forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

RISK MANAGEMENT PLAN IN TERMS OF REGULATION 10 OF THE WASTE EXCLUSION REGULATIONS

	(For official use only)
File Reference Number:	12/9/11
NEAS Reference Number:	
Date Received:	

Risk Assessment for an application for exclusion of waste stream or portion of waste stream in terms of the National Environmental Management: Waste Act, 2008(Act No.59 of 2008), as amended.

Kindly note that:

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.

2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.

3. Incomplete forms (including information as required in the application form may be returned to the applicant for revision and the inclusion of additional information.

4. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

BACKGROUND INFORMATION	
APPLICANT	**Ekapa Minerals (Pty) Ltd**
CONTACT PERSON	**Ester van der Westhuizen-Coetzer**
NAME	**Ester van der Westhuizen-Coetzer**
ADDRESS	1 Molyneaux Road, Beaconsfield, Kimberley
E-MAIL ADDRESS	Ester.vanderWesthuizen-Coetzer@ekapagroup.com
TELEPHONE	053 838 7274
CELL PHONE	0723350273

WASTE FACILITIY OR FACILITIES						
SOURCE (S) OF WASTE	Re-mining of tailings for diamond recovery					
WASTE TO BE BENEFICIATED	Kimberlite Coarse Tailings and Kimberlite Fine Tailings					
GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES	**LATITUDE**			**LONGITUDE**		
	Kimberlite Fine Tailings (CTP Paste Facility)					
	28°	47'	43.45"	24°	49'	41.23"
	28°	48'	7.39"	24°	48'	44.97"
	28°	47'	39.32"	24°	48'	16.95"
	28°	47'	26.92"	24°	48'	15.17"
	28°	46'	40.33"	24°	48'	49.52"
	28°	46'	58.52"	24°	50'	4.04"
	28°	47'	43.45"	24°	49'	41.23"
	Kimberlite Coarse Tailings (TMR29)					
	28°	45'	25.73"	24°	48'	28.04"
	28°	45'	7.43"	24°	48'	48.86"
	28°	45'	36.46"	24°	49'	19.80"
	28°	46'	0.09"	24°	48'	59.39"
	28°	45'	56.27"	24°	48'	40.07"
BENEFICIAL USE/S	Stormwater Berms (Kimberlite Coarse Tailings) and Agricultural Mineral Stabilizing Agent (Kimberlite Fine Tailings)					

WASTE GENERATING PROCESS		
MSDS ATTACHED IF HAZARDOUS	YES✓	~~NO~~
WASTE GENERATING FACILITY	HAZARDOUS✓	~~GENERAL~~

RISK MANAGEMENT PLAN

Activity	Risk Description	Action(s) to minimise/ manage the risk	Responsibility (Who is responsible to do it)
Placement of coarse residue tailings as berms around the opencast pits	Leachate or affected run-off from stockpiled material during rainfall	• Implement storm water management infrastructure around the berms to contain all affected surface water runoff. • Affected water to be diverted towards to the existing affected water management system. • Downstream surface and groundwater monitoring should be undertaken to quantify the risk as a result of water runoff from the area.	Generator
Loading of material onto trucks on the mine (coarse residue & tailings paste)	Uncontrolled dispersion of dust	**Preventative mitigation measure** • Dust management during loading of material through wetting (depending on particle size analysis). • Depending on particle size, stop loading during extreme wind conditions.	Generator
		Corrective mitigation measure Wearing of relevant PPE (dust mask and eye protection) during loading where required.	Generator employees Transporter/s
Transportation of material on and of the mine (coarse residue & tailings paste)	Uncontrolled dispersion of dust	**Preventative mitigation measure** • Dust management during transportation will include ensuring vehicles follow an approved route that will limit the exposure of dust in nearby communities. • Side tippers with tarpaulin devices will be recommended for the transportation of the material locally on the mine, where the community can be exposed but dependant on the particle size. **Corrective mitigation measure** • None	Transporter/s

Activity	Risk Description	Action(s) to minimise/ manage the risk	Responsibility (Who is responsible to do it)
		Preventative mitigation measure • Compliance with the Road Traffic Act. **Corrective mitigation measure** • Implementation of the Emergency response plan. • Use of Safety Data Sheet (SDS) with hazard classification which is provided to all customers and transporters.	
Off-loading of material on and off the mine (coarse residue & tailings paste)	Uncontrolled dispersion of dust	**Preventative mitigation measure** • Dust management during off-loading of material through wetting (depending on particle size analysis). • Stop off-loading of material during extreme wind conditions. **Corrective mitigation measure** • Wearing of relevant PPE (dust mask and eye protection) during off-loading where required.	Transporter/s User/s
Storage of material off the mine (tailings paste)	Uncontrolled dispersion of dust Seepage into water resource/s	**Preventative mitigation measure** • Storage area designed to prevent rainfall run-off from carrying dust away. **Corrective mitigation measure** • The use of Safety Data Sheet (SDS) with hazard classification which is provided to all users. • Clean-up plan to be implemented where material is carried away from storage area.	Product users
Handling of material (i.e. beneficial use off the mine tailings paste)	Uncontrolled dispersion of dust and soil and water pollution	**Preventative mitigation measure** • Dust management during handling of material through appropriate processes suitable to the particle size and the process. • Adherence to production process and product standards and regulations. • Ensure that stormwater from rainfall run-off is controlled and not excessive to pollute nearby rivers/streams. **Corrective mitigation measure** • Wearing of relevant PPE (dust mask and eye protection) during handling where required. Pelletising the tailings paste will result in greater weight and minimisation of dust generation.	Product users

Activity	Risk Description	Action(s) to minimise/ manage the risk	Responsibility (Who is responsible to do it)
		• Addition of organic matter as a carbon source (i.e. biochar) will result in slow release that can act as slow release fertiliser and aid in the process of capturing and storing atmospheric carbon dioxide. • Plan stormwater management systems properly to prevent runoff pollution. • Prevent excessive erosion from occurring through implementing erosion preventative measures. • Prevent excessive erosion from occurring through implementing erosion preventative measures.	

I, HOWARD MARSDEN (the Applicant) hereby declare that I have read the completed Risk Management Plan form and hereby confirm that the information is, to the best of my knowledge, true and correct

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

Signature of the applicant[1]/ Signature on behalf of the applicant:

H. MARSDEN

Name of Applicant:

CONTRACT MANAGER.

Designation

14 August '23

Date:

[1] If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

The basic overview of the mining method used by Ekapa Minerals includes the following:

The mining method employed in Ekapa Minerals includes dozing and loading or excavation and loading and hauling of Tailings Mineral Residue ("TMRs") to the Combined Treatment Plant ("CTP") for treatment.

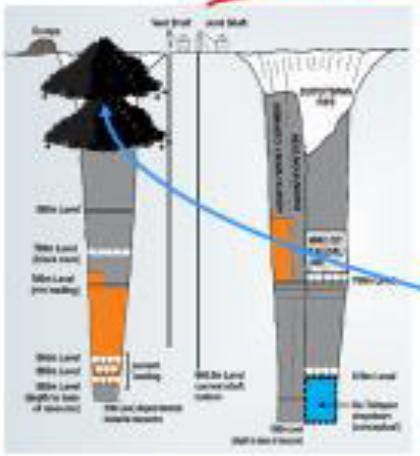
Ekapa currently produces two types of mine residue, namely **Coarse Residue Deposits ("CRD")** (tailings) and **Fine Residue Deposits ("FRD**") (slimes/paste).

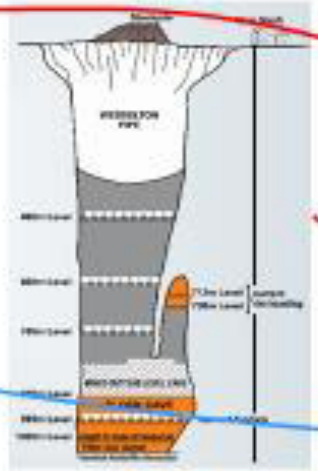
The main difference between the coarse and fine tailings is the particle size of the fines material that is smaller than 0.8 mm in diameter.

Processing Method

All TMRs and underground material (ROM from the Ekapa Resource operation) are treated at the CTP. The CTP comprises the following sections:

1. Ore Receiving – the introduction of material from the various sources;
2. Scrubbing – disagglomeration of clay and primary sizing for the reconcentration sections;
3. Degrit – removal of grits (-1.15 mm) for thickening;
4. Rotary pan section – concentration of Fines DMS feed material;
5. Dense Media Separation ("DMS") – concentration of Final Recovery feed material;
6. Final Recovery/Sorthouse – final X-Ray processing of concentrates to extract diamonds;
7. Thickening and tailings disposal – disposal of fines and coarse residue;
8. Recrush – crushing of oversize material and DMS float material; and
9. Services – power, water, utilities.





CTP – TMR &

Surface TMR's

CTP – Plant

In pit deposition – CRD and Paste after Bult depleted – 3 to 4 years then stop paste and CRD

Coarse Residue Deposit

CTP – Paste

Initial Feed & Diamond Production	
ROM Feed	1.8mtpa
ROM Carats	0.2 Mcts
Tailings Feed	7.2mtpa
Tailings Carats	0.7Mcts
TOTAL Tonnes	9mtpa
TOTAL Carats	0.9Mcts

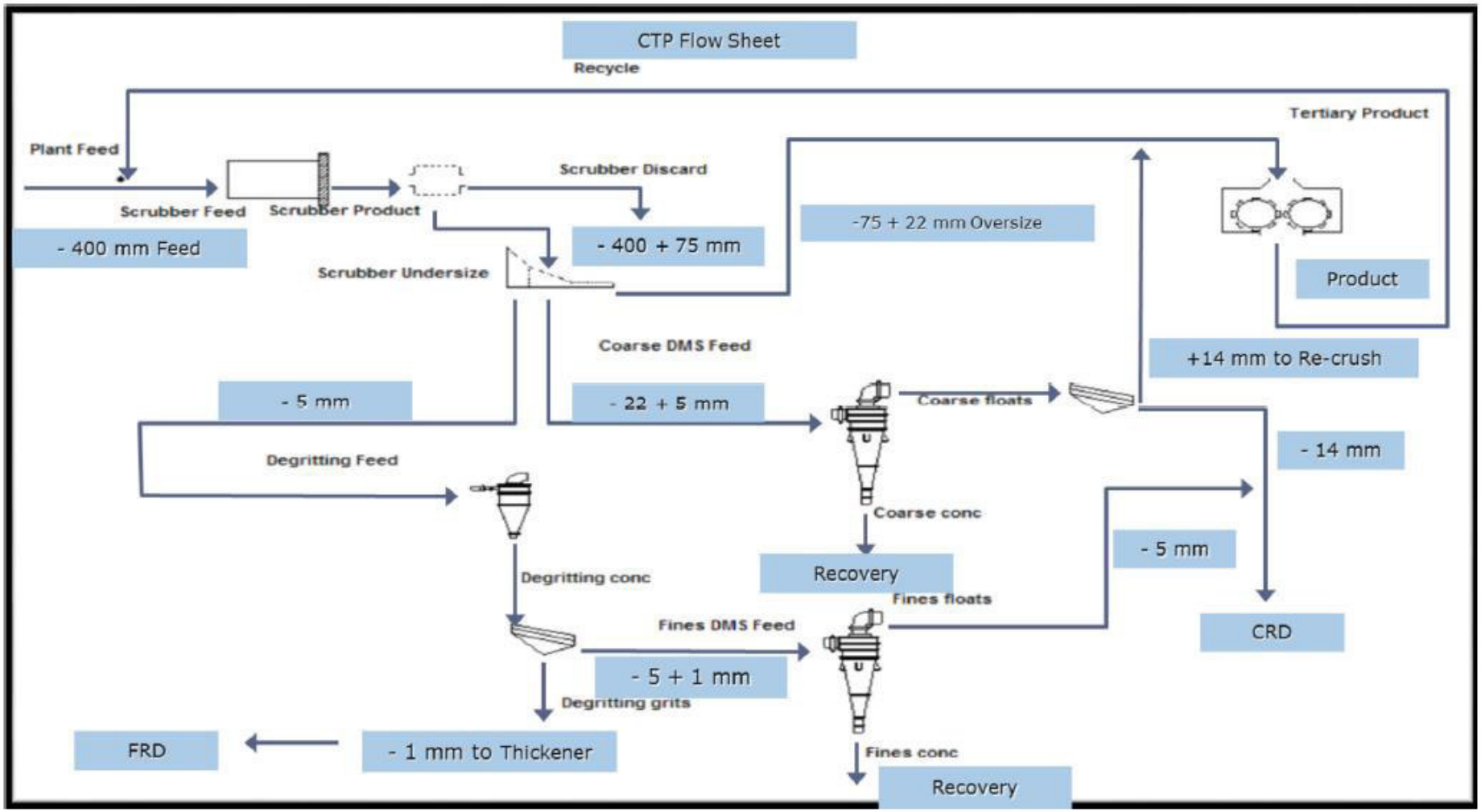


Figure 3: Process Flow illustration of the CTP