



## **Chrome Solutions**

### **Business Background**

#### **1. BACKGROUND**

South Africa has the largest chromite reserves in the world, accounting for approximately 72.0% of the world's chrome. South Africa produced 16.6 Mt of chrome in 2017 which is approx. 54.7% of world production.

Most of South Africa's chrome is exported to China which is the largest consumer in the world by far. Unfortunately, the local communities, although they have access to mining permits, struggle to capture the value and benefits from the mineral due to a lack of adequate expertise and capital.

The main large scale mining operation in the area was conducted at Horizon Chrome Mines which was initially a JV between Xstrata and Merafe Resources. In 2017 Azure Group controlled the mine and in 2020, the company was placed in business rescue due to Covid and the depressed market price of chrome.

#### **2. GOALS**

Chrome Solutions (The Company) aims to position itself as a low-cost 100% Black-owned small producer of chrome concentrate in conjunction with the local communities.

The communities will benefit from both employment opportunities and a fee per ton of raw input from the Horizon tailings and dump. In addition, part of the material to be processed will come in the form of ROM (Run of Mine) chrome ore which will be purchased from the many Mining Permit holders in the area.

Chrome Solutions have spent the past 3 years developing relationships within the RHB, local communities and the holders of Mining Permits.

Short-term goals:

- Process the tailings to extract chrome concentrate. The tailings are a higher grade than the dumps and are already fine, so no crushing is required
- Process the dump which is approximately 50% fines and 50% rocks. The rocks will require crushing in due course



- Buy in ROM to process the fines and sell the chrome lumpies
- Possibly conduct mining operations in conjunction with Mining Permit Holders

Long-term, the company would look at expanding to provide toll-washing operations for the small-scale miners.

### **3. Background to the business**

The plant is based in approx. 60kms from Rustenburg (Tlhatlhaganyane)

The company has conducted extensive research (by Kgaugelo Mosele) on the best-practice method for producing chrome at the lowest possible cost focusing on equitable sharing with local communities.

Chrome Solution's research, which has largely been meeting with people with vast chrome mining, processing, and engineering experience, has found that the capital cost of a small operation is not as prohibitive as the market generally portrays.

### **4. Pipeline and Future Projects**

Chrome Solutions is looking to expand its operations from the production of ROM (Run of Mine) which is an unrefined version of the mineral to CHROME concentrate. CHROME concentrate sells at a higher price allowing Chrome Solutions to capture this value and increase its revenue. Currently, the plant produces 66.5 Tons of concentrate an hour expansion of the facility will allow them to produce 80 Tons of concentrate per hour. Therefore, the funding will allow them to produce a higher value output in higher quantities.

### **5. FINANCE**

#### **Financial Projections**

Chrome Solution has provided financial projections for their business expansions as they look at producing chrome concentrate in larger quantities. Chrome solutions provided a 5-year projection that considers implantation costs from year zero to when income and profits will be generated.

As per their projections, the total finance required for this project is as follows:



<b>Expenditure</b>	<b>Value</b>
Capex	R 8,288,333
Working capital	R 1,711,667
<b>Total</b>	<b>R 10, 000,000</b>

### **S12J Funds raised**

The above-mentioned company has raised funds via the S12J SARS approved funding mechanism. Below is the table of the funds raised and expected returns via SARS

The return rate via SARS has been 80% and more to date.

<b>Date</b>	<b>Nominal</b>	<b>Assumption of SARS Refund At 80% refund.</b>
2022	R32,2 Million	R9,6 Million

Chrome Solutions has modelled the funding being introduced as Cumulative 18% Preference Shares over 5 years, with a bullet redemption of the shares at the end of the period. There is a Pref Redemption Fund built into the model. The Pref Investor will also hold 25% of the ordinary shares.

The funding structure is negotiable to fit the reasonable requirements of the investor.

### **Debtors and Creditors**

The financial projects offer a glimpse into chrome solution's payment plans for creditors. Logistically, The company sells concentrate on a freight on Truck (FOT) basis; therefore, the logistics risk is the buyers in this case and payment is made when goods are loaded onto the truck. The buyer takes the responsibility for the transportation costs and risks when the goods are loaded on the truck.



## 6. RISKS AND MITIGATION

Risk Area	Mitigation
1. Labour militancy	The Royal House of Batleng and CSI benefits should mitigate the risk
2. Feed supply	The Royal House of Batleng has an agreement with Horizon Chrome Mine and will contribute to this by way of a JV Agreement with Chrome Solutions
3. Payment Risk	Buyers pay for chrome before the upliftment
4. Logistics Risk	There is a variety of logistics operators in the area and therefore this is not a major risk. The company sells concentrate on a freight on Truck (FOT) basis; therefore, the logistics risk is the buyers in this case.
5. Monitoring, quality control	Input and the resultant concentrate are tested 3 times a day and Chrome Solutions has provided R10 per ton for this purpose. Volumes are controlled via load cells on the front-end loaders and are reported in real-time
6. Administration risks	Administration and accounting will be outsourced Production reports daily Management accounts at least monthly
7. Price Risk	The key to weathering a price storm is to be a low-cost producer which they are