

Our Ref: J31417
DEA Ref: 14/12/16/3/1/3

09 November 2012

Johannesburg

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Dear Interested and Affected Party,

NOTIFICATION OF ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT OF A CO-GENERATION FACILITY AT, BEATRIX GOLD MINE, FREE STATE PROVINCE.

Goldfields, has lodged an application with the National Department of Environmental Affairs (DEA) in terms of the National Environmental Management Act (Act No. 107 of 1998), and Environmental Impact Assessment (EIA) Regulations (2010) GNR 544, GNR 545 and GNR 546 for environmental authorisation, for the proposed installation of a Co-Generation Facility at Beatrix Mine. The project is also in the process of being registered as a carbon credit project under the Clean Development Mechanism (CDM) to offset the cost associated with implementation of the technology.

The purpose of the facility is to capture naturally occurring methane gas from underground chambers via Shaft 4, thereafter the gas is used to:

- Generate 4MW electricity. Electricity will be generated in internal combustion engines. The electricity generated in the project activity will be used as captive capacity to displace grid electricity at the Beatrix Shaft 4.
- Waste heat from the internal combustion engines will be used in absorption chillers. The refrigeration produced by the absorption chillers will replace refrigeration from compressor chillers using grid electricity.

The proposed Co-Generation Facility would include structures underground to capture the methane and pipe it to the Beatrix West ventilation shaft where it will be piped to surface. Once at surface, the methane will be flared and used to generate electricity. Electricity will be generated in internal combustion engines. Waste heat from the internal combustion engines will be used in absorption chillers. The excess methane that cannot be handled by the engines will be flared in an enclosed flare. The electricity generated in the project activity will be used as captive capacity to displace grid electricity at the Beatrix Shaft 4. The refrigeration produced by the absorption chillers will replace refrigeration from compressor chillers using grid electricity.

As such the proposed Co-Generation Facility would include the following infrastructure:

- Four containerized internal combustion engines with closed circuit radiators and exhaust silencers, with a total generating capacity of 4MW will be installed
- A single flare would be installed at Shaft Four (4) to burn excess methane
- Gas fans to boost the off-gas pressure in order to meet the engine requirements
- Absorption chillers
- Flame arrestors
- Demister
- Instrumentation and control equipment
- Piping to route the methane to the engines (quote the threshold to indicate that the pipeline activity will not be triggered)
- Containerised electrical switchgear and distribution cables from the engines to the electrical sub-station on site
- A containerized control room
- An oil storage facility for engine lubrication oil (not exceeding 30 cubic meters).

Location: Beatrix Mine is located between Theunissen and Virginia in the Free State (see Appendix A). Access to the site is from the R30 to Bloemfontein (Theunissen / Virginia Rd), and is located within the Matjhabeng Local and Lejweleputswa District Municipalities. Shaft Four is located within the Beatrix Mining Complex (28°11'10.14"S & 26°43'18.47"E) Refer to the Attached Map.

Public Involvement: All Interested and/or Affected Parties (I&APs) are invited to participate by:

- Registering written comments on the abovementioned project to GIBB. Comments should include the I&AP's name, contact details and an indication of any direct business, financial, personal or other interest which they have in the project, and can be submitted by post, fax or email to **The Public Participation Office** (details provided below).

The Public Participation Office

Email: BeatrixBA@gibb.co.za

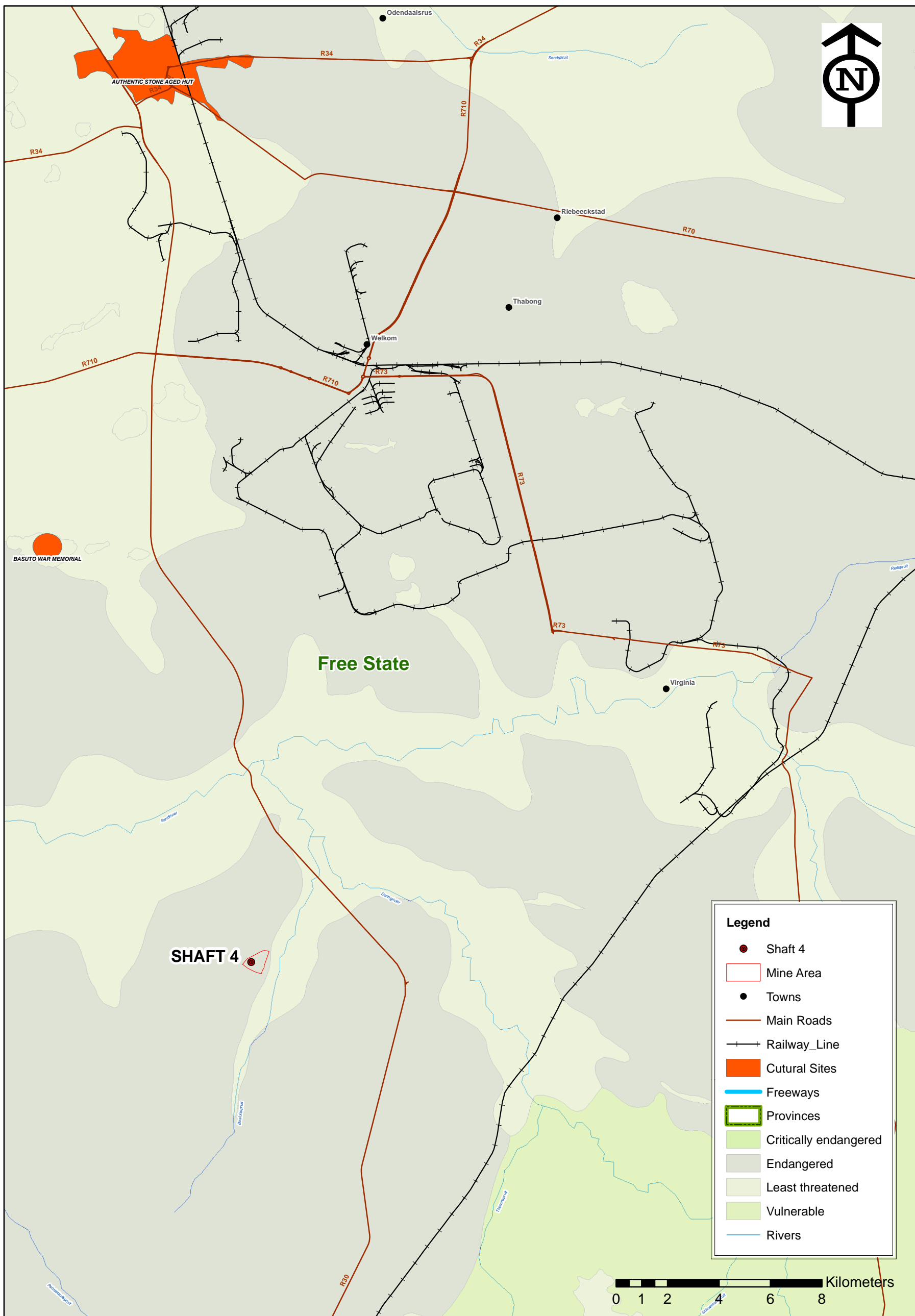
Tel: +27 11 519 4600 / 4666

Post: P.O. Box 2700, Rivonia, 2128

GIBB will distribute further information and correspondence on the project and associated EIA process to all registered I&APs and provide further opportunities for comments throughout the BA process. Should you require further information, please do not hesitate to contact us.

Yours faithfully,

Sukendrie Paras
Arcus GIBB (Pty) Ltd
Environmental Scientist



DRAWING/DOCUMENT DELIVERY NOTE

IP180_F



BY POST	BY PRIORITY	BY COURIER	BY EMAIL	BY HAND	FOR COLLECTION
				x	

PROJECT NAME :	Beatrix BAR	NOTE No. :	
PROJECT No. :	J31417	DATE :	
FROM :	Arcus GIBB		

Please Sign in Receipt of the Notification Letter for the Basic Assessment for the Proposed Co Generation Facility, located at Shaft four Beatrix Mine.

TO: NAME & ADDRESS	NO OF COPIES	RECEIVED SIGNATURE AND DATE
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