

08 October 2021

Ms. Thingahangwi Tshivhase
South African Heritage Resources Agency,
Sancardia Mall 1st floor,
Corner Steve Biko and Stanza Bopape Street,
Pretoria.

Dear Ms Tshivhase,

PERMIT APPLICATION TO CONDUCT A GROUND PENETRATING RADAR SURVEY AT MODIKWA PLATINUM MINE, HENDRIKPLAATS 281 KT, BURGERSFORT, LIMPOPO PROVINCE.

1. INTRODUCTION

PGS Heritage (Pty) Ltd, has been appointed by Modikwa Platinum Mine to conduct a Ground Penetrating Radar (GPR) survey of a structure that possibly has a grave located underneath it.

2. BACKGROUND INFORMATION

In 2021 a member of the Malapane family approached the Modikwa Platinum Mine, stating that a possible grave was buried underneath the concrete surface of structure. A site visit was arranged, and the area was identified by a family member (Ms Maria Mahlodi Malapane) who used to stay in the area and indicated that the structure is located on top of her brother's grave. According to Ms Malapane their family, used to reside at the location of the prosed grave but the family relocated from their home to make way for the mine and its associated activities and infrastructure. The stakeholder engagement process involved one site visit to identify the location of the possible grave and then the mine representatives met with the families again to have the appropriate documents signed and collected: please see Annexures for relevant documents.

It is currently not certain what the status of the possible grave is, as the site has been disturbed and no visible signs marking the grave is visible. A GPR survey of the site is needed, to try to determine the location of the possible grave.

3. LOCATION

The possible grave is located at the following location:

- Portion of the farm Hendrikplaats 281 KT at GPS Coordinates S-24.61916667; E30.14805556 Burgersfort, Fetakgomo Tubatse Local Municipality and Sekhukhune District Municipality, Limpopo Province.

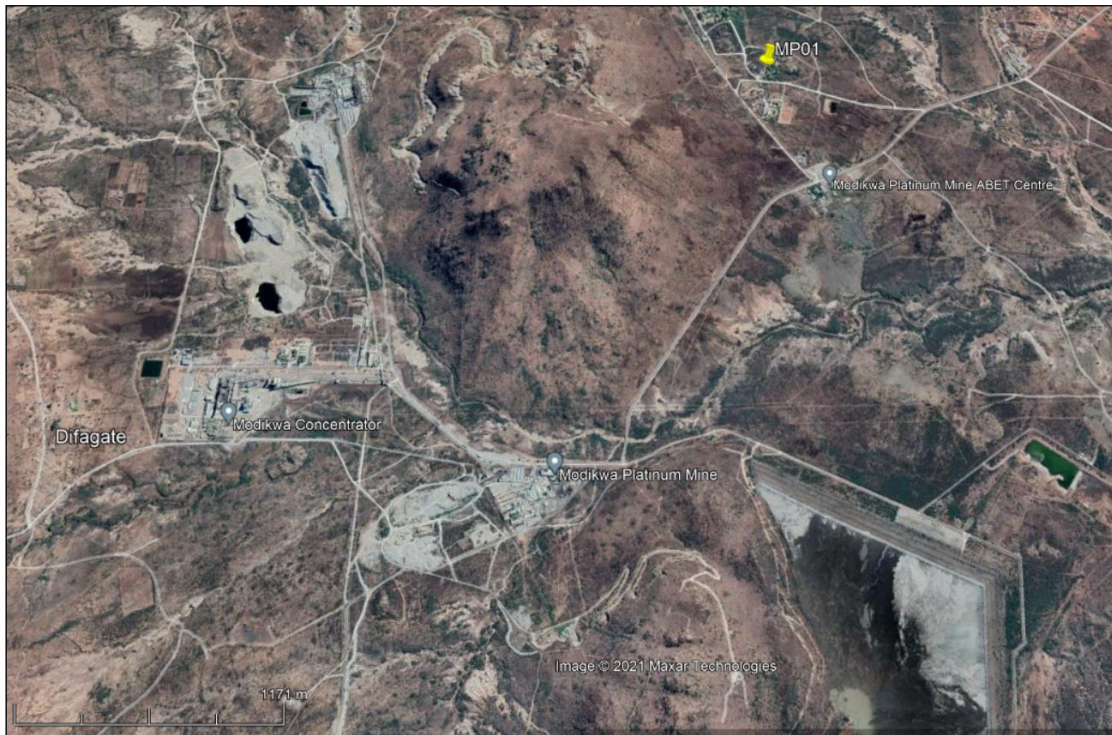


Figure 1 - Google Earth image of the location of the structure and the possible grave (MP01) and its proximity to the Modikwa Platinum Mine.

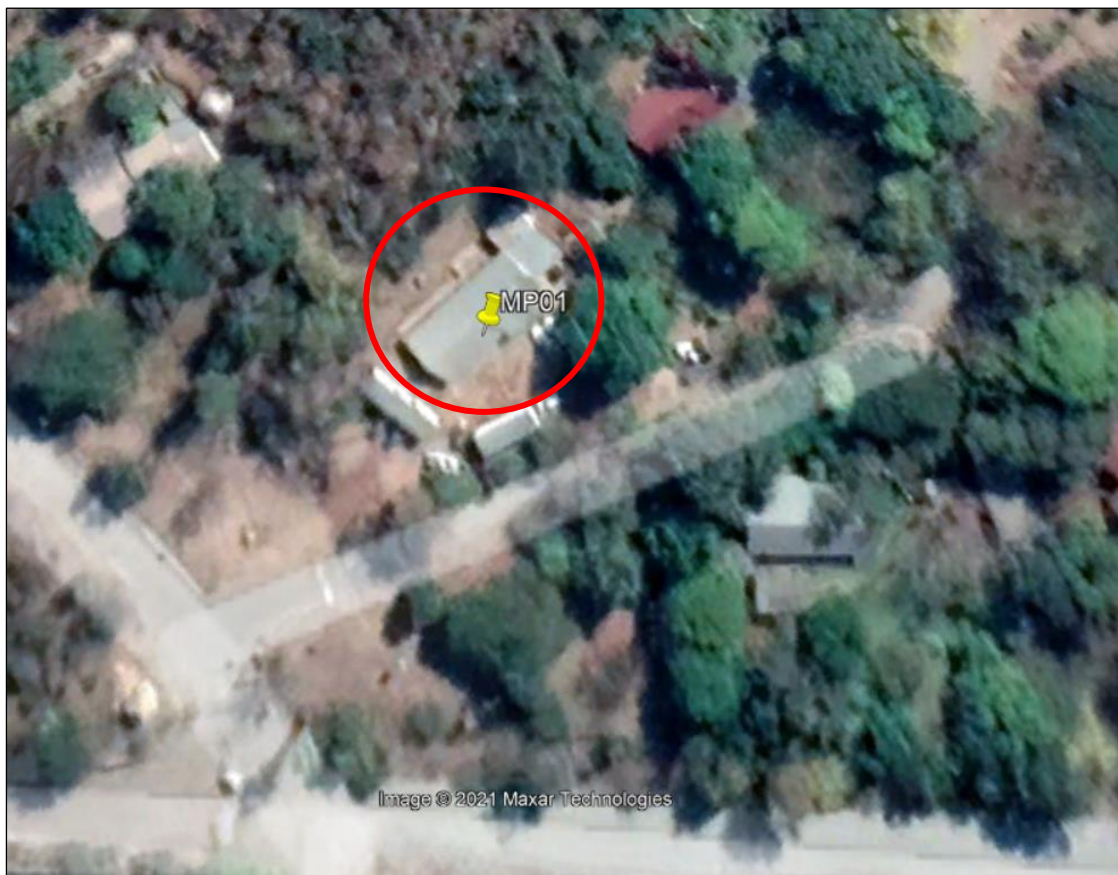


Figure 2 - Google Earth close-up image of the location of the structure and the possible grave (MP01), indicated by the red circle.



Figure 3 - The structure with the concrete on the left covering the possible grave (MP01) (indicated by the yellow arrow). *Picture supplied by Modikwa Platinum.*



Figure 4 - The structure and the concrete covering the possible grave (MP01) (indicated by the yellow arrow). *Picture supplied by Modikwa Platinum.*



Figure 5 - Closer view of the concrete covering the possible grave (MP01). Picture supplied by Modikwa Platinum.
Picture supplied by Modikwa Platinum.

4. HISTORICAL BACKGROUND

An assessment of old topographical maps indicated that the site was located in an area generally used as part of cultivate fields.

On the Topographical maps, other structures that were located close to the structure in question could be observed from 1975 (2nd Edition 2430CA) up until the 2008 (5th Edition 2430CA).

On the First Edition 2430CA Topographical sheet dating to 1963, the location of the possible grave (**MP01**) is located within cultivated fields. A few structures are located approximately 20m south-west of the location of **MP01**. A mine compound is located 30m south-east of the location of **MP01** (Figure 6).

On the Second Edition 2430CA Topographical sheet dating to 1975, a shaft of the Montrose Mine and several structures are located 70m north of the location of **MP01** (Figure 7). The structures were most likely used by the mine for housing. The remains of the mine compound, as identified in the First Edition 2430CA Topographical sheet can be seen 30m south-east of **MP01**.

Topographical maps revealed that prior to 1975 there weren't any structures at this location and that the site was mainly covered in trees and bushes and used as cultivated land.

On the Third Edition 2430CA Topographical sheet dating to 1997 a structure is located at the site where the possible grave (**MP01**) was identified. Several other structures appear in the surrounding area. A new Montrose Mine development is established 1km south-east of the structure and possible grave's (**MP01**) location (Figure 8).

On the Fourth Edition 2430CA Topographical sheet dating to 2002 a structure located at the location of **MP01** is still visible. Several other structures appear in the surrounding area. A new Montrose Mine development is established 1km south-east of the structure and possible grave's (**MP01**) location (Figure 9).

On the Fifth and final Edition 2430CA Topographical sheet dating to 2008 the area where **MP01** is located appears to have been developed as a Built-up area. Mining activity and its related structures also appears to increase in number in the surrounding area (Figure 10).

Historical aerial photographs from the CDNGI Geospatial Portal (<http://www.cdngiportal.co.za/cdngiportal/>) of the area dating to 1970 revealed that the structure in question was not yet built (Figure 11), this is confirmed by the Second Edition 2430CA Topographical sheet dating to 1975. The mining compound that was identified on the First and Second Edition 2430CA Topographical sheet was also observed on the Aerial photograph (652_016_00163) dating to 1970. The structure located to the south-west is also evident on the Aerial photograph (652_016_00163). Given the above information is likely that the structure was built at the location of **MP01** between 1990 and 1997.

The earliest Google Earth image available of the structure dates to 2005 (Figure 13). From the Google Earth image it can be seen **MP01** is located in the south-western corner of a structure. From the Google Earth image the site is surrounded by vegetation and trees. Several structures, most likely houses are also identified in the surrounding areas .

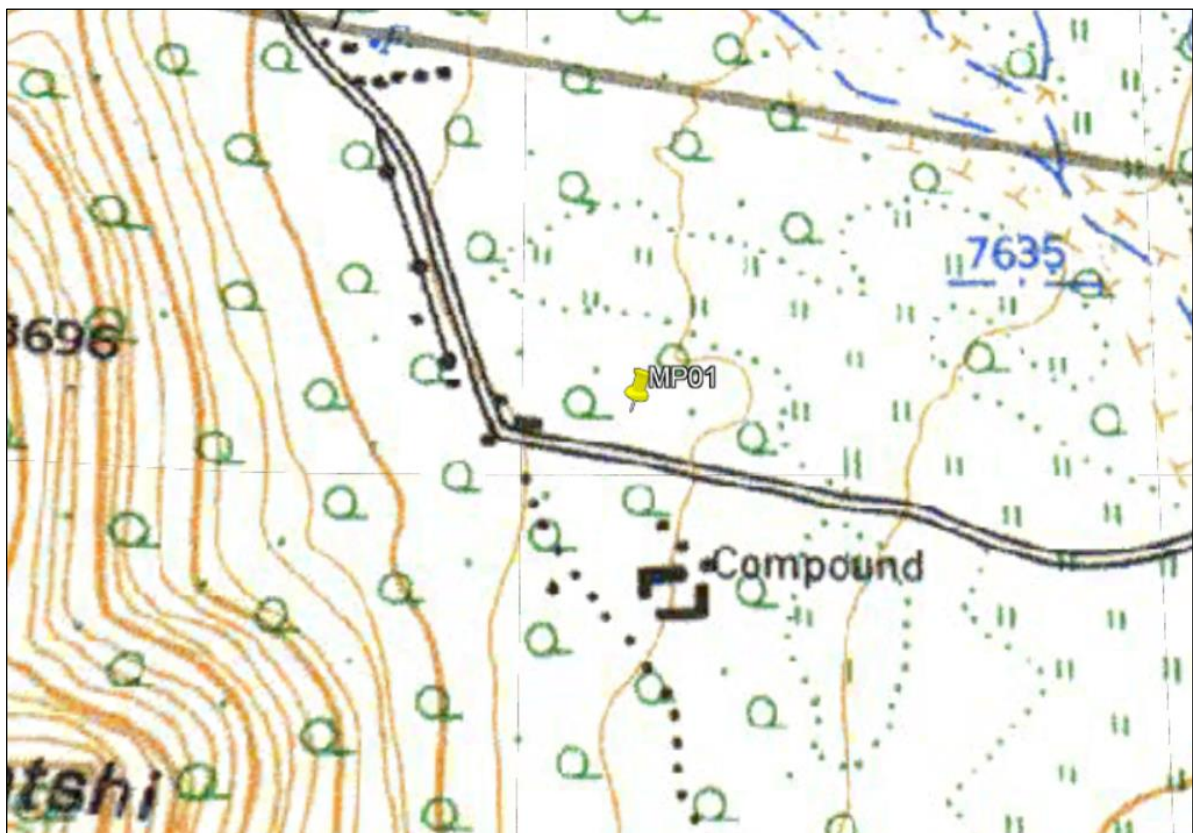


Figure 6 - Section of the First Edition 2430CA Topographic sheet dating to 1963, showing the location of MP01. Note there are no structures located in the area where the grave was identified.

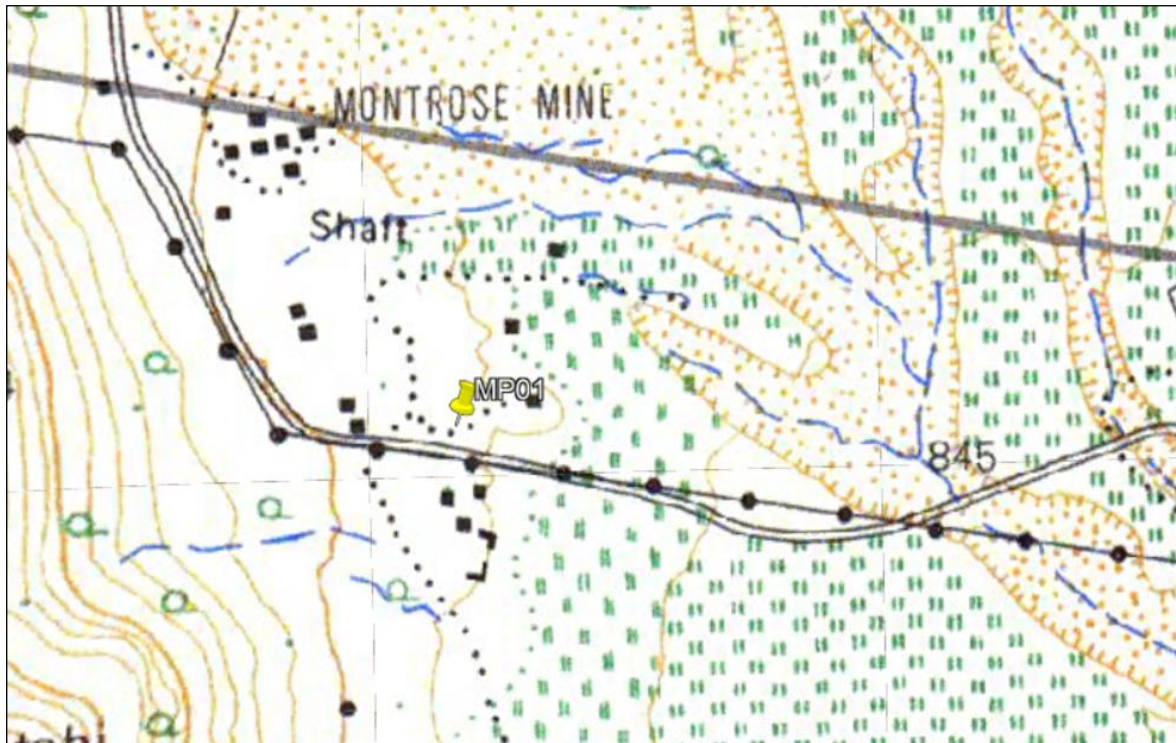


Figure 7 - Section of the Second Edition 2430CA Topographic sheet dating to 1975, showing the location of MP01. Note that there is no evidence of the structure located at MP01.

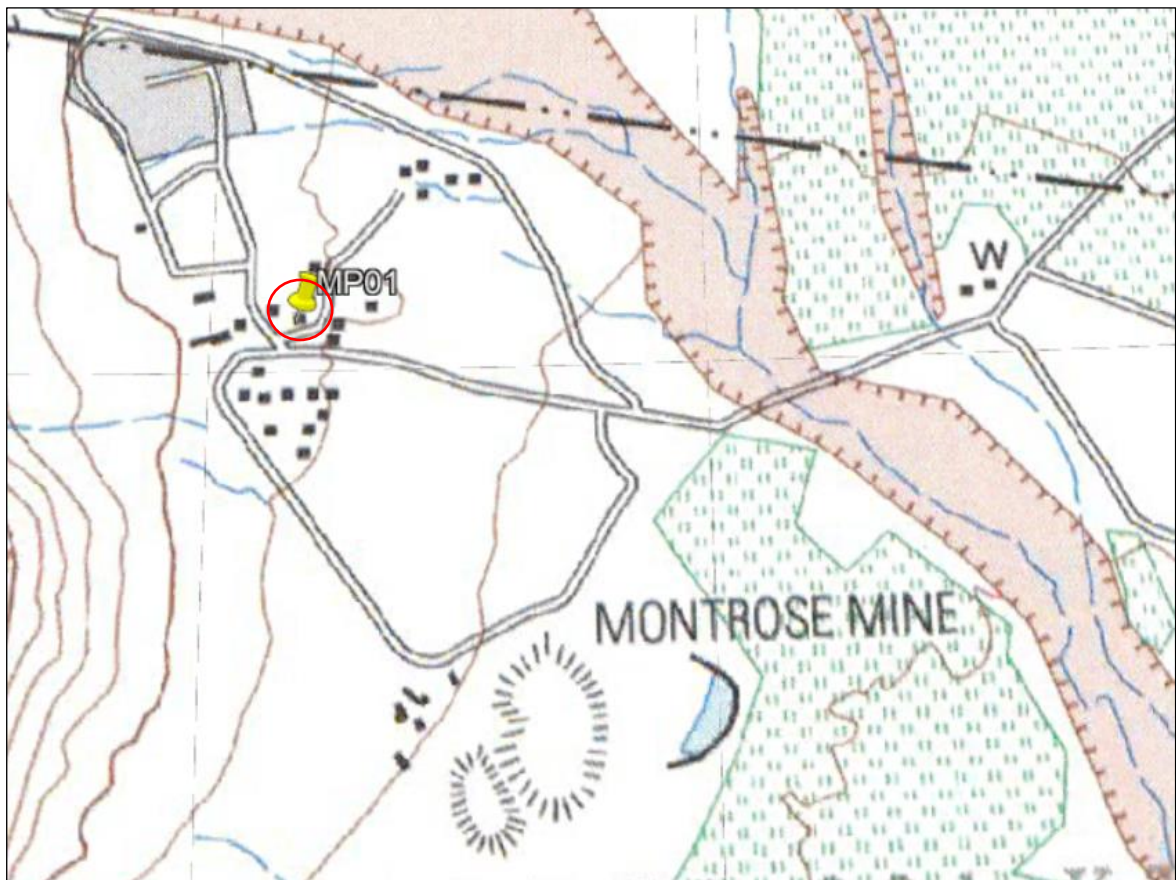


Figure 8 - Section of the Third Edition 2430CA Topographic sheet dating to 1997. A structure can be identified at the location of MP01 (red circle).



Figure 9 -Section of the Fourth Edition 2430CA Topographic sheet dating to 2002, the location of the structure in the area can be identified (red circle).

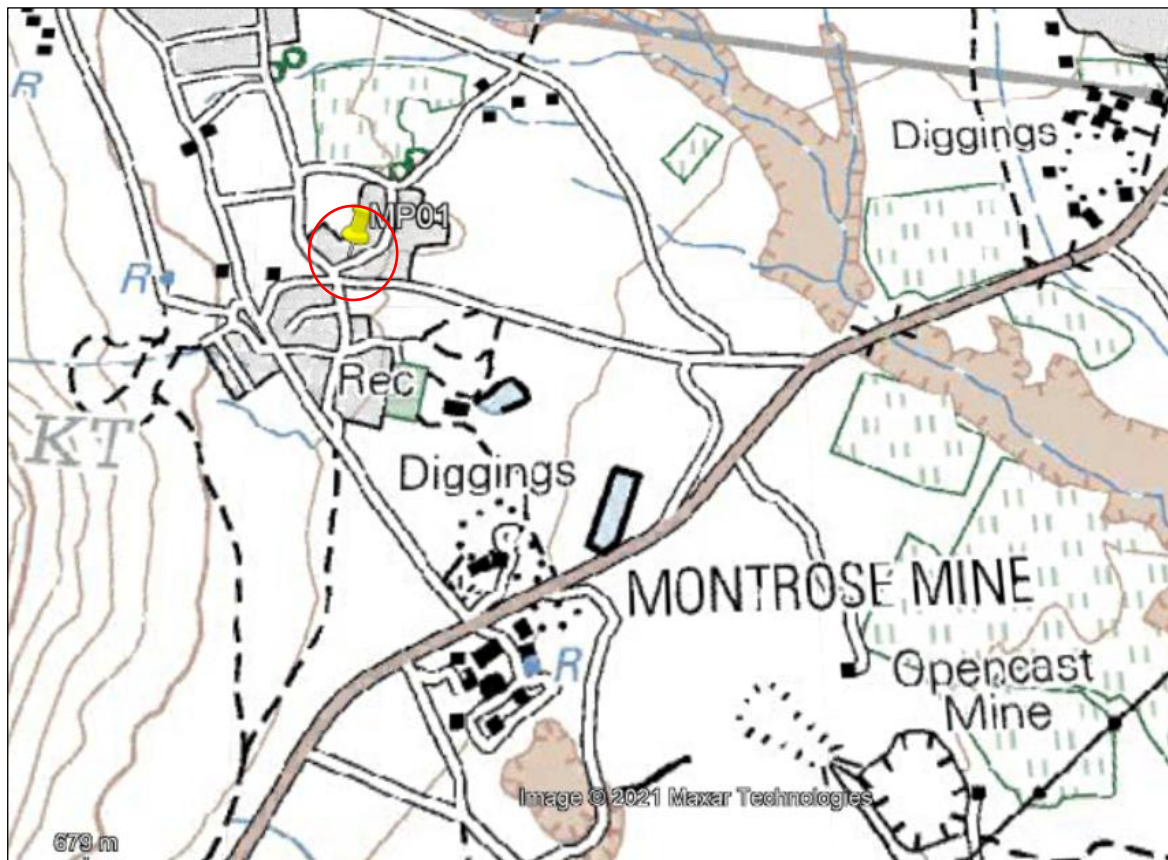


Figure 10 - Section of the Fifth Edition 2430CA Topographic sheet dating to 2008, indicating the location of the structures in the area can be identified (red circle).



Figure 11 - Section of 1970 Aerial photograph (652_016_00163) showing the location of the structure (red circle).



Figure 12 - Google Earth image from 2021, showing the location of the structure (MP01) and all the developments that took place in comparison with the historical aerial photograph (above).



Figure 13 - Google Earth image dating to 2005 which is the earliest evidence of the structure (red circle) on Google Earth.

5. METHODOLOGY

The following methodology will be followed during the GPR survey:

The aim of the GPR survey is to detect any anomalies consistent with the burials in the surrounding soil matrix.

- 1) The area under investigation will be fully documented.
- 2) A survey grid will be laid out over the area to be scanned. It is envisaged that an area of approximately 25 square meters will be covered.
- 3) Radargrams will be collected every 25cm on the X and Y-axis of the grid.
- 4) The data will be processed to see if any reflections consistent with a clandestine burial is present. Additional to the vertical radargrams, the post-processing software will also produce horizontal slices every 10cm.

A report of the findings will be compiled for dissemination to SAHRA and the client.

Considering the above information, we are hereby requesting to conduct a GPR survey to determine the presence of graves.

Please also see attached to this case more background information especially about the stakeholder engagement aspect.

Thank you in advance for your urgency to resolve the issue.



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ANNEXURE A – LANDOWNER CONSENT LETTER

ANNEXURE B – AFFIDAVIT CONFIRMING REQUEST TO CONDUCT GPR FOR INDIVIDUAL

ANNEXURE C – GPR REQUEST FORM

ANNEXURE D – CERTIFIED ID DOCUMENT OF NEXT-OF-KIN