



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



EdTM

Enquiries: Mr N Adams
Telephone: 012 336 8393
Reference: 2/1/5/1

MINISTER OF WATER AND SANITATION

NATIONAL ASSEMBLY: QUESTION 611 FOR WRITTEN REPLY

A draft reply to the above mentioned question asked by Mr L J Basson (DA) is attached for your consideration.

Ad
Mokonyane
DIRECTOR-GENERAL
DATE: 18/03/13

DRAFT REPLY APPROVED/~~AMENDED~~

MNP
MRS NP MOKONYANE
MINISTER OF WATER AND SANITATION

DATE: 22.03.13

NATIONAL ASSEMBLY

FOR WRITTEN REPLY

QUESTION NO 611

DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 06 MARCH 2015
(INTERNAL QUESTION PAPER NO. 5)

611. Mr L J Basson (DA) to ask the Minister of Water and Sanitation:

- (1) Has her department ever conducted tests on the water quality of the Wonderfonteinspruit canal in the West Rand Goldfields which pollutes the Upper Wonderfonteinspruit; if not, why not; if so, (a) on what date was the last test done, (b) what were the results regarding the levels of (i) sulphate, (ii) manganese, (iii) aluminium, (iv) uranium and (v) iron and (c) can she provide a copy of the test results;
- (2) Is her department enforcing section 19 in terms of the National Water Act, 36 of 1998; if not, why not; if so, what are the relevant details of (a) each directive given and (b) costs recovered in the past 36 months?

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REPLY:

- (1) No, my Department has not conducted tests to determine the water quality within the Wonderfonteinspruit "canal". The canal is not a natural watercourse of the Wonderfonteinspruit system and based on composite protracted water quality data and water resource management interventions for this specific area, the canal and other proximal attendant hydrological factors have not caused any substantial decline in the water quality of the Wonderfonteinspruit to warrant specific testing of the water in the canal.

The canal serves an interim measure to divert clean storm-water into the Wonderfonteinspruit and prevent such water from being polluted by surrounding activities. Further, the canal prevents inundation of an adjacent pollution control dam, which if inundated, may cause water pollution and/ or public safety risks due to the dam exceeding its supply volume.

Notwithstanding the foregoing, my Department does conduct water quality monitoring at various points along the Wonderfonteinspruit, which is indicative of the representative water quality of the Wonderfonteinspruit resource. At a specific monitoring point downstream of the canal, the following is relevant:

- (1)(a) The last water sample was collected on 03 December 2014.
- (1)(b) Water quality results are presented in Table 1.

Table 1

	Parameter	Result	Limit (discharge to environment)
(i)	Sulphate	488 mg/L	1000 mg/L
(ii)	Manganese	5.3 mg/L	< 10 mg/L
(iii)	Aluminium	not tested	Not applicable
(iv)	Uranium	not tested	70 µg/L
(v)	Iron	< 0.02 mg/L	< 1.0 mg/L

- (1)(c) A copy of test results is attached (**Annexure A**).
- (2) Yes, my Department does enforce Section 19 of the National Water Act, 1998 (Act 36 of 1998) to ensure that pollution or potential pollution incidents do not have a detrimental impact on the water resources.
- (2)(a) In the past three financial years, several notices of intention to issue a directive and/or Section 19 directives were issued to various parties for pollution/ potential pollution incidents as per Table 2.

Table 2

Party issued with Notice/ Section 19 directive	Date issued	Reason for issuing Notice/ Section 19 directive	Response
(i) Notice issued to Mintails SA	23 January 2014	Potential water pollution due to mining-impacted water flowing into a water resource and tailings spillages with potential to impact on ground- and surface water.	Mintails SA provided an action plan to eradicate and mitigate pollution impacts. The Department is monitoring the implementation of the action plan.
(ii) Notice issued to Merafong City Local Municipality	23 February 2015	Sewage pollution impacts associated with their Kokosi Waste Water Treatment plant. A dysfunctional major sewer line in Khutsong Township resulting in loss of raw sewage to the environment (groundwater pollution).	Merafong City Local Municipality furnished an action plan to implement remedial measures whilst simultaneously affecting the necessary engineering works to address the pollution impacts. The Department is monitoring the implementation of the action plan.
(iii) Directive issued to Merafong City Local Municipality	02 March 2015	The directive was subsequently issued to ensure that the Municipality adheres to the commitments made in the response to the Notice. The commitments were mitigation interventions to address the pollution impacts.	Merafong City Local Municipality furnished an action plan to implement remedial measures whilst simultaneously effecting the necessary engineering works to address the pollution impacts. The Department is monitoring the implementation of the action plan.

- (2)(b) Cost recovery has not applied in the past 36 months as in each case, the parties have co-operated with the requirements of the notices/ Section 19 directives.

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ANNEXURE A



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Gauteng Regional Office

15th Floor, Bothongo Plaza East, 285 Francis Baard Street, Pretoria

Telephone: 012 392 1348

Private Bag X995

Enquiries: M Tlaila

e-mail: tlailam@dwa.gov.za

Pretoria

Facsimile: 012 392 1359

0001

Reference: 16/2/7/C231/C040

HAND DELIVERY

Chief Financial Officer
Mintails SA Pty Ltd
P O Box 803
KRUGERSDORP
1740

ATTENTION: Mr Eddie Milne

Dear Sir

NOTICE OF INTENTION TO ISSUE A DIRECTIVE IN TERMS OF SECTION 19 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) (NWA) TO MINTAILS SA (PTY) LTD

Reference is made to the Department of Water Affairs' (DWA) inspection on 12 December 2013 in relation to the Mintails' operations, Krugersdorp area.

The inspection has confirmed that there is a recurrence of pollution incidents due to mining operations. These pollution impacts pose an adverse impact on the water resources (Wonderfonteinspruit). The following observations are of concern:

- i. Spillages of slurry and stockpiles are lying fallow along the servitude of the pipeline that conveys slurry from the CAMS dump to the Mogale Gold processing plant;
- ii. Discoloured reddish-brown water is found ponding around the areas affected by the spillages.
- iii. The pipelines conveying slurry/ related products which cross the storm water culvert at K13 road regularly experiences failure and the area is recorded as having experienced several pollution incidents (refer to monthly incident report compiled by Mintails SA (Pty) Ltd and/ or Mogale Gold); and
- iv. The storm water channel running parallel to Lancaster Dam is compromised due to accumulation of sediments from previous spillages and/ poor storm water management leading to sedimentation of the watercourse.

The Department is therefore of the opinion that the mine is not complying with the provisions of the NWA.

In light of the above, I, Marius Keet, in my capacity as Regional Head (Acting): Gauteng of the Department of Water Affairs and duly authorised in terms of powers delegated to me by the Minister of Water and Environmental Affairs, hereby give you five (5) working days from receipt of this notice, to make a written representation to the DWA in the event that the above is incorrect.

Failure to make such representation will result in the DWA issuing a directive in terms of Section 19(3) of the NWA which will require you to:

1. Conduct a radioactivity survey to identify all areas with slurry spillages (historic and recent) as a result of the mine operation;
2. All mined out areas (open casts and/ or surface reclamation sites) must be remediated and rehabilitated concurrently where possible to ensure that there is minimal or no pollution impact on the water resources;
3. Submit remediation and rehabilitation plans accompanied by a method statement that is approved by an engineer and environmental officer for all areas identified in (1) and (2);
4. Develop a storm water management plan with civil designs approved by an engineer for all mining activities;
5. Develop a plan in consultation with relevant engineers to minimise pipeline failures and avoid further pollution from entering clean water systems and water resources;
6. Develop and implement a monitoring regimen within the Wonderfonteinspruit at suitable locations downstream of Lancaster Dam. The monitoring regimen must be for parameters listed in Table 1;
7. Submit the data of the monitoring programme stipulated in (6) on a monthly basis to the DWA;
8. Treat all tailings material which are as a result of spillages and mine operation to cyanide level of ≤ 0.5 mg/L and dispose into the West Wits Pit; and
9. As applicable, submit the above information within thirty (30) days of receipt of the intended Directive for approval by the DWA.

All documentation submitted to this Office must be in line with the NWA, the Department's relevant policies and guidelines including Regulations in Government Notice (GN) 704 dated 04 June 1999 and Best Practice Guidelines for Water Resource Protection in the South African Mining Industry.

Table 1: Parameters to be monitored

Variable	Unit
pH	
Electrical Conductivity (EC)	mS/m
Total dissolved solids (TDS)	mg/L
Suspended solids (SS)	mg/L
Sulphate (as SO ₄)	mg/L
Total cyanide (as CN)	mg/L
Calcium (as CaCO ₃)	mg/L
Chloride (as Cl)	mg/L
Fluoride (as F)	mg/L
Magnesium (as MgCO ₃)	mg/L
Sodium (as Na)	mg/L
Aluminium (Al)	mg/L
Boron (B)	mg/L
Cadmium (Cd)	mg/L
Copper (as Cu)	mg/L
Iron (as Fe)	mg/L
Lead (Pb)	mg/L
Manganese (as Mn)	mg/L
Nickel (Ni)	mg/L
Mass Uranium (U)	µg/L
Zinc (Zn)	mg/L

Please be advised that in the event that the DWA issues a directive and you do not comply therewith, the DWA may, in terms of Section 53(2), carry out any works and take any necessary action to rectify the aforesaid contravention, and recover all reasonable costs incurred from you; or it may apply to the relevant Court for appropriate relief.

Failure to comply with the abovementioned requirements constitutes a criminal offence in terms of Section 151(1) of the NWA. Section 151(2) provides that a person who contravenes Section 151(1) of the NWA is guilty of an offence and liable on first conviction to a fine or to imprisonment for a period not exceeding five (5) years or to both such fine and such imprisonment.

We wish to make it clear that the instructions in this notice are made in the interest of responsible water resource management and with a view to a co-operative resolution of the issue.

Representations must be forwarded for the attention of the REGIONAL HEAD (Acting) and delivered to:

REGIONAL HEAD: GAUTENG
Bothongo Plaza East Building
15th Floor
285 Francis Baard Street
PRETORIA

OR

REGIONAL HEAD: GAUTENG
Private Bag X995
PRETORIA
0001

Tel: 012 392 1300
Fax: 012 392 1304

Should you have any queries, please contact Mr M Tlaila of this office.



REGIONAL HEAD (ACTING): GAUTENG

DATE: 2014/01/23

Acknowledgement of Receipt

Received by Mr/ Ms _____ (name and surname)
on behalf of Mintails SA (Pty) Ltd and/ Mogale Gold Mine on this _____ day
of _____ 2014.

Signature _____

Cc: Regional Manager: Gauteng
Department of Mineral Resources
Private Bag X5
BRAAMFONTEIN
2107



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Office of the: Regional Head: Gauteng
Bothongo Plaza East, 285 Francis Baard Street, PRETORIA

Fax	012 392 1359	P/Bag X995	Enquiries	V Nkuna
		PRETORIA	Telephone	012 392 1484
E-mail	nkunav@dwa.gov.za	0001	Reference	16/2/7/C231/C040

Mr Eddie Milne
Mogale Gold Pty Limited c/o Mintails SA Pty Ltd
P O Box 803
KRUGERSDORP
1740

Dear Sir

RESPONSE BY MINTAILS SA PTY LTD TO THE "PRE-DIRECTIVE" ISSUED BY DEPARTMENT OF WATER AFFAIRS IN TERMS OF SECTION 19 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) (NWA)

Reference is made your letter received by the Department of Water Affairs (DWA) on 03 February 2014, wherein Mintails SA responded to the pre-directive dated 23 January 2014, as issued by the DWA.

The DWA has assessed your representation and responds as follows:

- i. Although slurry spillage remediation is currently underway, spillages must not be stockpiled on site so as to ensure that slurry does not contaminate the environment/ water resources (surface and groundwater) during storm events. Despite the claimed 99.72% recovery of tailings, any spillage has the potential to contaminate the water resources and create other risks. As such, concerted efforts must be made to avoid spillages and should this be inevitable, appropriate risk management measures must be timeously applied by Mintails to ensure zero impact on the water resources. Notwithstanding the clean-up operations by SMME employees, the stockpile of slurry on the portion of the pipeline between road K13 and road R28 shows no signs of remediation since inspections of 12 December 2013 and 12 February 2014. An Incident Report, indicating *inter alia*, remedial measures with reasonable timeframes, followed by an Incident Close-out Report is required. Cognisance must be taken that the submission of Water Quality and/ or Environmental Incident Reports by Mintails has declined over the past two years to the point that such submissions are now non-existent.
- ii. The DWA is of the view that the reddish-brown water in proximity of the spillages is due to oxidation of the slurry when it reacts with storm water (i.e. formation of acid mine water) and is irrespective of the prevailing rainfall background chemistry. The resulting pool of slurry-contaminated stormwater creates a risk to groundwater. Furthermore, this water was observed draining towards the direction of the Wonderfontein spruit.

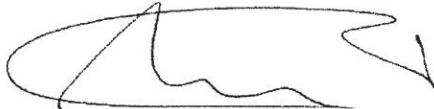
- iii. The design, construction and operation of the new pipeline between road K13 and road R28 must ensure compliance with GN 704. Security measures must be implemented to prevent pipeline sabotage. A schedule indicating the work programme and subsequent maintenance actions must be provided.
- iv. The DWA recognises that resolution of the storm water management issues at Lancaster Dam requires a multi-faceted approach. The meeting held on 12 February 2014 involving African Brick Centre, the DWA, the Department of Mineral Resources, Mintails and the Mogale City Local Municipality sought to address the challenge. Mintails has a responsibility to ensure that there is no storm water influx from its activities (CAMS Dump and other applicable areas). Storm water management at the CAMS Dump is either inferior or not evident altogether. Appendix 7 in your representation failed to categorically indicate a storm water management for the Lancaster Dam. In addition to measures implemented by other parties, Mintails must also implement their own storm water management measures for the Lancaster Dam. The required storm water management measures must comply with requirements of GN 704, together with the DWA's Best Practice Guideline G1: Storm Water Management.

Mintails is required to provide further representation specifically addressing the foregoing matters within five (5) days of receipt of this letter.

Kindly note that for points 1-9 in the pre-directive dated 23 January 2014, the DWA was not expecting representation. These issues become pertinent should a directive be issued.

Should you have any concerns, comments or queries, please contact Mr V Nkuna on the above details.

Yours faithfully



REGIONAL HEAD: GAUTENG

DATE: 2014/02/24