

Petroleum Agency SA

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05 July 2017

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Dr Brent Baxter
Golder Associates Africa (Pty) Ltd
P.O Box 6001
Halfway House
1685

Dear Dr Baxter

APPLICATION FOR AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION ISSUED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) ("NEMA") AS AMENDED

Kindly note that the above application has been granted. Attached hereto is a letter of consent for your attention.

Yours sincerely,

T MOTLOUNG
ACTING GENERAL MANAGER: REGULATION

Directors: MP Fusi (Chairperson)

B Luthuli R Nkambule T Ramuedzisi L Nengovhela L Mekwe (Acting Executive)

Company Secretary: Adv E Hendricks

Subsidiary of CEF SOC Ltd.

South African Agency for Promotion of Petroleum Exploration and Exploitation SOC Ltd.





DEPARTMENT OF MINERAL RESOURCES
REPUBLIC OF SOUTH AFRICA

*Enquiries: P Ngesi
Tel: (021) 938 3500*

*Our Reference: 12/3/02
LEDET Reference: 12/1/9-7/(i)-W1*

Mr Hermanus Pretorius
Anglo Operations Limited
P.O Box 61587
Marshalltown
2107

Dear Mr Pretorius

**APPLICATION FOR THE AMENDMENT OF THE ENVIRONMENTAL
AUTHORISATION (EA) IN TERMS OF THE NATIONAL ENVIRONMENTAL
MANAGEMENT ACT, 1998: EXTENSION OF THE VALIDITY OF EA FOR THE
PROPOSED DEVELOPMENT OF 37 GAS PROSPECTING WELLS AND
ASSOCIATED INFRASTRUCTURE ON THE FARM NOOITGEDACHT 403 LQ IN
THE WATERBERG DISTRICT, LIMPOPO PROVINCE.**

After careful consideration of your application for the amendment of Environmental Authorisation in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (EA), I, Seipati Silvia Dhlamini, in terms of the Powers delegated to me, have approved the amendment of the Environmental Authorisation as follows:

- i. The commencement period of the Environmental Authorisation dated 18 November 2014 is extended for a period of 3 years from the date of expiry of the Authorisation.
- ii. All conditions and other contents of the EA remain valid and must be adhered thereto when activities commence.

Furthermore you are reminded of Regulation 4(2) of the EIA Regulations which provides that you must notify all registered interested and affected parties in writing within fourteen (14) days from the date of the Department's decision to amend the Environmental Authorisation as well as the provisions regarding the submission of appeals as contained in the National Environmental Management Act, 1998 (107 of 1998): National Appeal Regulations (Appeal Regulations), 2014 (GN R993).

The authorised activities shall not commence within twenty (20) days from the date of signature of the authorisation. Further, please note that the Minister may, on receipt of appeals against the authorisation or conditions thereof suspend the authorisation pending the outcome of the appeals process.

Should you wish to make further enquiries regarding this decision, please do not hesitate to contact the aforementioned.

Yours faithfully



MS SEIPATI SILVIA DHLAMINI

ACTING DEPUTY DIRECTOR-GENERAL:

MINERAL REGULATION

DATE: 30/06/2017



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

Enq: Tsakane Tshuketana Tel: 015 290 7164 Fax: 015 295 5015 E-Mail: TshuketanaTL@ledet.gov.za Ref no.: 12/1/9-7/1(i)-W1

Anglo Operations Limited
P. O. Box 61587
MARSHALLTOWN
2107

For attention: Dr. Steve Bodon

Fax no: (011) 638 3194

ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED DEVELOPMENT OF 37 GAS PROSPECTING WELLS AND ASSOCIATED INFRASTRUCTURE ON THE FARM NOOITGEDAGHT 403 LQ WITHIN LEPHALALE LOCAL MUNICIPALITY OF WATERBERG DISTRICT: LIMPOPO PROVINCE

With reference to the abovementioned application, please be advised that the Department has decided to grant authorisation. The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations of 2006, you are instructed to notify all registered interested and affected parties, in writing and within 10 (ten) calendar days of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the regulations.

Should you wish to appeal any aspect of the decision, you must, *inter alia*, lodge a notice of intention to appeal with the MEC for Economic Development, Environment and Tourism, within 10 days of receiving this letter, by means of one of the following methods:

By facsimile : (015) 293 8317
By post : Private Bag X 9484, **POLOKWANE**, 0700
By hand : 3rd floor, Evridiki Towers, 20 Hans van Rensburg Street, **POLOKWANE**, 0699

Should you decide to appeal, you must serve a copy of your notice on intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection.

Yours faithfully,

SENIOR MANAGER
ENVIRONMENTAL IMPACT MANAGEMENT
DATE: 25/1/2012

Cc: Golder Associates Africa

For attention: Dr. Brent Baxter

Fax no: (011) 317 0311

HEAD OFFICE

20 Hans van Rensburg Street/ 19 Biccard Street, POLOKWANE, 0699, Private Bag X 9484, POLOKWANE, 0700
(Switchboard) Tel: +27 15 293 8300 Website: www.ledet.gov.za

The heartland of southern Africa - development is about people!



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

ENVIRONMENTAL AUTHORISATION

AUTHORISATION REFERENCE NO: 12/1/9-7/1(i)-W1

Holder of authorisation:

Anglo Operations Limited

Location of activity:

The proposed development is located on the farm Nooitgedacht 403 LQ within Lephalale Local Municipality area of Waterberg District. The site coordinates are 23° 32' 0" South and 27° 34' 30" East.

A. DEFINITIONS

1. **NEMA:** The National Environmental Management Act, 1998 (Act 107 of 1998) as amended.
2. **Regulations:** Environmental Impact Assessment Regulations of 2006.
3. **EIA:** Environmental Impact Assessment.
4. **Department:** Department of Economic Development, Environment and Tourism.

B. DECISION

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

1. ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by NEMA and the Regulations the Department hereby authorises **Anglo Operations Limited** with the following contact details –

Dr Steve Bodon
P. O. Box 61587
MARSHALLTOWN
2107

Fax no: (011) 638 3194

Tel no: (011) 638 2988

HEAD OFFICE

20 Hans van Rensburg Street/ 19 Biccard Street, POLOKWANE, 0699, Private Bag X 9484, POLOKWANE, 0700
(Switchboard) Tel: +27 15 293 8300 Website: www.ledet.gov.za

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to undertake the following activities:

Listed in Government Notice R.387 of 2006 as:-

Activity no. 1(e) - "The construction of facilities or infrastructure, including associated structures or infrastructure, for any process or activity which requires a permit or license in terms of legislation, pollution, effluent or waste and which is not identified in Government Notice R.386 of 2006".

Activity no. 1(g) - "The construction of facilities or infrastructure, including associated structures or infrastructure, for the use, recycling, handling, treatment, storage or final disposal of hazardous waste".

Activity no. 1(i) - "The construction of facilities or infrastructure, including associated structures or infrastructure, for the extraction or processing of natural gas including gas in natural landfill sites".

The proposed activity entails the development of 37 gas prospecting wells and associated infrastructure on the farm Nootgedacht 403 LQ within Lephalale Local Municipality covering an area of approximately 1030 hectares. The development consists of the following:

- 37 coalbed methane bulk yield test gas wells;
- Gas collecting, monitoring, separation and gas scrubber facility;
- Reverse osmosis water treatment plant, storage ponds and vapour recompression unit;
- 10 megawatt electricity generation facility;
- 22 kilovolt overhead electricity line between the project site and the existing 5-spot trial site. The line will extend through the project site on the farm Nootgedacht 403 LQ to the neighbouring farm Klimopfontein 233 LQ to the west;
- Buried water and gas pipelines linking the gas wells to the water treatment plant and central gas collection facility respectively;
- Buried electrical reticulation to the gas wells from the 22 kilovolt power line;
- Gas pipelines from the central gas collection and scrubber facility to the 10 megawatt power generation plant;
- Buried water and gas pipelines linking the existing 5 spot trial site to the water treatment plant and gas collection facility at the project site; and
- Main access gravel road to the project site and minor internal services tracks to the gas wells.

The development is located on the farm Nootgedacht 403 LQ within Lephalale Local Municipal area of Waterberg District.

The granting of this Environmental Authorisation is subject to the conditions set out below.

C. CONDITIONS

1. SCOPE OF AUTHORISATION

- 1.1 Authorisation of the activity is subject to the conditions contained herein and is binding on to the holder thereof.
- 1.2 The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.

- 1.3 The activity authorised may only be carried out at the property as described under location of the activity.
- 1.4 Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.
- 1.5 This activity must commence within a period of 3 years from the date when the EA was signed. If commencement of the activity does not occur within this period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken. Any request for extension of the validity period of this authorisation should be lodged with the Department within sixty (60) days before the expiry date.
- 1.6 This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

2. NOTICE OF AUTHORISATION

- 2.1 The holder of the authorisation must notify all registered interested and affected parties, in writing and within 10 (ten) calendar days, of receiving the Department's decision.
- 2.2 The notification referred to in 2.1 must –
 - 2.2.1 Specify the date on which the authorisation was issued;
 - 2.2.2 Inform the interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations R. 385 of 2006; and
 - 2.2.3 Advise the interested and affected parties that a copy of the authorisation and reasons for the decision will be furnished on request.

3. MANAGEMENT OF THE ACTIVITY

- 3.1 All mitigation measures included in the Environmental Management Plan (EMP) attached to the EIA Report compiled by Dr. Brent Baxter of Golder Associates Africa dated June 2011 must be implemented and adhered to.
- 3.2 Construction workers must be trained on all the mitigation measures outlined in the EMP attached to the EIA Report to ensure minimal impacts on the environment.
- 3.3 All relevant approvals required for the development must be in place before commencement of the activities in order to ensure compliance in terms of all relevant legislation.
- 3.4 The Department reserves the right to monitor and audit the development throughout its full life cycle to ensure that it adheres to all the conditions and mitigation measures included in the EIA Report. Records of monitoring and auditing must be made available for inspection to any relevant authority inspecting the development.

4. RECORDING AND REPORTING TO THE DEPARTMENT

- 4.1 The applicant must appoint an independent environmental officer to prepare compliance monitoring reports every month during construction and every six (6) months during operation of the approved activity. The reports must indicate how the applicant is complying with each condition in the authorisation. These reports must be submitted to the Department within fourteen (14) days after the elapse of every month during construction and every sixth month during operation.
- 4.2 The holder of the authorisation must notify the Department in writing and within 24 hours, if conditions of his authorisation are not or will not be adhered to. Such notification must be accompanied by reasons for the non-compliance or anticipated non-compliance.

5. CONSTRUCTION OF THE ACTIVITY

- 5.1 A Water Use License (WUL) for the proposed groundwater abstraction must be obtained from the Department of Water Affairs (DWA) prior construction and operation of the proposed development.
- 5.2 Waste Management Licence (WML) for the waste water treatment facility must be obtained from the National Department of Environmental Affairs (DEA) prior construction and operation of the proposed development.
- 5.3 The recycling and reuse of general waste must be incorporated in the WML for the sewage treatment plant lodged with the Department of Environmental Affairs (DEA).
- 5.4 All construction activities must cease should there be any new discoveries of archaeological, historical and any site or land of cultural value within the project boundary and Limpopo Heritage Resource Agency (LIHRA) and/or South African Heritage Resource Agency (SAHRA) must be informed immediately.
- 5.5 All the recommendations in the Heritage Impact Assessment report compiled by Dr Julius CC Pistorius must be adhered to.
- 5.6 Disturbance to the sensitive environment must be restricted to the absolute minimum and areas disturbed as a result of construction must be rehabilitated as soon as possible.
- 5.7 In order to minimize the effects of noise, construction activities can only take place from 7h00 to 17h00 weekdays and 7h30 to 13h00 on Saturdays, with the exception of Sundays and public holidays.
- 5.8 Should spillage of any hazardous substance occur during construction, it must be reported to the Regional Director: DWA or his/her representative immediately, within 24 hours of such spillage. Hazardous waste shall then be collected and disposed of at a registered waste disposal facility designed for such particular waste. Only permitted or legally authorised waste collection services must be appointed for the collections of waste from the site to an approved licensed disposal facility.
- 5.9 The hydraulic fluids or chemicals required during construction must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment.
- 5.10 Raw water must be treated to acceptable DWA water quality standards before being discharged into the river. No raw water shall be discharged into the river without being treated.

- 5.11 Chemical sanitations facilities must be made available for the construction workers. These sanitations must be serviced in a fortnight basis by appropriate companies to avoid spills or leaks on the groundwater or surface water. The content of the facilities must be disposed of at an authorised land fill site.
- 5.12 Under no circumstances shall waste be burned on site. All waste including builder's rubble, generated during the construction and/or operation of the development must be stored, handled and disposed of at an authorised disposal site.
- 5.13 Section 28 of NEMA places a duty of care on the applicant (Anglo Operations Limited), to ensure that reasonable measures are taken to prevent pollution or degradation of the environment from occurring, continuing or recurring. Should any environmental damages result from this development or the operation thereof, Anglo Operations Limited must within 14 days of the damage being caused, rectify the situation to its original state; at its (Anglo Operations Limited) own expense.

6. OPERATION OF THE ACTIVITY

- 6.1 Changes in the project resulting in significant environmental impact are only permissible if approved in writing by the Department.
- 6.2 Hazardous waste Generated on site must be stored in a closed container and be taken to the registered hazardous landfill site.
- 6.3 General waste disposal transfer station must be cleaned weekly and monitored in a monthly basis in order to ensure that the impact of odour and storm water run-off is reduced to acceptable level. All waste generated on site during operation of the development must be stored, handled and disposed in an environmentally acceptable manner, and as directed by this Department or any other relevant authority.
- 6.4 The eco-friendly products such as Organic Compost and/or Effective Micro-organisms must be used to reduce the frequency of application of conventional fertilizers, herbicides and insecticides.

7. SITE CLOSURE AND DECOMMISSIONING

- 7.1 An Environmental Management Plan for site closure and decommissioning of the proposed development must be submitted to this Department for approval prior to decommissioning.

8. GENERAL

- 8.1 A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.
- 8.2 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.
- 8.3 Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in NEMA and the Regulations.



**ACTING SENIOR GENERAL MANAGER
ENVIRONMENT AND TOURISM**

DATE: 25/1/2012

ANNEXURE 1: REASONS FOR DECISION

1. BACKGROUND

The applicant, **Anglo Operations Limited** applied for authorisation to carry out the following activity –

The proposed development 37 gas prospecting wells and associated infrastructure on the farm Nooitgedacht 403 LQ within Lephalale Municipality covering an area of approximately 1030 hectares. The development entails the following:

- 37 coalbed methane bulk yield test gas wells;
- Gas collecting, monitoring, separation and gas scrubber facility;
- Reverse osmosis water treatment plant, storage ponds and vapour recompression unit;
- 10 megawatt electricity generation facility;
- 22 kilovolt overhead electricity line between the project site and the existing 5-spot trial site. The line will extend through the project site on the farm Nooitgedacht 403 LQ to the neighbouring farm Klimopfontein 233 LQ to the west;
- Buried water and gas pipelines linking the gas wells to the water treatment plant and central gas collection facility respectively;
- Buried electrical reticulation to the gas wells from the 22 kilovolt power line;
- Gas pipelines from the central gas collection and scrubber facility to the 10 megawatt power generation plant;
- Buried water and gas pipelines linking the existing 5 spot trial site to the water treatment plant and gas collection facility at the project site; and
- Main access gravel road to the project site and minor internal services tracks to the gas wells.

The development is located on the farm Nooitgedacht 403 LQ within Lephalale Local Municipal area of Waterberg District. The applicant appointed Golder Associates Africa (represented by Dr. Brent Baxter) to undertake the Scoping and EIA Process.

2. INFORMATION CONSIDERED IN MAKING THE DECISION

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the Scoping Report and the EIA Report received on December 2009.
- b) Additional information received on 26 July 2010 and 12 August 2011 respectively.
- c) The public participation process as included in the scoping report and EIA Report.
- d) Departmental information including the requirements of relevant legislation, policies and guidelines -
 - Regulations 17, 27 to 35 of the GNR. 385 of EIA Regulations 2006.
- e) Findings of the site visit conducted by Ms TL Tshuketana of this Department on 26 October 2011; and

f) Specialist studies undertaken include:

- Ecological Assessment Report dated November 2010, compiled by Adrian Hudson of Golder Associates Africa;
- Heritage Impact Assessment Report dated March 2009, compiled by Dr. Julius CC Pistorius, an Archaeologist and Heritage Management Consultant;
- Hydrogeological Investigation Report dated February 2011, compiled by Gerhard van der Linde of Golder Associates Africa;
- Air Quality Impact Assessment Report dated February 2011, Compiled by Airshed Planning Professionals (Pty) Ltd;
- Visual Impact Assessment Report dated August 2010, compiled by Golder Associates Africa; and
- Noise Impact Assessment Report dated 26 March 2009, Compiled by Barend van der Merwe of Environmental Acoustics Consultant.

3. KEY FACTORS AND FINDINGS CONSIDERED IN MAKING THE DECISION

3.1 All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) All environmental issues identified can be mitigated using the EMP to ensure prevention and minimal impacts on the environment; and
- b) Specialists reports recommend and/or indicate the following:
 - Ecological Assessment Report recommends that no new roads be constructed as the construction of new roads is likely to have large negative impacts on the biodiversity of the area.
 - Heritage Impact Assessment Report indicates that no sites of any heritage significance were identified within the proposed area of development, however all construction activities must cease should there be any new discoveries of archaeological, historical and any site or land of cultural value within the project boundary and Limpopo Heritage Resource Agency (LIHRA) and/or South African Heritage Resource Agency (SAHRA) must be informed immediately.
 - The Visual Impact Assessment Report supports the proposed development provided all the recommendations of the report and other recommendations by other specialists that may aid in improving the visual appearance of the project are adhered to.
 - Hydrogeological Investigation Report recommends that a controlled pumping test be undertaken in the Molteno Formation to ascertain its transmissivity and storativity. It is also recommended that field testing be undertaken to better characterise the faults and monitoring of water level and quality on monthly basis.
 - Air Quality Impact Assessment Report indicates that Nitrogen dioxide, Sulphur dioxide and Carbon monoxide ground level concentrations are very low and ambient monitoring may not be practical. However to confirm estimated emissions, it is recommended that emissions monitoring be conducted once the plant is operational.

3.2 After consideration of the information and factors listed above, the Department made the following findings:

- a) Mitigation measures to prevent disturbance of sensitive areas are in place and adequate.
- b) All environmental issues identified can be mitigated using the EMP to ensure prevention and minimal impacts on the environment.
- c) Public participation process complies with Chapter 6 of the EIA Regulations of 2006 and was done as follows:
 - The proposed activity was advertised in "Mogol Pos" local newspaper on 23 January 2009,
 - Site notices were placed at the site and at the gate of the farm Noolitgedacht 403 LQ;
 - Authorities meeting was held on 03 February 2009 at DME Offices (Polokwane) and public meeting held on 30 July 2009 at Machauka Lodge (Lephalale) and the minutes of the meeting is attached in the EIA Report;
 - Proof of communication with Interested and Affected Parties is attached in the EIA Report;
 - List of Interested and Affected Parties including government departments is attached in the EIA Report; and
 - The main concern with regard to the proposed development was the access road. A technical investigation was undertaken on the access road and a civil engineer compiled a report indicating technical details concerning design of the road. This, together with the implementation of certain measures was accepted by all Interested and Affected Parties as indicated on the EIA Report.
- d) Findings of the site visit are:
 - The proposed activity is located on the farms owned by Anglo Operation Limited;
 - The proposed site is along D41 road outside Lephalale Town;
 - The access road to the proposed site already exists; and
 - The proposed area is vegetated with trees and grass.
- e) The development with mitigation measures suggested and implementation of conditions of this authorisation will not infringe the rights of interested and affected parties.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of NEMA and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The authorisation is accordingly granted.