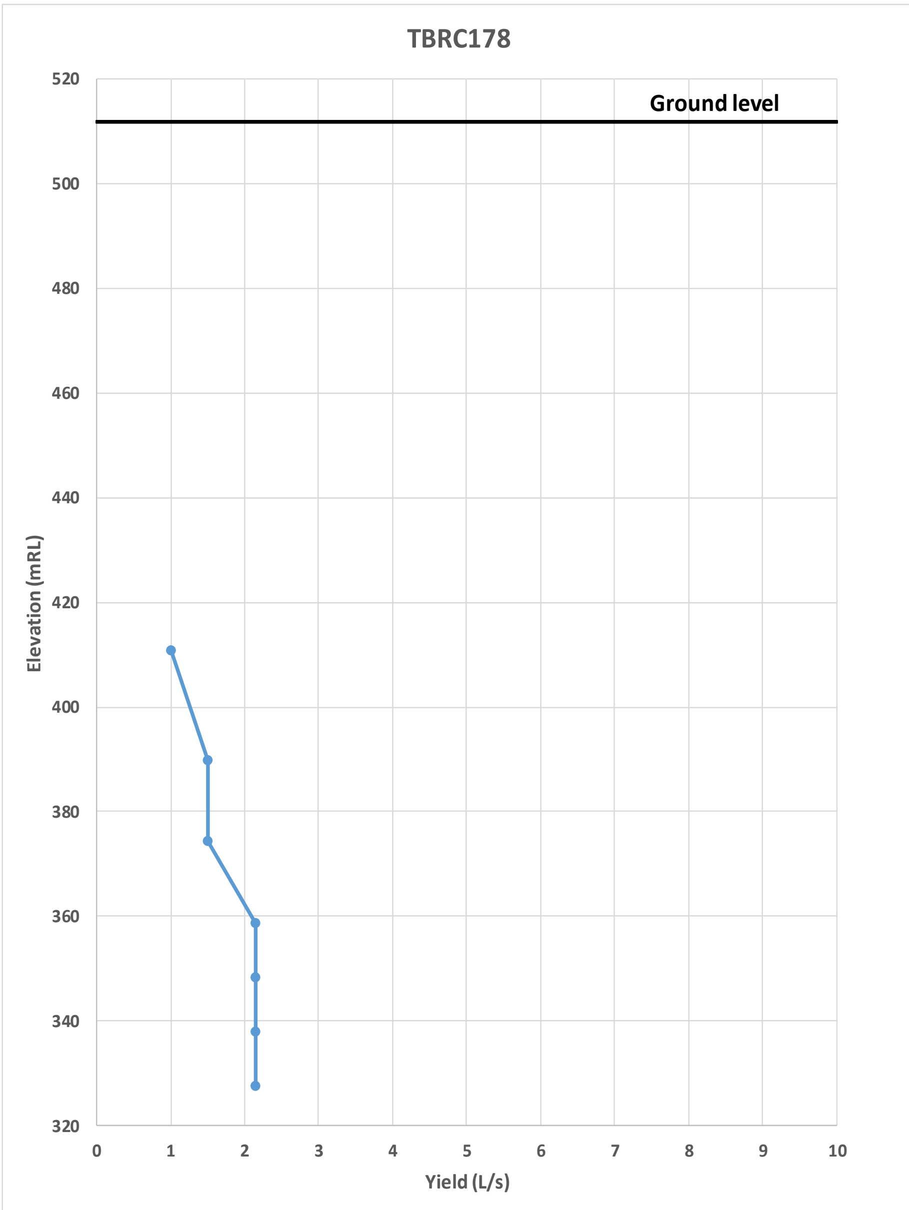
Appendix A - Airlift Yield Depth Profiles









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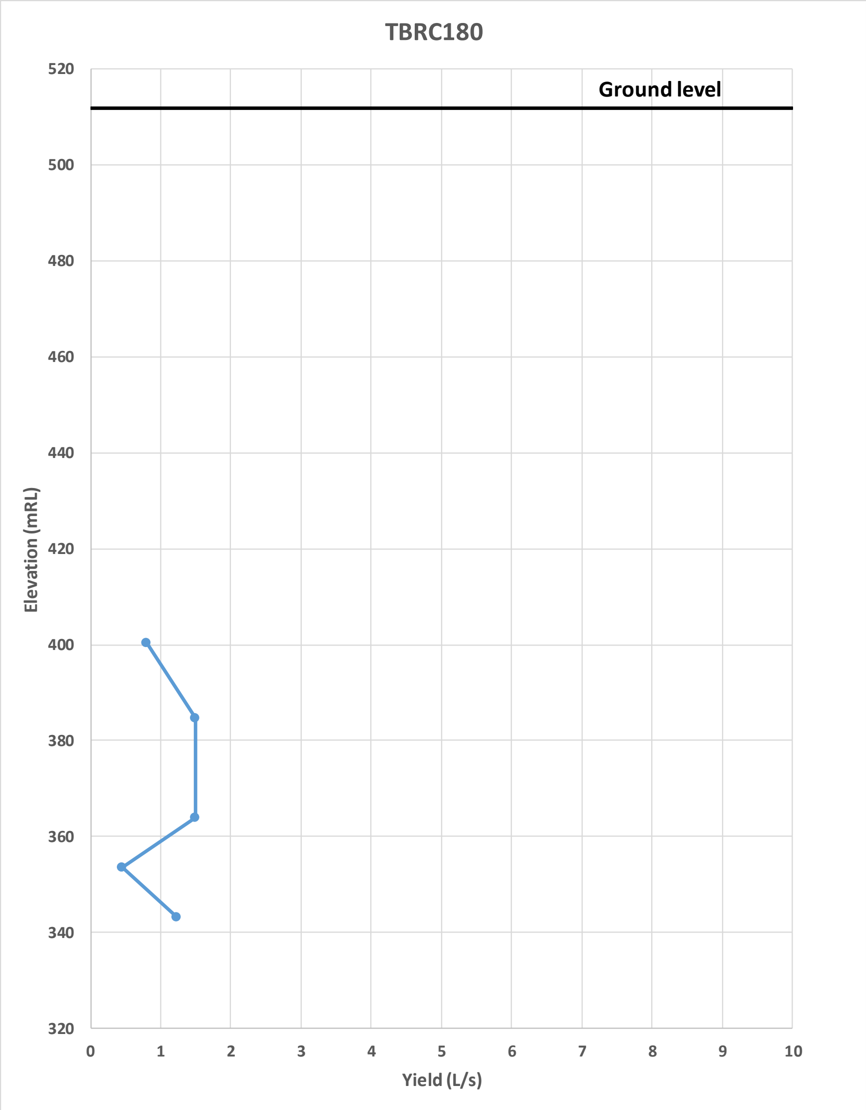

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Litho code	Definition	Fill for plot
OTAG	Overburden transported alluvium - gravel	
OTCO	Overburden transported colluvium	
LSU	Upper saprolite	
SSL	Siltstone	
FVC	Felsic volcanic rocks	
FV	Undivided felsic volcanic rocks	
FTA	Felsic Tuff	
PQ	Quartz porphyry	
PFQ	Quartz porphyry	
MM	Undifferentiated mafic	
MB	Basalt	
MD	Dolerite	
MG	Gabbro	
UTC	Talc-chlorite ultramafic rock	