



GEO
CONSULTANTS &
INVESTMENTS GROUP_{INC.}

Investment Memorandum

July 2024

A DIAMOND MINING PROJECT *on kimberlites dykes*

KINGDOM OF LESOTHO



by

Geo Consultants & Investments Group (Pty) Ltd

Lesotho's Key Diamond Mining Statistics

THE HIGHEST NUMBER OF KIMBERLITES PER SQUARE METER



9th IN THE TOP 10
CARAT PRODUCERS
GLOBALLY IN 2022

Lesotho produced
727 737 carats in
2022

HIGH GEM QUALITY

Known for producing high
gem quality diamonds,
Lesotho is currently No.
8th in diamond
production value in the
world in 2022

HIGHEST NUMBER OF
KIMBERLITES PER KM2

This means the full
mineral prospectivity of
the country has not yet
been determined

LESOTHO DIAMOND PRODUCTION

Table 1: Top 10 World Diamond Mine Production in Carat and Value, 2022

COUNTRY	DIAMOND PRODUCTION IN	RANK IN CARATS	RANK IN VALUE (US\$)
Russia	41 923 910	1	2
Botswana	24 752 967	2	1
Canada DR	16 249 218	3	4
Congo	9 908 998	4	11
South Africa	9 660 233	5	5
Angola	8 763 309	6	3
Zimbabwe	4 461 450	7	7
Namibia	2 054 227	8	6
Lesotho	727 737	9	8
Seirra Leone	688 970	10	9

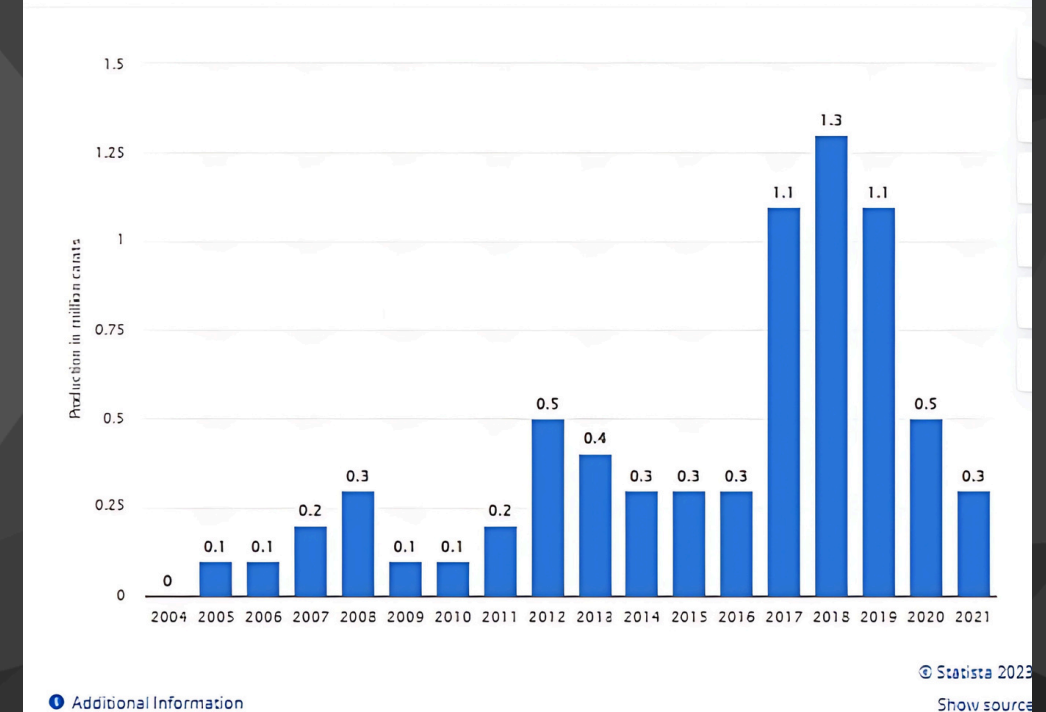
Table 2: World Total Diamond Mine Production in Carat and Value, 2022

COUNTRY	DIAMOND PRODUCTION IN CARAT	RANK IN CARATS	DIAMOND PRODUCTION IN VALUE (US\$)	RANK IN VALUE (US\$)
WORLD TOTAL	120 201 461		16 290 896 407	

Chemicals & Resources > Mining, Metals & Minerals

Production of diamonds in Lesotho from 2004 to 2021

(in million carats)

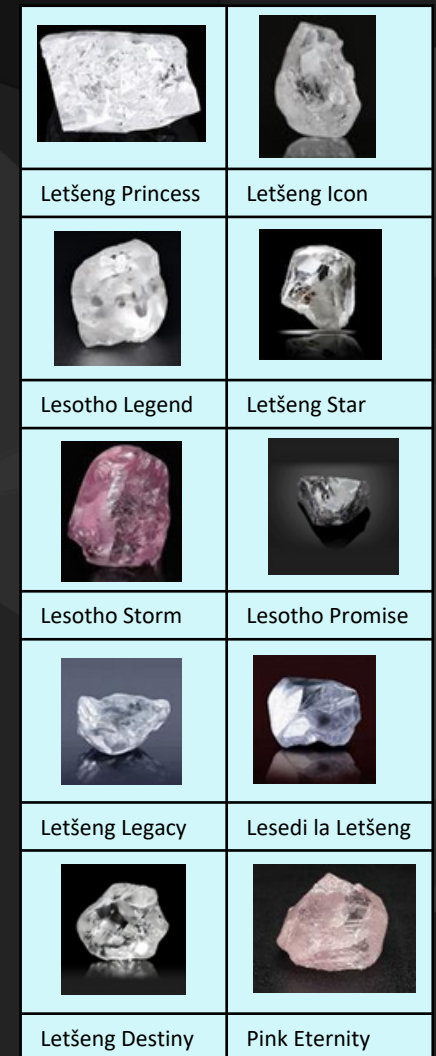


Graph 1: Lesotho Diamond Mine Production from 2004 to 2021

SOME OF LESOTHO'S LARGE DIAMOND GEMTONES

Table 3: Some of the famous Lesotho's large high-quality diamond gemstones discovered in recent years.

	DIAMOND NAME	YEAR	CARAT	PRODUCING MINE	VALUE SOLD
1	Lesotho Storm	2023	108,39	Kao mine	undisclosed
2	Pink Eternity	2022	47,80	Kao mine	\$ 5 200 000 9
3	Letšeng Princess	2021	367	Letšeng mine	\$ 600 000 16
4	Letšeng Icon	2020	439	Letšeng mine	\$ 100 000
5	Letšeng Diamond	2019	13,32	Letšeng mine	\$ 8 750 000
6	Lesotho Legend	2018	910	Letšeng mine	\$ 40 000 000
7		2018	169	Letšeng mine	undisclosed
8	Letšeng Dynasty	2015	357	Letšeng mine	\$ 19 300 000
9	Letšeng Destiny	2015	314	Letšeng mine	undisclosed
10	Letšeng Star	2011	550	Letšeng mine	undisclosed
11	Lesedi la Letšeng	2008	478	Letšeng mine	\$ 18 400 000
12	Letšeng Legacy	2007	493	Letšeng mine	\$ 10 400 000
13	Lesotho Promise	2006	603	Letšeng mine	\$ 12 400 000
14	Rose of Kao	2010	29,65	Kao mine	undisclosed



Geology of Lesotho

Lesotho shares many commonalities with the geology of South Africa, with its northern most domain being the Kaapvaal Craton crystalline basement rock that formed 3.6 to 2.5 billion years ago. Fig. 1 below shows different geological domains around Lesotho and some kimberlite locations. From North to South: Kaapvaal craton, Tugela terrane, Mzumbe terrane and Margate terrane.

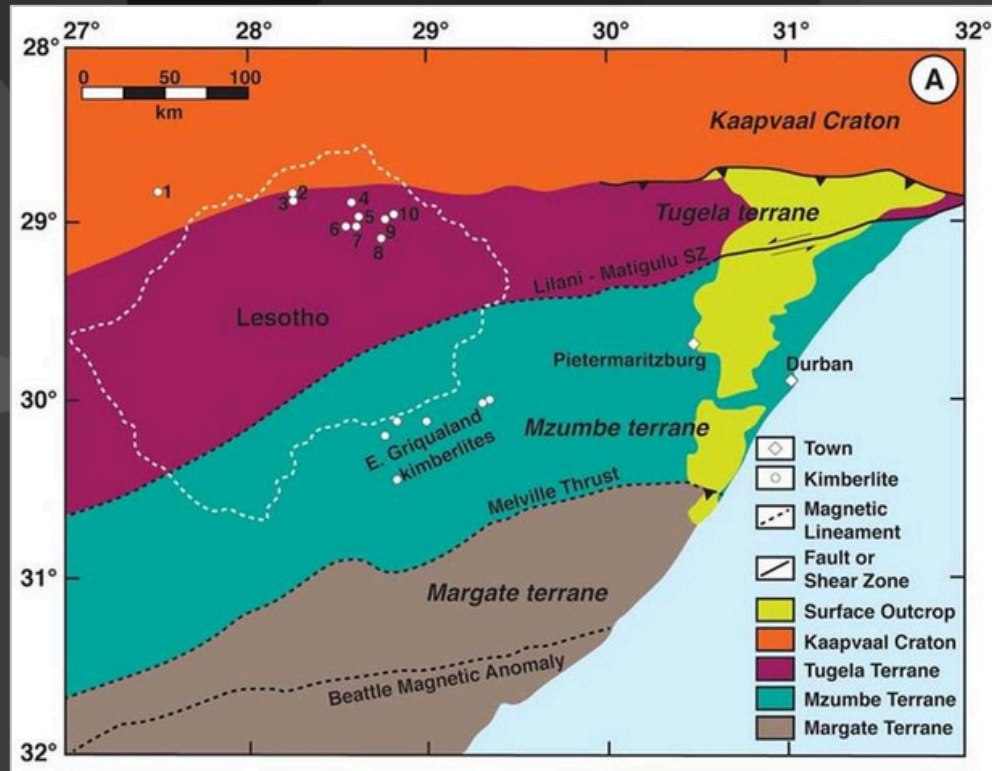


Fig. 1: Overview map showing different geological domains around Lesotho and some kimberlite locations (*modified after Griffin et al., 1979; Schmitz and Bowring, 2004*).

Most of the rocks in the country are sedimentary or volcanic units, belonging to the Karoo Supergroup. Lesotho forms a syncline within the larger southern African Karoo Basin and the sediments of the Karoo Supergroup were influenced by deformation at three different times before, during and after the formation of the Drakensberg mountains. The **Hellsport fault** seen in Fig. 2 is the only large fault in the country, running northeast–southwest with a vertical displacement of 300 meters near Mafeteng, although there are other smaller faults. More than 50% of Lesotho's territory is underlain by fractured igneous rock aquifers, such as the low permeability basalt of the Lesotho Formation.

Natural resource geology

Lesotho has extensive diamond deposits in both kimberlites and alluvial gravel. The country has the highest concentration of kimberlite bodies in the world—a total of more than 400, including 343 dikes, 39 pipes and 23 blows. Northern Lesotho has an average of one kimberlite body for every 10 square kilometers.

LESOTHO: GEOLOGICAL SETTING & DIAMOND MINERAL DEPOSITS

In Africa, all of the economic primary diamond sources known to date are kimberlites – the best known of which are those associated with the Kaapvaal craton of southern Africa. These include such famous pipes as Cullinan (Premier), Venetia, Kimberley Pool, Finsch, Koffiefonein and Jagersfontein in South Africa and Jwaneng, Orapa, Lethakane and Karowe mines in Botswana.

The small Kingdom of Lesotho, situated on the south-eastern corner of the Kaapvaal craton, is also up with its larger neighbours where - of its 5 kimberlite pipes high up in the Maluti Mountains - 4 are operational mines, viz., Kao (19.8 ha), Letšeng-le-Terae (Main Pipe 17.2 ha and Satellite Pipe 5.2 ha), Mothae (8.8 ha) and Liqhobong (8.5 ha).

Fig. 2 shows the country's principal diamond mines within the Drakensberg basalts. Letšeng was the first diamond deposit discovered in Lesotho and remains the largest one, producing significant numbers of large diamonds. Like Letšeng, the other three mines in the area-Kao, Liqhobong, and Mothae-are all located on Archean craton underlain by older mantle at depth. There are no known primary diamond deposits in the off-craton part of the country.

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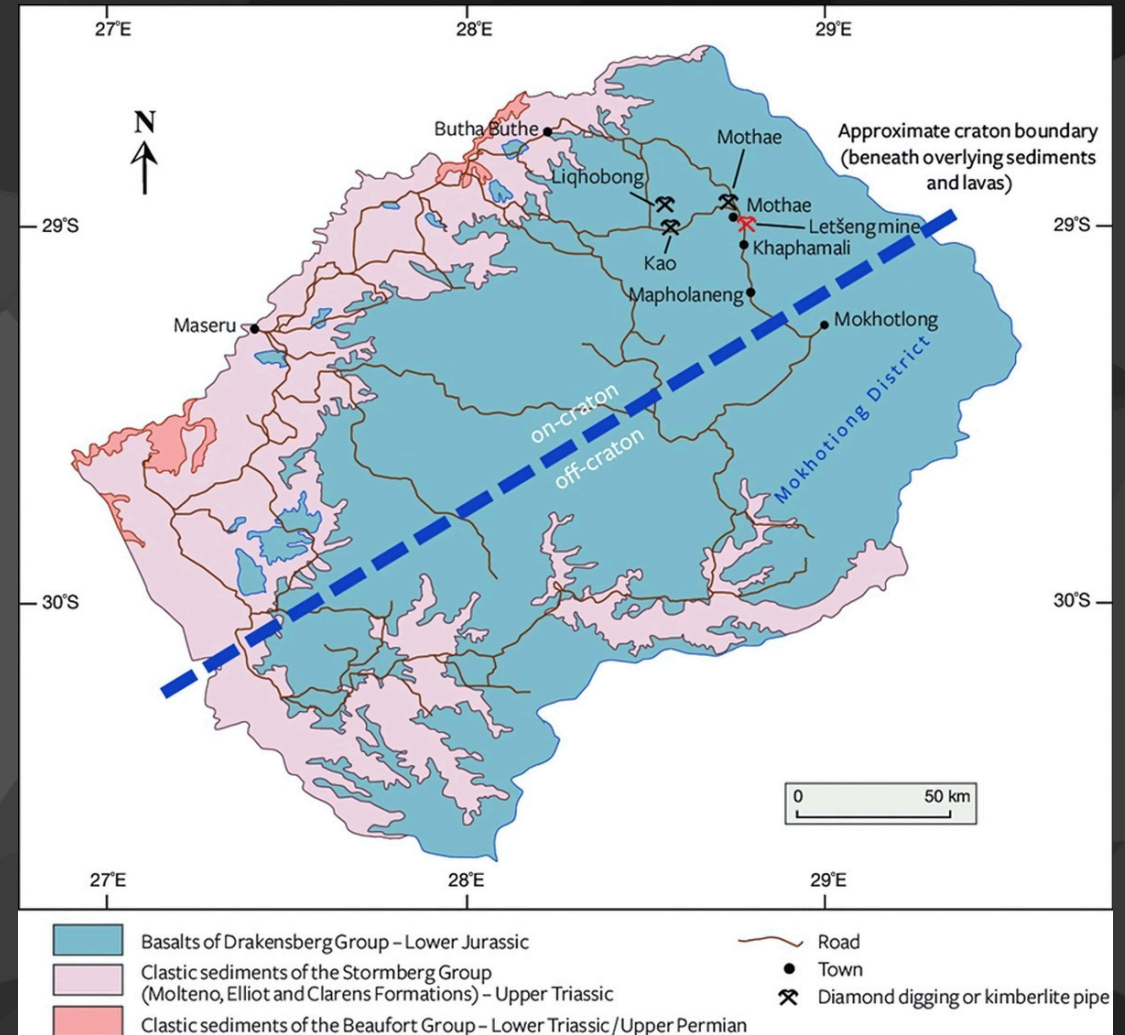
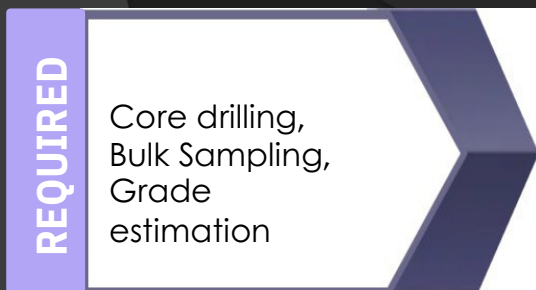


Fig 2: A map of Lesotho showing the country's principal diamond mines within the Drakensberg basalts. (Source: Telfer and McKenna (2011))

THE PROJECT



QAQA DIAMOND MINE PROJECT is a mining undertaken by Morafe Group of Companies (Pty) Ltd, to develop a diamond mining operation in the okhotlong district that hosts all the five tier 1 diamond mining business operations in Lesotho and are responsible for placing Lesotho as number 9 in the top 10 diamond producers by carat globally.

Morafe Group of Companies (Pty) Ltd has already completed field mapping and mineral chemistry analysis with the KIM chemistry results confirming the presence of diamondiferous kimberlites. The phase of work completed to date was able to confirm that the geophysics and the microchemistry does indeed indicate the locality of kimberlite dykes under cover, however, there are several unconfirmed geophysics anomalies that need to be followed up in the next expanded work phases.

More work is required to map, expose and sample all the dykes. Grade estimation of diamond content is not yet possible with limited MiDA sampling and low number of microdiamonds recovered to date. Therefore, more microdiamond testing, e.g. 200 kg MiDA of all the promising dykes in the NW and/or SE of the licence area needs to be done. Bulk sample testing will need to be supervised by MSA who was involved in Heavy Mineral Analysis, Petrography and Microdiamonds analysis so that any diamonds recovered can be reported in code compliant manner.

REGIONAL MAP

Qaqa Diamond Mining Project is located high in the diamond-rich Maluti Mountains of Lesotho and is between Letseng Diamond Mine and Mothae Diamond Mine.

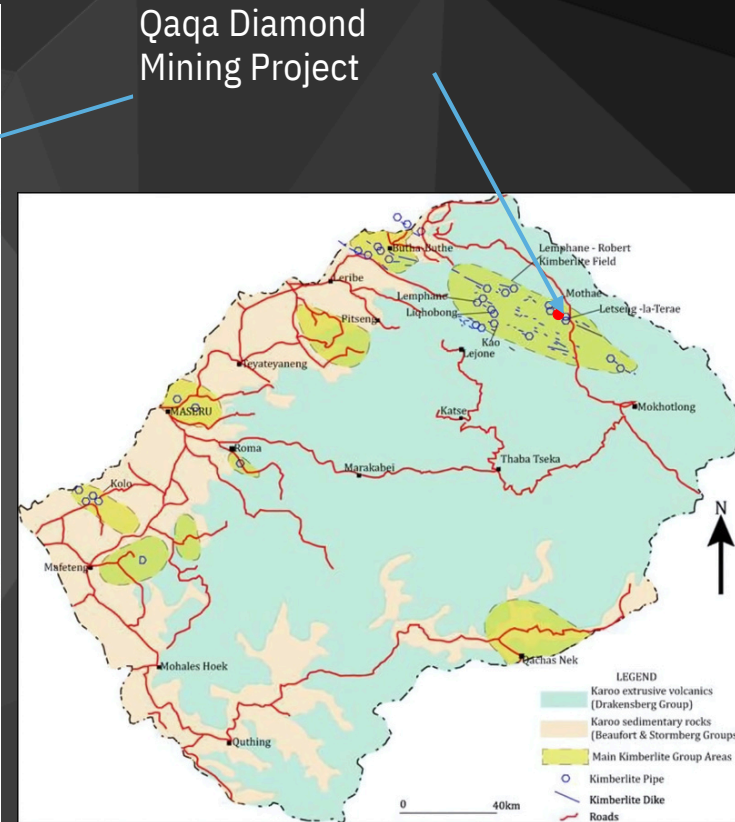
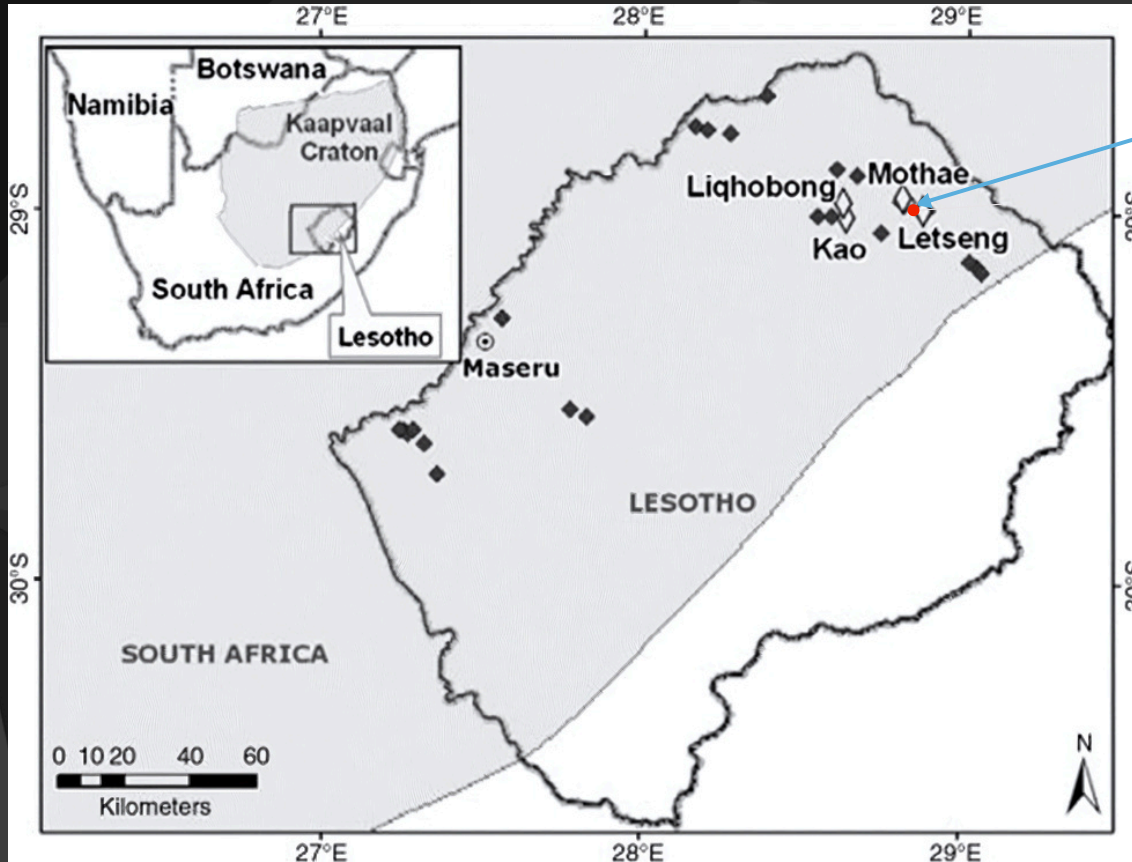
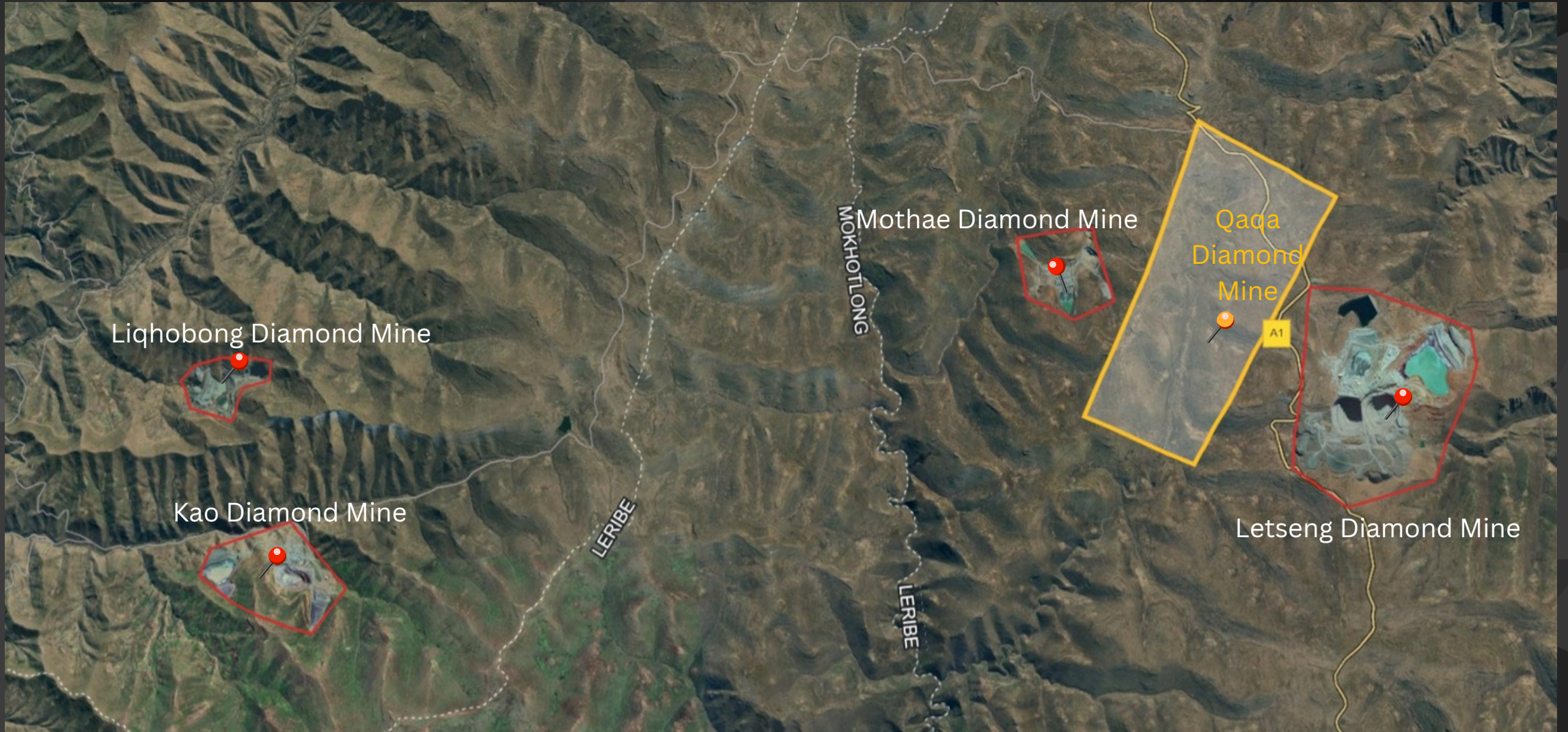


Fig 3: A regional map showing Lesotho's diamond mines within proximity of each other and a map indicating the location of the Lemphane-Robert kimberlite field .
(Source: ResearchgateCitation, 2018)

LOCALITY MAP



Site Gallery



Site Gallery



BRIEF PROJECT DESCRIPTION

QAQA DIAMOND MINING PROJECT, is a diamond exploration project undertaken by a **Morafe Group (Pty)Ltd** is located at an altitude of 3070 meters above sea level (masl) in the highlands of Lesotho. It is situated at approximately, 138 kilometres (km) east- northeast of Maseru (capital city of Lesotho) and it is within a km distance northwest of Letšeng diamond mine

Permitting and Licencing

- The Qaqa diamond mining project is a fully legally permitted project with Morafe Group, being the holder of a 10-year Diamond Mining Lease (**Mining Lease No. 08/ ML/ 2021**) which commenced on **05 OCTOBER 2021** and ends on **05 OCTOBER 2031**, and is renewable subject to the provision of the Mining Act in Lesotho. This Mining Lease entitles the holder to complete the exploration process, develop and construct the mine and commence mining operations.

Access & Water

- Access to Qaqa is by a tar road from Butha Buthe (which is the town near the border crossing with South Africa) towards Mokhotlong, and then by approximately 700m of gravel road to the mining site.
- The main source of fresh water from 2 catchment found at elevation about 3,075m above sea level, Department of Water affairs were visited Qaqa site for survey of water treatment, slams dam, water dam and other water works. Water permits is granted.

Reserves

- The “indicated & inferred” Ore Estimates are currently at 50 mil tons of kimberlite ore, with a carat resource of 1 mil carats, at a price range per carat of circa \$1 200 per carat.

GEOGRAPHY AND COMMENCEMENT

QAQA DIAMOND MINING PROJECT, is a diamond exploration project that is situated in the Diamond rich belt of Lesotho in between the Letseng and Mothae Mines. Commencement of Operations.

- Initial Prospecting of the kimberlite pipes needs to be undertaken to confirm the resource and proceed with mining.
- Qaqa kimberlite consists of Five kimberlite pipes. These kimberlite pipes were identified using aeromagnetic survey conducted by NRG using a high resolution helicopter aeromagnetic survey and the data was then send to Xcalibur airborne geophysics in Johannesburg for Data interpretation.
- More details are in Aeromagnetic Survey documentation (attached)
- Following aeromagnetic survey conducted, a trenching plan was laid onto the anomalies outlined by the aeromagnetic survey
- The main objective of digging trenches was to further confirm that the anomalies picked by the survey were indeed kimberlite bodies and to define the geology of each kimberlite facie uncounted along each trench

EXPLORATION WORK COMPLETED

Exploration activities to date In advancing exploration work on the project, Qaqa Diamond Mining has engaged several professional mining consulting firms to undertake the necessary exploration work required to advance the project along the development curve towards grade estimation and code compliant resource and valuation.



Fig 5: Magnetic data acquisition using the GSM-19 magnetometer (left) and fine-grained kimberlite with phlogopite flakes (Sources: MSA & MAMINO)



Fig 6: Airborne geophysical survey

(Source: NRG)

The work completed has revealed that Qaqa Diamond Mining project has great potential. Ground magnetic survey has revealed at least two blows and multiple kimberlite dykes which were confirmed by geological mapping and trenching. Observed geological structure on the property such as fractures on the surface may represent more kimberlite dykes at depth.

EXPLORATION WORK COMPLETED ... continued

Airborne Geophysical Survey Morafe Group has commissioned New Resolution Geophysics (NRG™) to undertake ultra-high resolution airborne survey (Fig. 6) which provided spatial geophysical data that was crucial for hydrogeological and geological interpretation.

Ground Magnetic Survey

Ground magnetic survey, which was conducted by FNA Mining and Exploration Services, was applied to the licence area to map the sandstones and the granitic country rock to identify the presence of intrusive kimberlites or weathered kimberlitic bodies.

Trenching and Geological Mapping

In September 2017, MSA was commissioned to conduct geological mapping and sampling of the area. This included trenching and sampling of kimberlites to confirm diamond-bearing potential through chemistry/ and petrography microdiamonds of the kimberlite samples analysis.

Drilling (recommended)

No drilling work has been done at Qaqa, which has now been recommended by MSA for core drilling to be undertaken as drill core samples are more suited for caustic fusion preparation than manually sampled bulk rock material and in determining the depth extent of kimberlite dykes .



Fig 7: All the samples that were taken

EXPLORATION WORK COMPLETED ...continued

Heavy Mineral Analysis (HMA) Undertaken by MSA, this involved sample preparation: crushing, screening, TBE concentration, and sorting to recover kimberlite indicator minerals.

Petrographic Analysis

Petrographic analysis was used to study the mineralogical and chemical composition of the samples. Petrographic data indicate that the kimberlite is fine-grained with larger phlogopite flakes and banding rather than a peridotite. The analysis also showed Group 1 type coherent hypabyssal kimberlites which vary from highly olivine macrocrystic to moderately and aphanitic (fine grained) types. The mantle is clearly diamondiferous as seen from the positive MiDA results from samples taken on the northwest of the licence area.

Mineral Chemistry Analysis This involved grain mount preparation, and electron microprobe (EMP) analysis to determine the chemical composition of the minerals in the samples analysed. The KIM chemistry indicates the kimberlite sampled at Qaqa is diamondiferous but of low grade.





Fig 8: HMA and Electron Microprobe Analysis

(Source: MSA)

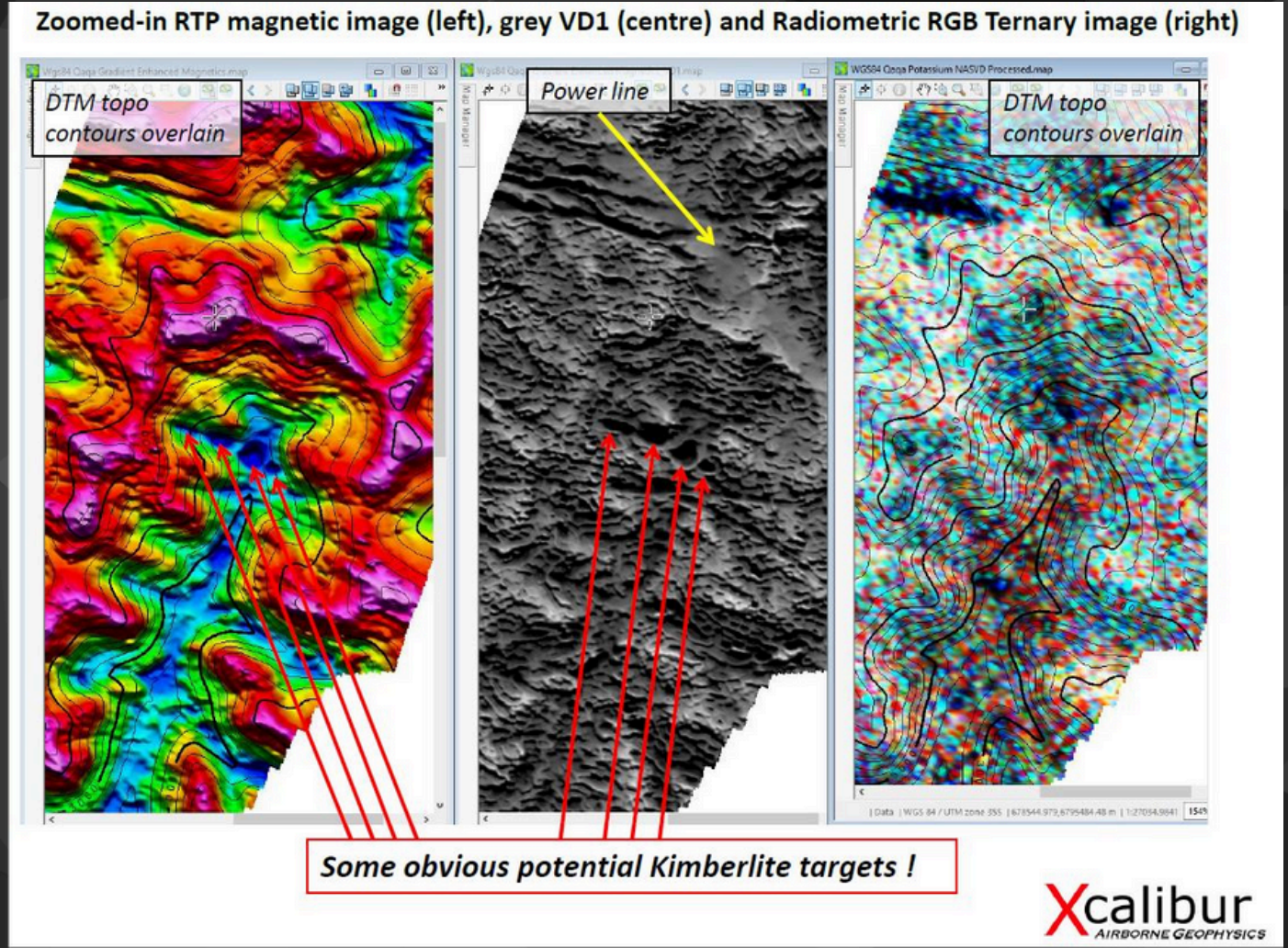
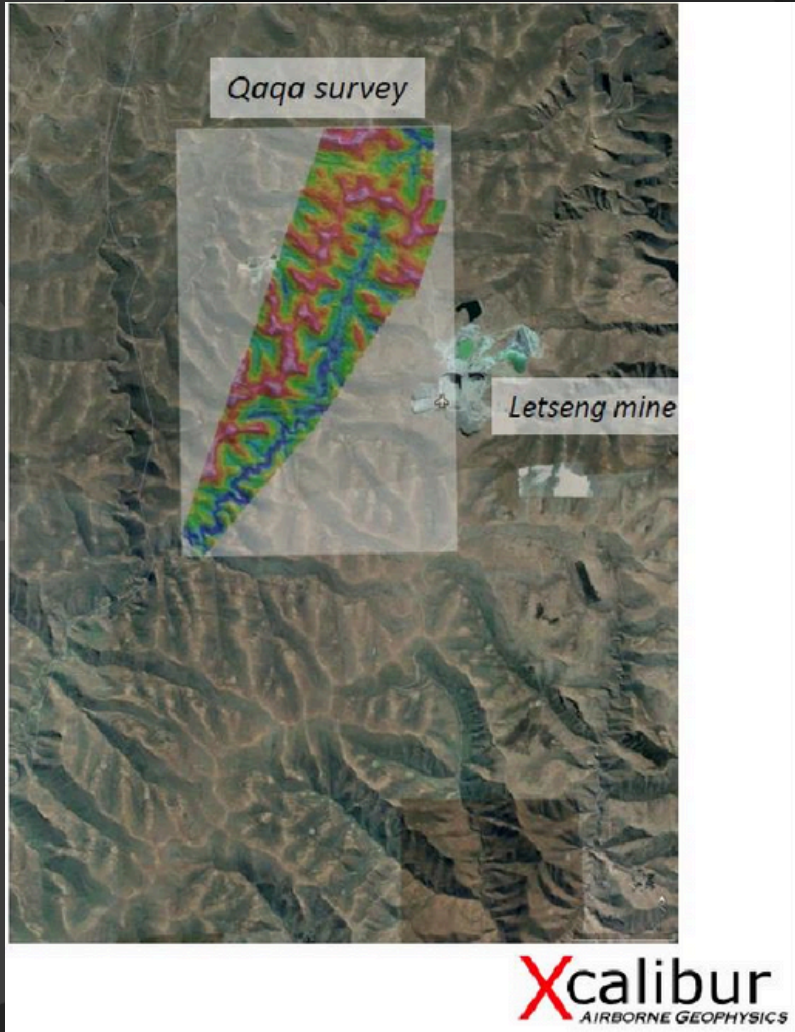
EXPLORATION WORK COMPLETED ..continued

Table 4. Consultants and the work completed

Consultant*		Work completed#	Results	Next Steps
New Resolution Geophysics (NGR):		Airborne ultra-high resolution electromagnetic and magnetic survey. The airborne magnetic and radiometric survey was undertaken to map out the key lithological boundaries of the licence area , potential kimberlites and blows.	Airborne geophysical results with respect to high-resolution elevation models has enabled collection of spatial geophysical and owners data of the subsurface provided the project with useful information for hydrogeological and geological interpretation.	The next steps will be the continuation of mapping and sampling of the area. The data obtained in this survey will allow Morafe Group to focus on further developing its geological models
MSA Group		Geological mapping, heavy mineral analysis, petrography and microdiamonds analysis (Report: J3586)	Sampled Kimberlite at Qaqa is diamondiferous and low grade, similar to kimberlites of neighbouring producing mines, Motheo and Letšeng.	<ul style="list-style-type: none"> •More work is required to map, expose and sample all the dykes; •Bulk sample testing to evaluate the macro diamond grade according to Code-compliant procedures and strict security.

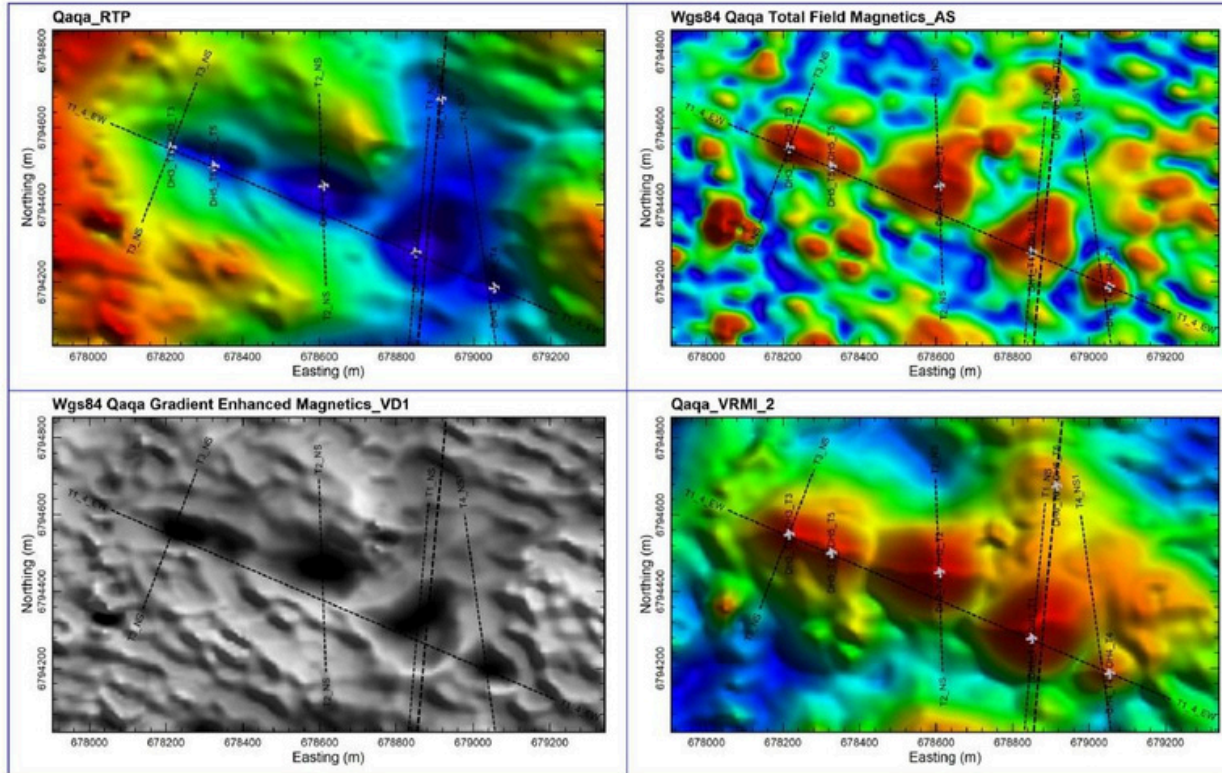
Reports on completed work by consultants will be made available by Morafe Mining.

Site Layout-Magnetic Imaging



Site Layout-Magnetic Imaging

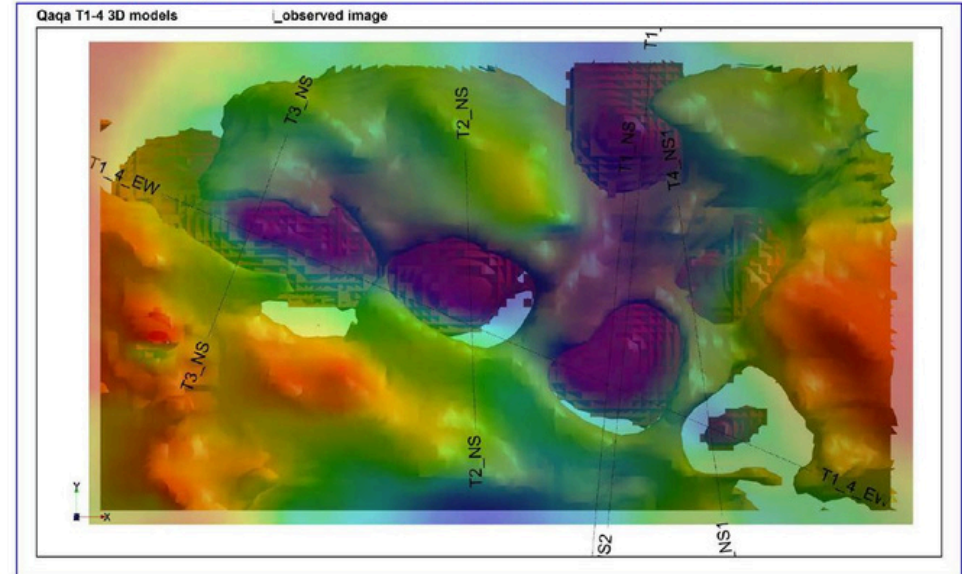
Different Magnetic Data Expressions of the Selected Kimberlite Targets in Plan View



Note: Reduced-To-Pole (RTP) and Vertical Derivative (VD1) data images show negative anomalies ('holes') due to magnetic remanence, while Analytic Signal (AS) & Vector Residual Mag Intensity (VRMI) show positive anomalies over the targets. Dashed black lines are the modelled profiles.



Combined 3D Models: TMI iso-surface (yellow) and VRMI voxel model (red voxels) (looking Down in Plan view through a transparent VRMI data image)

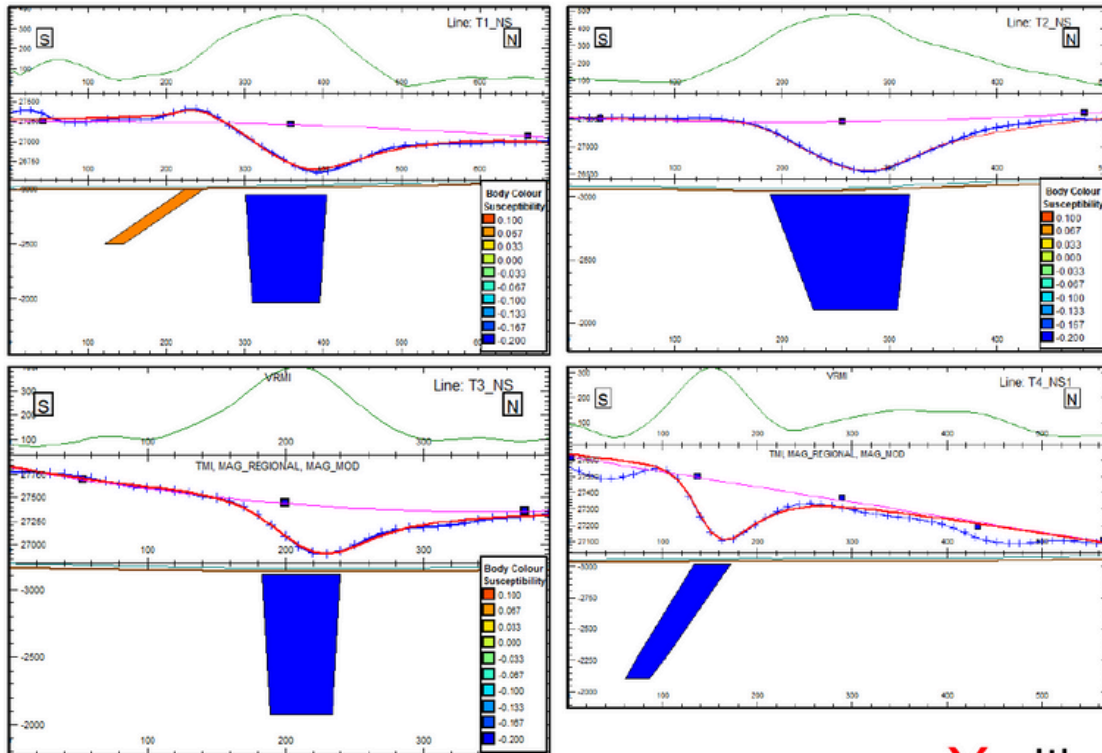


Note the good correlation of the VRMI positive pinnacles, with the TMI model holes.



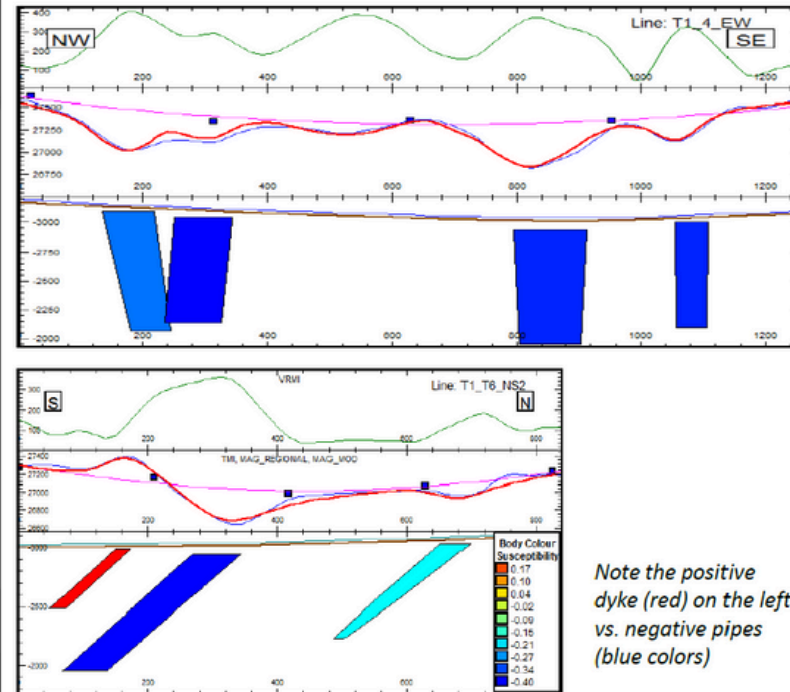
Site Layout-Magnetic Imaging

2D Profile Pipe Model Sections for T1 to T4 (note the negative susceptibilities (blue colours) required to model the remanently magnetized pipes).



Xcalibur
AIRBORNE GEOPHYSICS

2D Profile Pipe Model Sections for the extended T1_T6_NS profile and the longitudinal T1-T4_EW profile

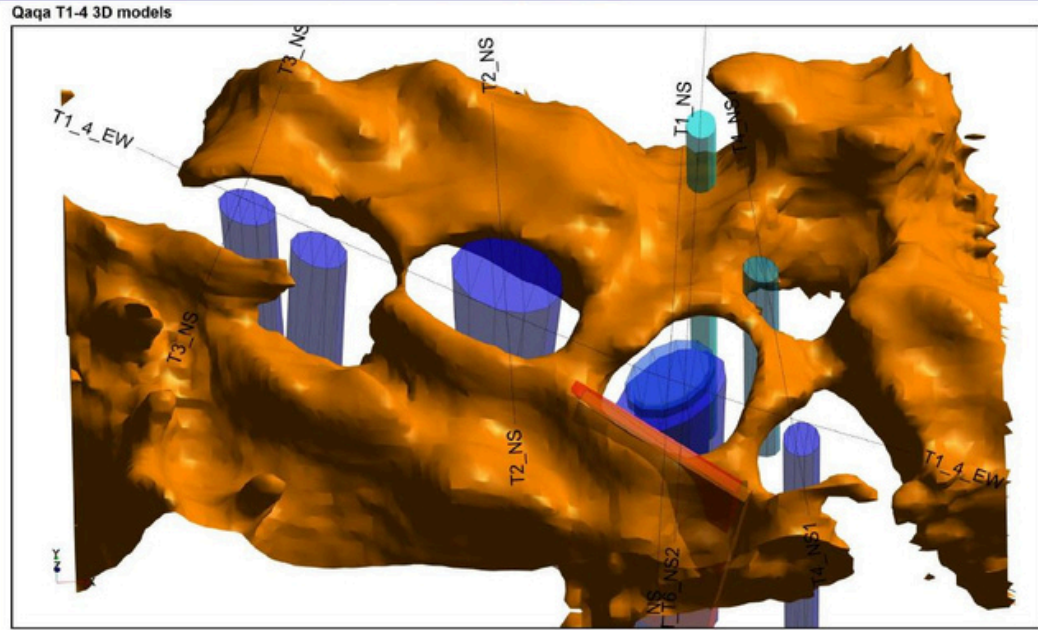


Note the positive dyke (red) on the left vs. negative pipes (blue colors)

Xcalibur
AIRBORNE GEOPHYSICS

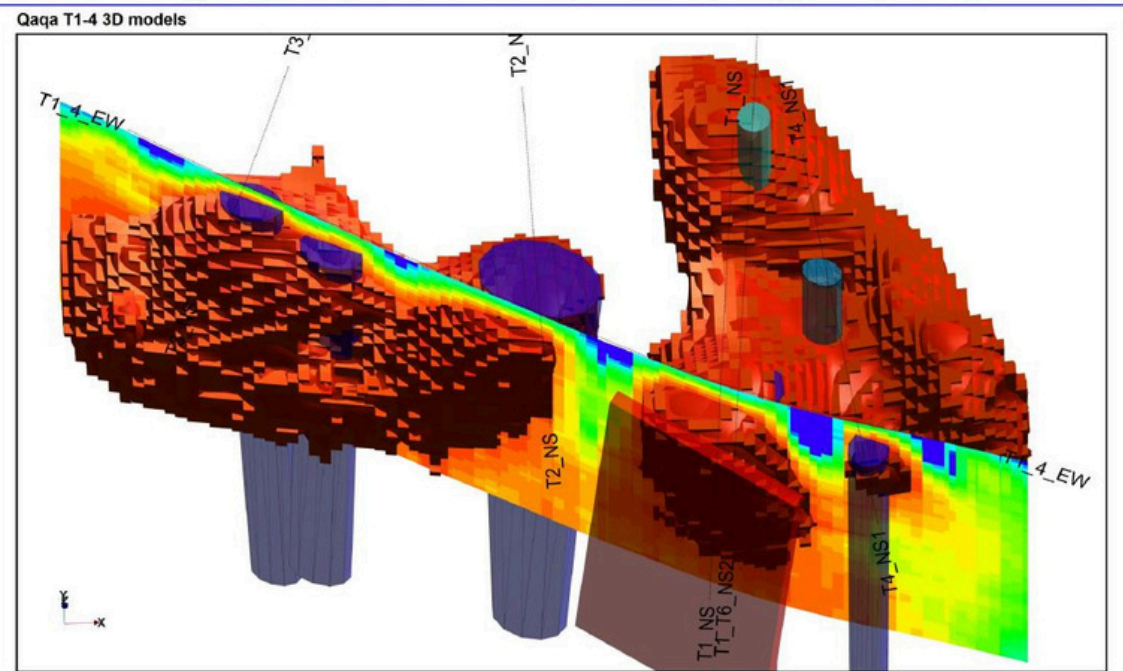
Site Layout-Magnetic Imaging

3D view of TMI 3D Inversion Result, and simple 2D Profile Pipe Models
(looking North)



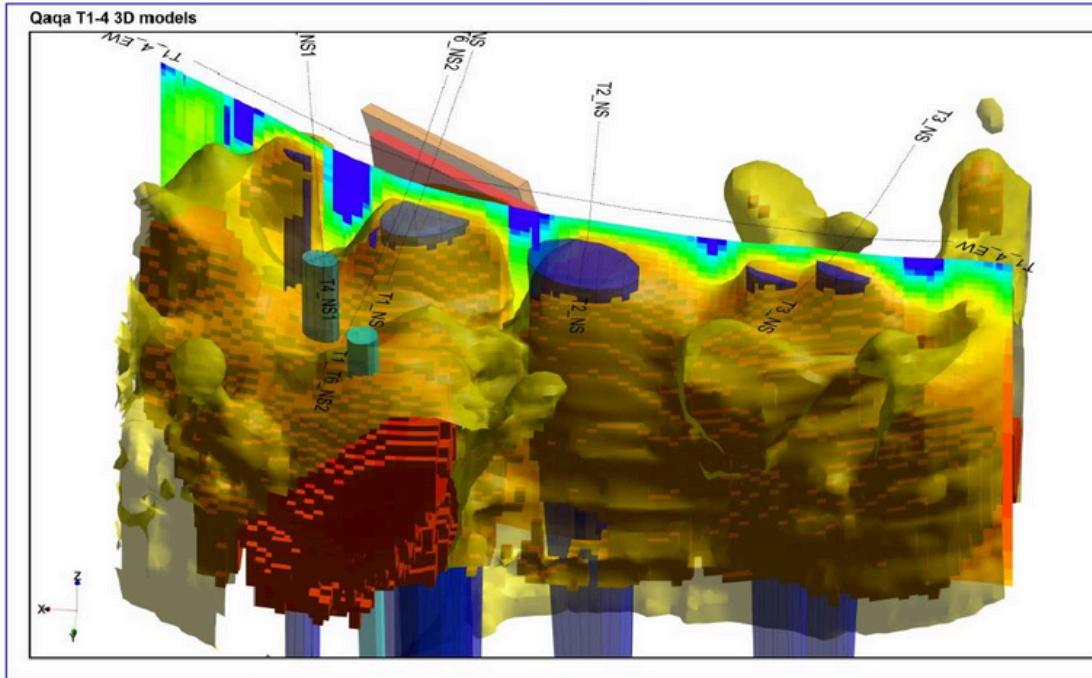
Note the good match-up of 2D pipe models and the holes in the 3D basalt body.

3D VRMI inversion voxel model (red), longitudinal (E-W) cross-section along
'T1-4_EW' profile, and 2D Profile Pipe Models (blue) (looking North)



Site Layout-Magnetic Imaging

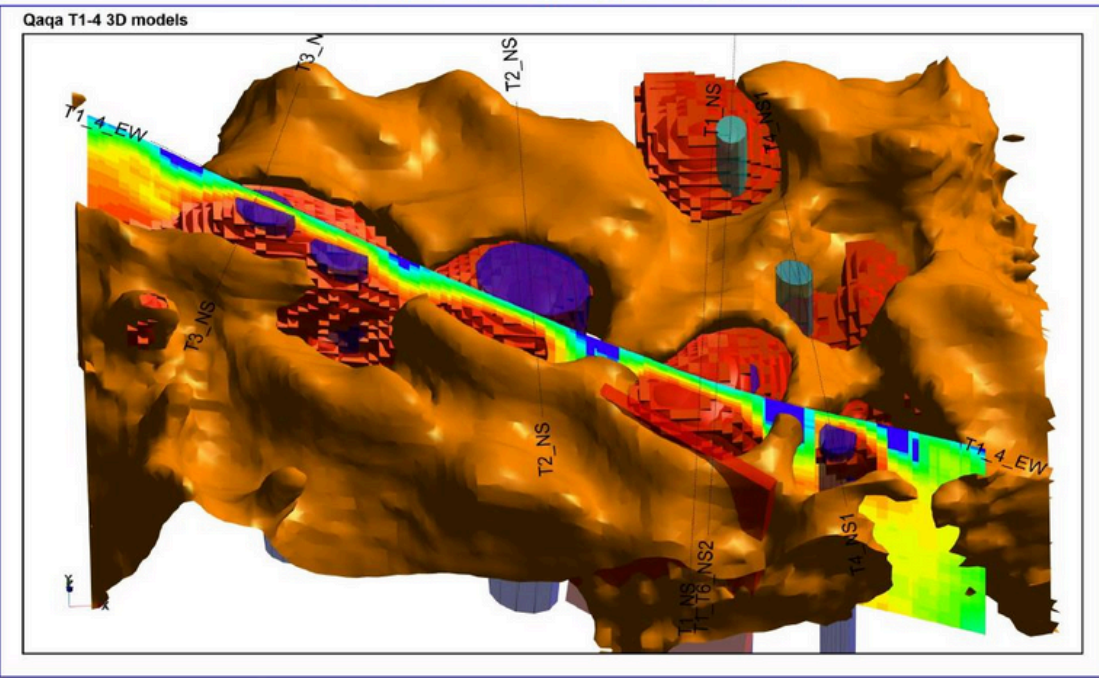
Remanence-immune VRMI 3D Inversion Model and 2D Profile Pipe Models
(looking South)



Note that both positive and negative anomalies produce positive 3D features when the remanence-immune VRMI data is inverted in 3D (both yellow iso-surface and red voxels represent different thresholds of the same 3D VRMI voxel model).

Xcalibur
AIRBORNE GEOPHYSICS

Combined 3D Models: TMI iso-surface (orange), VRMI voxel model (red), and 2D
Profile Pipe Models (blue) (looking North)



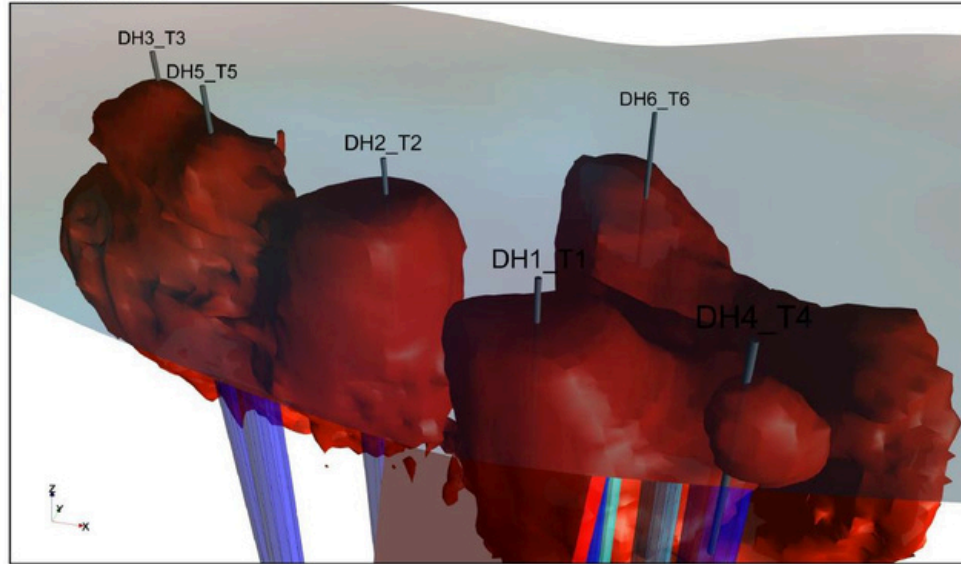
Note the holes in the irregular basalt body where it is proposed the negatively magnetized ("remanent") Kimberlites have punched through the surrounding positively magnetic rocks.

Xcalibur
AIRBORNE GEOPHYSICS

Site Layout-Magnetic Imaging

Remanence-immune VRMI 3D Inversion Model iso-shell, 2D Profile Pipe Models and Proposed Drill Holes (looking North)

Qaqa T1-4 3D models



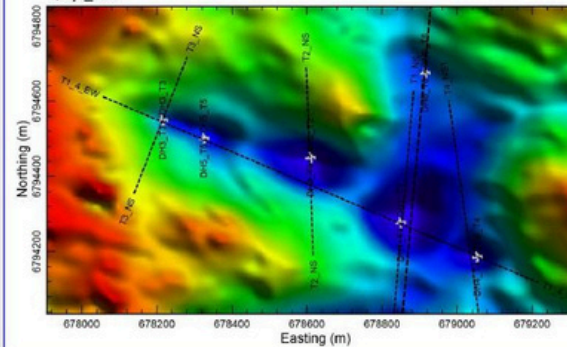
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Xcalibur
AIRBORNE GEOPHYSICS

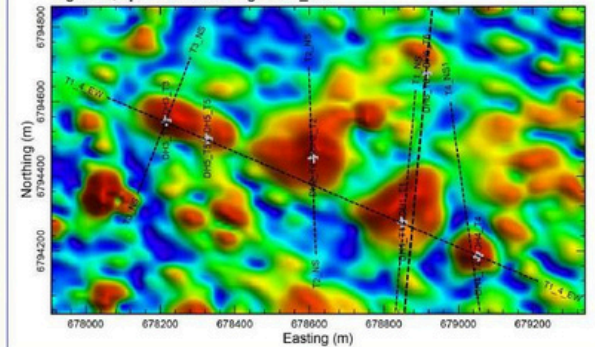
Proposed Drill Hole Collar Coordinates (UTM 35-S, WGS-84) and Locations in Plan View (light grey crosses)

LineName	Collar.DH_X	Collar.DH_Y	Collar.DH_Z	DH_DIP	Model1_top	Model1_Depth	Model2_top	Model2_Depth	Model3_top	Model3_Depth
DH1 T1	678849.5	6794277.6	3013.4	90.0	2948.7	64.7	2941.2	72.2	2946.3	67.1
DH2 T2	678609.4	6794450.0	3050.2	90.0	3015.3	34.9	3015.3	34.9	2941.2	109.0
DH3 T3	678215.5	6794549.3	3130.6	90.0	3105.5	25.1	3098.4	32.2		
DH4 T4	679053.0	6794186.1	3037.7	90.0	3014.8	22.9	3000.6	37.1		
DH5 T5	678325.8	6794500.9	3103.6	90.0	3049.1	54.5	3049.1	54.5		
DH6 T6	678914.8	6794675.3	3067.4	90.0	3030.4	37.0				

Qaqa_RTP



Wgs84 Qaqa Total Field Magnetics_AS



Note that due to modelling ambiguity, holes should be drilled significantly (~2x) deeper than the minimum depths to the top of the models shown in the table above, to properly test the targets.

CONCLUSIONS AND KEY RECOMMENDATIONS

Conclusions made

The extensive geological exploration and mapping activities conducted over several decades have confirmed Lesotho as a region with a rich presence of kimberlite pipes and dykes. The presence of 135 known kimberlite dykes and 2 significant blows underscores the potential for economically viable diamond mining operations. The consistent recovery of high-quality diamonds from these kimberlites, coupled with the geological stability and favorable mining conditions, positions Lesotho as a prime location for further diamond exploration and extraction.

Key Recommendations

Further Detailed Exploration:

- Conduct additional detailed geological and geophysical surveys to pinpoint the most promising kimberlite targets.
- Utilize modern exploration techniques such as ground-penetrating radar, magnetometry, and advanced remote sensing to enhance the precision of target identification.

Bulk Sampling and Trial Mining:

- Implement bulk sampling and trial mining programs on the most promising kimberlite pipes to assess the grade and quality of diamonds.
- Analyze the results to establish the economic viability of full-scale mining operations.

CONCLUSIONS AND KEY RECOMMENDATIONS ...continued

Bulk sampling

During the exploration, few diamonds recoveries which are similar to Letseng on micro diamond analysis in different kimberlite. Once internal variations within the kimberlite body are understood, discrete bulk samples of each kimberlite domain identified can be taken and processed to see how they differ in terms of diamond content. It is recommended that where possible at least 25000 tons of material be treated each 5 different Kimberlite Pipes in the First quarter of 2022. I have confidence that Qaqa have the same grade of Mothae and Letšeng kimberlite and therefore a larger volume of material should be treated in order to recover more diamonds. The characteristics of diamond are +5 to 10cts, Type IIa.

Table 5: Bulk sampling activity duration and scheduling.

No.	Activities	Duration (months)	Schedule
1	Sourcing of Plant and Loading Equipment	3	A
2	Site preparation and installation of the plant	3	B
3	Preparation and excavation of sample material	2	C
4	Commissioning of the plant	1	D
5	Processing of sample material	12	E
6	Reconciliation of Results	1	F
7	Reporting	2	G
	Total Months	24	

(Source: Report by CP's -Rethabile J. Sejake (Pr. Nat. Sci) –BSc. Hons. Geology & Mochaka Shakhane (Pr. Nat. Sci) –BSc. Hons. Geology)

CONCLUSIONS AND KEY RECOMMENDATIONS ...continued

THE PROJECT

- **Environmental and Social Impact Assessments:**
 - Conduct thorough environmental and social impact assessments to ensure sustainable and responsible mining practices.
 - Engage with local communities and stakeholders to address any potential concerns and ensure their support for the project.
- **De-risking the Project:**
 - Develop a comprehensive risk management plan that addresses geological, operational, financial, and environmental risks.
 - Establish partnerships with experienced mining companies and technical experts to mitigate operational risks and enhance project execution.
- **Investment Strategy:**
 - Secure an equity investment of \$7 million to fund the next phase of exploration and initial development activities.
 - Use the investment funds for detailed exploration, bulk sampling, trial mining, environmental assessments, and community engagement.
- **Infrastructure Development:**
 - Plan and develop the necessary infrastructure to support mining operations, including access roads, power supply, water management systems, and processing facilities.
 - Ensure that infrastructure development is aligned with environmental and social sustainability goals.
- **Regulatory Compliance:**
 - Ensure full compliance with Lesotho's mining regulations and obtain all necessary permits and licenses.
 - Maintain transparent and open communication with regulatory authorities to facilitate smooth project development.

DE-RISKING THE PROJECT

The project sponsors have adopted a phased approach to **resource development**, with targets set by phase and clearly identified triggers and decision points in order to extract value or cut losses early.

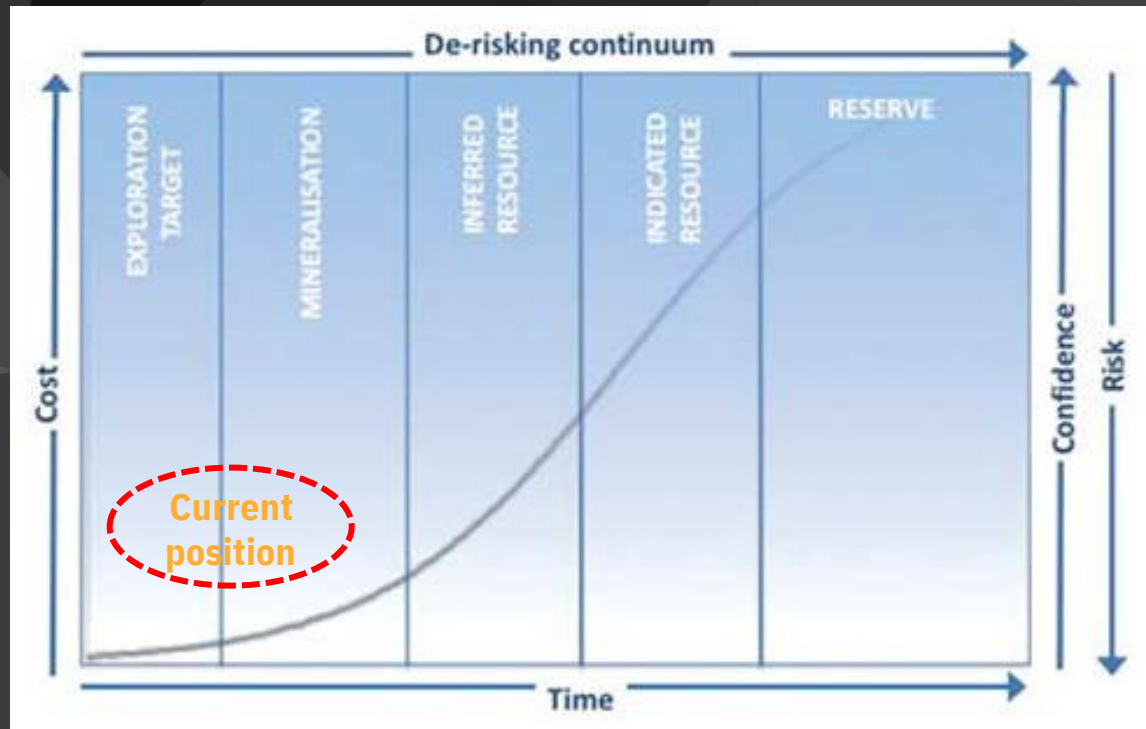


Fig 9: Project development de-risking continuum

(Source: SAIMM Journal, 2019)

To date, the work completed is re-assuring and confirms the meticulous manner in which the project owners have conducted the exploration work so far.

Current Position

The Qaqa diamond mining project is currently at the **Kimberlitic Indicator Mineral Chemistry** stage, and transiting into the **Diamond Mineralization** stage

(SAMREC: Clause 61/ Clause 66). At this stage the quantity and quality of the occurrence of diamonds in the kimberlites cannot be estimated with sufficient confidence to be defined as a Diamond Resource.

The mineral chemistry results obtained do not provide direct grade **value or diamond information** and cannot be used to infer these parameters for Diamond Resource estimation. However, with further bulk sampling the project is well on its way towards transiting into the Diamond Mineralization stage.

QAQA DIAMOND MINING PROJECT

...a diamond mining exploration project on the Letseng and Mothae kimberlites located in north-eastern Lesotho, seeking an investment to undertake core-drilling to test the extent of the dykes and bulk sampling to evaluate the macro diamond grade and value.

INVESTMENT REQUIRED: \$10 800 000

Core drilling: To test the vertical extent of the kimberlite dykes.

Bulk sampling: To evaluate the macro diamond grade and value.

Conclusion

Morafe Group Of Companies (Pty)Ltd together with their capital raising and transaction advisor, **Geo Consultants & Investments Group (Pty)Ltd** , are looking forward to engaging with interested investors for the participation in this exciting project.

Thank You

CONCLUSION

CONTACT

Presented on behalf of Morafe Group Of Companies (Pty) Ltd

by: GEO CONSULTANTS & INVESTEMENTS GROUP (PTY) LTD

Contact Person: Ofentse Shuping

Tel: +27 76 299 9107 / +27 60 317 3252

Email: Ofentse@Geoinvestments.co.za / Info@Geoinvestments.co.za



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CONSULTANTS &
INVESTMENTS GROUP_{INC.}