

Appendix I

SPECIALIST REPORTS' CONDITIONS

For the Gamsberg East and South Prospecting Draft Basic Assessment Report
2020

A list of additional conditions to be included in the EMP, have been compiled. These conditions do not replace the current conditions within the EMP, but must be seen as additional requirements.

Method for inclusion

To determine which conditions should be included in the EMP, the following steps were followed:

- All requirements within the following documents were added to a list of conditions considered for inclusion:
 - All specialist reports appended to the Gamsberg S&E FBAR, V02, 2018;
 - ◆ Appendix D1 – Palaeontological Impact Assessment;
 - ◆ Appendix D2 – Heritage Impact Assessment 2018;
 - ◆ Appendix D3 – Flora Impact Assessment;
 - ◆ Appendix D4 – Fauna Impact Assessment;
 - Environmental Authorisation 19/02/2019;
 - Appeal Decision 05/08/2019;
- Only conditions from these documents, which were directly applicable to this prospecting project, were chosen to be included;
- All the listed conditions were compared to check for any inconsistencies, conflicts or duplications; and
- Conditions chosen for inclusion were then grouped to provide a shortened list of conditions to be written into the EMP.

An additional condition will be written to include all requirements from the following two documents, which were finalised after this process:

- Appendix H – Gamsberg Search, Rescue and Translocation Protocol, V02, 2020; and
- Appendix G - Gamsberg East South Prospecting Reassessment 2020.

TABLE 1: LIST OF CONDITIONS FROM THE PALAEOLOGICAL IMPACT ASSESSMENT REPORT (APPENDIX D1) CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
All staff must be informed of the need to watch for potential fossil occurrences.	Yes	Yes
Inform staff of procedures to be followed in the event of fossil occurrences.	Yes	Yes
Excavations must be monitored by on-site personnel under the supervision of the Environmental Site Officer (ESO).	Yes	Yes
Liaise on nature of potential finds and appropriate responses.	Yes	Yes
A professional palaeontologist must be appointed to respond to queries about any possible or definite fossils found. In the event of a significant fossil find, a palaeontologist will supervise the excavation of the fossils and record the contexts. This palaeontologist must undertake the recording of the stratigraphy and sedimentary geometry of the exposures, must attempt sampling of the ambient small fossil content and must undertake the compilation of the detailed report.	Yes	Yes
A permit will have obtained from SAHRA for any finds.	Yes	Yes

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TABLE 2: LIST OF CONDITIONS FROM THE HERITAGE IMPACT ASSESSMENT REPORT (APPENDIX D2) CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Once the exact location of the proposed boreholes is available these should be investigated individually by a qualified archaeologist.	Yes	Yes
It is recommended that the development designs take into account the positive and negative characteristics of the existing cultural landscape type.	Yes	Yes
If mining activities are considered, the areas should be submitted to a full Heritage Impact Assessment.	Yes	Yes
Obscured, subterranean sites must be managed, if they are encountered.	Yes	Yes
All operators of excavation equipment should be made aware of the possibility of the occurrence of sub-surface heritage features and what procedure to follow.	Yes	Yes
Should any sub-surface remains of heritage sites be identified, all prospecting activities in the immediate vicinity (50m radius) should cease and the heritage practitioner should be informed as soon as possible.	Yes	Yes
In the event of obvious human remains the South African Police Services should be notified.	Yes	Yes
Mitigation measures, such as refilling, should not be attempted.	Yes	Yes
The area of the find and a 50m radius thereof should be marked off with hazard tape, placed under guard and public access should be limited.	Yes	Yes
No media statements should be released until such time as the heritage practitioner has had sufficient time to analyse the finds.	Yes	Yes
It is recommended that the mining area be subjected to an updated heritage management plan that focus specifically on the identification and management of these sites (San massacre). (Revised) It is recommended that the prospecting infrastructure specifically be subjected to an updated heritage management plan that focus specifically on the identification and management of these sites.	No	Yes (revised)

TABLE 3: LIST OF CONDITIONS FROM THE FLORA IMPACT ASSESSMENT REPORT (APPENDIX D3) CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Reduce dust emission.	Yes	Yes
Manage surface water quality run-off in the basin.	Yes	Yes
Protect all known regional populations of species at risk via Biodiversity Offset to buffer species against possible loss of or changes in source populations.	Yes	Yes
All workers must be trained and educated on environmental sensitivities of the site and appropriate behaviour especially with regard species introductions.	Yes	Yes
The following obligations for monitoring and conservation carried by the mine are noted and incorporated by Black Mountain Mine's environmental management team: An Alien	Yes	Yes

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Plant and Animal Monitoring and Control program is incorporated in Black Mountain Mine's management.		
No-go areas should be clearly demarcated on the ground and on mine plans. Development of a detailed biodiversity management plan to ensure that the proposed avoidance and mitigation measures associated with construction are effectively implemented (incorporated by the Black Mountain Mine Environmental Management team).	Yes	Yes
Consider location of watercourses and avoid in the siting of mine infrastructure. (Revised) Consider location of watercourses and avoid in the siting of prospecting infrastructure specifically.	No	Yes (revised)
Construct flood containment walls and retention ponds around all hard infrastructure.	No	No (n/a)
Construct sediment containment dams in crater water course to limit ARD producing material from the pit working area from entering the kloof system.	No	No (n/a)
Construct flood diversion walls around the pit to divert natural run-off.	No	No (n/a)
Contain the mine layout to within a single water catchment.	No	No (n/a)
Effective dust suppression in and around the pit is essential.	No	No (Dust from prospecting are addressed in the EMP)
Emphasis on runoff management through mine layout/design and stormwater management system to avoid contaminated runoff entering the kloof ecosystem.	No	No (n/a)
Avoid building rocks dumps within the kloof catchment containing ARD producing rocks.	No	No (n/a)
Manage all runoff from pit working area to flow away from kloof catchment.	No	No (n/a)
Ex-situ conservation of the <i>Azima teracantha</i> will at least preserve the unique genetic component of this individual	No	No (n/a)
Detailed monitoring and documentation of the affected habitats will track loss and also quantify rate of change.	No	No (n/a)
Institute site access monitoring, controls and enforcement.	No	No (n/a)
All mine roads to be bounded with medium 4/5 strand livestock and locked gates leading of these roads.	No	No (n/a)
Use only approved indigenous species for all workplace and new housing greening.	No	No (n/a)
Maintain functional corridor width by ensuring that no other developments occur within 5km buffer around the mine impact area. This can be implemented through the spatial design of Biodiversity Offset.	No	No (This condition is not practically possible)
Avoid constraining the movement of biodiversity on the mine site through ecologically sensitive mine design and architecture.	No	Yes
Ensure that other large-scale development in the region is located outside the protected area development zone.	No	No (n/a)
Incorporating a setback line in the location of the western edge of the north-western rock dump to avoid the population of <i>Conophytum ratum</i> located on the inselberg foot slopes approximately north-west of the radio tower.	No	No (n/a)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Incorporate a setback line for the maximum eastern extent of rock dumps to avoid contaminated runoff entering the orange River catchment.	No	No (n/a)
Incorporate a setback line in the location of the eastern edge of the pit to avoid contaminated runoff directly entering the catchment of the main kloof.	No	No (n/a)
Designing a rock dump comprising only quartzite rock to fill the remaining portion of the western kloof thereby shielding the kloof from any direct impact's om mining activities in the pit.	No	No (n/a)
Design the southern approach road using built retaining walls and gabions rather that simple cut and fill method to minimize impact of road on veg above and below the road. No rock should be pushed down the slopes.	No	No (n/a)
Design a cut-off drain/berm around the south-eastern edge of pit to channel uncontaminated upslope water away from the pit and into the Kloof drainage system.	No	No (n/a)
Construction of two run-off retention dams in the watercourse in the crater to catch sediment from the pit area during pit development.	No	No (n/a)
Construct a rock-dump in the crater to the south and south-eastern side of the pit.	No	No (n/a)
It is recommended that a biodiversity offset be developed for those habitats where the proposed impacts are significant.	No	No (No offset is required for this prospecting project, refer to Appendix G)
It is recommended that a competent environmental practitioner and a mine surveyor jointly survey map and physically demarcate by means of metal drums or stakes all setback lines.	No	No (Prospecting site demarcation is incorporated in the EMP)
Dust suppression of blasting and haulage activities in the pit will significantly mitigate mining impacts, as will dust suppression along unpaved roads and at stockpiles.	No	No (n/a)

TABLE 4: LIST OF CONDITIONS FROM THE FAUNA IMPACT ASSESSMENT REPORT (APPENDIX D4) CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
The footprint should be reduced as far as possible.	Yes	Yes
Sensitive areas, i.e. aquatic systems and habitats supporting key faunal species should be avoided.	Yes	Yes
All disturbed areas must be rehabilitated during all phases of the project to reinstate natural habitat. If applicable, a rehabilitation plan should be designed by an appropriate specialist which includes erosion control structures and revegetation measures with indigenous species only.	Yes	Yes
Personnel and contractors must be prohibited from having domestic dogs and cats on the premises. A feral dog and cat control programme must be implemented where monitoring indicate any presence of domestic animals on site.	Yes	Yes
The movement of people and vehicles must be restricted and controlled and areas should be clearly demarcated.	Yes	Yes
Speed limits must be implemented and enforced.	Yes	Yes

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Maintain roads and implement dust control measures as far as practical on management roads.	Yes	Yes
Light pollution must be kept to a minimum so as to not interfere with insect life cycles and nocturnal vertebrates as far as safety does not decrease. Low pressure sodium vapour lights/ LED lights with wavelengths of limited attractiveness to insects, facing inwards to the mine, are recommended.	Yes	Yes
Group mining facilities together to reduce fragmentation of natural habitats supporting a rich diversity of fauna.	No	No (n/a)
Design and construct powerlines and substations according to best practice in consultation with avifaunal specialists.	No	No (n/a)
Develop and implement environmental awareness programme for mining personnel and contractors which emphasises faunal biodiversity issues such as road kills etc.	No	No (n/a)
Devise and implement management plans to deal with waste, stormwater, faunal recovery and relocation, spills etc.	No	No (n/a)
Ensure that natural groundwater/ surface water flows are maintained through the gorge and into the washout on the northern plains.	No	No (n/a)
A Reserve study should be undertaken to fully understand and appreciate the consequences of a modified flow regime through this system.	No	No (n/a)
An aquatic biomonitoring plan that covers the construction, operation, decommissioning and post-mining phases should be designed by an appropriate specialist.	No	No (n/a)
Improve knowledge gaps through a detailed regional study of key fauna in order to assess impacts with higher confidence as well as to better inform offset opportunities for conservation of fauna.	No	No (n/a)
The possibility that summer-active species of Mantophasmatodea may be present, while small, must still be considered and should be checked during a true wet season survey.	No	No (n/a)
Monitoring of key invertebrate indicator groups should be implemented to enable the effectiveness of mitigation measures to be evaluated and also to allow monitoring of progress of rehab.	No	No (n/a)
Devise and implement a programme to monitor Red Lark populations.	No	No (n/a)
Fixed point camera traps be installed at key points in and around the inselberg to monitor the presence and diversity of mammals and birds during the construction, operation and decommissioning phase of the mining.	No	No (n/a)
Implement a biodiversity offset program to properly identify and set aside areas for conservation. This should include unimpacted habitats as possible set aside area.	No	No (n/a)

TABLE 5: LIST OF CONDITIONS FROM THE ENVIRONMENTAL AUTHORISATION 19/02/2019 CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
Protected plant species must not be removed (disturbed, cut and destroy their products which may not be possessed, collected, removed, transported, exported, donated, purchased or sold) unless the necessary permission is granted	Yes	Yes (Revised)

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
by the Department of Agriculture, Forestry and Fisheries (DAFF). (Revised) Applications have been submitted for these permits.		
All development footprint areas and areas affected by the proposed development must remain as small as possible and must not encroach onto the surrounding sensitive areas and the associated buffer zones.	Yes	Yes
An Integrated Water Use License (IWUL) must be obtained from the Department of Water and Sanitation (DWS) prior commencement of activity. (Revised) A General Authorisation (GA) for section 21c&i was obtained for the prospecting activities.	Yes	Yes (Revised)
Wetland and riverine areas are to be considered as no go zones unless authorisation is obtained. Ensure that construction activities are outside the demarcated wetland area. No activity should be allowed to encroach on to wetland system.	Yes	Yes
Maintain functional corridor width by ensuring that no other developments occur within 5km buffer around the mine impact area.	Yes	No (This condition is not practically possible)
All areas with habitat rich and high concentration of flora and fauna should be avoided.	Yes	Yes
A biodiversity specialist must be appointed to develop Biodiversity offsets and a spatial design of Biodiversity offsets. (Revised) An updated offset recalculation has been conducted by specialists (Appendix G).	Yes	Yes (Revised)
Rescue operation of all listed species suitable for translocation within the development footprint that cannot be avoided should be conducted. Affected individuals should be translocated to a similar habitat outside the development footprint and marked for monitoring purposes.	Yes	Yes
The Plant Rescue and Protection Plan must be compiled by ecological specialist and implemented. (Revised) The Search, Rescue and Transplantation Protocol have been compiled and must be implemented.	Yes	Yes (Revised)
Recommendations stipulated within the Fauna and Flora Specialist Reports must be adhered to during construction and operational phases.	Yes	Yes
The protection of all historical and pre-historical cultural resources must remain on site and no prospecting activity/-ies is/are allowed within 100 diameters from those resources. Should any heritage remains be exposed during operation or any actions on the site, these must immediately be reported to the South African Heritage Resource Agency (SAHRA). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the South African Heritage Resource Agency (SAHRA). Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; maddens, indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.	Yes	Yes
Hydraulic fluid or chemicals must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. Should any spills	Yes	Yes

Condition	Integrated into FBAR V02 2018	Include in DBAR V03 2020
occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.		
Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works.	Yes	Yes
Regular monitoring and maintenance of storm water drainage facilities must be conducted at all times, if damaged as directed by the Department or any other relevant authority.	Yes	Yes
Vegetation removal must be minimised to smallest possible footprint and damaged areas should be rehabilitated with assistance of a qualified vegetation rehabilitation specialist.	Yes	Yes
Preconstruction walk-through of facility in order to locate species of conservation concern that can be translocated must be undertaken, provided that DAFF permit conditions must also be complied with.	Yes	Yes
Search and rescue operation of all listed species suitable for translocation within the development footprint that cannot be avoided should be conducted. Affected individuals should be translocated to a similar habitat outside the development footprint and marked for monitoring purposes.	Yes	Yes
The NEMA principles set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment.	Yes	Yes

TABLE 6: LIST OF CONDITIONS FROM THE APPEAL DECISION 05/08/2019 CONSIDERED FOR INCLUSION IN THE EMP (DBAR V03)

Condition	Integrated into FBAR v02 2018	Include in DBAR v03 2020
Specific conditions stemming from the Fauna and Flora Reports should have been written into the EA as conditions.	Yes	Yes
To mitigate mortality, certain species will not be transplanted to a nursery, but directly affected areas in similar habitats and the South African National Biodiversity Institute (SANBI) will assist with seed collection in the field and maintenance and storage of seed.		Yes
The Plant Rescue and Protection Plan should have been compiled prior to issuance of the EA and should have been subjected to public comment. (Revised) The Search, Rescue and Transplantation Protocol have been compiled and must be implemented.		Yes (Revised)
The EA should have included specific conditions relating to the involvement of SANBI during the translocation process.		Yes
Even with extensive mitigation the residual impact of the mine given the unique biodiversity context of the site is predicted to be high and very significant. A biodiversity offset will be		Yes

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Condition	Integrated into FBAR v02 2018	Include in DBAR v03 2020
required for the 11 habitats and ecological processes for which the mine impact will be significant.		
Sensitive habitats should be avoided unless a biodiversity offset is secured before impact takes place.	Yes	Yes
It is imperative that the applicant augments the existing offset agreement or enter into a new offset agreement with the Northern Cape Department of Nature Conservation relating to this proposed prospecting activity. The offset agreement should be entered into before the DMR reconsiders that application for EA.		No (No offset is required for this prospecting project, refer to Appendix G)
Should the DMR decide to issue an EA to the applicant, such EA is to include relevant recommendations from the Flora and Fauna Reports as conditions in the EA.		Yes