



Submitted to: Votorantim Metals Namibia (Pty) Ltd. Attention: Mr Fernando Henrique Baia P O Box 97957 Maerua Mall Windhoek. Namibia

# **REPORT:** EXPLORATION ACTIVITIES ON EPL 7213 –

# **COMPLIANCE REPORT**

PROJECT NUMBER: ECC-88-427-REP-02-A

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#### **TERMS AND ABBREVIATIONS**

ABBREVIATIONS	DESCRIPTION
DEA	Directorate of Environmental Affairs
DD	diamond drilling
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMP	environmental management plan
EPL	Exclusive Prospecting Licence
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
RAB	Rotary Air Blast



# **1 INTRODUCTION**

#### 1.1 COMPANY BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained by Votorantim Metals Namibia (Pty) Ltd referred to hereinafter as the Proponent. The Proponent currently holds a valid environmental clearance certificate for exploration activities on EPL 7213, for which a renewal is being applied. As part of this application, an environmental compliance audit has been undertaken to determine the status of compliance with the environmental management plan.

The project located predominantly in the Kunene region, approximately 60 km north of Outjo (15 km into the C38 road and 45 km into the D2780 road). About 5 % of the eastern portion of the EPL lies the Otjozondjupa region see Figure 1.

#### Disclaimer

This report has been compiled by means of a desktop study, including the revision of relevant reports and all records made available by the proponent. ECC did not conduct any field verification and therefore rely on the proponent's integrity to uphold conditions specified in the EMP.



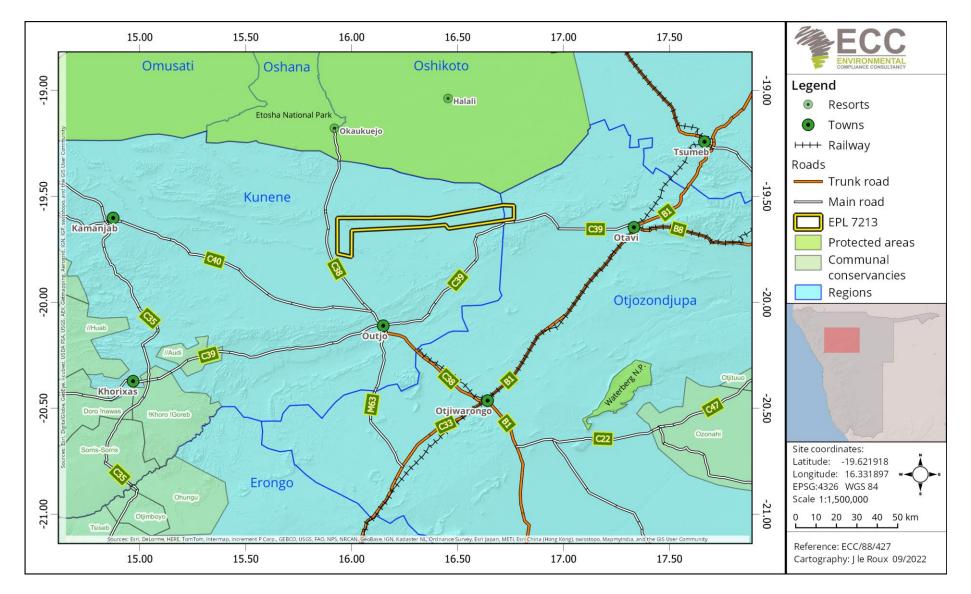


Figure 1 – Project location



#### 1.2 THE PROPONENT OF THE PROPOSED PROJECT

Votorantim Metals Namibia (Pty) Ltd is the Proponent for the proposed project. The Proponent has a head office in Namibia's capital, Windhoek, and the Proponents' details are provided in Table 1.

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#### Table 1 – Proponents details

#### 1.3 ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Compliance Consultancy (ECC) (Reg. No. CC 2013/11401) has prepared this renewal report on behalf of the Proponent. This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the proponent and has no vested or financial interest in the project, except for fair remuneration for professional fees rendered based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report or the assessment, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of Votorantim Metals Namibia (Pty) Ltd. No member or employee of ECC has, or has had, any shareholding Votorantim Metals Namibia (Pty) Ltd.

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#### 1.4 PURPOSE OF REPORT

The purpose of this report is to document the findings of an environmental compliance audit, which accompanies the renewal application for the environmental clearance certificate for EPL 7213.

The approved EMP for the existing environmental clearance certificate is audited to monitor the proceeds of the project and ensure that all measures stipulated in the document are met and effectively adhered to, as required by the Department of Environmental Affairs (DEA). In an event where the project activities are altered, the EMP is required to be revised and amended accordingly.

As per the Environmental Management Act, No. 7 of 2007 and its EIA Regulations of 2012, exploration activities on EPL 7213 cannot be undertaken without a valid environmental clearance certificate. The exploration activities at EPL 7213 proposes to assess the viability of base and rare and precious minerals, that can be found in the EPL 7213 area. The proposed methods of exploration have minimal impacts, as they are done on a small scale and rehabilitation of the natural vegetation will be done as per the approved EMP.



# 2 BACKGROUND TO EPL 7213

The Proponent carries out low-impact exploration activities on EPL 7213 for base and rare metals, industrial minerals and precious metals in the Grootfontein District, Otjozondjupa Region. The Proponent wishes to continue with exploration activities on Exclusive Prospecting Licence (EPL) 7213.

#### 2.1 RENEWAL ACTIVITIES

The proposed project is for the exploration of base, rare and precious metals and industrial minerals. As part of the proposed exploration project, the following activities are envisaged, which shall be further defined as the exploration program is refined:

- Drilling (Diamond and RAB)
- Mineral sampling
- Surface sampling of soil, calcrete and/or rock chips



# **3 ENVIRONMENTAL COMPLIANCE AUDIT**

#### 3.1 SITE INSPECTION

#### 3.1.1. Bi-annual monitoring

An environmental report is submitted to the Ministry of Environment, Forestry and Tourism biannually reporting on periods from January to June and July to December. These reports report on compliance with regards to the activities taking place on-site, roads or tracks made or used, accommodation structures and infrastructure erected, any rehabilitation done, and any incidents of conflict reported.

#### 3.1.2 Activities for the monitoring period

For opening of accesses and sites, priority was given to places with less vegetation (bush), sparing the medium to large trees. Access tracks were opened manually where possible, in order to avoid use of machinery that could remove the fertile soil cover and generate irregularities in the natural terrain.

The sites followed the standard requirements of the company, with demarcation of boundaries by barricading tape, bunding (plastic protection) under the rig to avoid contamination of the soil by oils and greases, toilet placed near the rig for use by the survey team, shady tent to lunch and rest. Products added to water to increase viscosity are biodegradable and non-contaminating.

From the period July to December 2020 the proponent carried out soil smapling and geological mapping. 1718 soil sample pits were dug and rehabilitated. Approximately 13km line-cutting x 1 m wide was carried out for AMT and IP geopgysical surveys. 798 pits were dug for geophysical elefctrodes and were then rehabilited.

From January to June 2021 new tracks were made, 1km long. Soil sampling pits were dug of the dimension 0.008m<sup>3</sup> and were rehabilitated. Water and sampling holes were drilled. 1 RAB water borehole with adepth of 120m, 4 Diamond drilled sampling boreholes with a total meterage of 1104.85m and 13 RAB boreholes for sampling with a total meterage of 145m. The 13 RAb boreholes were drilled for geological mapping and geochemical sampling. In total 987 soil samples were taken.

From July to December 2021 drill access tracks and one drill site was cleared of bush of a total 0.15ha. 0.1ha of access track in an bush encroached area was cleared for drilling access. The access track was made by hand which left the soil undisturbed. Which will allow grass to regrow. One sump for water recycling purposedwas dug of the dimension 1.125m<sup>3</sup> and were rehabilitated. Diamond drilled a sampling borehole with a total meterage of 305.47m was dug.

All return tanks (sumps) were closed, top grease material was collected and deposited at the Otavi waste disposal site. The recovery of vegetation will occur gradually and naturally,



through grass seeds that are in the soil and should start from the arrival of the rainy season (December to February).

Access tracks will be maintained for future exploration activities. It should be noted that all farmers are aware of the recovery methods used and are not opposed to these in any way. The owners were previously notified of the drilling activities, and according to the company's surface access agreement, they were compensated for the drill access tracks, the of water for drilling, and the use of firewood, water and permission to camp by the drilling team. Chemical toilets were used at the drilling and camping sites.



Figure 2 - Plastic lined sumps and drilling in progress



Figure 3 - Drilling in progress





Figure 4 - Shower facility



Figure 5 - Camp with storage container





#### Figure 6 - Chemical toilet



Figure 7 - Fenced camp site with container kitchen, chemical toilets, water borehole, submersible pump and solar panels



#### 3.2 ANNUAL COMPLIANCE AUDIT

Furthermore, the approved EMP covers all adverse environmental impacts, including any additional potential impacts that may result from the exploration activities at EPL 7213. The EMP provides the technical details for each mitigation, monitoring and institutional measure, including the impact(s) to which it relates and the conditions when required, together with designs, equipment descriptions and operating procedures as granted.

#### 3.3 COMPLIANCE AUDIT FINDINGS

This section outlines the findings of the environmental audit completed for the project. It addresses obligations in terms of the key Acts that govern the activities on site, the commitments made in the EMP, and present the findings and recommended corrective actions where applicable (Table 2).

The EMP:

- Identifies all mineral exploration activities that could cause environmental damage (risks and potential impacts) and provides a summary of actions required;
- Identifies institutions responsible for ensuring compliance with the EMP and provides their contact information;
- Provides standard procedures to avoid, minimise and mitigate the identified negative environmental impacts and to enhance the positive impact of the proposed activities on the environment;
- Provides for site and exploration rules and actions required;
- Forms a written record of procedures, responsibilities, requirements and rules for contractor/s, their staff and any other person who must comply with the EMP;
- Ensure zero pollution incidents; minimal vegetation clearing and earthworks, protect local flora, fauna, and water resources; and use water and other natural resources effectively and efficiently.
- Provides a monitoring and auditing programme to track and record compliance and identify and respond to any potential or actual negative environmental impacts, and
- Provides a monitoring programme to record any mitigation measures that are implemented.
- Ensure that an annual environmental audit is carried out by either MME or MEFT.
- Once exploration has ceased, any impacts shall be rehabilitated.

#### 3.4 ISSUES OF NON-COMPLIANCE

No issues of non-compliance were recorded for this licence period.



### Table 2 - Exploration EMP Audit

Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
Use of vehicles and equipment	<ul> <li>Hygiene and Safety</li> </ul>	<ul> <li>Amenities (e.g. portable toilets) shall be provided and set up in a suitable location (if required).</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	– Emissions	<ul> <li>All vehicles and machinery/ equipment to be shut down or throttled back between periods of use.</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	<ul> <li>The potential loss of oil and fuel causing ground contamination</li> </ul>	<ul> <li>Refueling shall be undertaken in a designated area</li> <li>All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	- Water contamination	<ul> <li>In the event of pollution, polluted soils must be collected and disposed of at an approved site</li> <li>Drill chemicals need to be approved to be non-hazardous and bio-degradable</li> <li>Water during drilling should be retained in a lined pond to prevent pollution</li> <li>A 'good housekeeping' policy shall be adopted across the construction and maintenance working area</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
	- Dust generation	<ul> <li>Use existing access roads and tracks where possible</li> <li>Apply dust suppression methods such as water spraying during drilling operations</li> <li>Restricted speeds (&lt;30km/h), and</li> <li>Specific activities that may generate dust and impact on residents shall be avoided during high wind events.</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	- Noise generation	<ul> <li>Noise shall be minimized as much as possible during the exploration works</li> <li>No hammering of drill rods with steel hammers in proximity to nearby farmhouses</li> <li>Drill equipment shall be suitably positioned to ensure that noisy equipment is away from human receptors</li> <li>Noise suppression measures shall be applied if drilling occurs in locations that may affect residents and during evening periods - Residents shall be provided at least two weeks' notice of drilling operations within 1 km of their property, and</li> </ul>	- Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
		- Continual engagement with residents		
	-	shall be undertaken with the proponent.		
– General	<ul> <li>Loss of access or</li> </ul>	- Access to farms and all farm areas shall	– Compliant	<ul> <li>The proponent will</li> </ul>
exploration	access affected to	always be made available, and		continue to ensure
activities	the farm and farm	- Cattle water holes and feeding areas to		mitigation measures are in
	areas, and farm	remain unaffected		place as per the EMP.
	operations			
- Vegetation	<ul> <li>Alien species</li> </ul>	- All project equipment arriving on site	– Compliant	- The proponent will
clearance		from an area outside of the project or		continue to ensure
		coming from an area of known weed		mitigation measures are in
		infestations (not present on the project		place as per the EMP.
		site) should have an internal weed and		
		seed inspection completed prior to		
		equipment being used		
		– Ensure the potential introduction and		
		spread of alien plants is prevented, and		
		– Ensure the correct removal of alien		
		invasive vegetation and prevent the		
		establishment and spread of alien		
		invasive plants.		
	– Dust generation	<ul> <li>Apply speed restrictions, and</li> </ul>	– Compliant	– The proponent will
	Dustgeneration	<ul> <li>Avoid off road driving</li> </ul>	compliant	continue to ensure
				mitigation measures are in
				place as per the EMP.



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
	- Reduced soil quality	<ul> <li>Use existing tracks where possible</li> </ul>	– Compliant	<ul> <li>The proponent will</li> </ul>
		- Refueling to occur in designated areas		continue to ensure
		with drip trays,		mitigation measures are in
		- Avoid bulldozing in erosion-prone areas,		place as per the EMP.
		and		
		- Avoid natural drainage lines for		
		exploration activities.		
	– Injure or kill animals	- No driving off designated access routes	– Compliant	- The proponent will
		(into the bush) / off-road driving		continue to ensure
		- No snares or catching of animals, no		mitigation measures are in
		keeping or housing of pets, and		place as per the EMP.
		- No animals or birds may be collected,		
		caught, consumed or removed from site		
		by the Contractor or personnel on site		
	<ul> <li>Removal of</li> </ul>	<ul> <li>Use existing tracks where possible</li> </ul>	– Compliant	– The proponent will
	vegetation, and	- Route new tracks around established		continue to ensure
	<ul> <li>Loss of flora and</li> </ul>	and protected trees, and clumps of		mitigation measures are in
	fauna,	vegetation		place as per the EMP.
	protected/important	- Identify rare, endangered, threatened		
	species.	and protected species. Demarcate and		
		avoid cutting down, and clearly highlight		
		to construction workers so that they are		
		avoided, and		
		<ul> <li>Avoid natural drainage lines.</li> </ul>		



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
Activity - Site and ground preparation – creation of access tracks and areas for setting up drill rigs	Potential Impacts - Heritage remains	<ul> <li>Discovery of unearthed archaeological remains to be uncovered, the following measures (chance find procedure) shall be applied:</li> <li>Works to cease, area to be demarcated with appropriate tape by the site supervisor, and the Exploration Manager to be informed</li> <li>Exploration Manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform the Environmental Consultant with the GPS position if possible</li> <li>If works cannot proceed without damage to findings, to findings, Exploration Manager to inform the Environmental Consultant for the archaeologist inspection and advice</li> <li>Inform the police if the remains are</li> </ul>	Compliance – Compliant	Comments - The proponent will continue to ensure mitigation measures are in place as per the EMP.
		<ul> <li>Inform the police if the remains are human, and</li> <li>Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or</li> </ul>		



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
		National Forensic Laboratory as directed.		
<ul> <li>Fuel handling and storage</li> </ul>	<ul> <li>Loss of containment leading to ground or groundwater contamination</li> </ul>	<ul> <li>Safe Delivery and handling:</li> <li>Training employees and Toolbox Talks</li> <li>Good housekeeping across site</li> <li>Fuel is handled with care</li> <li>Spill kits to be available for use during refueling, fuel delivery or use.</li> <li>Absorption material should be available. Where saw dust is used it should be cleaned up immediately and not left for long periods</li> <li>Any spill is to be reported to the Exploration Manager once containment has been achieved.</li> <li>Plant and equipment to be well maintained and serviced regularly, and</li> <li>In the field, use of hydrocarbons under 200 liters can be used for mobile refueling or servicing.</li> <li>Fuel spills of greater than 200 liters are to be reported to the MME in terms of the Petroleum Products and Energy Act, 1990</li> </ul>	- Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



Activity		Potential Impacts	Management/Mitigation Measures	Compliance	Comments
			<ul> <li>Storage:</li> <li>All tanks to be stored on a non-porous floor and bunded area</li> <li>Bund to be capable of storing at least 110% of the volume of the tank</li> <li>All containers to be suitable for use and not damaged</li> <li>Tanks are locked at all times, and</li> <li>Spill kits available at in suitable locations. Refueling:</li> <li>Drip trays to be used during refueling of vehicles and on an impermeable flat surface where possible, and</li> <li>Funnels should be available and used to</li> </ul>		
Generation waste	of	<ul> <li>Nuisances (odors and visual)</li> <li>Land use, and</li> <li>Litter (nuisance and ecological risk).</li> </ul>	<ul> <li>avoid spillage during decanting.</li> <li>Training and Toolbox Talks</li> <li>Good housekeeping across site</li> <li>All working areas shall apply good house- keeping</li> <li>Implement the waste management hierarchy across site: Avoid, reuse, recycle, then disposal through burning or landfill</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
		<ul> <li>Waste shall be collected and shall be removed on a regular basis to avoid pests and bad odors, and</li> <li>It is unlikely that hazardous material and wastes will be produced, however in the event that they do, they shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials. Hazardous and non-hazardous waste shall be stored separately at all times</li> </ul>	Compliant	The proposet will
Resource use	<ul> <li>Inefficient use of water</li> </ul>	<ul> <li>Use water effectively and efficiently</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
Job creation	<ul> <li>Employment creation and skills development opportunities during the exploration phase.</li> </ul>	<ul> <li>Maximize local employment and local business opportunities</li> <li>Enhance the use of local labor and local skills as far as reasonably possible</li> <li>Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible.</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



# 4 REHABILITATION

The proponent ensured that all impacts caused by them during exploration activities were rehabilitated should no further use of the land be required. When selecting sites for access roads and drill sites, priority was given to areas with little vegetation cover, while sparing medium to large trees in order to minimize the amount of vegetation cleared. Drill hole sites were rehabilitated after drilling.

The recovery of vegetation will occur naturally and gradually, through seeds that are in the soil and should begin to regrow during the rainy season. Access tracks will be maintained for future exploration activities.



1. Drill site: NAOTVD000099 drilled from 8 July 2021 to 24 July 2021

Figure 8 - Drill hole site at NAOTVD000099



Figure 9 - Natural vegetation at planned drill-site before clearing





Figure 10 - Cleaned drill-site & capped site



# **5** CONCLUSION AND RECOMMENDATIONS

All proposed activities shall be carried out in compliance with the relevant requirements and conditions of the granted licence in accordance with the approved EMP. It is recommended that the Proponent continue to adhere to all environmental legislation and company standards to ensure that best practical environmental protection continues as the project activities progress.



#### APPENDIX A: ENVIRONMENTAL MANAGEMENT PLAN



#### **APPENDIX B - ENVIRONMENTAL CLEARANCE CERTIFICATE**





**APPENDIX C – BI-ANNUAL REPORTS**