



REHABILITATION OF DRIEKOP ASBESTOS MINE

CONTRACT MTK 18/2022

VOLUME 3

CONTRACT

PART 4:

SITE INFORMATION



C4 SITE INFORMATION

GENERAL

This section describes the site at the time of tender to enable the tenderer to price their tender and to decide upon his method of working and programming and risks.

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SI 1 SITE INFORMATION

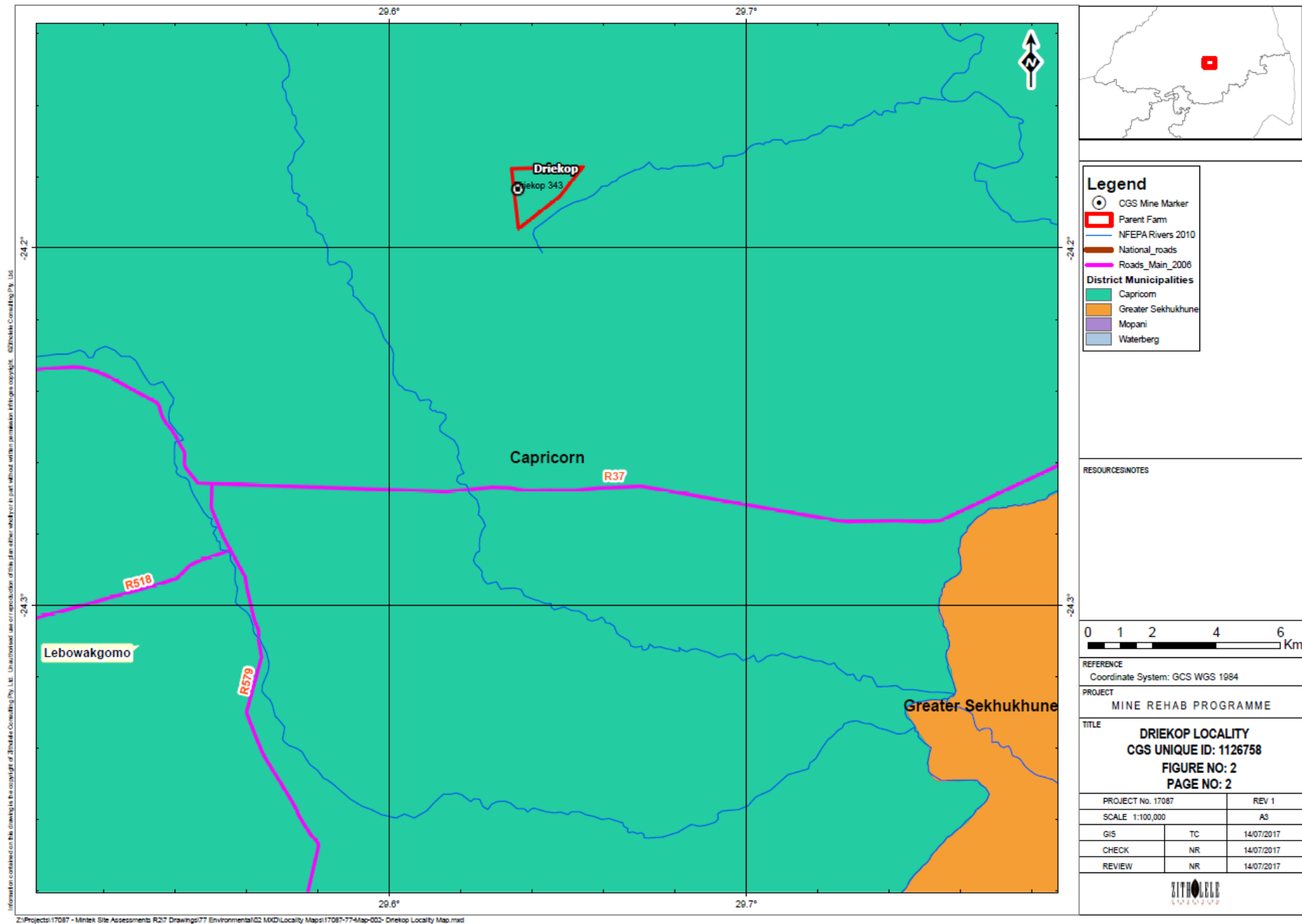
The mine site is approximately located at the coordinates 24°10'60.00" S and 29°38'10.00" E on the farm Driekop, northeast of the town of Lebowakgomo within the Limpopo Province, with the nearest villages being Hwelesaneng and Ga-Maja located approximately 8.5km south of the site.

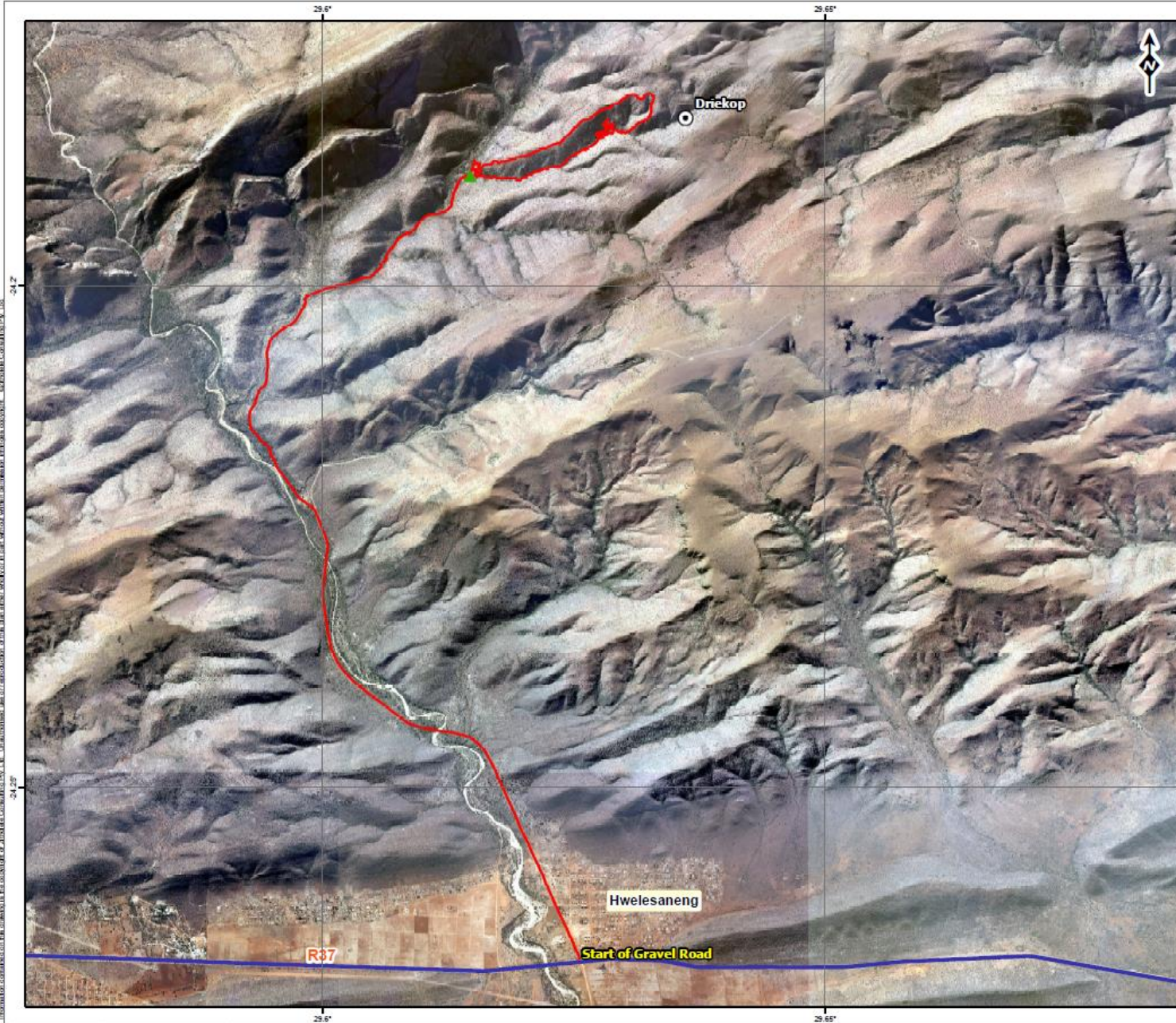
SI 2 SITE LOCATION

Figure 1 and Figure 2 provides a locality map and shows the access route to site respectively. Unobstructed, direct access to the farm Driekop is possible from the south via the R37 regional road to within 4km of the Driekop mine site.

The Driekop mine site is situated approximately 14km via access road and jeep track from the R37 along the shortest access route. The straight-line distance to the R37 is approximately 9.4km.

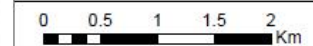
From the R37 turn northwards and follow gravel road for 6.1km northwards to a fork in the road. At the fork turn left and follow road for 3.8km to river crossing. At this point the team could not travel further with the 4x2 vehicle and a 4x4 vehicle is required to cross the terrain from this point. The assessment team walked approximately 1.4km to foot of the hill from where a jeep track was followed uphill for 2.3km in a northeast direction. At the Driekop farm access point the team turned southeast and walked downhill approximately 500m to the Driekop mine site.





Legend	
	CGS Mine Marker
	Points of Interest
	Defined Track
	Paved Road
	Towns_DWAF
	National Roads
	Main Roads
	Roads_Secondary_2008

RESOURCE/NOTES



REFERENCE
Coordinate System: GCS WGS 1984

PROJECT
MINE REHAB PROGRAMME

TITLE
DRIEKOP ACCESS ROUTES
CGS UNIQUE ID: 1126758
FIGURE NO: 3
PAGE NO: 3

PROJECT NO. 17087	REV 0
SCALE 1:40,000	AS
GIS	TC 17/07/2017
CHECK	NR 17/07/2017
REVIEW	NR 17/07/2017



SI 3 EXISTING CONDITIONS

Land use of the surrounding environment is largely wilderness area with natural vegetation. Vegetation is generally dense and no pronounced foot or cattle tracks, other than the historic jeep track that was likely in operation during the time the mine was operational, were observed, indicating that the site is probably not being frequented by cattle or people.

SI 4 SERVICES AND EXISTING INFRASTRUCTURE

Access roads are available at various areas around the site however there is no direct access route which can be driven with a vehicle. Due to the steep topography on site the access routes can only be travelled by foot. Potable water and electricity is not available on site.

The existing infrastructure observed on site included mine adits and end tipping on the sides of the mountain.



Figure 3: Mine Adit



Figure 4: Vertical adits along the waste rock dump





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Figure 3 shows a typical mine adit located on site. Some entrances to the mine adit area are heavily vegetated. **Error! Reference source not found.** shows vertical adits along the waste rock dump.



SI 5 SITE GEOLOGY

The black rectangle outlined on Figure 4 shows the approximate position of the site as identified on the 1:250 000 Geological Series 2428 Nylstroom map published by the South African Department of Mineral and Energy Affairs, 1986. The crossed pick and spade symbol indicates a mining activity and the “A” notation denotes the mine at that location produced asbestos (represented by the “A”). The representation of the site on this map indicates the presence of the mine at or prior to the date of the map’s publication.

Geologically, the site lies within the Malmani Sub-group adjacent to its border with the Penge formation. Both the Malmani Sub-group and the Penge formation form part of the Chuenespoort group which lies within the Transvaal Sequence of sedimentary and intrusive rocks. The Malmani Sub-group is a collection of five formations namely: Frisco, Eccles, Lyttelton, Monte Christo and Oaktree formations. These formations are predominantly dolomitic with the Eccles and Monte Christo formations also containing significant quantities of chert. The Penge Formation is comprised of banded ferruginous quartzite (ironstone) with some carbonaceous shale and minor carbonate and breccia interbedded with amphibole asbestos at various levels.

The surface occurrence of the Penge formation forms what is known as the amphibole-asbestos field of Limpopo. This is a geological area rich in brown amosite and blue crocidolite asbestiform minerals. Minor occurrences of white chrysotile asbestiform mineral are also present in the area as a result of serpentinised dolomite and diabase intrusions of the Malmani sub-group.



Figure 4: Location of Driekop site (as indicated by the "AC" notation within the black rectangle) on published South African Geology Map, 1986)

Small quantities of chrysotile asbestiform mineral were observed within the pieces of rock contained in the waste rock dumps at the mine site. However, no liberated, asbestiform mineral fibres were observed on or around the site. Conclusions about the asbestiform mineral type present on the site were made based only upon visual examination of the surface material whilst on site. Additional types of asbestiform minerals from those observed are likely to occur in the area and can be expected.

SI 6 WIND DIRECTION

Wind direction information obtained from the Meteoblue website indicates that the predominant wind direction in the Lebowakgomo area is from the northeast (Figure 5). The Meteoblue website claims that their climate diagrams are based on 30 years of hourly weather model simulations. The Capricorn District Municipality Air Quality Management Plan (Walton et al; 2006) also report that the predominant wind direction for the area is from the northeast thereby confirming the information stipulated in windrose as obtained from the Meteoblue website.

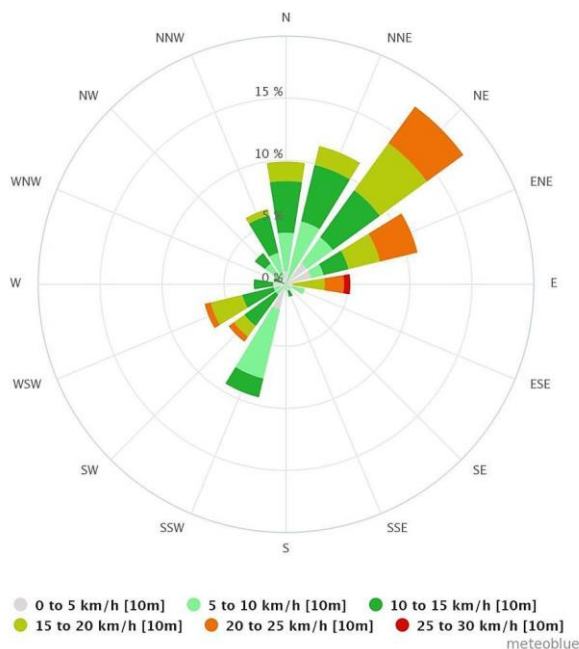


Figure 5: Windrose for Lebowakgomo and surrounding area

It is therefore evident that the prevalent wind direction at the Driekop mine site and surrounds is largely from the northeast. The mine site is however located near the bottom of a valley running in an east-west direction. It is therefore concluded that any wind-borne asbestos fibres will be transported along the lower sections of the valley, especially with the prevalent easterly wind direction. The villages and communities are largely located to the north and south and are therefore less at risk of receiving wind-borne asbestos fibres from this site during windy conditions.



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SI 7 HEALTH AND SAFETY SPECIFICATION

See attached (Appendix A)

SI 8 ENVIRONMENTAL MANAGEMENT PLAN

See attached (Appendix B)



APPENDIX A

HEALTH AND SAFETY SPECIFICATION



APPENDIX B

ENVIRONMENTAL MANAGEMENT PLAN