

April 2016

**ASSESSMENT REPORT:
REMAINDER OF PORTION
132 FARM DRIEFONTEIN 87-
IR, PRIMROSE**

JOB 107

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Attention: P. Mashamaite

CONTENTS**PAGE**

1. BACKGROUND AND SITE DESCRIPTION	2
2. SITE INSPECTION	2
3. ASSESSMENT	4
4. RECOMMENDATIONS.....	4

APPENDICES**FIGURES**

FIGURE 1: LOCALITY MAP

FIGURE 2: REGIONAL GEOLOGY AND GEOHYDROLOGY MAP

FIGURE 3: SINKHOLE POSITION AND WET SERVICES MAP

1. BACKGROUND AND SITE DESCRIPTION

Possible sinkhole development located at remainder of portion 132 farm Driefontein 87-IR was reported to Mr P. Mashamaite of Ekurhuleni Metropolitan Municipality (EMM). Bluerain Consultants was instructed to conduct an on-site inspection to determine the severity and possible cause of the problem and to recommend necessary action to be taken. The position of the affected area was recorded by using a handheld GPS and is given below using the WGS84 (South African) co-ordinate system.

Address	X	Y
Main Reef road, Remainder of portion 132 farm Driefontein 87-IR, Primrose	28°9'49.49" E	26° 11'35.00" S

The available geological information 1:250 000 geological map (2628 EAST RAND) indicates that the stand is underlain by quartzite and conglomerate of the Johannesburg Subgroup of the Central Rand Group of the Witwatersrand Supergroup (Non dolomitic) (Fig 2).

2. SITE INSPECTION

A site inspection was conducted on 12 April 2016 by K Maranda and J Shivambu. The investigation was done in the presence of People who stay there. The area was inspected in order to determine the cause and extent of the problem so that appropriate recommendations for further action could be made.

The following was observed (refer the Photographs)

- A big subsidence occurred next to the fence where there are dumps observed.
- A pit toilet subsiding with the ground on the other side (approximately 6m away from the main subsidence) in the middle of sharks was observed.
- No Municipality wet services running along where the subsidence occurred was observed.
- No current leaking of EMM wet services were observed during investigation.



3. ASSESSMENT

From the investigations done, the subsidence where there are dumps was observed and the pit toilet that looks subsiding down with the ground at the other side of the shacks. There are no municipal wet services running through where the subsidence occurred. According to the geological map (2628 EAST RAND), the greater area is laid on an old underground mine (not active). The subsidence could be old mine workings or rather the fill/dumping, consolidating the rubble and leaving a void. No further investigation was done as the site is on privately-owned land.

4. RECOMMENDATIONS

It is therefore recommended that the area affected should be cordoned off within a 10m radius, no occupation should be allowed in this area.