

tharisa



● **KARO PGM PROJECT**
DEVELOPMENT OF TIER 1 PGM ASSET

31 MARCH 2022

PHASE ONE - KEY HIGHLIGHTS

WORLD CLASS PGM ASSET

Tier 1

LOM OPEN PIT

20 years

ANNUAL PGM PRODUCTION (6E)

150 koz + 0.10% Cu
+ 0.12% Ni

MINING LEASE FOR LOM

Licenced

OPEN PIT, SCALABLE, LOW COST, PHASED

Low risk

DEVELOPMENT TIMELINE

24 months

AVAILABLE IN COUNTRY

Skills

TECHNOLOGY AND PROCESS

Proven

PROJECT DEVELOPMENT AND TEAM

Successful record

“ I salute the Tharisa team who relentlessly pursued this project during extraordinary times. The socio-economic impact we will make as we build this world class mine will be felt throughout the country, while Tharisa's stakeholders will benefit equally as we deliver on this vital phase of our stated growth strategy. I could not be prouder.

”

LOUCAS POUROULIS
CHAIRMAN • THARISA PLC



“ Zimbabwe is open for business and we do welcome Karo and its partner, Tharisa to our wonderful country. We are proud of our rich endowment of natural resources, and we welcome an investor such as Karo onto our shores, an investor who we know will efficiently and to the benefit of all stakeholders develop this world class platinum project. Over the last three years we have witnessed Karo professionally working on the deposit and are excited to the establishment of the brand new platinum mine in the next two years.

”

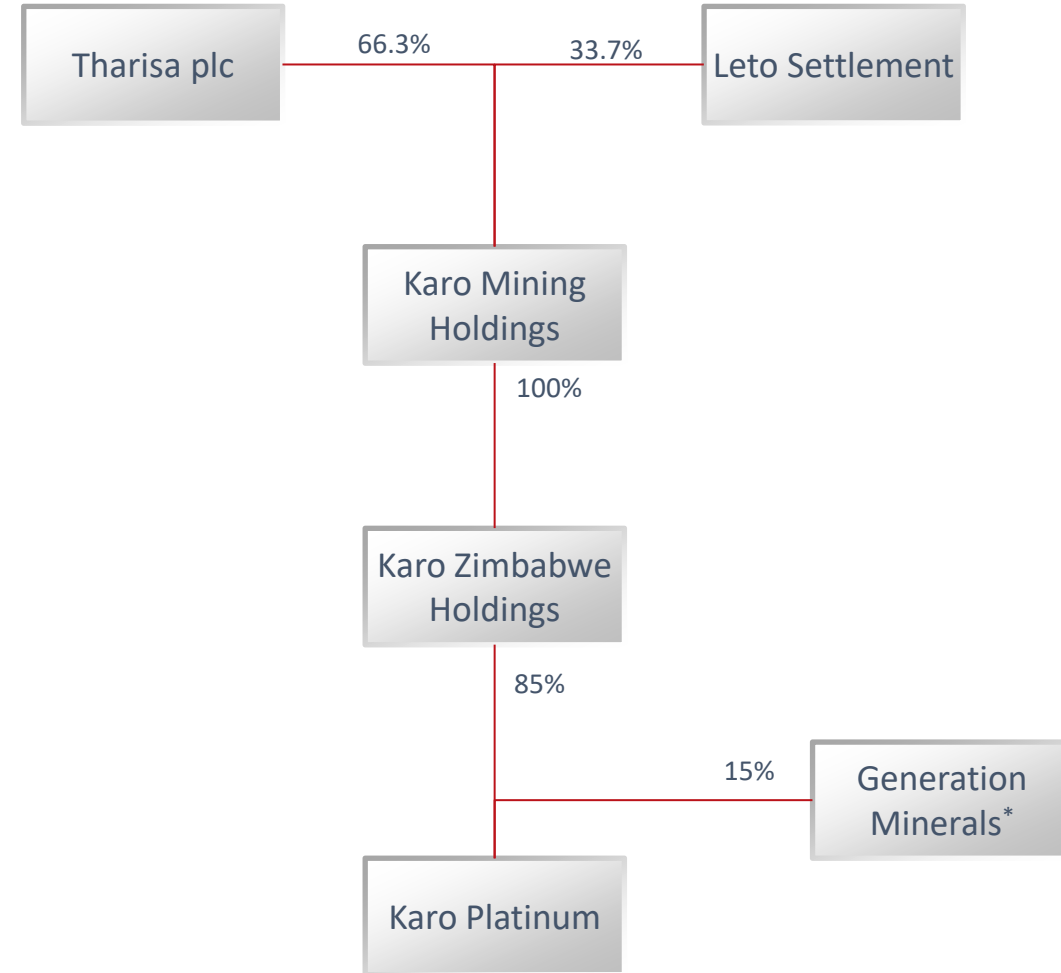
HON. WINSTON CHITANDO
MINISTER • MINES AND MINING DEVELOPMENT



TRANSACTION SUMMARY

EXERCISE OF OPTION

- Tharisa acquires increased shareholding in Karo Mining Holdings ('KMH') at a discount to valuation
 - Issue of 4.85% Tharisa shares ~USD27.0 million
- Tharisa shareholding increased to 66.3%
- Early works programme commenced - USD25 million committed
- High impact investment – foreign direct investment for the upliftment of all stakeholders
- Generation Minerals option to increase its shareholding in Karo by 11%
 - Exercisable after 24 months but before 36 months
 - Payable in cash at the current NPV of the Karo Project



INVESTMENT IN TIER ONE ASSET

MINING LEASE
GRANTED FOR LOM

● OREBODY

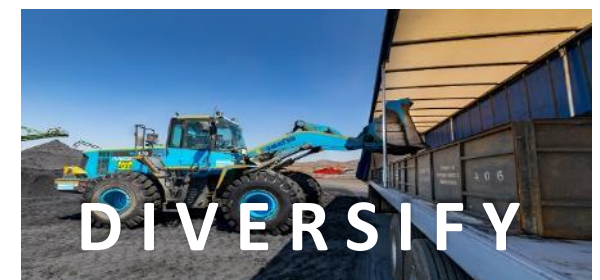
- Initial Great Dyke open pit resource: 152 Mt containing 9.97 Moz at 2.04 g/t (6E)
- Declared reserve: 35.5 Mt containing 2.6 Moz at 2.3 g/t (6E)
 - Optimised mine plan at 3.0 g/t (6E)
- 3PGE+Au (Pt 45.0%, Pd 42.0% Rh 4.0% and Au 9.0%) base metal rich – 0.10% Cu and 0.12% Ni

● PHASE 1 OUTCOMES

- Long life: 20 year open pit mine plan at an average grade of 3.0 g/t (6E)
- Large scale: targeting average production of 150 kozpa of PGMs in concentrate
- Strong financials: CAPEX ~US\$250m with peak funding of ~USD310 million
- Project post- tax NPV_{12.9} US\$770.4 million*, IRR of 47.6% and ROIC of +47.0%

● INVESTMENT INCENTIVES

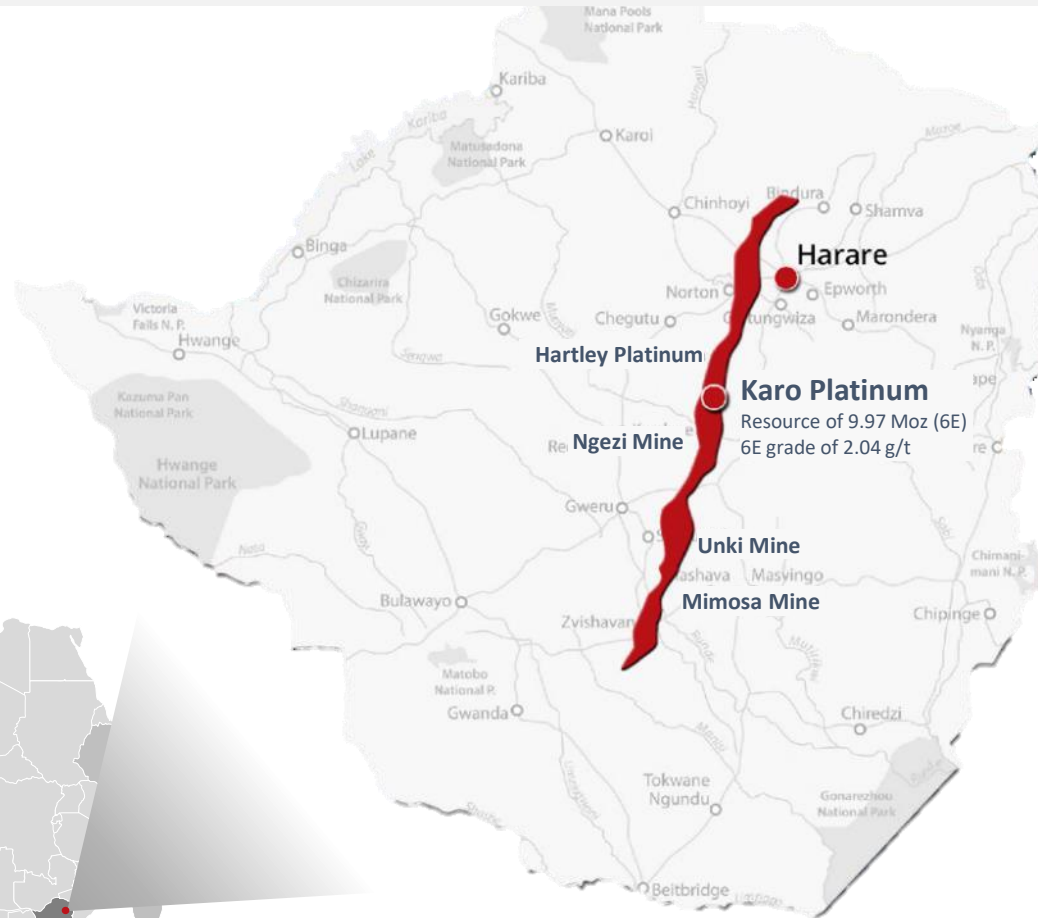
- Special Economic Zone declared
- Corporate tax rate of 15% (normally 24.72%)
- Exemption from non-residents withholding tax on fees, royalties and dividends
- Duty free importation of capital equipment
- National Project Status – application pending



LOCALITY & GEOLOGY

PHASED DEVELOPMENT

EXECUTION OF PHASE 1 - NEXT PHASES WILL SCALE TO EXTRACT ADDITIONAL RESOURCES



● PROPERTY LOCATION

- Located in the Mashonaland West district of Zimbabwe, approximately 80 km southwest of Harare and 35 km southeast of Chegutu
- The project area covers 23 903 ha located on the Great Dyke

● POSITION ON THE GREAT DYKE

- The project is located south of the Zimplats Selous Metallurgical Plant and north of the Zimplats Ngezi operations

● GREAT DYKE GEOLOGY

- Hosts the Main Sulphide Zone (MSZ)
- Typically, between 2 and 3 m thick – Karo targeting up to 5 m cut
- Runs from a northerly to a southerly direction
- Approximately 550 km in length and up to 11 km wide

● HISTORIC ZIMPLATS RESOURCE DECLARATION

- June 2017 – 85% of North of Portal 10
- Indicated: 60 Mt at 3.44 g/t (4E) – 6.6 Moz
- Inferred: 868 Mt at 3.22 g/t (4E) – 89.8 Moz
- Total of **96.4 Moz (4E)**
- *Zimplats Annual Report 2017*

RESOURCE & RESERVES

315
DRILL HOLES

+42 KM
TOTAL METERS DRILLED

+ 22 000
SAMPLES ASSAYED

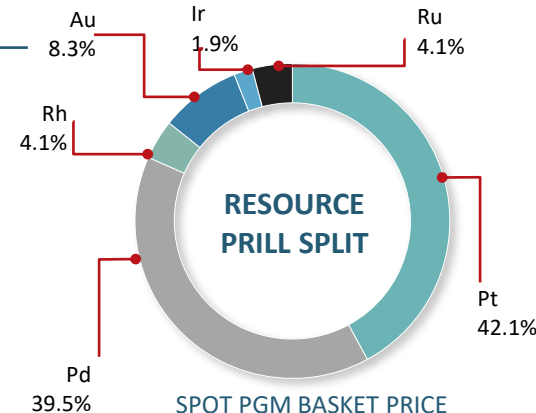
Mineral Resource Declaration (March 2022)

SAMREC Code (2016)

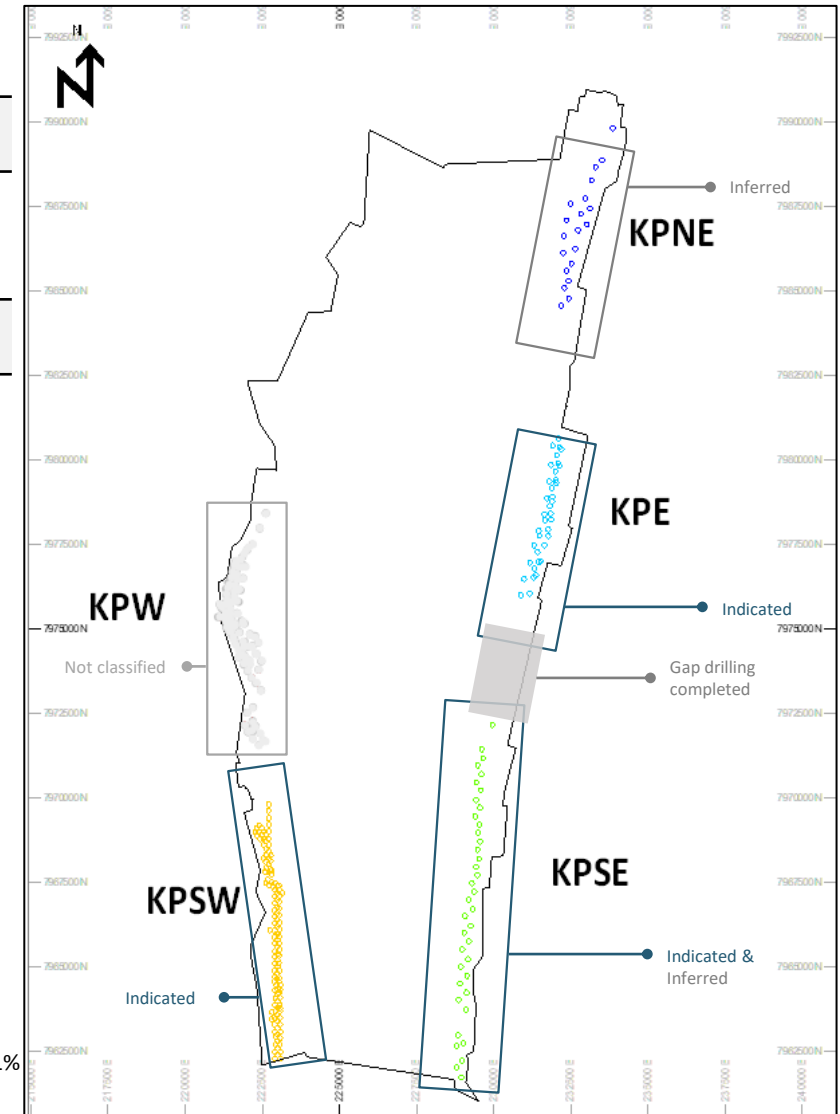
	Tonnage (Mt)	Thick (m)	Density (t/m ³)	Pt (g/t)	Pd (g/t)	Rh (g/t)	Au (g/t)	4E (g/t)	Ru (g/t)	Ir (g/t)	6E (g/t)	Cu (%)	Ni (%)	Co (%)
Indicated	109.58	3.27	3.10	0.86	0.83	0.08	0.16	1.93	0.09	0.04	2.06	0.11	0.12	0.004
Inferred	42.49	4.23	3.07	0.86	0.75	0.08	0.18	1.87	0.08	0.04	1.99	0.10	0.12	0.002
Total	152.07	3.50	3.09	0.86	0.81	0.08	0.17	1.91	0.09	0.04	2.04	0.10	0.12	0.004
	Strike	Dip	Pt:Pd:Rh:Au	Pt (koz)	Pd (koz)	Rh (koz)	Au (koz)	4E (koz)	Ru (oz)	Ir (oz)	6E (oz)	Cu (t)	Ni (t)	Co (t)
Indicated	30,080	16.63	44:43:4:8	3,012	2,911	299	575	6,798	311	139	7,248	116,100	131,000	5,000
Inferred	18,100	8.30	46:40:4:10	1,182	1,025	106	245	2,558	110	51	2,719	41,700	51,600	800
Total	48,180	14.63	45:42:4:9	4,194	3,937	406	819	9,356	421	191	9,967	157,800	182,600	5,800

Mineral Reserve Declaration (June 2021)
SAMREC Code (2016)

	Tonnage (Mt)	4E (g/t)	6E (g/t)	Cu grade (%)	Ni grade (%)	4E (Moz)	6E (Moz)	Cu (kt)	Ni (kt)
Probable	35.49	2.18	2.31	0.09	0.10	2.48	2.63	30.2	35.1
Total	35.49	2.18	2.31	0.09	0.10	2.48	2.63	30.2	35.1



SPOT PGM BASKET PRICE
+USD2 500/oz

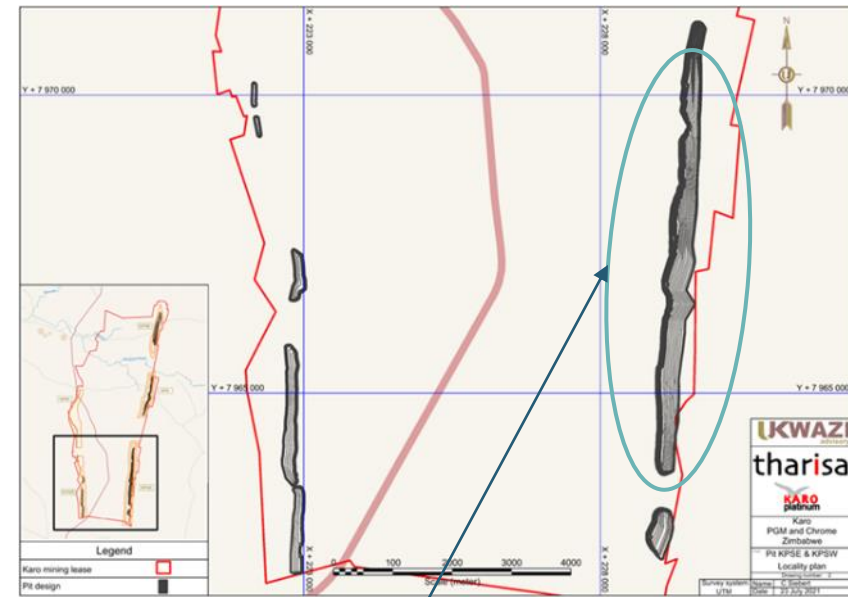
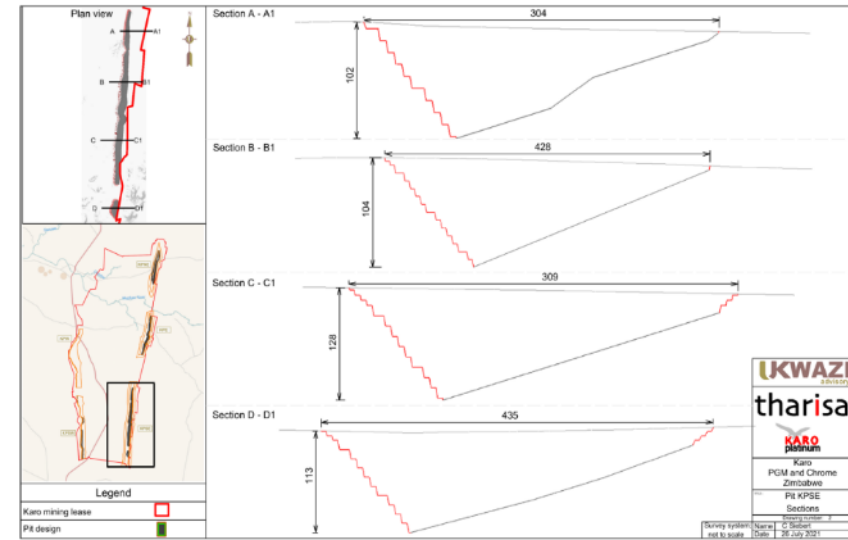
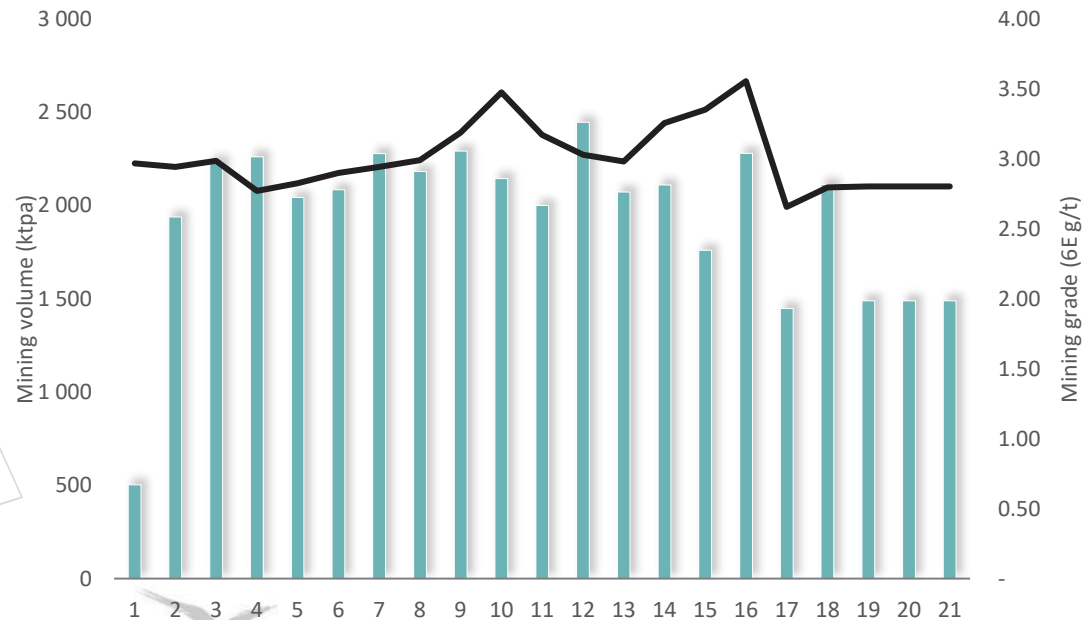


MINING

>20 KM
STRIKE LENGTH

- Optimised mine plan – 3.0 g/t (6E) – single seam mining
- Open pit mining for Phase 1 - four open pits to be developed sequentially
- Contractor mining strategy
- Owner MRM team for oversight and grade control
- Mining will build up to a steady-state ROM production rate of 2.1 Mtpa
- Maximum pit depth of ~100 m
- Stripping ratio of 22:1 (m³:m³)

MINING VOLUME

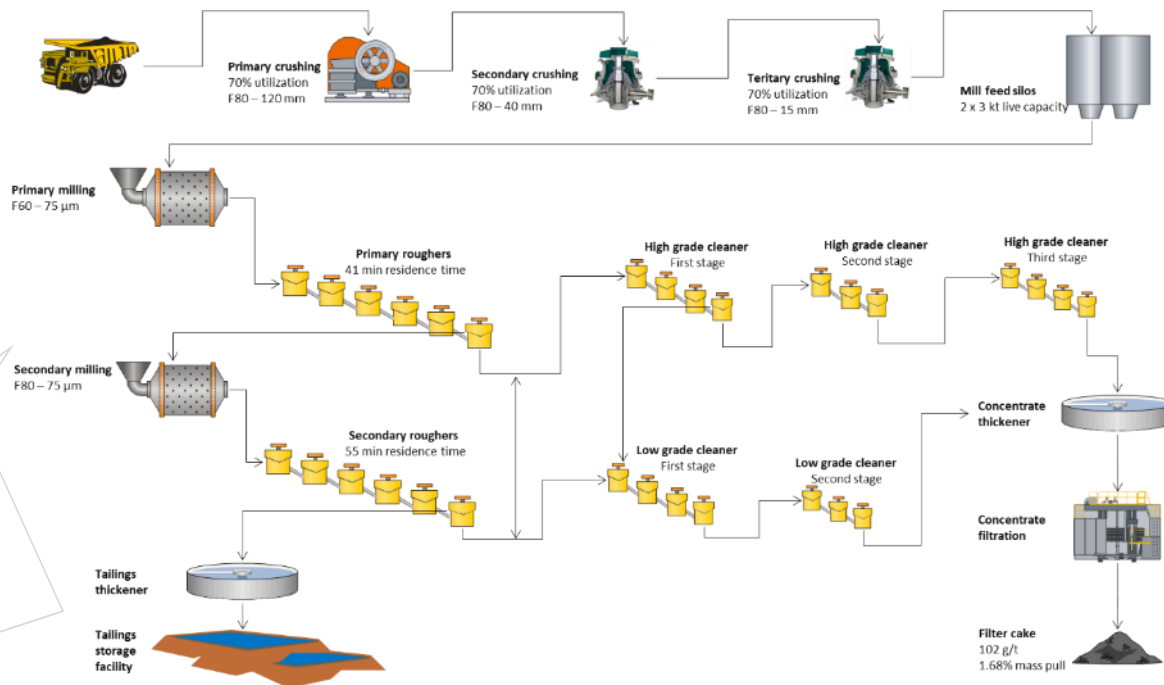


MINING TO START KPSE

PROCESSING PLANT & INFRASTRUCTURE

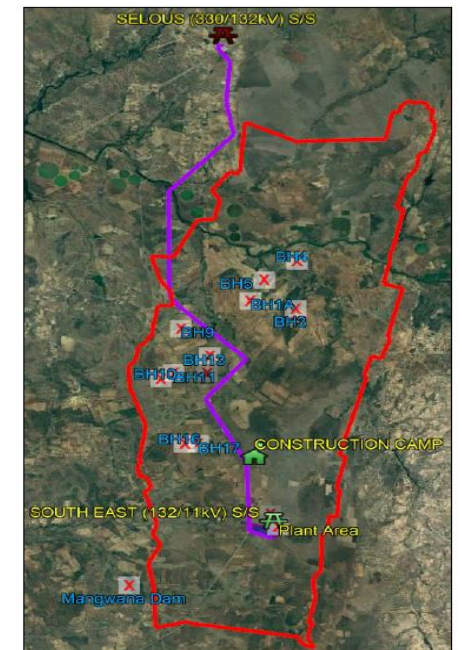
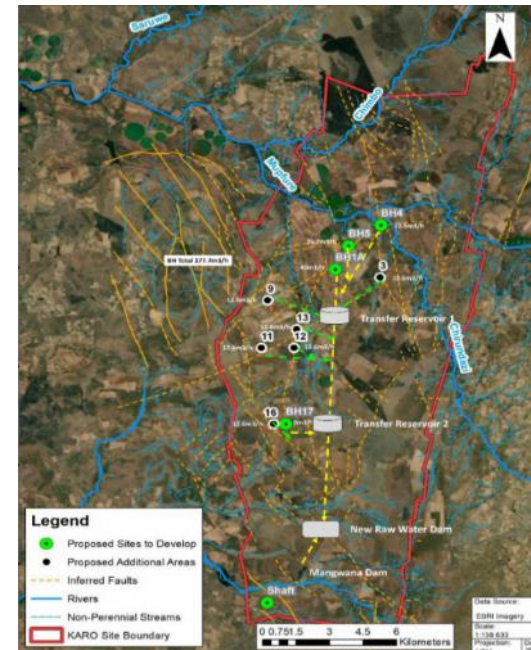
PROCESSING PLANT

- Processing 2.1 Mtpa of ROM (175 ktpm)
- Annual production of 150 kozpa
- MF2 circuit – proven technology and beneficiation process
- High energy flotation



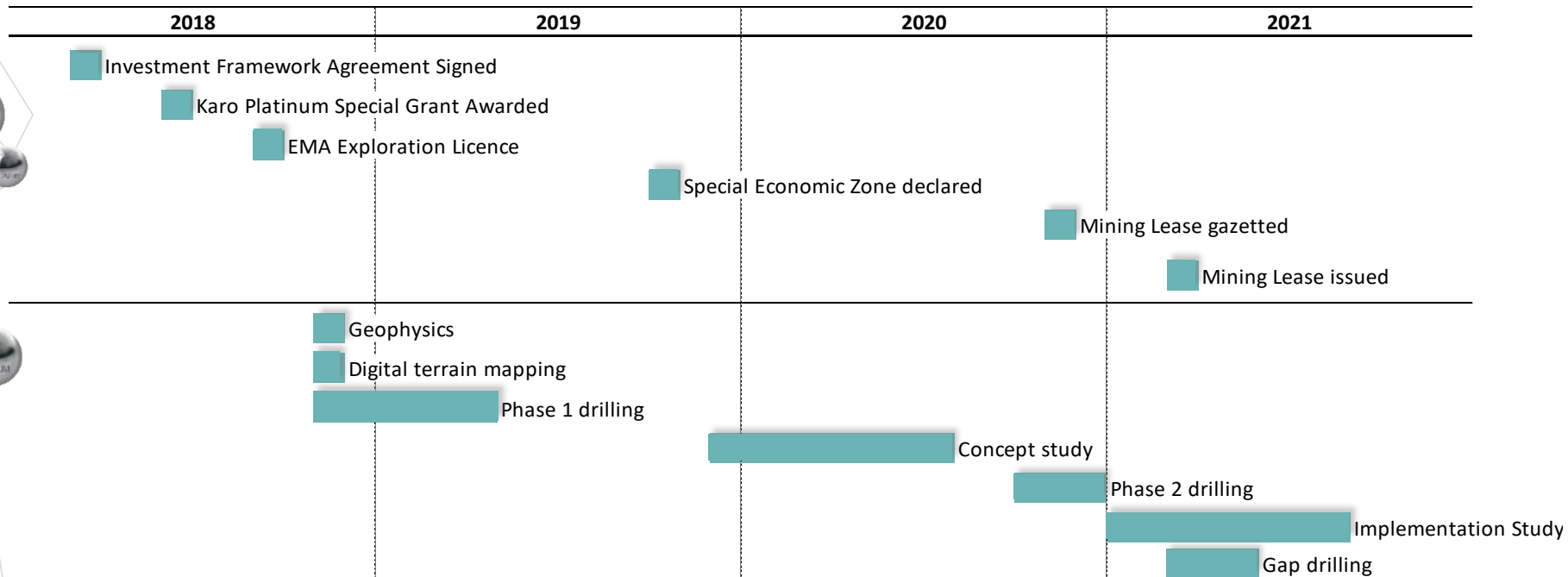
INFRASTRUCTURE

- Bulk power supply solution secured to provide 30 MVA
- Bulk water solution from Mangwana Dam and boreholes, in proximity of metallurgical facility
- Fully contained and secure tailings storage facility constructed from waste rock
- Site easily accessible



MILESTONES

Farm-In option exercised
MARCH 2022



INDICATIVE PROJECT EXECUTION TIMELINE

PROJECT INITIATION

Q4 2021

Q2 2022

Q4 2022

Q2 2023

Q4 2023

FIELDWORK UNDERWAY

- Grade control infill drilling
- Surface geotechnical campaign
- Detailed ground water campaign
- Detailed surface water campaign

ENGINEERING DESIGN INITIATED

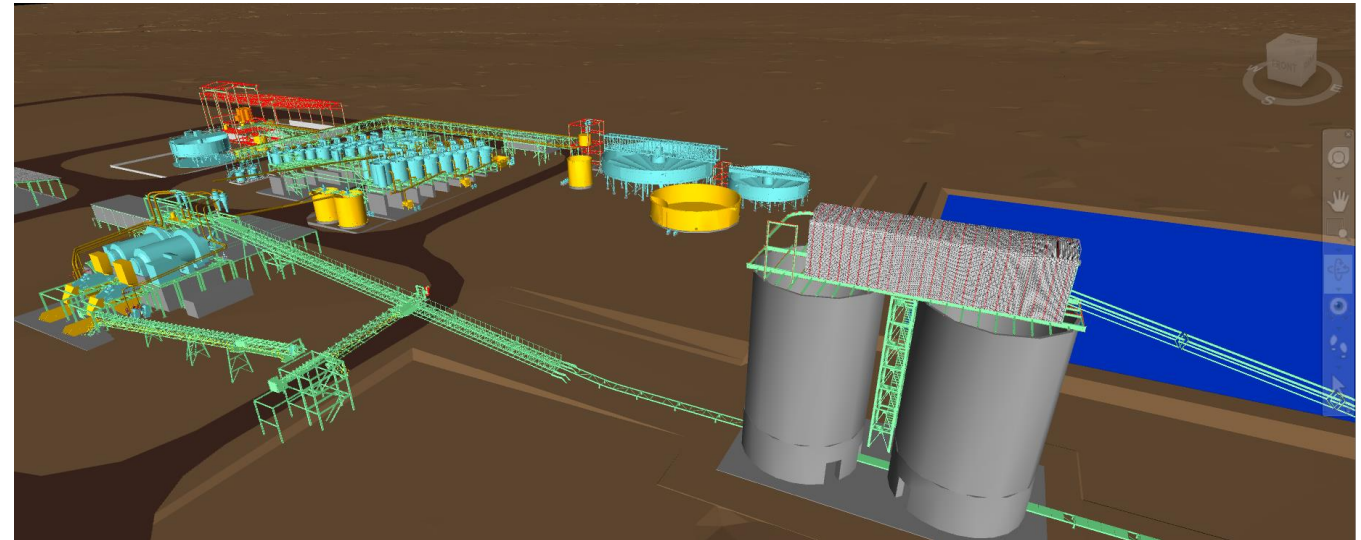
- Concentrator
- Tailings storage facility
- Bulk power supply

PROCUREMENT

FABRICATION

CONSTRUCTION

COMMISSIONING



KARO IMPACT

● SAFETY AND ENVIRONMENTAL

- Project LTI free – exploration and early project activities
- IFC compliant ESIA submitted

● BOOSTING THE REGIONAL ECONOMY

- Mining contributes 10%-14% of Zimbabwean GDP
- c. 400 direct jobs created and further 580 jobs for mining contractors
- +3 900 indirect jobs created*, plus additional jobs through induced multiplier

● KARO IN THE COMMUNITY

- Youth and skills development, adult education and training, local school support
- Internships and graduate programmes, learnerships and apprenticeships
- Support of informal enterprise development through engagement forums

● ENERGY EFFICIENT

- Abundant renewable energy potential
- Improved regulations in Zimbabwe allowing for self generation

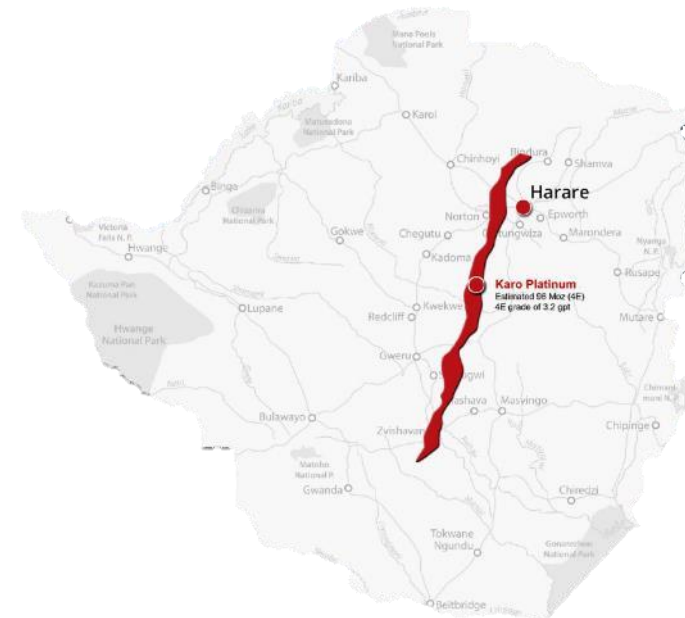
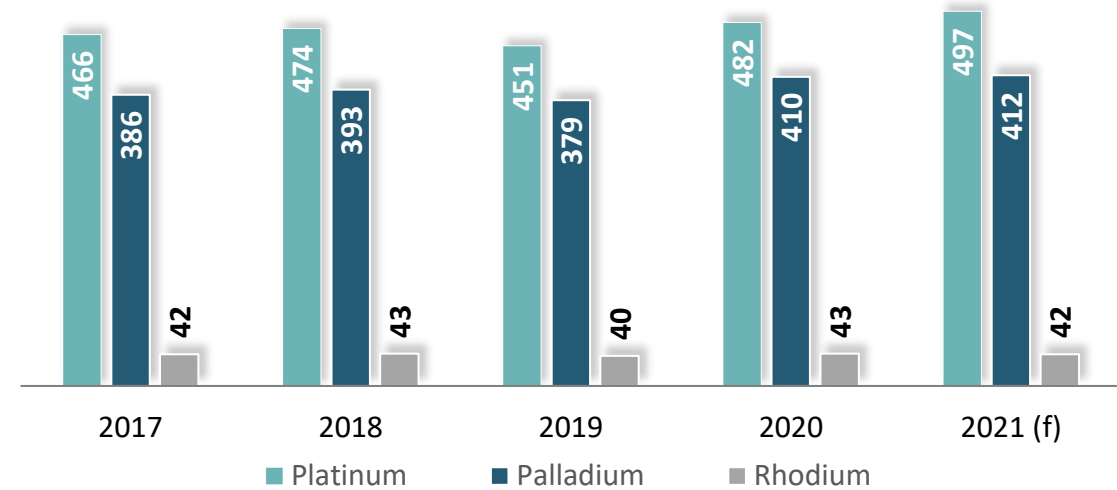
*Multiplier of 4 (Chamber of Mines)



ZIMBABWE PGM MARKET OVERVIEW

- Mining contributes between 40%-60% of foreign exchange and contributes between 10%-14% of GDP
- Zimbabwe hosts the second largest deposit of PGMs globally after the Bushveld Complex
- Third largest producer of PGMs after South Africa and Russia
- Zimbabwean PGM supply has gradually increased over the last five years
- All three major PGM producers are operating on the Great Dyke
 - Zimplats (*Impala Platinum*) ~580 kozpa
 - Unki (*Anglo Platinum*) ~190 kozpa
 - Mimosa (*SSW/Impala Platinum*) ~120 kozpa
- Continued investment in sector:
 - Zimplats to invest USD1.8 billion – announced December 2021
 - Unki invested USD48 million – invested in 2021
 - Mimosa also investing to expand production capacity

ZIMBABWE SUPPLY (koz)



KARO + THARISA COMBINATION

LOM OPEN PIT FROM EACH OPERATION

20 years

REEF MINED PER ANNUM

+7 Mt

PGMS PRODUCED PER ANNUM

+350 koz

CHROME PRODUCED PER ANNUM

+2.0 Mt

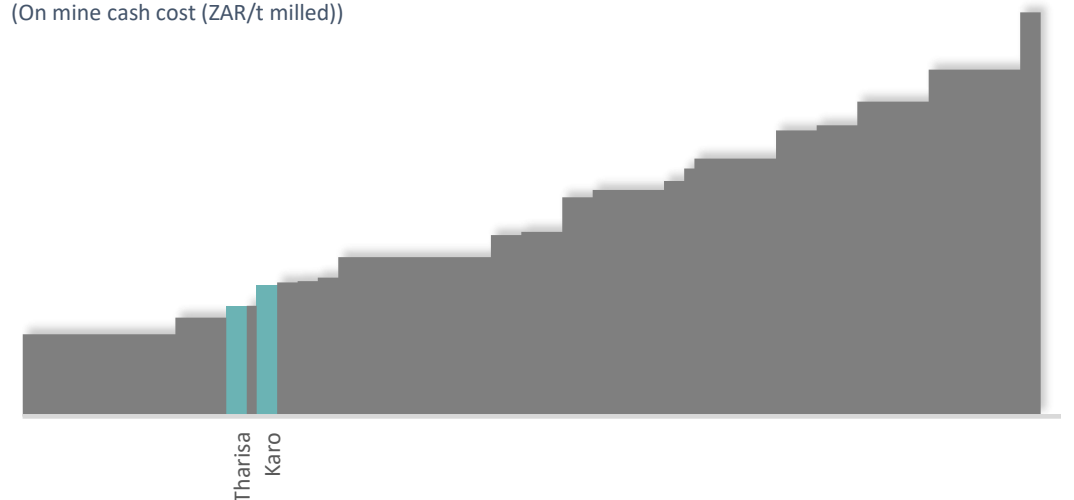
GROUP VALUE = CONSENSUS THARISA + KARO NPV*

~USD1.3 billion

COMPARISON	UNIT	KARO PHASE 1*	THARISA OPEN PIT**
Open pit LOM	years	20	20
Reserve [#]	Mt	35.5	94.2
Reserve grade [#]	4E g/t	2.18	1.08
Reserve ounces	4E Moz	2.5	3.3
PGM production [^]	kozpa	150	200

COST POSITION

(On mine cash cost (ZAR/t milled))



PHASE 1 ECONOMICS

● PHASE 1 OUTCOMES

- Strong project valuation results
- Project post- tax NPV_{12.9} USD770.4 million at spot pricing
- IRR of 47.6%
- ROIC of 47.0%

● FUNDING

- Peak funding requirement of ~USD310 million
- Advanced discussions on finalising external funding
- Capital intensity of ~USD1 800/oz, vs. average for start up projects in South Africa of USD2 191/oz

● PEAK FUNDING ~USD310 million

- Geology and mining – USD15.9 million
- Concentrator – USD128.7 million
- Infrastructure – USD63.5 million
- SHEQ, logistics – USD10.5 million
- Owner's costs – USD31.8 million
- Operating cost and working capital – USD57.0 million



ZIMBABWE EXPERIENCE

SALENE CHROME EXPERIENCE

- Project developed and being commissioned
- In country operations
- Operational experience on Great Dyke
- SEZ incentives successfully used for project

PGM PILOT CONCENTRATOR AND PREPARATION

- Pilot concentrator constructed for early operations and metallurgical optimization
- Pilot smelter included in Phase 1
- Preparation for operations

SALENE CHROME



PILOT CONCENTRATOR



EXPERIENCED PROJECT PARTNERS



RESOURCE ESTIMATE



PROCESS AND
CONCENTRATOR



BULK POWER SUPPLY



GEOTECHNICAL STUDIES



ESIA CONSULTANTS



RESERVE ESTIMATE AND
MINE DESIGN AND
SCHEDULE



TECHNOLOGY PROVIDER



WATER INFRASTRUCTURE



DTH GEOPHYSICS



PEER REVIEW



PROCESS TESTWORK



TAILINGS STORAGE FACILITY



HYDROLOGY /
HYDROGEOLOGY



CONTRACT MANAGEMENT



RAP CONSULTANTS

DELIVERING ON OUR STRATEGY



**Expand and roll out
the business sustainably**

- Strategic second Tier 1 PGM resource for Tharisa Group
- Initial open pit resource of 152.07 Mt and 9.97 Moz (6E) and reserve of 35.5 Mt and 2.6 Moz (6E)
- Phase 1 operations planned with ability to increase scale further



Adding scale to existing operations

- Project area of 23 903 ha – long life potential, 20 year open pit LOM in Phase 1
- Large scale – targeting average of 150 kozpa of PGMs in concentrate in Phase 1
- Salene Chrome – in country project and operational experience



**Continuing to invest in
innovative thinking**

- Fast track development timeline – pilot concentrator constructed
- Open pit – quick to market strategy
- Pilot smelter planned for downstream beneficiation development



**Become a globally
diversified business**

- Geographic diversification
- Higher base metal credits than Tharisa Mine operations



**Be the investment of choice
in our chosen sector**

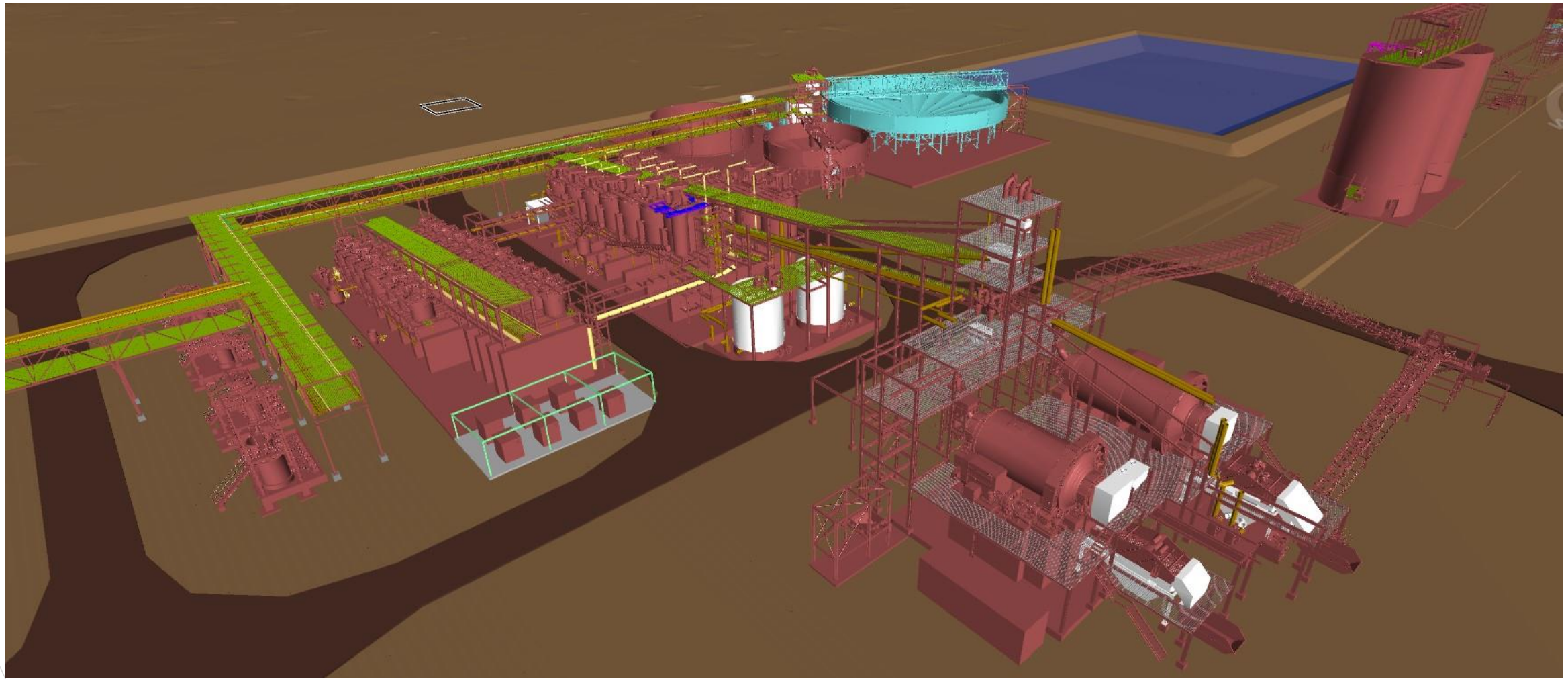
- Strong project economics
- Spot pricing project NPV_{12.9} of USD770.4 million, IRR of 47.6% and ROIC of 47.0%
- Peak funding requirement of ~USD310 million



**Responsibly enrich the lives
of all our stakeholders**

- Impact investment – upliftment of local communities and Zimbabwean economy
- Production of PGMs used in autocatalysts and fuel cells (hydrogen economy)

Q&A



DISCLAIMER

These Presentation Materials are for information purposes only and must not be used or relied upon for the purpose of making any investment decision or engaging in any investment activity. Whilst the information contained herein has been prepared in good faith, neither Tharisa plc (the 'Company') and its subsidiaries (together, the 'Group') nor any of the Group's directors, officers, employees, agents or advisers make any representation or warranty in respect of the fairness, accuracy or completeness of the information or opinions contained in this presentation and no responsibility or liability will be accepted in connection with the same. The information contained herein is provided as at the date of this presentation and is subject to updating, completion, revision, verification and further amendment without notice.

These Presentation Materials contain forward-looking statements and information in relation to the Group. By its very nature, such forward-looking statements and information require the Company to make assumptions that may not materialise or that may not be accurate. Such forward-looking information and statements involve known and unknown risks, uncertainties and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information and statements. Nothing in this presentation should be construed as a profit forecast. Past share performance cannot be relied on as a guide to future performance.