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Kelly Stroebel
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Dear Kelly

SCOPING INPUTS FOR THE PROPOSED SKEERHOK PV1, PV2 AND PV3 SOLAR ENERGY PROJECTS

Background

juwi Renewable Energies (Pty) Ltd has proposed three solar energy facilities on Gemsbokbult 120/9 and Smutshoek 395, located some 41 km northeast of Kenhardt and 12 km northeast of the recently constructed Niewewehoop Substation. A “Development Area” was provided for assessment for each of the three facilities and these areas (together with the potential power line corridors that are being assessed separately) were surveyed on foot on 30th June to 3rd July 2017. All traces of heritage located during the survey were recorded both photographically and by means of GPS. Text descriptions of each find were compiled in the field and in the evenings.

Expected heritage resources (desktop study)

Bushmanland is well known for the vast expanses of gravel that occur in places and which frequently contain stone artefacts in varying densities (Beaumont 1995). Such material is referred to as ‘background scatter’ and is invariably of very limited significance. Previous work by the present author has shown that background scatter artefacts occur widely in the general vicinity of the present study area but in very low densities (Orton 2014a-c, 2016a-j). The artefacts located in these low density contexts are largely Middle Stone Age (MSA) but Early Stone Age (ESA) and Later Stone Age (LSA) artefacts also occur. They are not associated with any other archaeological materials – these would have long since decomposed and disappeared in such exposed contexts.

Of potentially more significance, however, are LSA sites which are located along the margins of water features in Bushmanland. These features include both pans and ephemeral drainage lines. Such sites have been identified in the vicinity of the present study area but generally associated with pans rather than drainages. These sites typically contain mostly stone artefacts, but fragments of ostrich eggshell (used as water containers and also as a food source) are also found at times. Similar LSA sites can also be found in association with rocky outcrops (e.g. Orton 2016c, 2016f). Because of their positions along water courses and adjacent to rocky areas, such sites are often avoided by development proposals because of the need to avoid the relevant natural features. Despite the increased likelihood of locating archaeology along streams,

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Morris (2009) noted that a search along the banks of the substantial but non-perennial Hartebeest River close to Kenhardt, where he expected elevated frequencies of archaeological material, revealed virtually nothing. However, the present author has seen low density artefact scatters as well as both geometric painted and representational engraved rock art along the Hartebeest River just to the south of Kenhardt. Earlier work closer to the study area by the present author (Orton 2016c) has also revealed many important archaeological sites along one river some 13 km south of the present study area. These were a suite of LSA and historical artefact scatters with artefacts indicating occupation during the Anglo-Boer War. One painted geometric rock art site has also been found in the area, this time some 6 km south of the present study area (Orton 2016f).

Another kind of Stone Age archaeological site fairly commonly encountered in Bushmanland is small rock outcrops that have been quarried as a source of stone material for making stone tools. Several such occurrences of flaked quartz outcrops in particular have been noted.

The built environment is sparsely represented in Bushmanland because the farms tend to be so large. The vast majority of structures appear to be quite recent in age (20th century) and are of very limited heritage significance.

Graves are generally rare, but isolated graves have been reported (e.g. Orton 2016f, 2016h). Some farms may have small graveyards located close to their farm buildings. Just one has been seen by the present author while working in the general area and this is on the farm immediately to the south of the present study area. Unmarked pre-colonial graves can, in theory, be located anywhere, although they are generally more common in sandy areas where excavation of graves was easier and especially in more productive areas where population densities would have been higher (e.g. along the coast).

The Anglo-Boer War was fought across the Northern Cape, but information on the role of Kenhardt appears difficult to locate. The town was occupied by the Boers on 25th February 1900 after they convinced the magistrate that they had a large gun and would fire on the town if it did not surrender. They later surrendered to the British who occupied the town on 31st March 1900. My mid-1900 there were perhaps 100 Cape Rebels detained in a camp outside of Kenhardt (Grobler 2004). The British raised a local force known as the Border Scouts in Upington in May 1900. Many were mixed-race individuals, some local farmers, others Kalahari hunters, but all disliked the Boers. The scouts were responsible for a large area of the north-western Cape Colony centred on Upington and Kenhardt. They eventually numbered 786 by January 1901 and were under the command of Major John Birbeck (AngloBoerWar.com 2015; Rodgers 2011). At the beginning of 1902 there were 150 Border Scouts stationed at Kenhardt. Two boers, H.L. Jacobs and A.C. Jooste, were accused of treason and executed in the town on 24 July 1901 (Grobler 2004). A memorial stands there to their honour (Green Kalahari n.d.).

No major action appears to have taken place around Kenhardt, although the Boers are known to have attacked a patrol on 17th May 1901, while the British attacked a Boer position on 25th June 1901 (AngloBoerWar.com 2015).

The cultural landscape is very poorly developed in this area with fences, water troughs, wind pumps and occasional farm complexes being the primary features. The natural landscape largely lacks visually

interesting and sensitive features, although the small quiver tree 'forest' located by Orton (2014b) to the southwest of the study area is regarded as a natural heritage resource.

Findings of the present fieldwork

Many instances of archaeological material were found and recorded during the survey (see Maps 1-3 below). The vast majority were of very low significance and do not merit further attention in terms of the siting of the proposed solar energy facilities. These occurrences – they are generally not worthy of being termed sites – may be destroyed without any further archaeological work being required.

Skeerhok PV 1

Immediately alongside the southern boundary of Skeerhok PV 1 there is a large pan that has had its central part excavated out in the past in order to allow for greater water accumulation. The now eroded spoils of this excavation have revealed the presence of Early, Middle and Later Stone Age stone artefacts in the gravels that underlie the present silty surface. This is an unusual feature and, although the artefacts are not in very high density, this does make the site important in archaeological terms. The pan area should be avoided as shown in Map 4 below.

Skeerhok PV 2

In the western and eastern corners of Skeerhok PV 2 there were two small pans with Later Stone Age archaeological sites alongside them. Neither of these sites is important enough to be regarded as a no-go area, but both should be mitigated if they are to be destroyed. Avoidance is, however, always a preferable outcome. These two sites are shown on Map 6 below.

Skeerhok PV 3

One significant site, an isolated grave, was found in the eastern part of Skeerhok PV 2 This grave should be avoided as shown in Map 5 below.

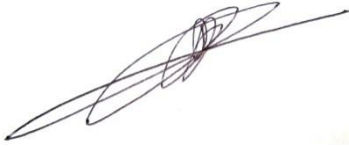
Conclusions

All three development areas can certainly host PV arrays, although there are archaeological heritage sites that will need to be taken into account when considering the final PV footprint areas. However, if sites outside of heritage no-go areas must be impacted then mitigation will be readily accomplishable and these sites would not constitute fatal flaws. This is only likely to apply to Skeerhok PV 2 area since no sites requiring mitigation were found within the other two development areas.

It should be noted that graves of the sort found within Skeerhok PV 3 are virtually impossible to see from more than about 5 m away. As such, other similar graves (or even less clear examples) might be present in other parts of the three study areas. It is impractical to survey such large areas with transects as little as 10 m apart because this would entail months of work. It is thus deemed likely that a 'walk-down' survey of

the final authorised footprint will be requested by the South African Heritage Resources Agency (SAHRA) should the projects be authorised and scheduled for construction.

Yours sincerely



Jayson Orton

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Maps

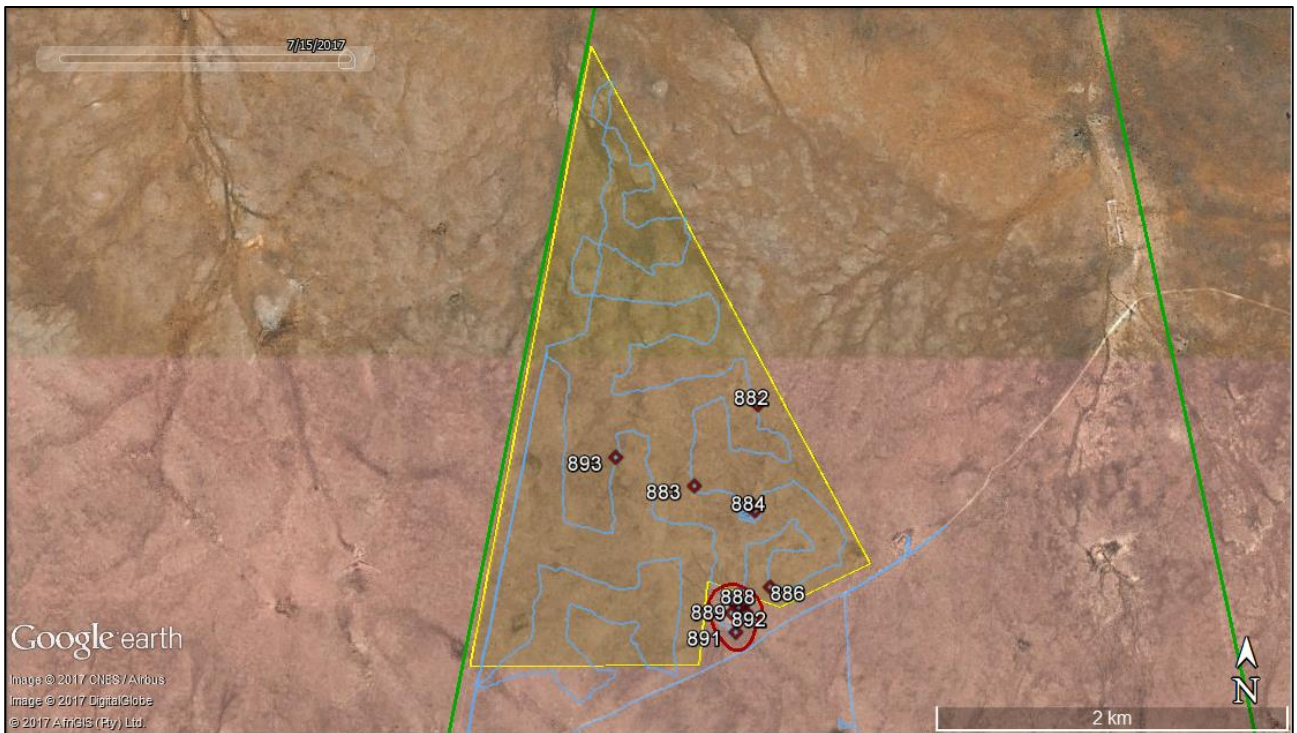
Note the following:

The green polygon denotes the boundary of Smutshoek 395

The blue polygon denotes the boundary of Gemsbokbult 120/9

The yellow shaded polygons denote the three “development areas” proposed by juwi.

The red circles denote the outlines of no-go areas which include buffers.



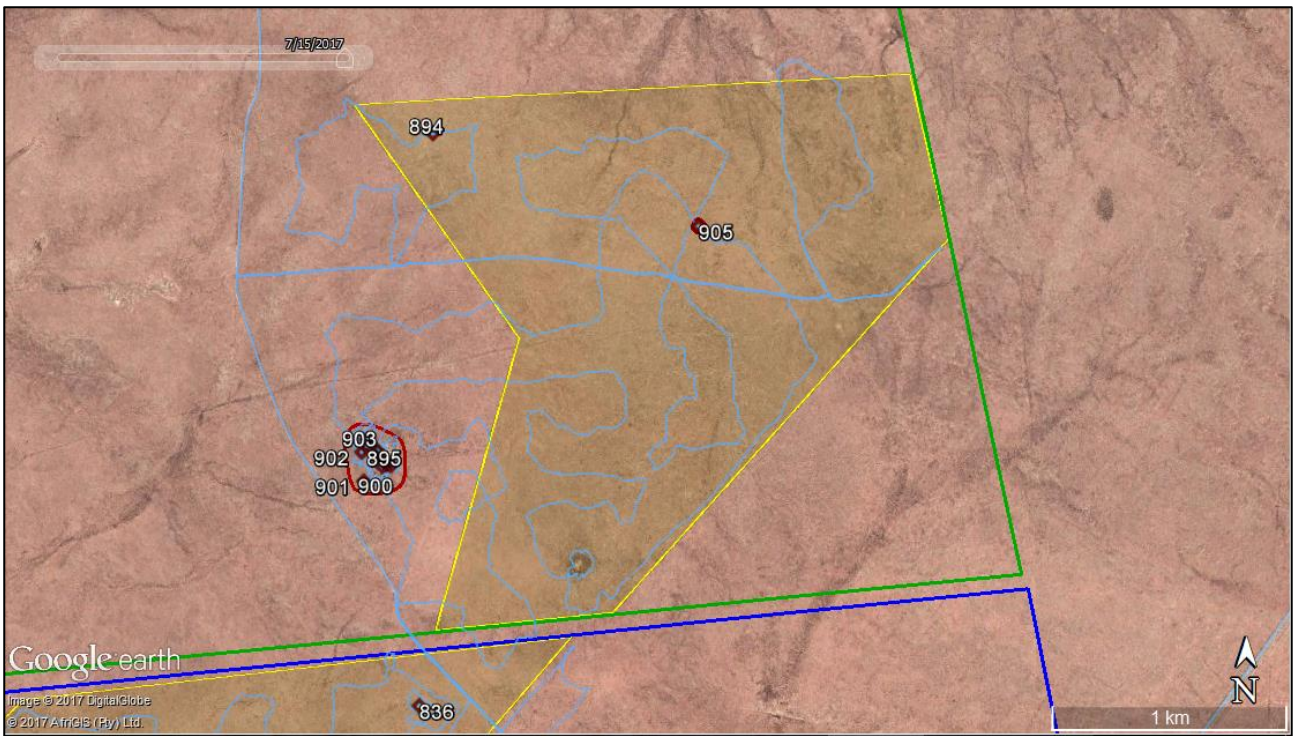
Map 1: Location of findings in and around the Skeerhok PV 1

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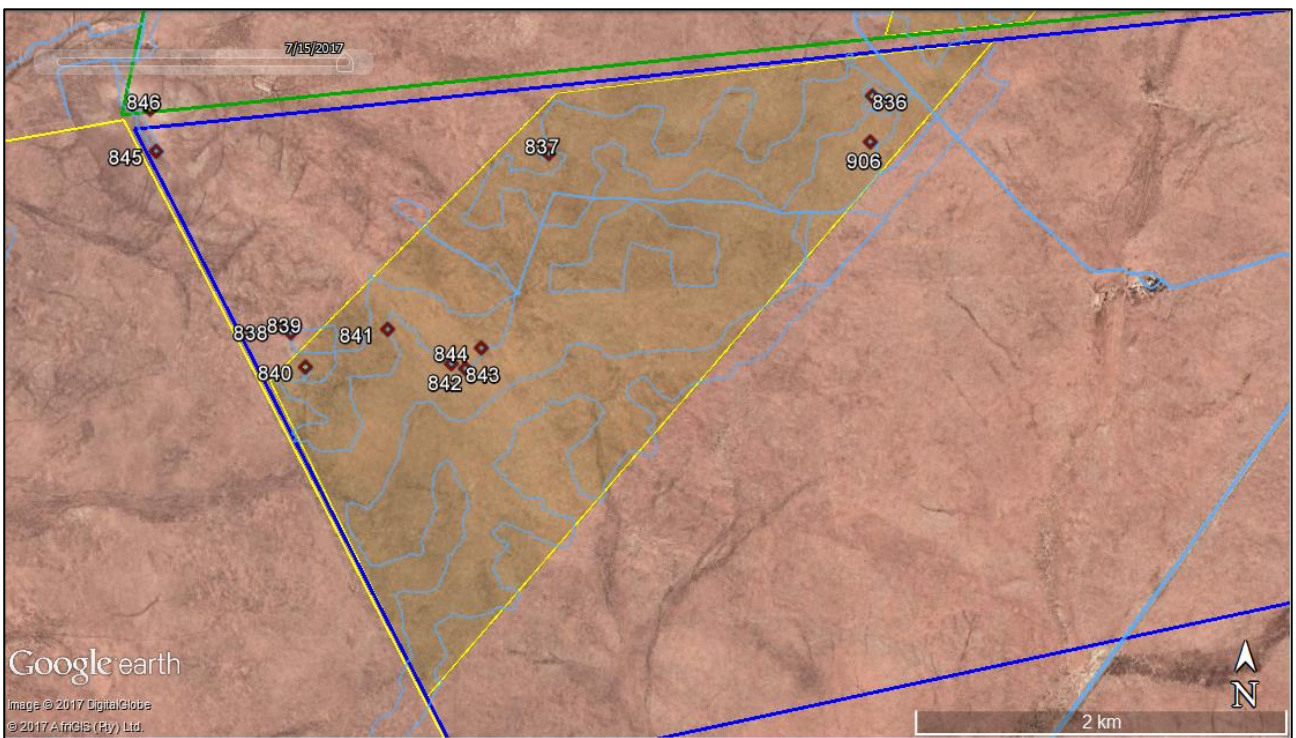
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Map 2: Location of findings in and around the Skeerhok PV 3



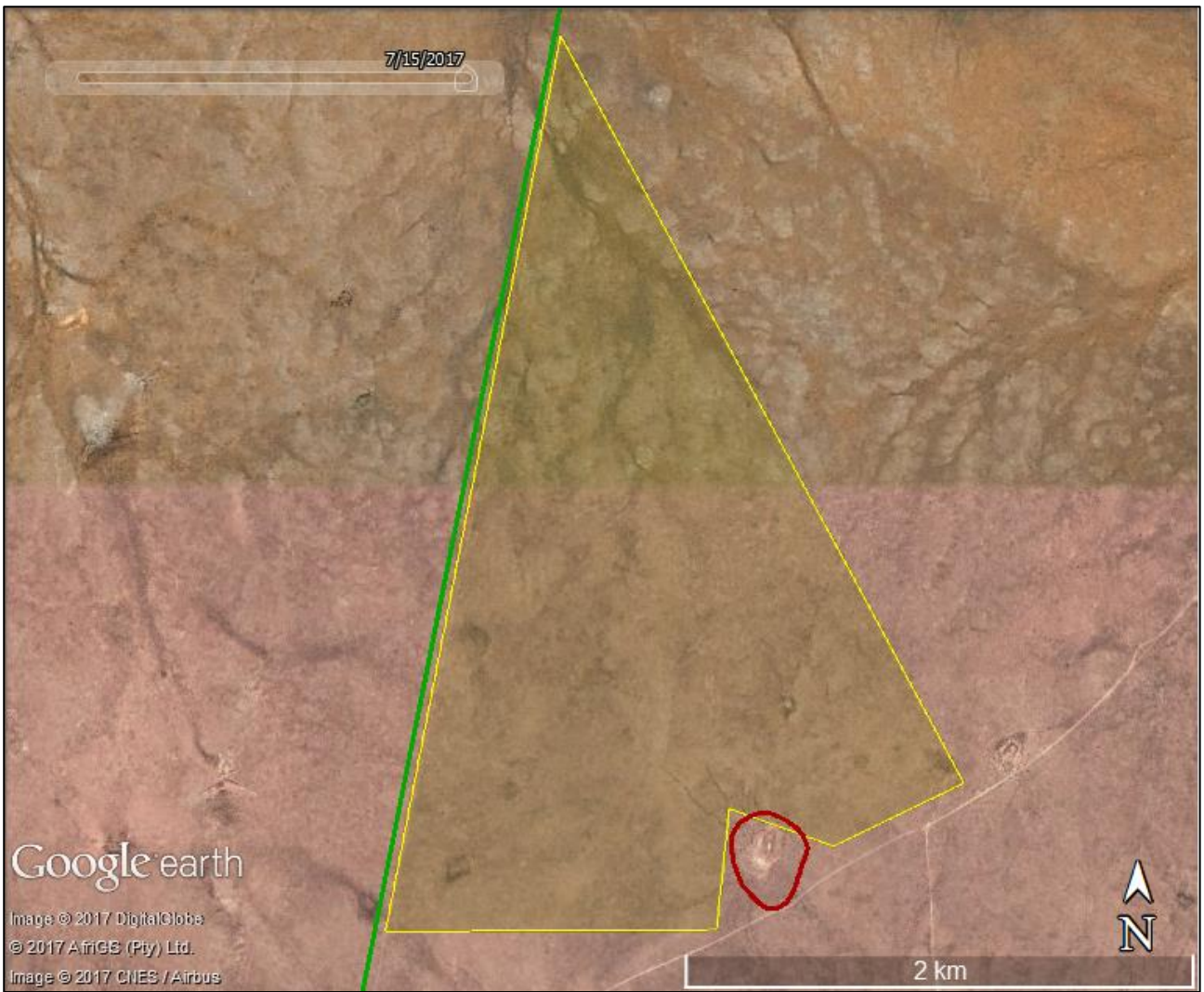
Map 3: Location of findings in and around the Skeerhok PV 2

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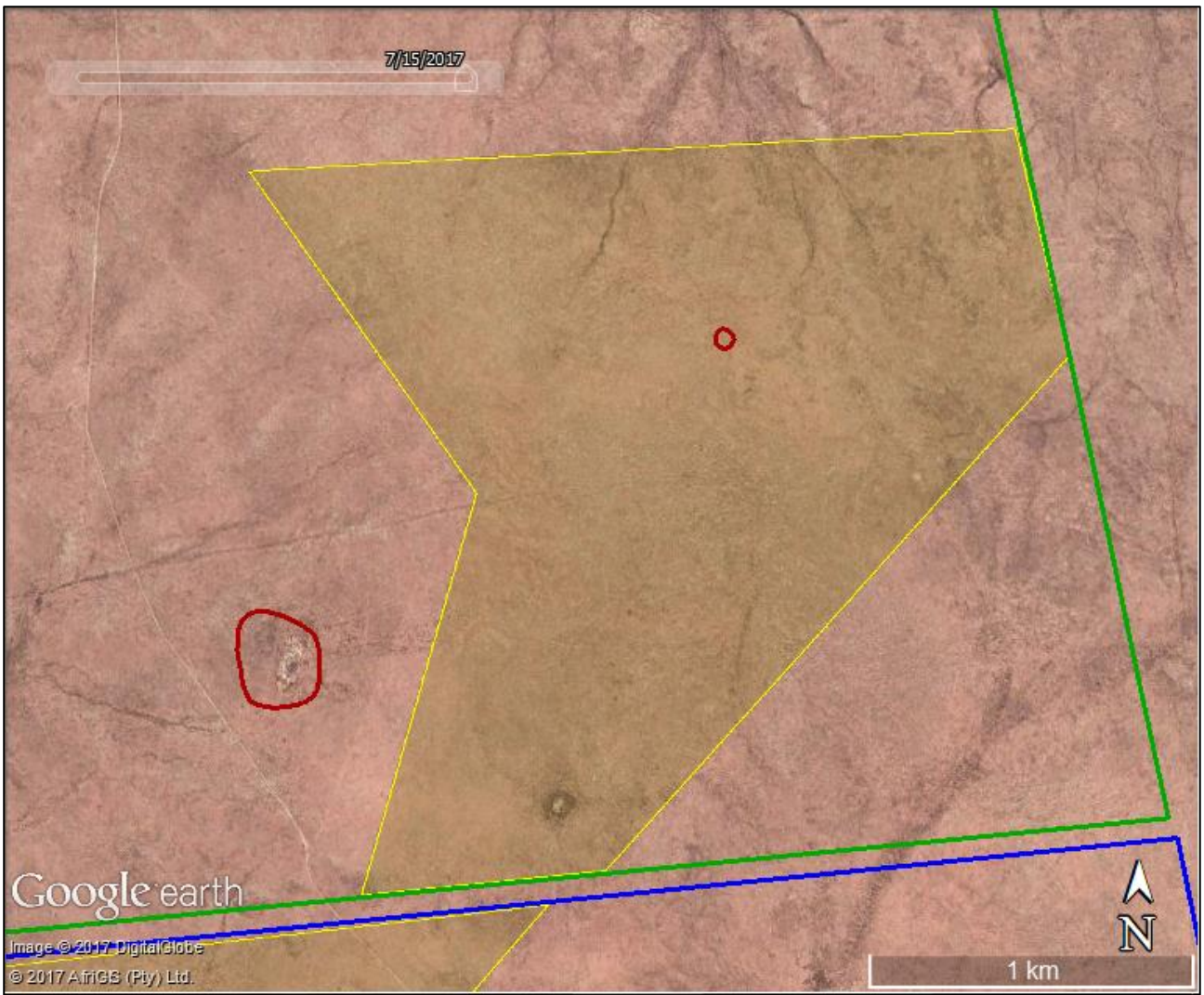
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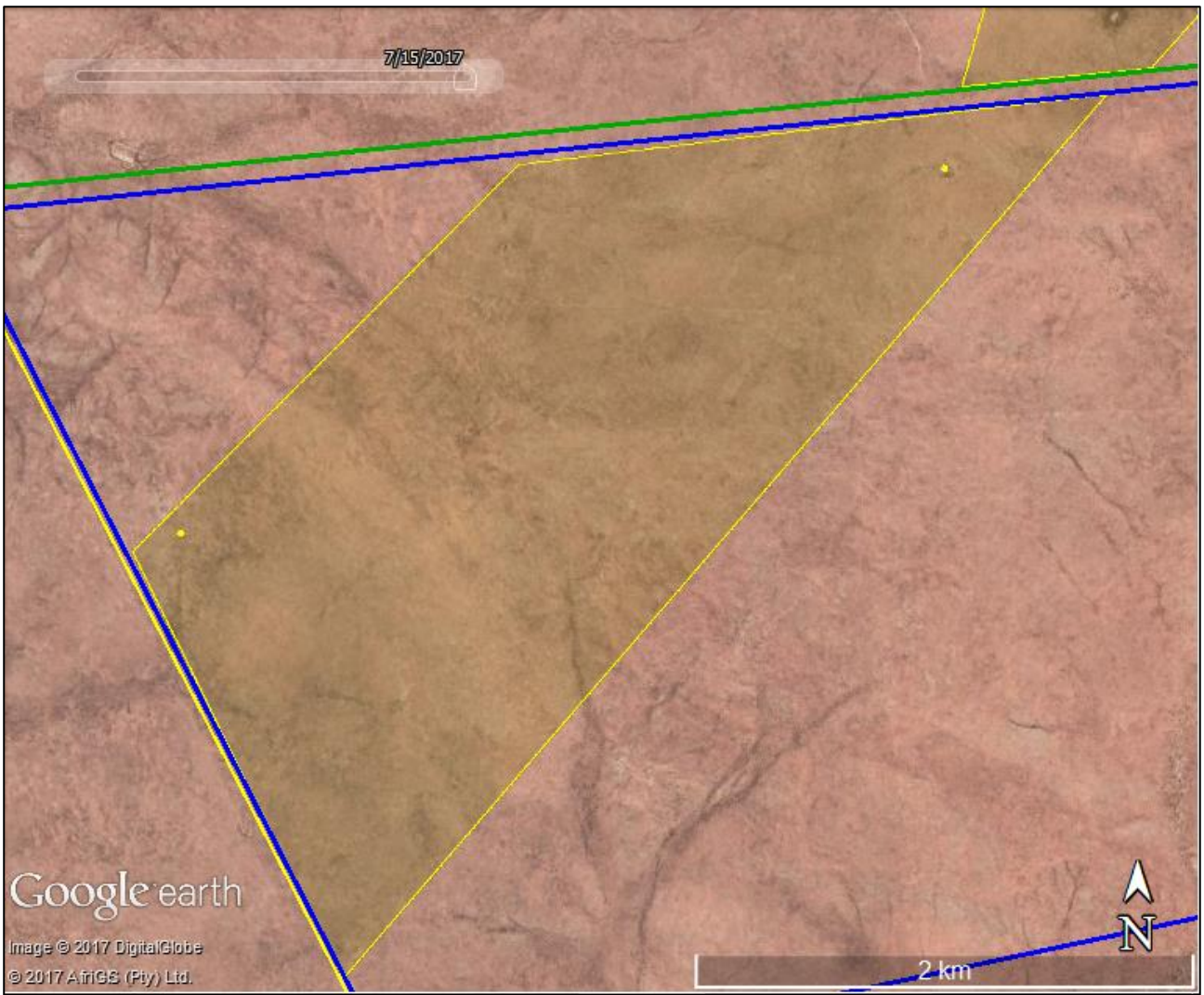
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Map 4: Location of no-go areas (1x red) in and around the Skeerhok PV 1 The mapping includes relevant buffers.



Map 5: Location of no-go areas (2x red) in and around the Skeerhok PV 3. The mapping includes relevant buffers.



Map 6: Location of no-go areas (red) and other sites requiring archaeological mitigation (2x yellow) in and around the Skeerhok PV 2