

Exemption from Phase 1 Heritage Impact Assessment: Proposed new aboveground Diesel Depot on Plot 1/42 Estoire, Bloemfontein Free State Province.

Report prepared by
Paleo Field Services, PO Box 38806, Langenhovenpark, 9330

Site: Plot 1/42 Estoire, Bloemfontein

District: Bloemfontein

Map Ref.: 2926AB Maselspoort

Proposed development calls for an aboveground diesel depot on Plot 1/42, Estoire in Bloemfontein (**Fig. 1 & 2; Table 1**).

The site is located in Sand du Plessis Avenue (**Fig. 3**). The Estoire residential smallholdings have been established more than sixty years ago, but many of the original residential structures have been replaced by commercial and industrial properties (**Fig. 4**). The affected area covers 2ha of degraded land, containing several modern commercial building structures (**Fig. 5**). No historically significant building structure older than 60 years of age is present at the site. Existing roads already provide access to the site.

The proposed development will take place on land formerly altered by modern industrial / commercial activities. Potential archaeological impact at each of the proposed site is considered to be non-existent.

Underlying geology at the site consists of potentially fossil-bearing Karoo Supergroup strata (Beaufort Group, Adelaide Subgroup, *K3l*) (**Fig. 6**). Superficial sediments are made up of residual soils of varying depth that are not considered to be palaeontologically significant in this case. The likelihood of palaeontological impact on bedrock sediments underneath the degraded overburden is considered to be extremely low given latter's overall depth, the low topography terrain and the fact that no subsurface development is planned for this project.

It is recommended that the proposed development is exempt from a Phase 1 Heritage Impact Assessment.

References

Johnson *et al.* 2006. Sedimentary rocks of the Karoo Supergroup. In: M.R. Johnson, *et al.* (eds). The Geology of South Africa. Geological Society of South Africa, pp. 461 – 499.

Table 1. Site coordinates.

	Coordinates	
A	29° 6'40.13"S	26°16'7.53"E
B	29° 6'38.50"S	26°16'15.62"E
C	29° 6'41.49"S	26°16'16.45"E
D	29° 6'43.18"S	26°16'8.34"E

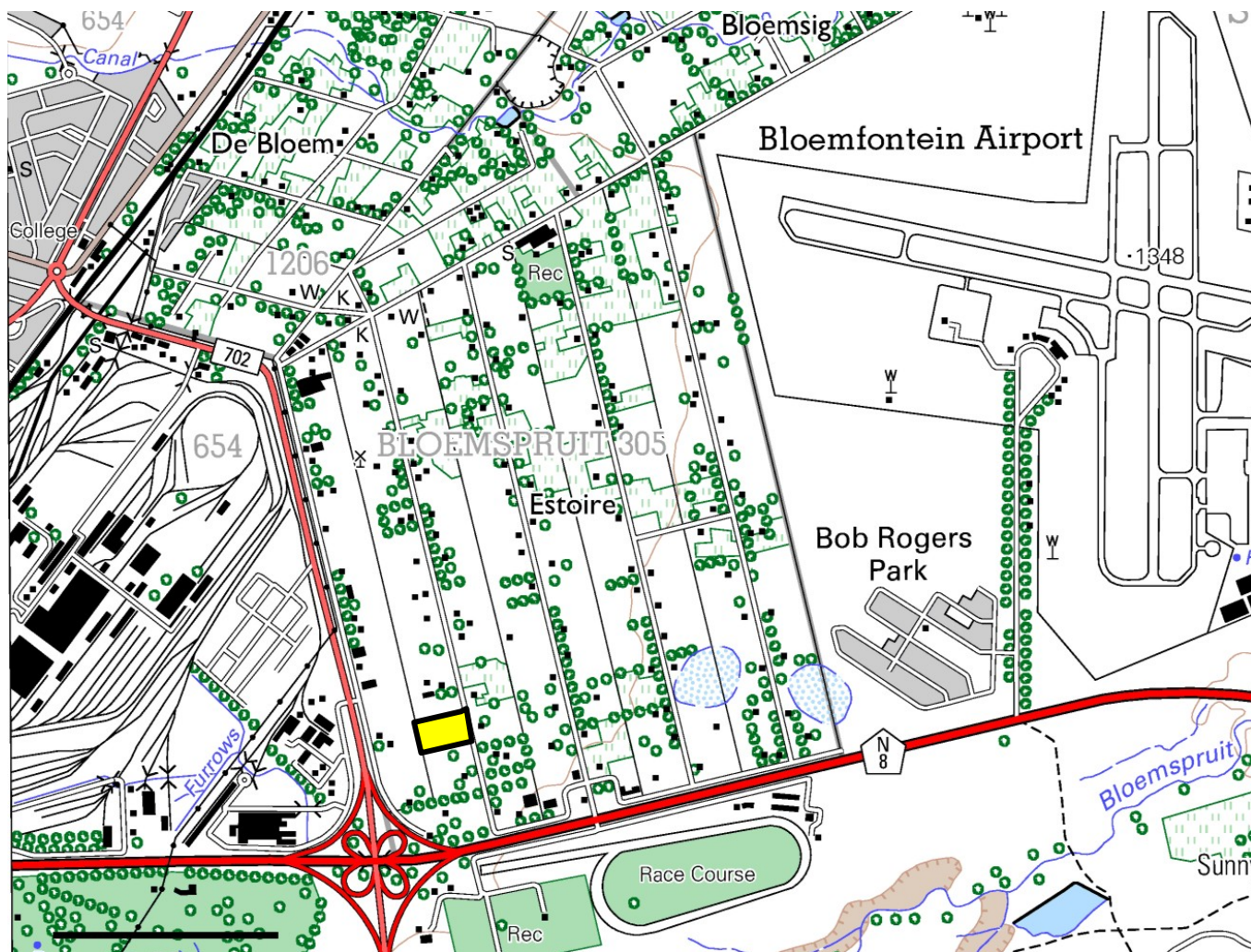


Figure 1. Map of the study area (yellow rectangle) marked on portion of 1:50 000 scale topographic map 2926AB Maselspoort).



Figure 2. Aerial view of the locality.



Figure 3. Aerial view and layout of the study area.

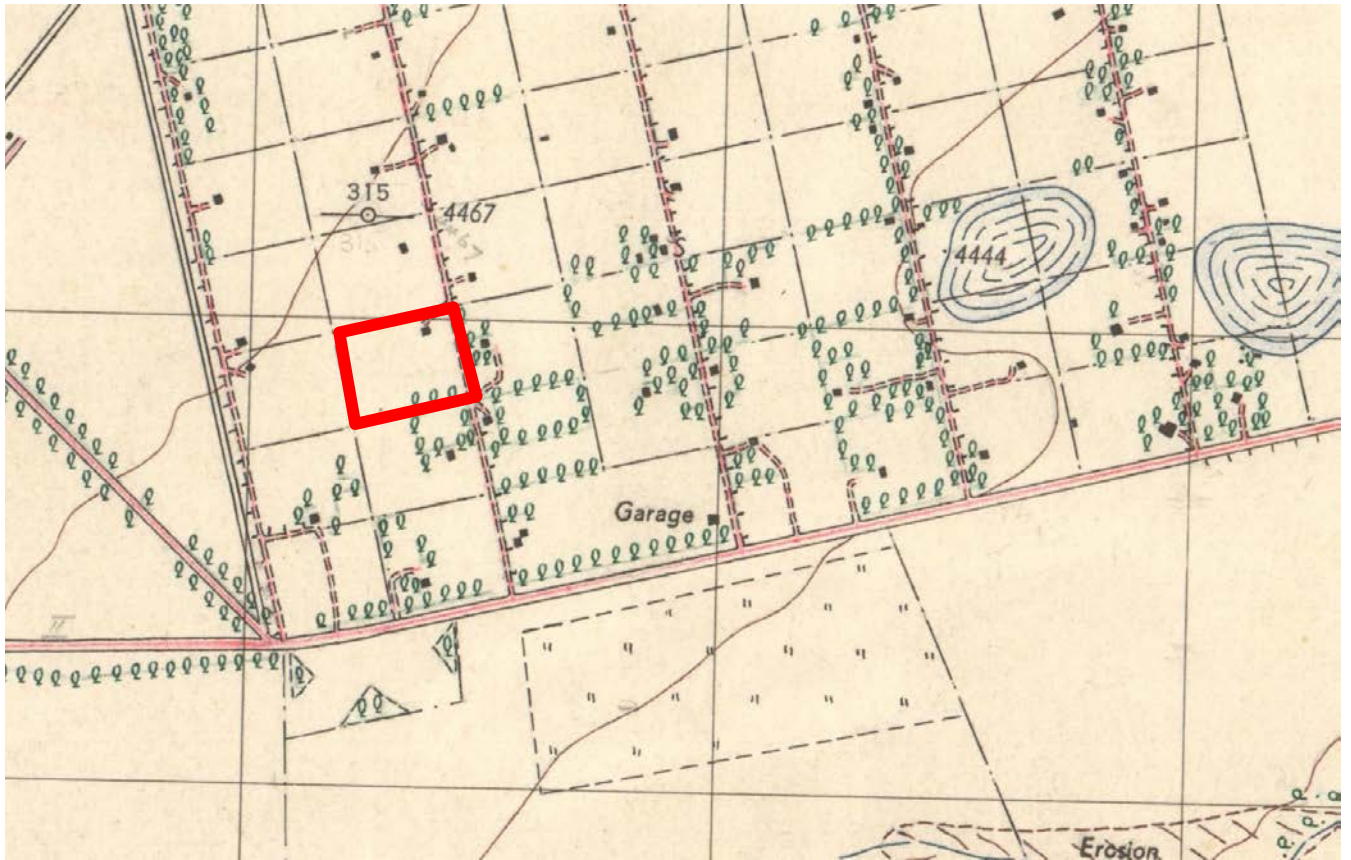
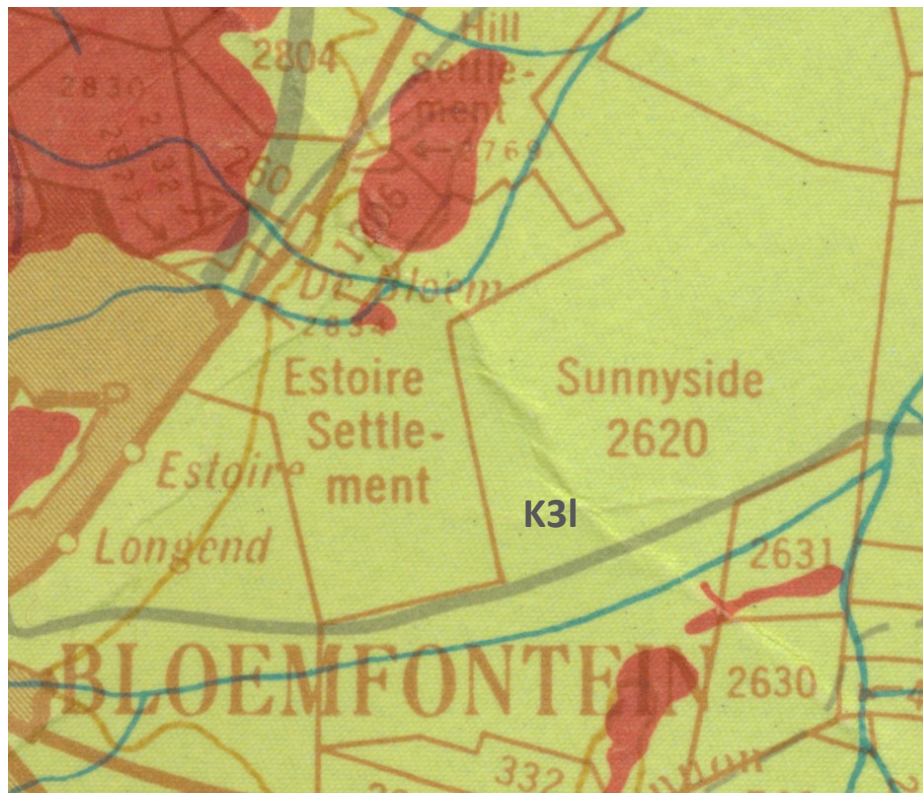


Figure 4. Historical map showing study area marked on portion of 1:18 000 scale topographic map ca. 1941.



Figure 5. General view of the site.



GEOLOGIESE LEGENDE

Qc	Surface-limestone Oppervlakkalksteen			Recent Resent
◆ Kb	Kimberlite dyke Kimberlietgang			Cretaceous? Kryt?
▼	Diatreme Diatrema			Post-Karoo Na-Karoo
▽	Volcanic neck Vulkaniese pyp			
	Dolerite, overprinted on geological formations Doleriet, oorgedruk op geologiese formasies			
K4d	Basaltic lava Basaltiese lawa	Drakensberg Stage Étage Drakensberg	Stormberg Series Serie Stormberg	KARROO SYSTEM SISTEEM KAROO
K4c	Massive sandstone, thin shale Massiewe sandsteen, dun skalie	Cave Sandstone Stage Étage Holkranssandsteen		
K4r	Purple shale and mudstone; thin sandstone Pers skalie en moddersteen; dun sandsteen	Red Beds Stage Étage Rooilae		
K4m	Feldspathic sandstone and grit, green shale Veldspatiese sand- en grinsteen, groen skalie	Molteno Stage Étage Molteno		
K3u	Purple and green shale, thick sandstone beds Pers en groen skalie, dik sandsteentae	Upper Stage Boonste Étage	Beaufort Series Serie Beaufort	
K3m	Sandstone, shale and mudstone Sandsteen, skalie en moddersteen	Middle Stage Middelste Étage		
K3l	Sandstone, shale and mudstone Sandsteen, skalie en moddersteen	Lower Stage Onderste Étage		
K2u	Mudstone, shale Moddersteen, skalie	Upper Stage Boonste Étage	Ecca Series Serie Ecca	

Figure 6. Underlying geology at the site consist of potentially fossil-bearing Beaufort Group (Adelaide Subgroup) strata (K3I)