



19 June 2019

507228

DMR Reference Number: WC 30/5/1/2/3/2/1 (162 and 163 EM)

Dear Stakeholder

Notification of Environmental Authorisation and Appeal Procedure in Respect of the Extension of Tormin Mine, West Coast, South Africa

Notice is hereby given that on **7 June 2019**, the Department of Mineral Resources granted Environmental Authorisation (EA) to Mineral Sands Resources (Pty) Ltd (MSR) to extend mining operations at Tormin Mine to ten beaches along a stretch of coastline north of the Mine and to an inland "strand line" mining area on the Farm Geelwal Karoo 262. MSR was notified of the decision on 7 June 2019.

The granting of the EA is subject to a number of **conditions**, which, along with the **reasons for the decision**, are set out in the EA attached as Appendix A.

In terms of the National Appeal Regulations, 2014, and Annexure 2, Section 2 of the EA, any person wishing to appeal against the decision must submit an appeal to the Minister of Environmental Affairs within 20 (twenty) days of the date of this notification. Copies of the appeal documentation must also be served upon:

- The Department of Mineral Resources;
- The holder of the EA; and
- Registered Interested & Affected Parties¹.

The address to which the original appeal must be submitted is outlined below:

Department	Department of Environmental Affairs
Attention	Director: Appeals and Legal Review
E-mail address	appealsdirectorate@environment.gov.za
Postal Address	Private Bag X447, Pretoria, 0001
Hand Delivery	Environment House, Corner Steve Biko and Soutpansberg Street, Arcadia, Pretoria, 0083

¹ The contact details of registered I&APs can be obtained from SRK on request for submission of copies of the appeal.

Partners R Armstrong, S Bartels, AH Bracken, N Brien, JM Brown, CD Dalglish, BM Engelsman, R Gardiner, M Hirsch, W Jordaan, WC Joughin, DA Kilian, S Kisten, F Lake, JA Lake, V Maharaj, I Mahomed, HAC Meintjes, MJ Morris, GP Nel, VS Reddy, T Shepherd, PJ Shepherd, MJ Sim, VM Simposya, JS Stiff, HFJ Theart, KM Uderstadt, AT van Zyl, MD Wanless, ML Wertz, A Wood

Directors AJ Barrett, CD Dalglish, WC Joughin, V Maharaj, VS Reddy, PE Schmidt, PJ Shepherd

Associate Partners PJ Aucamp, CM Bauman, LSE Coetser, M du Toit, SG Jones, L Linzer, JI Mainama, L Nedeljkovic, RD O'Brien, S Reuther, JJ Slabbert, M van Huysteen, D Visser

Consultants JR Dixon, *PrEng*, GC Howell, *PrEng*, T Hart, MA, *TTHD*, PR Labrum, *PrEng*, RRW McNeill, *PrTech Eng*, PN Rosewarne, *PrSci Nat, MSc*, AA Smithen, *PrEng*, TR Stacey, *PrEng*, DSc, PJ Terbrugge, *PrSci Nat, MSc*, DJ Venter, *PrTech Eng*

SRK Consulting (South Africa) (Pty) Ltd

Reg No 1995.012890.07

African Offices:

	Group Offices:
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Lubumbashi	+ 243 (0) 81 999 9775



The addresses to which copies of the lodged appeal must be submitted are provided below:

Department	Department of Mineral Resources
Attention	Regional Manager: Western Cape Region
E-mail address	Pieter.Swart@dmr.gov.za
Fax	021 427 1046
Postal Address	Private Bag X09, Roggebaai, 8012
Hand Delivery	9 th Floor, Atterbury House, 9 Riebeeck Street, Cape Town, 8001

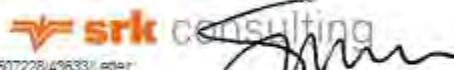
EA Holder	Mineral Sands Resources (Pty) Ltd
Attention	Sibonelo Mkhize
E-mail address	sibonelo@mineralcommodities.com
Fax	021 525 1902
Postal Address	PO Box 139, Lutzville, 8165

Should you require further information, please contact Scott Masson of SRK at smasson@srk.co.za; Postnet Suite #206, Private Bag X18, Rondebosch, 7701; Fax: 086 530 7003; Tel: (021) 659 3060.

Yours faithfully,

SRK Consulting (South Africa) (Pty) Ltd

SRK Consulting - Certified Electronic Signature


507228/43633/Letter
5120-472-5623-MASS-19/06/2019
This signature has been printed digitally. The Author has given permission for its use for this document. The details are stored in the SRK Signature Database.

Scott Masson
Senior Environmental Consultant

Appendix A: Environmental Authorisation



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 09, Roggebaai, 8012, Tel: 021 427 1000, Fax: 021 427 1046

Atterbury House, 09 Riebeeck Street, Cape Town, 8001

Enquiries: Ms. Portia Seaba Ref: E-Mail Address: portia.seaba@dmr.gov.za

WC 30/5/1/2/3/2/1 (162 and 163 EM)

Sub-Directorate: Mine Environmental Management

REGISTERED LETTER

Mineral Sands Resources (Pty) Ltd
P O Box 139
LUTZVILLE
8165

Attention : Mr. S. Mkhize
Tell : 087 150 4010
Fax : 021 525 1902
Email : sibonelo@mineralcommodities.com

Dear Sir

APPLICATION FOR AN INTEGRATED ENVIRONMENTAL AUTHORISATION (IEA) LODGED IN TERMS OF SECTION 24 OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMENDED AND NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT 59 OF 2008, NEMWA) AS AMENDED READ IN CONJUNCTION REGULATION 21 OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 AS AMENDED, FOR MINING OF HEAVY MINERALS (ILMENITE, LEUCOXENE, RUTILE, ZIRCON, MONAZITE, GARNET AND STAURITE) ON REMAINING EXTENT OF THE FARM GEELWAL KAROO 262 AND 10 BEACHES ADJACENT TO THE REMAINING EXTENT OF THE FARM KLIPVLEY KAROO 153, PORTION 4, 5, 6 AND 7 OF THE FARM KLIPVLEY KAROO 153, FARM PERSEEL WESKUS 191, 192, 193, 194, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206 AND PORTION 3 OF THE FARM GRAAUWDUINEN 152 IN THE VANRHYNSDORP MAGISTERIAL DISTRICT: WESTERN CAPE REGION

With reference to the above mentioned application, please be advised that the Department has decided to grant Integrated Environmental Authorisation (IEA) in terms of NEMA , Environmental Impact Assessment Regulations of 2014 as amended, 2014

(NEMA EIA Regulations and NEMWA. The IEA and reasons for the decision are attached herewith.

In terms of regulation 4(2) of the NEMA EIA Regulations, you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) calendar days, from the date of the department's decision in respect of your application and the relevant provisions regarding the lodgement of appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs and a copy of such appeal to the Department of Mineral Resources (Western Cape Regional Office), within 20 days from the date of notification, and such appeal must be lodged as prescribed in by Chapter 2 of the National Appeal Regulations of 2014, by means of the methods as prescribed below:

Appeal to the Department of Environmental Affairs

Attention : Directorate Appeals and Legal Review
Email : appealsdirectorate@environment.gov.za
By post : Private Bag X 447, PRETORIA, 0001
By hand : Environmental House, Corner Steve Biko and Soutpansberg Street, Arcadia, Pretoria, 0083

Copy of the lodged appeal to the Department of Mineral Resources

Attention : Regional Manager: Western Cape Region
By facsimile : (021) 427 1046
E-mail : Pieter.Swart@dmr.gov.za
By post : Private Bag X 09, Roggebaai, 8012
By hand : 9th floor Atterbury House, 9 Riebeeck Street, Cape Town, 8001

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected, and a copy of the official appeal form can be obtained from the Department of Environmental Affairs.

Kind Regards,

.....
**REGIONAL MANAGER: MINERAL REGULATION
WESTERN CAPE REGIONAL OFFICE**

DATE: 7/6/2019



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 09, Roggebay, 8012, Tel: 021 427 1000, Fax: 021 427 1046
Atterbury House, 09 Riebeeck Street, Cape Town, 8001

INTEGRATED ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT 1998 (ACT 107 OF 1998) AS AMENDED ("NEMA") READ IN CONJUNCTION WITH THE 2014 EIA REGULATIONS AS AMENDED AND THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (Act 59 OF 2008) ("NEMWA") AS AMENDED READ IN CONJUNCTION WITH GOVERNMENT NOTICE 921 OF 2013 AS AMENDED FOR MINERAL SANDS RESOURCES (PTY) LTD MINE EXTENSION IN MAGISTERIAL DISTRICT OF VANRHYNSDORP

Reference number:	(WC)30/5/1/2/3/2/1(162 and 163) EM
Holder of Integrated Environmental Authorisation:	Mineral Sands Resources (Pty) Ltd
Location of activities:	Mining heavy minerals on the remaining extent of the farm Geelwal Karoo 262 and 10 Beaches adjacent to the Remaining extent of the Farm Klipvley Karoo 153, Portion 4,5,6 and 7 of the farm Klipvley Karoo 153, Farm Perseel wekus 191, 192, 193, 194 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206 and Portion 3 of the Farm Graauwduinen 152 in the Magisterial District of Vanrhynsdorp

ACRONYMS

DEPARTMENT:	Department of Mineral Resources
ECO:	Environmental Control Officer
IEA:	Integrated Environmental Authorisation
EIA:	Environmental Impact Assessment
EIA REGULATIONS:	EIA Regulations, 2014 as amended
EMPr:	Environmental Management Programme
EIR:	Environmental Impact Report
HWC:	Heritage Western Cape
I&AP:	Interested and Affected Parties
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended
NEMA:	National Environmental Management Act, 1998 (Act 107 of 1998), as amended
NEMWA:	National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended
SAHRA:	South African Heritage Resources Agency

DECISION

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this IEA that the applicant should be authorised to undertake **NEMA** and **NEMWA** listed activities specified below. Details regarding the basis on which the department reached this granting decision are set out in **Annexure “1” and “2”** of this IEA.

NEMA EIA AND NEMWA LISTED ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by NEMA, NEMA EIA Regulations, NEMWA and Government Notice 921 of 2013 as amended, the Department of Mineral Resources hereby **Authorises- Mineral Sands Resources (PTY) Ltd** with the following contact details –

Mineral Sand Resources (Pty) Ltd
P O Box 139
LUTZVILLE
8165

Attention : Mr. S. Mkhize
Tell : 087 150 4010
Fax : 021 525 1902
Email : sibonelo@mineralcommodities.com

to undertake the following activities (hereafter referred to as “the activities”):

Listed Activities	Activity and/or project description
<p>Activity 28 of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:</p> <ul style="list-style-type: none"> (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes. 	Remove topsoil and stockpile
<p>Activity 24 of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p><i>The development of a road—</i></p> <ul style="list-style-type: none"> (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road— <ul style="list-style-type: none"> (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter. 	Development of Haul ore along haul road to run-of-mine stockpile wider than 8m.
<p>Activity 25 of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p><i>The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.</i></p>	Tailings will be pumped as slurry from processing plant through the tailings disposal plant and return it to backfill the mine void. Decant access water and return water to the processing plant.

<p>Activity 10 of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p><i>The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</i></p> <p><i>(i) with an internal diameter of 0,36 metres or more; or</i></p> <p><i>(ii) with a peak throughput of 120 litres per second or more;</i></p> <p><i>excluding where—</i></p> <p><i>(a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or</i></p> <p><i>(b) where such development will occur within an urban area.</i></p>	<p>Tailings will be pumped as slurry from processing plant through the tailings disposal plant and return it to backfill the mine void. Decant access water and return water to the processing plant.</p>
<p>Activity 17 of Government notice No. R984 as amended by GN 325 of April 2017</p> <p><i>Any activity including the operation of that activity that requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to the extraction of mineral resources; or the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting beneficiation, reduction, refining calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.</i></p>	<p>Mining of valuable heavy mineral deposit on ten beaches along a stretch of coastline north of Mineral Sand Resources (Pty) Ltd mine on an area of 43.7ha and primary processing in mobile primary beach concentrator.</p> <p>Inland mining and processing of valuable heavy minerals on the Farm Geelwal Karoo 262 on an area of 75ha.</p> <p>Infrastructure /plant expansion area of 64ha to accommodate additional processing plants, stockpile areas, industrial yards, parking and laydown areas.</p>
<p>Activity 15 of Government Notice No. R984 as amended by GN 325 of April 2017</p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—</i></p> <p><i>(i) the undertaking of a linear activity; or</i></p>	<p>Remove topsoil on 75ha inland mining and stockpile.</p> <p>Primary concentration circuit improvements.</p> <p>Construction of 22 kV powerline.</p>

<p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	
<p>Activity 12 of Government Notice No. R985 as amended by GN 324 of April 2017</p> <p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>i. Western Cape</p> <ul style="list-style-type: none"> i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line or even in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister. 	<p>Remove topsoil on 75ha inland mining and stockpile.</p> <p>Primary concentration circuit improvements.</p> <p>Construction of kV powerline.</p>
<p>Activity 19A of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from—</p>	<p>Depositing and excavating material from the sea.</p>

<ul style="list-style-type: none"> (i) the seashore; (ii) the littoral active zone, an estuary or a distance of 100 metres inland of the highwater mark of the sea or an estuary, whichever distance is the greater; or (iii) the sea; —but excluding where such infilling, depositing, dredging, excavation, removal or moving— <ul style="list-style-type: none"> a) will occur behind a development setback; b) is for maintenance purposes undertaken in accordance with a maintenance management plan; c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies. 	
<p>Activity 12 of Government notice No. R 983 as amended by GN 327 of April 2017</p> <p>The development of—</p> <ul style="list-style-type: none"> (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— <ul style="list-style-type: none"> (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —excluding— <ul style="list-style-type: none"> (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing 	<p>Widening of the northern haul road and beach access roads at 6ha area.</p> <p>Widening of public road OP9764 to 8 m between farm Geelwal Karoo 262 and the northern beaches.</p>

<p>Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.</p>	
<p>Activity 7: Category B of Government Notice No. 921 of 2013 as amended</p> <p><i>The disposal of any quantity of waste to land.</i></p>	<p>The average tailings production is approximately 711ktpa and will be pumped as slurry from processing plant through the tailings disposal plant and backfilled in the mine void. Decant access water and return water to the processing plant.</p>
<p>Activity 10: Category B of Government Notice No. 921 of 2013 as amended</p> <p><i>The construction of a facility for a waste management activity listed in Category B of this scheme (not in isolation to associated waste management activity).</i></p>	<p>The average tailings production is approximately 711ktpa and will be pumped as slurry from processing plant through the tailings disposal plant and backfilled in the mine void. Decant access water and return water to the processing plant.</p>
<p>Activity 11: Category B of Government Notice No. 921 of 2013 as amended</p> <p><i>The established or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining, exploration or production.</i></p>	<p>The average tailings production is approximately 711ktpa and will be pumped as slurry from processing plant through the tailings disposal plant and backfilled in the mine void. Decant access water and return water to the processing plant.</p>

Detailed description of the activities are as follows:

Beach mining

- To mine valuable heavy minerals deposits on ten beaches along a stretch of coastline north of Mineral Sand Resources (Pty) Ltd mine of 43.7ha at a depth of 6m while 6ha will be disturbed for the widening and upgrading of access roads.

Mining will be undertaken using hydraulic excavators, slurry pumps and other ancillary equipment to position and load the ore into a mobile primary beach concentrator for processing.

- Dump trucks will haul the processed ore up the beach access roads to the haul road and onward to the secondary processing plant.
- Beach mining will be conducted along the beaches between the low-water mark of the sea and the toe of the dunes/cliffs with a 10m buffer. Mining will be to an average depth of 6m and will take place where tides allow. Where valuable heavy minerals deposits are found near the low water mark, a sand berm, wave breaker (ditch in the sand) will be constructed on the seaward side of the deposit, to provide safety protection from the incoming tide whilst ensuring the mining process is efficient. Once the deposit has been mined, wave action will return the beach to its former condition, in some instances, a bulldozer will reshape the beach to original profile where mining occurs above the high-water mark.
- Access to the beaches will be through the existing gravel roads from the mine entrance (off the DR2225) to the beaches to serve as haul roads for dump trucks. This includes public road OP9764 adjacent to the coast and informal beach access roads. Mineral sand resources (Pty) Ltd will widen and grade the haul roads.

Inland mining

- To mine a 75 ha inland valuable heavy minerals deposit in an area 100-300m wide. Vegetation and topsoil (to a depth of approximately 30cm) will be stripped by bulldozers and stored in stockpiles in a designated areas- placed directly over tailings backfilled to the preceding mine void and in the existing stockpile area.
- Overburden will be removed to a depth of 2-25m (depending on resource depth) and will be backfilled into adjacent mined out areas.
- A 15m wide haul road on the western side of the proposed mining areas, and a ramps will provide access into the pit for mining vehicles and plant/equipment. The haul roads between the mining area ands and the infrastructure/plant expansion area will be located within the proposed mining areas footprints.
- Excavators will mine the mineralised sand layer (ore) up to a maximum depth of 30m (average of 10m). The ore will be loaded into dump trucks and transported to the new ROM stockpile area in the plant expansion area.
- The ROM ore will be processed in an upgraded primary concentrator located in the plant expansion area.
- Tailings will be returned (pumped) to the mine void as backfill and then covered with stockpiled overburden and topsoil material; and,

- Rehabilitation will be undertaken as the mining path allows. Once an area has been mined, the backfilled material will be re-profiled. The backfill material will be reseeded and the final rehabilitated area demarcated as a no-go area.

Infrastructures

- To construct infrastructure, processing plants of 64 ha to accommodate additional processing plants, stockpile areas, industrial yards, and parking and laydown areas.
- A Mineral Separation Plant (MSP) to further beneficiate the concentrates produced and increase mineral recovery.
- A tailings disposal plant (TSP); and witnessed
- Install a 22 Kv powerline from the Sere wind energy facility to an electrical substation in the infrastructure/plant expansion area.

Site description and location:

Mineral Sands Resources (Pty) Ltd proposed to mine heavy minerals on remaining extent of the farm Geelwal Karoo 262 and 10 Beaches adjacent to the Remaining extent of the Farm Klipvley Karoo 153, Portion 4,5,6 and 7 of the farm Klipvley Karoo 153, Farm Perseel wekus 191, 192, 193, 194 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206 and Portion 3 of the Farm Graauwduinen 152 in the Magisterial District of Vanrhynsdorp at the following co-ordinates:

GPS coordinates for the proposed Mining areas are provided below:

-31.497102°	18.033638°	P01, Beach 1
-31.497025°	18.032868°	P02, Beach 1
-31.492818°	18.031218°	P03, Beach 1
-31.492548°,	18.031811°	P04, Beach 1
-31.483266°	18.021391°	P05, Beach 2
-31.483389°	18.021254°	P06, Beach 2
-31.481576°	18.019355°	P07, Beach 2
-31.481431°	18.019599°	P08, Beach 2
-31.478572°	18.016847°	P09, Beach 3
-31.478746°	18.016637°	P10, Beach 3
-31.478266°	18.016264°	P11, Beach 3
-31.478199°	18.016378°	P12, Beach 3
-31.459738°	18.000621°	P13, Beach 4
-31.459977°	18.000237°	P14, Beach 4
-31.456384°	17.996286°	P15, Beach 4
-31.455475°	17.996621°	P16, Beach 4
-31.442947°	17.986823°	P17, Beach 5
-31.443123°	17.986447°	P18, Beach 5

-31.436661°	17.982016°	P19, Beach 5
-31.436761°	17.982368°	P20, Beach 5
-31.431078°	17.976296°	P21, Beach 6
-31.431142°	17.976189°	P22, Beach 6
-31.429987°	17.975331°	P23, Beach 6
-31.429869°	17.975574°	P24, Beach 6
-31.426918°	17.972285°	P25, Beach 7
-31.427131°	17.971985°	P26, Beach 7
-31.416253°	17.960598°	P27, Beach 7
-31.415916°	17.960963°	P28, Beach 7
-31.412611°	17.956716°	P29, Beach 8
-31.412687°	17.956456°	P30, Beach 8
-31.410712°	17.954774°	P31, Beach 8
-31.410578°	17.955042°	P32, Beach 8
-31.390679°	17.938713°	P33, Beach 9
-31.390364°	17.937695°	P34, Beach 9
-31.388364°	17.937863°	P35, Beach 9
-31.388105°	17.938300°	P36, Beach 9
-31.384032°	17.934797°	P37, Beach 10
-31.384086°	17.934187°	P38, Beach 10
-31.366854°	17.917617°	P39, Beach 10
-31.366486°	17.918219°	P40, Beach 10
-31.531698°	18.078167°	N01, North Strandline
-31.530979°	18.079266°	N02, North Strandline
-31.534486°	18.082601°	N03, North Strandline
-31.537641°	18.084836°	N04, North Strandline
-31.546080°	18.092216°	N05, North Strandline
-31.548675°	18.094320°	N06, North Strandline
-31.549463°	18.093549°	N07, North Strandline
-31.543932°	18.087879°	N08, North Strandline
-31.537282°	18.082199°	N09, North Strandline
-31.554845°	18.096883°	S01, South Strandline
-31.554460°	18.097489°	S02, South Strandline
-31.555294°	18.098541°	S03, South Strandline
-31.554729°	18.099168°	S04, South Strandline
-31.556973°	18.102529°	S05, South Strandline
-31.558904°	18.104288°	S06, South Strandline
-31.559642°	18.104655°	S07, South Strandline
-31.560966°	18.104664°	S08, South Strandline
-31.562833°	18.105691°	S09, South Strandline
-31.566329°	18.108390°	S10, South Strandline
-31.566871°	18.107830°	S11, South Strandline
-31.561117°	18.102530°	S12, South Strandline
-31.556948°	18.098025°	S13, South Strandline
-31.555924°	18.097282°	S14, South Strandline
-31.546738°	18.088193°	I01, Infrastructure Expansion Area

-31.544290°	18.091433°	I02, Infrastructure Expansion Area
-31.551550°	18.100175°	I03, Infrastructure Expansion Area
-31.554260°	18.097274°	I04, Infrastructure Expansion Area
-31.555125°	18.098385°	I05, Infrastructure Expansion Area
-31.554286°	18.099419°	I06, Infrastructure Expansion Area
-31.555759°	18.101106°	I07, Infrastructure Expansion Area
-31.557715°	18.098598°	I08, Infrastructure Expansion Area
-31.553411°	18.094272°	I09, Infrastructure Expansion Area
-31.551875°	18.095962°	I10, Infrastructure Expansion Area
-31.550050°	18.093613°	I11, Infrastructure Expansion Area
-31.549664°	18.093304°	I12, Infrastructure Expansion Area
-31.549089°	18.091337°	I13, Infrastructure Expansion Area
-31.549168°	18.091235°	I14, Infrastructure Expansion Area
-31.547563°	18.088946°	I15, Infrastructure Expansion Area

The SG codes:

Farm Geelwal Karoo 262/RE	C07800000000026200000
Farm Geelwal Karoo 262/2	C07800000000026200002
Farm Klipvley Karoo 153/RE	C07800000000015300000
Farm Klipvley Karoo 153/4	C07800000000015300004
Farm Klipvley Karoo 153/5	C07800000000015300005
Farm Klipvley Karoo 153/6	C07800000000015300006
Farm Klipvley Karoo 153/7	C07800000000015300007
Farm Perseel Weskus 191	C07800000000019100000
Farm Perseel Weskus 192	C07800000000019200000
Farm Perseel Weskus 193	C07800000000019200003
Farm Perseel Weskus 194	C07800000000019200004
Farm Perseel Weskus 196	C07800000000019600000
Farm Perseel Weskus 197	C07800000000019700000
Farm Perseel Weskus 198	C07800000000019800000
Farm Perseel Weskus 199	C07800000000019900000
Farm Perseel Weskus 200	C07800000000020000000
Farm Perseel Weskus 201	C07800000000020100000
Farm Perseel Weskus 202	C07800000000020200000
Farm Perseel Weskus 203	C07800000000020300000
Farm Perseel Weskus 204	C07800000000020400000
Farm Perseel Weskus 205	C07800000000020500000
Farm Perseel Weskus 206	C07800000000020600000
Graauwduinen 152/3	C07800000000015200003

SCOPE OF THE AUTHORISATION

Granting of this IEA is subject to the conditions set out below and in **Annexure 2** (Departmental standard conditions). The Environmental Management Programme (EMPr) attached complies with section 24N of NEMA and Appendix 4 of NEMA: EIA Regulations is hereby approved, therefore it must be adhered to throughout the life cycle of the operation.

**INTEGRATED ENVIRONMENTAL AUTHORISATION SITE SPECIFIC
CONDITIONS**

1. Mining activities must be conducted in accordance with the approved Environmental Management Programme and the attached layout plan.
2. Visible semi-permanent markers must be placed on the mining boundary before mining activities commences and must be kept for the duration of mining. Mining activities must strictly be conducted within the demarcated area.
3. The buffer zone of 10m must be demarcated from the edge of the cliff and the actual mining area. The area must be treated as a no-go area for the duration of mining activities. Any mining work including driving within this area is strictly prohibited.
4. The topsoil of 500mm must be stripped before mining commences and stockpiled within the mining area. Measures must be implemented to ensure that topsoil is protected from erosion and all sorts of pollution.
5. The number of beaches mined simultaneously must be limited to ensure that the undisturbed beaches and rocky shores are available for shorebirds to use while mining occurs elsewhere.
6. Mining activities must be conducted concurrent with rehabilitation and measures such as mulching and/or immediate cover with vegetation must be taken to ensure that the rehabilitated surface is protected from forces of erosion.

**ANNEXURE 1: WASTE MANAGEMENT LICENCE FOR MINERAL SANDS
RESOURCES (PTY) LTD, FOR MINING OPERATIONS EXPANSION IN TERMS OF
SECTION 50 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT:WASTE
ACT, 2008 (ACT 59 OF 2008), AS AMENDED**

**THE WASTE MANAGEMENT LICENCE IS GRANTED SUBJECT TO THE
CONDITIONS SET OUT BELOW:**

1. CONSTRUCTION

- 1.1 The construction of waste storage facilities must be in accordance with Class D barrier as per Regulation 636, National Norms and Standards for Disposal of Waste to Landfill for the type 4 classified waste as indicated in the Tormin Heavy Mineral Sand Operation Geelwal Karoo- South Africa waste classification at Tormin Mine Residue Deposit- Residue Stockpile & Residue Deposits compiled by The Australian Environmental & Mining Company (AEMCO) dated March 2018.

- 1.2 Construction within the site must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 2000 (Act 46 of 2000).
- 1.3 The Licence Holder must ensure that Construction Quality Assurance (CQA) takes place during construction and geosynthetic material must comply with relevant South African National specifications, or any prescribed management practice or standards which ensure equivalent performance. Details of quality assurance during construction must be provided; this must also include conformation that construction will be supervised by a registered professional engineer.
- 1.4 After construction of the Site or further development within the Site, the Licence Holder shall notify the Responsible Authority thereof and the person referred to in condition 1.2 shall submit a certificate or alternatively a letter to the Responsible Authority that the construction of the Site or further development within the Site, as proposed by the Licence Holder and approved by the Responsible Authority, is in accordance with recognised civil engineering practice and the requirements in this Licence, before disposal may commence on the Site. If the Responsible Authority is satisfied with the construction of the Site or any further development within the Site and has given written permission, the Licence Holder may use the Site or any further development within the Site for the disposal of waste.
- 1.5 Works shall be constructed and maintained on a continuous basis by the Licence Holder to divert and drain from the working face of the Site, all runoff water arising on the Site, which could be expected as a result of the estimated maximum precipitation and to prevent such runoff water from coming into contact with leachate from the Site. Such works shall, under the said rainfall event, maintain a freeboard of 0.8 metres and be lined to the satisfaction of the Responsible Authority, to prevent pollution to groundwater.
- 1.6 Runoff water referred to in condition 1.5 shall comply with the quality requirements as prescribed by Responsible Authority which may be determined from time to time and shall be drained from the Site in a legal manner.
- 1.7 Runoff water referred to in condition 1.5 which does not comply with the quality requirement referred to in condition 1.6 and all leachate from the Slimes dam 6 shall, by means of works which shall be constructed and maintained on a continuous basis by the Licence Holder and be lined as approved by the Responsible Authority, to prevent pollution to groundwater –

- 1.7.1 be treated to comply with the quality requirements referred to in condition 1.6;
- 1.8 Any development which occurs within 1:100 year flood line and/or within 500m from the boundary of a wetland would require a water use licence in terms of section 40 of the National Water Act, 1998 (Act 36 of 1998).

2 WATER QUALITY MANAGEMENT

2.1 Storm Water Management

- 2.1.1 All runoff water (stormwater) arising as a result of precipitation on land adjacent to the site must be prevented from entering the site, diverted and drained from the site.

3. MONITORING

3.1 Water monitoring

- 3.1.1 The applicant must establish and implement a ground water monitoring programme both upstream and downstream of the waste management facilities. The monitoring programme should also include the existing monitoring boreholes (TMB01 and TMB04).
- 3.1.2 A geophysical survey should be conducted prior to the siting and drilling of groundwater monitoring boreholes in an effort to optimise drilling positions as well as to delineate the structural geological features which could act as preferential groundwater flow paths.
- 3.1.3 Groundwater monitoring (quality and quantity) must be conducted on quarterly basis to quantify ongoing impacts on the groundwater resource during construction, operation and decommissioning phases.
- 3.1.4 Monitoring boreholes must be equipped with lockable caps. The Responsible Authority reserves the right to take water samples at any time and to analyse these samples or have them analysed.
- 3.1.5 In case of pollution at a later stage, the cause of the pollution must be determined and remediation measures should be implemented to reduce the potential for migration of any contaminants from the site.

3.1.6 In the event that the groundwater and downstream users are affected by migration of pollution, the Licence Holder should compensate the users with potable water.

3.2 Detection Monitoring

3.2.1. Monitoring for groundwater quality must be conducted for variables listed in Annexure 2 - quarterly or such frequency as may be determined by the Responsible Authority.

3.3 Investigative monitoring

3.3.1 If, in the opinion of the Responsible Authority, a water quality variable listed under the detection monitoring programme, as referred to in condition 3.2, shows an increasing trend, the Licence Holder shall initiate a monthly monitoring programme until such time that the variable is within acceptable limits.

4 METHODS OF ANALYSIS

4.1 The Licence Holder shall carry out all tests in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), referred to in the Standards Act, 2008 (Act 08 of 2008), to analyse the samples taken under the monitoring programmes specified in condition 3.

4.2 The Licence Holder shall only use another method of analysis if written proof that the method is at least equivalent to the SABS method, is submitted to the Responsible Authority.

5 AUDITING

5.1 Audits and inspections

5.1.1 The Responsible Authority reserves the right to audit and/or inspect the Site at any time and at such a frequency as the Responsible Authority may decide, or to have the Site audited or inspected.

5.1.2 The Licence Holder must make any records or documentation available to the Responsible Authority upon request, as well as any other information the Responsible Authority may require.

6 REPORTING

6.1 Reporting of Incidents

- 6.1.1 The License Holder must, within 24 hours, notify the Responsible Authority of the occurrence or detection of any incident on the Site which has the potential to cause, or has caused water pollution.
- 6.1.2 The Licence Holder must, within 14 days, or a shorter period of time, if specified by the Responsible Authority, from the occurrence or detection of any incident referred to in condition 6.1.1, submit an action plan, which shall include a detailed time schedule, to the satisfaction of the Responsible Authority of measures taken to-
 - 6.1.2.1 correct the impact resulting from the incident;
 - 6.1.2.2 prevent the incident from causing any further impacts; and/or;
 - 6.1.2.3 prevent a recurrence of a similar incident.
- 6.1.3 In the event that measures have not been implemented within 21 days to address impacts caused by the incident referred to in condition 6.1.1, or measures which have been implemented are inadequate, the Responsible Authority may implement the necessary measures at the cost and risk of the Licence Holder.

6.2 Other Reports

- 6.2.1 The information required in terms of condition 2 must be reported to the Responsible Authority in a yearly report. The information must also be included into a trend report, which must contain a graphical presentation of all results obtained previously at any specific point, as well as an interpretation and discussion of the results of each monitoring occasion.
- 6.2.2 The Licence Holder must submit a written report to the Responsible Authority regarding any deviations from plans described in this RoD and must obtain written permission from the Responsible Authority before such deviations may be implemented.

7 GENERAL

- 7.1 The above conditions does not exempt the Licence Holder from compliance with any other legislation including Section 40 of the National Water Act, 1998 (Act 36 of 1998).
- 7.2 A water use licence application must be lodged with the Department of Water and Sanitation for all the activities that trigger Section 21 water uses of the National Water Act.
- 7.3 The licence Holder must adhere to Regulations on use of water for mining and related activities aimed at the protection of water resources dated 4 June 1999 (GN 704).

ANNEXURE I: WATER QUALITY VARIABLES REQUIRED FOR DETECTION MONITORING

Monitor at quarterly intervals for:

Alkalinity (P.Alk)

Ammonia (NH₃-N)

Chemical Oxygen Demand (COD)

Chlorides (Cl)

Electrical Conductivity (EC)

Nitrate (NO₃-N)

pH

Potassium (K)

Total Dissolved Solids (TDS)

Calcium (Ca)

Fluoride (F)

Magnesium (Mg)

Sodium (Na)

Sulphate (SO₄)

Boron (B)

Iron (Fe)

Titanium (Ti)

Zirconium (Zr)

Oxygen and Hydrogen isotopes

ANNEXURE 2: REASONS FOR THE DECISION

1. 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 application form received by the Department on 12 April 2018;
- b) The Scoping report received by the Department on **25 May 2018** accepted on **27 June 2018**;
- c) The information contained in the EIA and EMPr received by the Department on received in 14 November 2018;
- d) The objectives and requirements of the applicable and relevant legislation, policies and guidelines and the NEMA EIA Regulations;
- e) All the specialist studies as indicated on point 2 below;
- f) Public Participation Process (PPP) report attached as Appendix 8A- E of the EIA and EMPr received by the department on 14 November 2018;
- g) The findings of site inspection conducted by the officials of this Department on 22 December 2018.

2. Key factors considered in making the decision

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

- a) Public Participation Process (PPP) was undertaken and the applicant has satisfied the minimum requirements as prescribed in Chapter 6 of NEMA EIA Regulations for public involvement as the I&APs including Organs of the State that administer environmental laws were consulted and their comments were adequately addressed. The full results of public participation process

undertaken for the proposed mining project are attached in the EIA and EMPr Appendix 8A -E;

- b) The environmental impacts associated with the proposed activity will be addressed through the implementation of the proposed mitigation measures outlined in the EIA and EMPr compiled by Sue Reuther and Scott Masson of SRK Consulting and all the recommendations by the specialist studies attached in the EIA and EMPr;
- c) The RoD from DWS received on 03 May 2019;
- d) The Soil and Land capability Impact Assessment, Air quality Impact Assessment and the Groundwater Impact Assessment reports attached as appendix 11A -C of the EIA and EMPr;
- e) The Marine Ecology Impact Assessment, Freshwater Ecology Impact, and terrestrial Ecology Impact Assessment studies attached as Appendix 11D-F of the EIA and EMPr;
- f) Archaeology and Palaeontology Impact Assessment studies attached as Appendix 11G-H of the EIA and EMPr;
- g) Traffic and Geotechnical Impact Assessment studies attached as Appendix I-J of the EIA and EMPr;
- h) The Mine Residue Characterisation and Waste Classification report attached as Appendix 13A & B of the EIA and EMPr;
- i) Comments received from the Principal Inspector of Mines, Heritage Western Cape and other State Departments; and,
- j) The applicant complied with Section 24P of the National Environmental Management Act, 1998 (Act 107 of 1998) and provided the financial provision for the management of environmental impacts.

3. Findings

After consideration of the information and factors listed above, the department made the following findings –

- a) The potential impacts on the proposed site were clearly investigated and mitigation measures were outlined.
- b) The need and desirability of the project was clearly addressed.

- c) The findings of site inspection conducted by the officials of this Department on 22 December 2018 were as follows:
 - The slope of the proposed 10 Beaches is gently.
 - Vegetation was cleared on a portion of proposed 75 hectares inland mining which has now rehabilitated successfully. The area form part of Section 24G application.
- d) Public Participation Process complied with Chapter 6 of the 2014 EIA Regulations R.982 as amended by (GN 326). The PPP included, *inter-alia*, the following:
 - As required by the NEMA EIA Regulations as amended, relevant local, provincial and national authorities, conservation bodies, local forum and representatives, surrounding landowners and occupants were notified of the EIA and the release of the Scoping report for comment.
 - Newspaper advertisements announcing the EIA process, availability of the scoping report for review and inviting IAPs to register on the project were placed in Regional newspaper (Die Burger in Afrikaans and Local newspaper (Ons Kontrei in English and Afrikaans).
 - English and Afrikaans site posters with details of the project, EIA process and the EAP contact details were placed at Tormin Mine and along the access road to Gert du Toit-se-Baai.
 - Hard copies of the full Scoping report and EIA and EMPr were available for viewing at the Lutzville Public Library, Vredendal Public Library and SRK's office in Rondebosch.
 - An electronic version of the Scoping report and EIA and EMPr was available on SRK's website and all stakeholders were provided with a 30-day comment period until 14 May 2018 for Scoping report and until 18 October 2018 for the EIA and EMPr
 - All stakeholders on SRK's database were notified by email of the availability of the scoping report for comment on 12 April 2018 and EIA report for comment on 17 September 2018.
 - Proof of consultation and comments received from the Interested and Affected Parties is included in the EIA and EMPr;

- Comments and issues raised by interested and affected parties were adequately addressed and issues and responses summary is attached as Appendix 8B in the EIA and EMPr; and
- The register of interested and affected parties was opened and is included in the EIA and EMPr Appendix 8A.

ANNEXURE 2: DEPARTMENTAL STANDARD CONDITIONS

1 SCOPE OF AUTHORISATION

- 1.1 The holder of the IEA must be responsible for ensuring compliance with the conditions contained in the IEA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of IEA.
- 1.2 Any changes to, or deviation from the project description set out in this IEA must be approved in writing by this department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the department may request such information as is deemed necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the IEA to apply for further authorisation in terms of the EIA Regulations.
- 1.3 The activities, which are authorised, must only be carried out at the property indicated in the IEA and on the approved EMPr.
- 1.4 When any of the holders of the IEA contact details change including name of the responsible person, physical or postal address or telephonic details, the holder of the IEA must notify the department as soon as the new details become known to the holder of the IEA.
- 1.5 The IEA does not negate the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activity (ies).
- 1.6 The holder of IEA must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.

2 APPEAL OF AUTHORISATION

- 2.1 The holder of the IEA must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with EIA Regulation 4(2) do the following:
 - 2.2 Notify all registered I&APs of –
 - 2.2.1 The outcome of the application;
 - 2.2.2 The date of the decision;
 - 2.2.3 The date of issue of the decision and;
 - 2.2.4 The reasons for the decision as included in Annexure 1 and departmental standard conditions in Annexure 2.
 - 2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,
 - 2.4 Draw the attention of all registered I&AP's to the manner in which they may access the decision.
 - 2.5 Provide the registered I&APs with:
 - 2.5.1 Name of the holder (entity) of this IEA;
 - 2.5.2 Name of the responsible person for this IEA;
 - 2.5.3 Postal address of the holder;
 - 2.5.4 Telephonic and fax details of the holder and
 - 2.5.5 E-mail address of the holder if any.

3 COMMENCEMENT OF THE ACTIVITY (IES)

- 3.1 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE) and any employee without PPE must not be allowed on site.
- 3.2 This IEA must be provided to the site operator and the requirements thereof must be made fully known to him or her.
- 3.3 Hauling routes for mining vehicles and machinery must be clearly marked and appropriate signaling must be posted to that effect. Furthermore, movement of vehicles and machinery must be restricted to the approved mining areas.

- 3.4 Appropriate notification sign must be erected at the mining site, warning the public (residents, visitors etc.) about the hazard around the mining area and presence of mining vehicles and machinery.
- 3.5 Mitigation measures must be implemented to reduce the risk of erosion and alien species invasion during construction and operation of slime dam 6.
- 3.6 Topsoil stripped before construction must be protected from erosion, contamination and/or pollution and stockpiling of topsoil must not take place in the drainage lines or areas where it will impede water runoff.
- 3.7 If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility designed for such waste and the site must be rehabilitated to the satisfaction of the department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this department must be informed in this regard.
- 3.8 An integrated waste management approach that is based on waste minimization (waste management hierarchy) must be implemented and must incorporate avoidance, reduction, recycling, treat, reuse and disposal where appropriate. Ensure that no refuse generated in the mining area is placed, buried, dumped or deposited on the adjacent properties or public places and open space.
- 3.9 Uncontaminated storm water must be prevented from coming into contact with the waste management facility to prevent pollution of surface and ground water.
- 3.10 The waste generated during all phases of the activities must be stored in animal proof containers, and must be removed from site and disposed of at a registered disposal facility. Proof of disposal at a registered disposal facility must be kept and produced to any official of this department on request.
- 3.11 In terms of sections 28 and 30 of NEMA, any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the IEA reads through and understand the legislative requirements pertaining to the project. It is the holder of EA responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.

- 3.12 Vehicles and machineries must be serviced and maintained in the manner whereby excessive smokes and noise production is reduced to acceptable levels, and to prevent oil leaks. Servicing of machinery and vehicles must not take place on site.
- 3.13 Residents (if any) on the property and surrounding areas must be informed of any unusual noise activities in the mining area.
- 3.14 Dust suppression measures must be implemented on all exposed surface and access road to minimize and control airborne dust during all phases of the project.
- 3.15 Should any heritage remains be exposed during operation or any actions on the site, these must immediately be reported to the South African Heritage Resource Agency (SAHRA) and/or **Heritage Western Cape (HWC)** (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the South African Heritage Resource Agency (SAHRA) and or Heritage Western Cape (HWC).
- 3.16 Care must be taken to ensure that material and topsoil required for rehabilitation is free of contamination from hydrocarbons.
- 3.17 Refueling of machinery and mining vehicles must be done through a mobile bowser. Should any spills occur it must be cleaned immediately by removing spillage together with the polluted soil and dispose it at authorised disposal site permitted for the disposal of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and ground water resources.
- 3.18 Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works. Proof of disposal must be kept on site and be produced upon request.
- 3.19 The holder of IEA must ensure that any water uses listed in terms of Section 21 of National Water Act must get authorization from Department of Water and Sanitation prior to the commencement of such activity (ies).

3.20 This IEA does not purport to absolve the holder of IEA from its common law obligations towards the owner of the surface of land affected.

3.21 The holder of IEA must ensure that rehabilitation of the disturbed areas caused by operation at all times comply with the approved EMPr.

3.22 This IEA may be amended or withdrawn at any stage for non-compliance and provides no relief from the provisions of any other relevant statutory or contractual obligations.

3.23 The holder of IEA must note that in terms of Section 20 of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), no person may commence, undertake or conduct a waste management activity, except in accordance, with the requirements of norms and standards determined in terms of Section 19 (3) for that activity or a waste management license is issued in respect of that activity if license is required.

3.24 An appeal under Section 43(7) of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended) suspend an IEA or exemption or any provisions of conditions attached hereto, or any directive unless the Minister directs otherwise.

3.25 Should you be notified by the Minister of a suspension of the authorisation pending appeal procedure, you may not commence with the activity (ies) until such time that the Minister allows you to commence with such activity (ies) in writing.

3.26 The Department reserves the right to audit and/or inspect the activity (ies) without prior notification at any reasonable time and at such frequency as may be determined by the Regional Manager.

3.27 Subject to the commencement and duration requirements of the MPRDA, NEMA and NEMWA listed activities, this IEA is valid for the period for which the aforesaid Mining Right is granted provided that this activity commence within 10 years. If the commencement of the proposed activity does not occur within the specified period, the IEA lapses and a new application for IEA in terms of the NEMA and NEMWA must be made before the activity is undertaken.

- 3.28 The listed activity (ies), including site preparation, must not commence within 20 (twenty) calendar days of the date of the notification of the decision being sent to the registered I&APs. In the event that an appeal is lodged with the appeal administrator, the effect of this IEA is suspended until such time as the appeal is decided.
- 3.29 Should there be any conflicting conditions between this IEA and other approval granted by other authorities, it is upon the holder of IEA to bring it to the attention of the Department for resolution.

4 MANAGEMENT OF ACTIVITY (IES)

- 4.1 A copy of the IEA and EMPr must be kept at the property or on site office where the activities will be undertaken. The IEA and EMPr must be produced to any authorised officials of the Department who request to see it and must be made available for inspection by any employee or agent of the holder of the IEA who works or undertakes work at the property (ies).
- 4.2 The contents of the EMPr and its objectives must be made known to all contractors, subcontractors, agent and any other people working on the site, and any updates or amendments to the EMPr must be submitted to the department for approval.
- 4.3 Any complaint received from the I&AP during all phases of the facility must be attended to as soon as possible and addressed to the satisfaction of all concerned interested and affected parties.
- 4.4 The holder of the IEA must prevent nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards.
- 4.5 The holder of the IEA must ensure that all non-recyclable waste are disposed of at a waste management facilities licensed to handle such wastes and all recyclable waste are collected by licensed waste management facilities for recycling, reuse or treatment.
- 4.6 In order to prevent nuisance conditions, the holder of the IEA must ensure that all storage skips and bins are not overfilled. The holder of the EA must also make sure that littering of waste within the mining area is prohibited.

- 4.7 Non-compliance with any condition of this IEA and the approved EMPr is an offence in terms of section 49A(1)(c) of NEMA and may result in criminal proceedings and issuing of a directive in terms of Section 28 and or a compliance notice in terms of section 31L of NEMA.
- 4.8 Only listed activity (ies) that are expressly specified in the IEA must be undertaken, and additional or new activities not specified herein must be applied for by the holder and authorised by the competent authority in the form of an amendment of the IEA and the EMPr before such activities may be commenced with. This condition is also applicable in the case of the amendment, addition, substitution, correction, and removal or updating of any detail in the aforesaid IEA and EMPr.
- 4.9 Rehabilitation of the disturbed surface caused by operation must comply with the approved EMPr.
- 4.10 The holder of IEA must appoint the ECO before commencement of construction and operational activities and ensure that the name and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of IEA must also ensure that an ECO is always available on site during construction and operational activities of the slime dam 6 at all times comply with the issued IEA and approved EMPr.
- 4.11 The ECO must:
 - 4.11.1 Keep and maintain a detailed incidents register (including any spillages of fuels, chemicals or any other material).
 - 4.11.2 Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints.
 - 4.11.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.
 - 4.11.4 Keep copies of all environmental reports submitted to the department.
 - 4.11.5 Keep the records of all permits, licences and authorisations required by the operation.
 - 4.11.6 Compile a monthly monitoring report and make it available to the department if requested.

4.11.7 The duties and responsibility of the ECO must not be seen as exempting the holder of the IEA from the legal obligations in terms of NEMA.

4.12 The footprint of the activities must be limited on the areas authorised for the actual construction works and operational activities and all areas outside of the footprint must be regarded as a "no go" areas.

5 REPORTING TO THE DEPARTMENT

5.1 The holder of IEA must:

- 5.1.1 Submit an Environmental Audit Report to this Department annually and such report must be done by qualified Environmental Assessment Practitioner and the audit report must specify whether conditions of this IEA and EMPr/closure plan are adhered to;
- 5.1.2 the audit report must be in accordance to appendix 7 of the 2014 EIA regulations as amended;
- 5.1.3 identify and assess any new impacts and risks as a result of undertaking the activities, if applicable;
- 5.1.4 identify shortcomings in the EMPr/closure plan, if applicable;
- 5.1.5 identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMPr;
- 5.1.6 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate and must;
- 5.1.7 be submitted by the holder to the competent authority within 30 days from the date on which the auditor finalised the audit.

5.2 Should any shortcomings in terms of Regulation 34(4) be identified, the holder must submit recommendation to amend the EMPr/closure plan in order to rectify any shortcomings identified with the aforementioned audit report.

5.3 The holder of the IEA must annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.

5.4 The holder of the IEA must, within 24 hours of any incidents occurring, notify the Competent Authority of the occurrence or detection of any incident on the site, or incidental to the operation of the site, which has the potential to cause, or has caused pollution of the environment, health risks, nuisance conditions or water pollution.

5.5 The holder of the IEA must, within 14 days, or a shorter period of time, if specified by the Competent Authority from the occurrence or detection of any incident referred to in condition 5.4, submit an action plan, which must include a detailed time schedule, and resource allocation signed off by top management, to the satisfaction of the Competent Authority of measures taken to –

- 5.5.1 Correct the impact resulting from the incident;
- 5.5.2 Prevent the incident from causing any further impact; and
- 5.5.3 Prevent a recurrence of a similar incident.
- 5.5.4 In the event that measures have not been implemented within 21 days of the incident referred to in condition 5.4, or measures which have been implemented are inadequate, the Competent Authority may implement the necessary measures at the cost of the holder of the IEA.

6 SITE SECURITY AND ACCESS CONTROL

- 6.1 The holder of the IEA must ensure effective access control to the site to reasonably prevent unauthorised entry. Signs indicating the risks involved in unauthorised entry must be displayed at the entrance.
- 6.2 The mining area must be fenced off and lockable gates must be installed to restrict unauthorised access to the mining area.
- 6.3 Weather proof, durable and legible notices in at least three official languages applicable in the area must be displayed at the entrance to the Site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the holder of the IEA and the person responsible for the operation of the site.

7 EMERGENCY PREPAREDNESS PLAN

- 7.1 The holder of the IEA must draft, maintain and implement an emergency preparedness plan and review it annually when conducting audit and after each emergency and or major accident. The plan must, amongst others, include:
 - 7.1.1 Site Fire
 - 7.1.2 Spillage
 - 7.1.3 Natural disasters such as floods
 - 7.1.4 Industrial action
 - 7.1.5 Contact details of police, ambulances and any emergency center closer to the site.
- 7.2 The holder of IEA must ensure that an up to date emergency register is kept during all phases of the operation. This register must be made available upon request by the department.

8 INVESTIGATIONS

- 8.1 If, in the opinion of the Competent Authority, nuisances or health risks may be or is occurring on site, the holder of the IEA must initiate an investigation into the cause of the problem or suspected problem.
- 8.2 If, in the opinion of the Competent Authority, pollution may be or is occurring, the holder of the IEA must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include the monitoring of the water quality variables and air quality, at those monitoring points and such frequency as may be specified by the Competent Authority.
- 8.3 Investigations carried out in terms of conditions 8.1 and 8.2 above must include the monitoring of the relevant environmental pollution and/or degradation, nuisance and health risk variables, at those monitoring points and such frequency to be determined in consultation with the Competent Authority.
- 8.4 Should the investigation carried out as per conditions 8.1 and 8.2 above reveal any unacceptable levels of pollution, the holder of the IEA must submit mitigation measures to the satisfaction of the Competent Authority.
- 8.5 The holder of the IEA must comply with Section 28 of the NEMA and ensure that the construction and operational activities are conducted in an environmentally friendly manner.

9 COMMISSIONING AND DECOMMISSIONING

- 9.1 The commissioning and decommissioning of listed activities must take place within the phases and timeframes as set out in EMPr.

10 SITE CLOSURE

- 10.1 The holder of IEA must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of development.
- 10.2 The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.
- 10.3 No exotic but, only indigenous plants must be utilized for rehabilitation purposes.
- 10.4 The holder of IEA remains responsible for any environmental liability, pollution or ecological degradation, the pumping and treatment of extraneous water, compliance with the conditions of IEA and the management and sustainable



closure thereof until the Minister has issued a Closure Certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002). Where necessary the Minister may retain certain portion of financial provision for residual, health or environmental impacts that might be known in future.

11 NEMA PRINCIPLES

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

12 DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

13 RECOMMENDATIONS

In view of the above, the Department is satisfied that, subject to compliance with the EMPr/closure plan and conditions stipulated in the Integrated Environmental Authorisation, the activities will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA, and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels. The Integrated Environmental Authorisation (IEA) is accordingly granted.

Your interest in the future of our environment is appreciated.

Kind Regards

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REGIONAL MANAGER: MINERAL REGULATION
WESTERN CAPE REGIONAL OFFICE

DATE:

