



PREMIUM REPORT

SATELLITE-BASED MINERAL DETECTION REPORT

# Enhanced Sunrise Ruby Prospectivity Mapping in Somalia

Ruby Concession (2020–2025)

REPORT DATE

10th March 2026

CLIENT

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PREPARED BY

Ground Technology

CONCESSION



AOI AREA

500 Hectares

CLASSIFICATION

CONFIDENTIAL

## SECTION 04

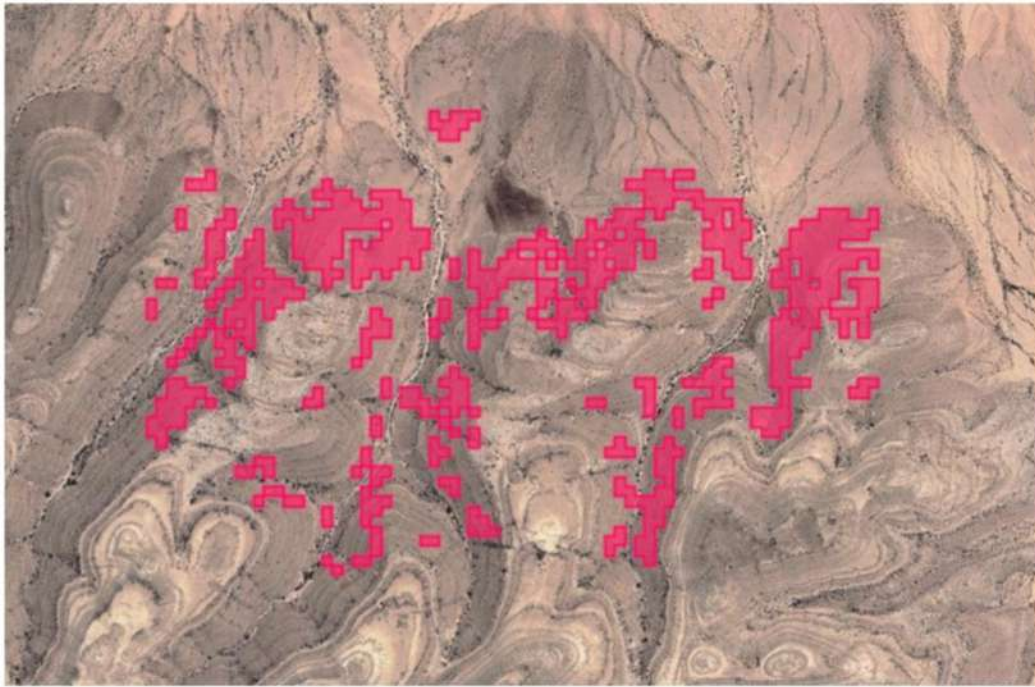
# Results — Final Sunrise Ruby Anomaly Map

The analytical methodology yielded clear, data-driven results identifying and prioritizing potential Sunrise Ruby exploration targets within the AOI.

## ● 4.1 Final Anomaly Map

This map displays the final, filtered, and prioritized anomaly polygons overlaid on a true-color satellite composite. These polygons represent the most promising targets that have passed all stages of the workflow.

This map (Figure 4.1) is the primary deliverable of the study. It displays the final, filtered, and prioritized anomaly polygons overlaid on a true-color satellite composite of the AOI. These polygons represent the most promising targets that have passed all stages of the analytical workflow, including spectral, temporal, and terrain-based filtering.



*Figure 4.1.1 (a): Final prioritized Sunrise Ruby anomaly polygons*

Figure 4. Final prioritized Sunrise Ruby anomaly polygons.

## SECTION 05

# Comprehensive Mathematical & Scientific Conclusion

The Concession, centred at [REDACTED], contains a total of **298,186.3 carats** of estimated gem-quality ruby across **38 anomaly zones**, with a total corundum content of 9,939,543 carats hosted in 1,396,096 tonnes of ore.

**298,186 ct**

TOTAL GEM RUBY

**US\$ 29.8M**

TOTAL GROSS VALUE

**7.12 ct/t**

AVG GRADE

**1.40M t**

TOTAL ORE TONNAGE

**54.02 ha**

TOTAL AREA

**37–71 m**

DEPTH RANGE

**US\$ 24.2M**

RECOVERABLE VALUE (81%)

**0.9163**

AVG RPI SCORE

**38**

ANOMALY ZONES

All zones are classified as **Marble\_Hosted** deposit type with **Mixed\_Contact** host rock. Premium-quality rubies command USD 5,000 to 100,000+ per carat retail, with the Sunrise Ruby setting a record at USD 1.18 million per carat at auction in 2015.

**■ Key Finding**

At current market prices where premium rubies fetch USD 5,000–100,000+ per carat retail, the concession's potential value could be significantly higher than the conservative estimate of USD 29.8M presented here.

## ● Gem-Quality Ruby Distribution by Zone

Satellite-Based Ruby Detection Analysis

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Figure 6. Gem-Quality Ruby Distribution by Zone (Top 10).

## ● Ruby Grade by Zone



Figure 3: Ruby Grade (ct/t) by Zone

## Ore Tonnage by Zone

Satellite-Based Ruby Detection Analysis

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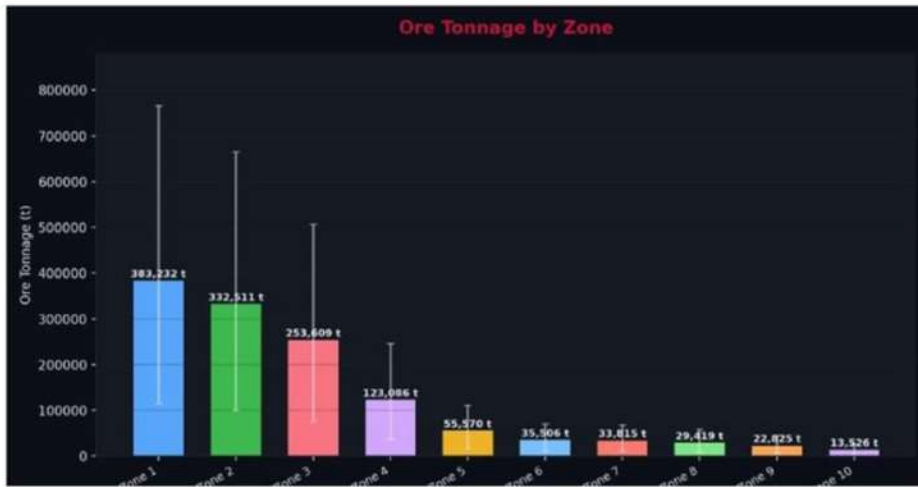


Figure 8. Ore Tonnage by Zone (Top 10).

## Depth Profile by Zone

### 4. Depth, Spectral & Drilling Analysis

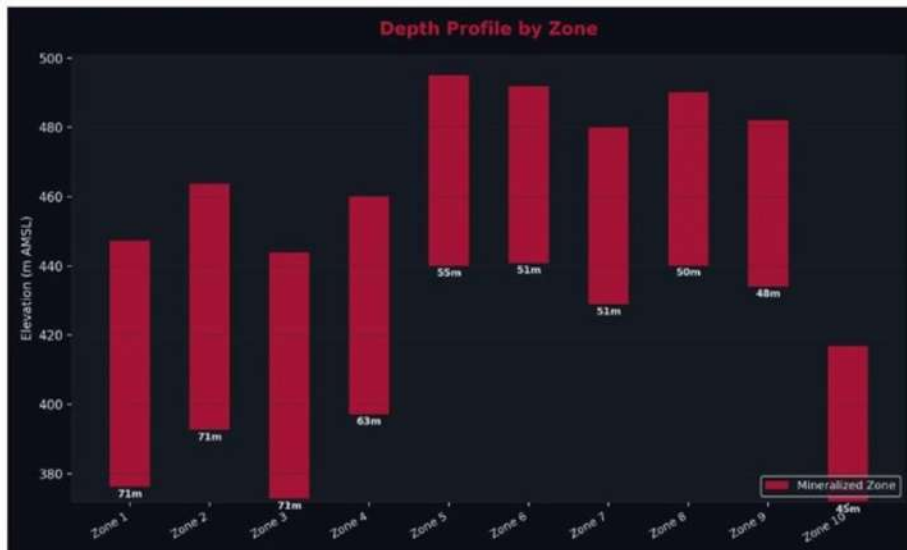


Figure 9. Depth Profile showing mineralized zone depths.

## SECTION 07

# Total Ruby Potential

Total Gem-Quality Ruby	298,186.3 carats
Total Gem Ruby (kg)	59.6373 kg
Total Corundum	9,939,543 carats
Total Ore Tonnage	1,396,096 tonnes
Tonnage Low-Case	418,829 tonnes
Tonnage High-Case	2,792,193 tonnes
Total Anomaly Area	54.02 ha
Weighted Avg Grade	7.1195 ct/t
Grade Range	7.0171 – 10.5164 ct/t
Depth Range	37 – 71 m
Elevation Range	371.8 – 501.2 m AMSL
Total Gross Value	USD 29,818,630.31
Recoverable Ruby (81%)	241,530.9 carats
Recoverable Value	USD 24,153,090.55
Avg RPI Score	0.9163
Avg Mineral Confidence	1.00

## Economic Value Distribution

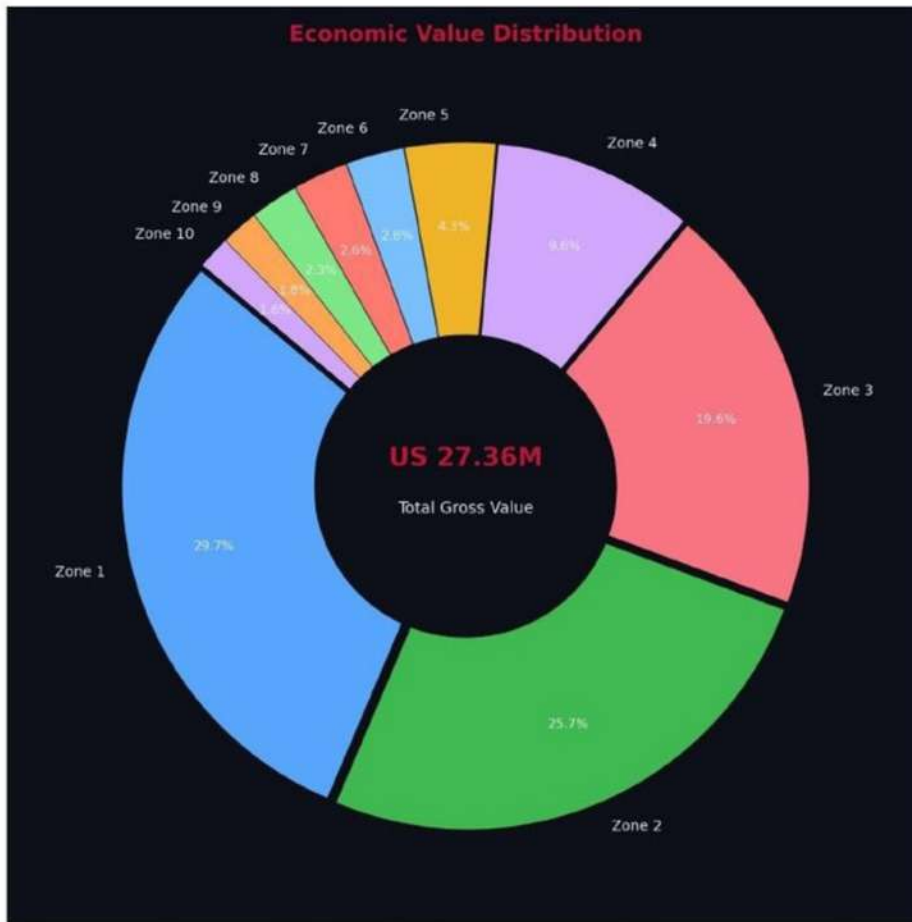


Figure 8: Economic Value Distribution

## Recovery Analysis

Scenario	Mining Rec.	Processing Rec.	Rec. Ruby (ct)	Rec. Value (USD)
Conservative	85%	85%	215,439.6	\$21,543,960
Base Case	90%	90%	241,530.9	\$24,153,091
Optimistic	93%	94%	260,674.5	\$26,067,447

SECTION 08

# Conclusions

The concession hosts an estimated **298,186.3 carats of gem-quality ruby** with a gross in-situ value of **USD 29,818,630**. Zone 1 alone contains 81,278.7 ct. At current market prices where premium rubies fetch USD 5,000–100,000+ per carat retail, the concession's potential value could be significantly higher than these conservative estimates.

## ● Value Proposition

Category	Description
<b>Ruby Resource</b>	298,186.3 ct gem ruby in 1,396,096 t ore across 38 zones
<b>Spectral Confidence</b>	Avg RPI 0.9163, Mineral Confidence 1.00
<b>Economic Viability</b>	4 Tier 2 zones, 34 Tier 3 zones; majority accessible for open pit
<b>Recommendation</b>	Phase 1: Zones 1–4 (Tier 2). Phase 2: Zones 5–10. Phase 3: Remaining Tier 3