



# Aton Resources

The Golden Age Rediscovered

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January 2025





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# Aton Overview



Aton Resources is the first international company to be issued a gold mining licence in Egypt for 19 years, since the Sukari licence was issued in 2005. As such we provide a unique entry into the Egyptian gold mining sector

This vote of confidence from the Egyptian government is a significant step forward in the development of the nation's industry and gives Aton security of tenure for up to 30 years. Aton plans to develop Egypt's second commercial gold mine at Hamama, whilst fast-tracking advanced exploration at Semna and aggressively exploring numerous other high value targets on the Concession



## PORTFOLIO OF PROJECTS

Aton's Abu Marawat Concession is located in the Arabian-Nubian Shield and boasts numerous gold prospects of which 7 have been drilled for >72,000m to date. The Abu Marawat and Hamama deposits have NI 43-101 resource estimates



## UNDERDEVELOPED ARABIAN NUBIAN SHIELD

Egypt has a rich history of gold mining dating back to the Old Kingdom. With very little mining and exploration activity in recent history, the Egyptian ANS is one of the last great undeveloped terranes with well known geological potential



## WELL DEVELOPED INFRASTRUCTURE

Aton Resources has 3 permanent exploration camps across the Concession with access to power and water. Located less than 2 hours from both the Nile and Red Sea, it is close to major highways, a port, and 2 international airports



## EXPERIENCED LOCAL AND TECHNICAL TEAMS

Having operated in Egypt since 2007, Aton is well established in country, with extensive local Egyptian management and technical expertise. Our technical team have decades of global experience, including in the wider MENA region



# Directors and Management Team



## BOARD OF DIRECTORS



**Tonno Vahk**  
Chief Executive Officer

Tonno is a former derivatives and financial engineering specialist with over 25 years of experience in the financial markets. Since 2012 Tonno has been managing private equity investments in Eastern Europe, the Middle East and Africa, with a focus on mining and real estate



**Assem Soliman**  
Director

Assem is an Egyptian business entrepreneur with vast experience in the fields of investment banking and capital markets



**Anthony Clements**  
Director

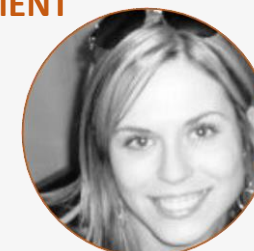
Anthony is a former investment banker with Fox Davies Capital Limited, a London-based firm specialising in the mining sector

## CANADIAN MANAGEMENT



**Bobby Dhaliwal**  
Chief Financial Officer

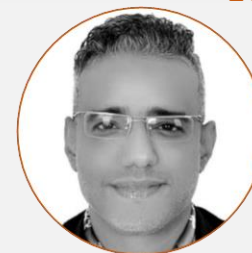
Bobby is a financial consultant with a number of TSX.V listed companies in the resources sector



**Christina Boddy**  
Corporate Secretary

Christina is an experienced Corporate Secretary, having worked with many resource issuers listed on the TSX and TSX.V

## EGYPTIAN MANAGEMENT



**Samy Nabil Donkol**  
Operations Manager

Samy has a business management and accountancy background with years of experience in the oilfield services sector, where he was responsible for drill rig operations



**Cherif Barakat**  
General and Country Manager

Cherif has more than 20 years experience in the resource space in the US, Europe and Egypt, and is the founder of Acacia Consultants and Eastern Desert Gold

# Technical Management Team



**Javier Orduña**  
Chief Geologist

Javier is an exploration and mine/development geologist with over 25 years global experience including in Saudi Arabia, Somaliland, Kazakhstan, Kyrgyzstan, Cuba, and West Africa, and started his career with Western Mining Corporation in Australia



**Paul Angus**  
Exploration Manager

Paul has 20 years' experience as a geologist in mineral exploration and mining, notably as a Senior Associate Exploration Geologist with SRK. He has extensive experience in the design, permitting, organisation and management of exploration programmes



**Tim Neall**  
Consulting Geologist

Tim has been working in the mining and exploration business for over 35 years. He began his career with consulting firm Mackay Schnellmann and has worked around the world in a variety of exploration and mine development roles

## EXPERIENCED TEAM

Aton's expat technical team have worked in more than 30 different jurisdictions around the world with many decades of experience, including more than 20 years in Egypt alone

## EGYPT FOCUSED

Until 2020, Aton was the only listed foreign company exploring in Egypt. Our geological team are the most experienced in Egypt, having been together since 2017, with deep knowledge of Egypt's geology

## TRACK RECORD OF DELIVERY

Aton's technical team have a track record of discovery and mine development placing it perfectly to execute Aton's strategy of developing multiple mining operations at the Abu Marawat Concession



# Arabian Nubian Shield

## UNDEREXPLORED TERRANE

Recently the Arabian Nubian Shield (ANS) has become a popular focus for modern mineral exploration. Both Egypt and Saudi Arabia have introduced new mining codes in recent years, but Egypt has been hugely under-explored up to now. The increased focus on modern exploration is already yielding results

## ABUNDANT OUTCROP

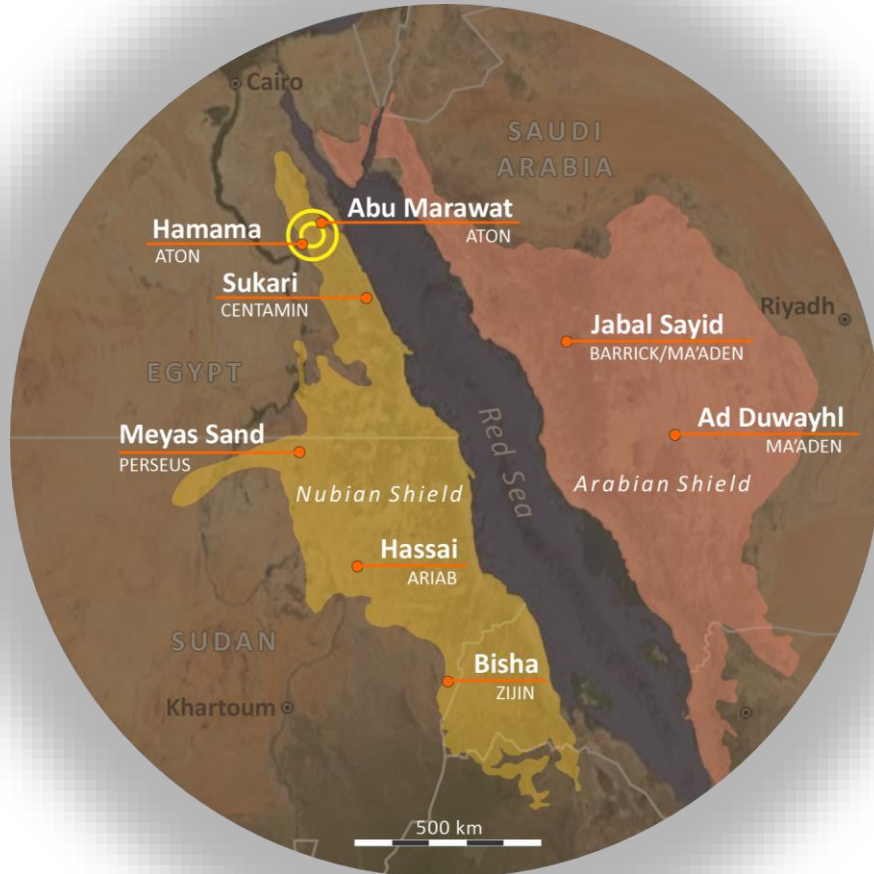
The ANS in Egypt is unparalleled today with its abundance of exposure and outcropping mineralisation, and this impacts the exploration methodologies used. Remote sensing tools and drone surveys are very useful, but more traditional methods such as mapping and litho-geochemical sampling are of importance. Use of these techniques leads to rapid first-pass analysis of data and early discovery

## HOST TO TIER 1 MINES

The ANS, spanning over 3 million km<sup>2</sup> in area is host to several Tier 1 mines, including Sukari (Anglogold Ashanti) and Jabal Sayid (Barrick), with others under development such as Mansourah-Massarrah (Ma'aden) and Meyas Sand (Perseus). The geological prospectivity of the ANS is very well recognised, but the lack of modern exploration to date in Egypt has hindered the development of its minerals sector. However, this is now rapidly changing

## LOGISTICS AND LOCATION

The Egyptian ANS is located between the Nile and Red Sea, and the Abu Marawat Concession is ideally located in an area of excellent infrastructure



# Abu Marawat Concession



## EXPLOITATION LEASE

In 2024 Aton Resources became the first international company to be issued a gold mining licence in Egypt since 2005. The Abu Marawat Exploitation Lease covers the Hamama and Rodruin deposits, for a 20+10 year period, and covers an area of 57.7 km<sup>2</sup>

## MINERAL RESOURCE ESTIMATES

Aton has published NI43-101 resources at the Abu Marawat and Hamama West deposits

## DRILLING

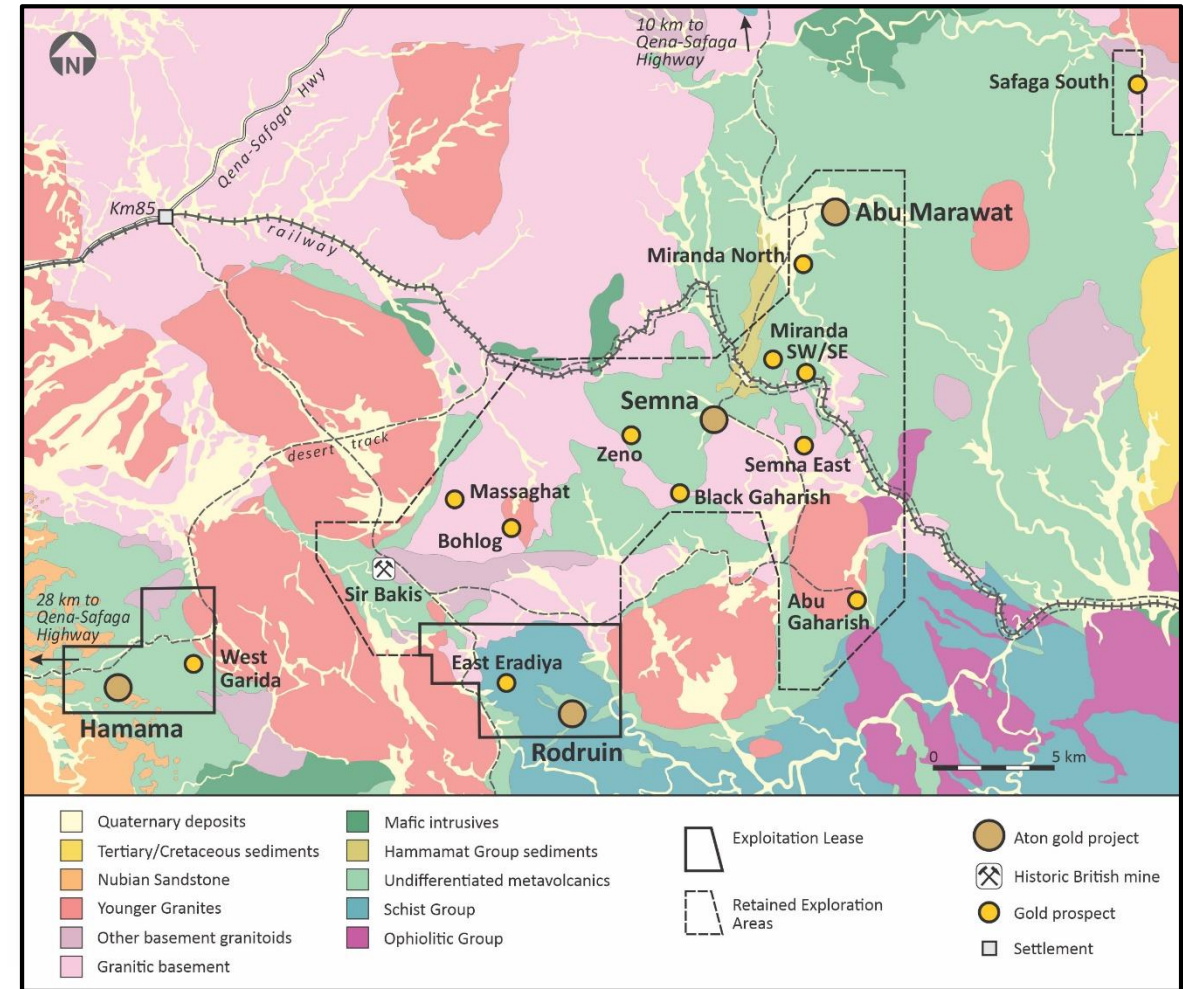
Aton has drilled c. 72,500m on the Concession to date, the majority at Abu Marawat, Hamama and Rodruin. In 2023, Aton carried out an 11,600m regional RC drilling programme and made a significant discovery at Semna, intersecting high grade mineralisation including 6m @ 50.07 g/t Au

## RETAINED EXPLORATION AREAS (REA's)

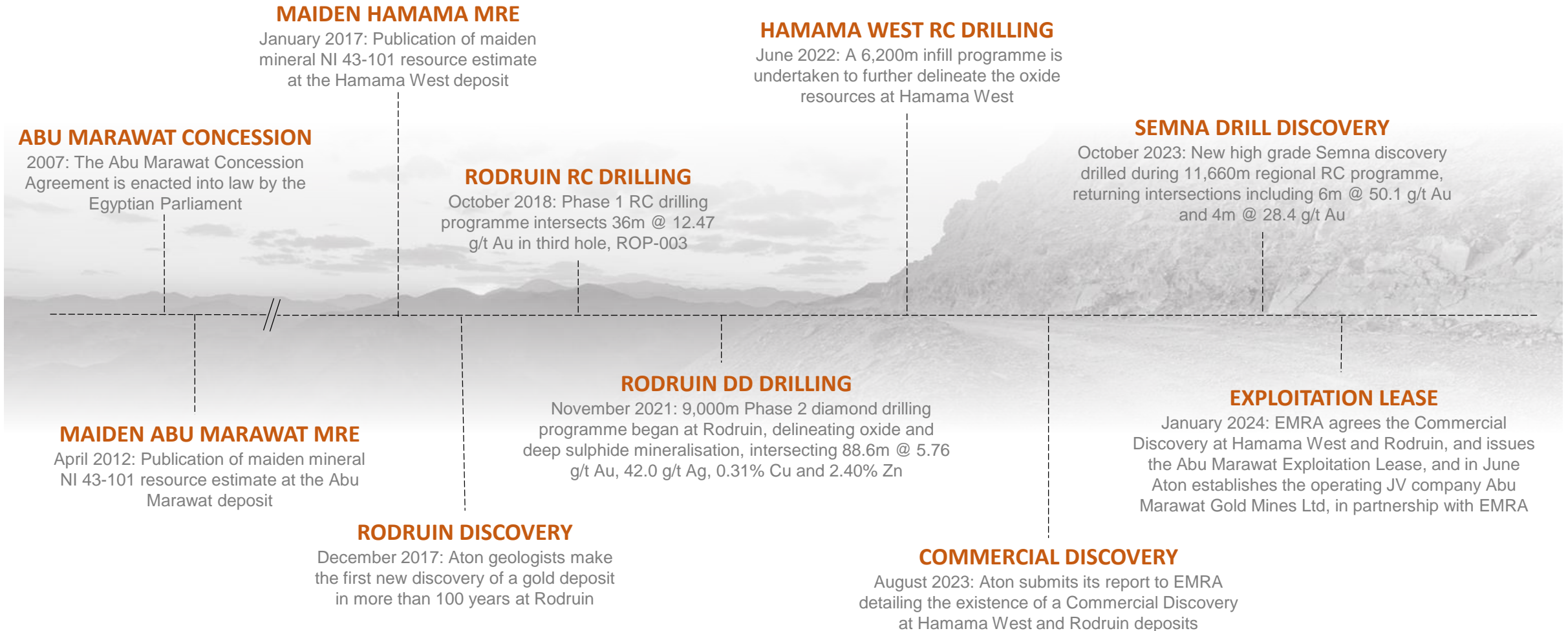
Aton has retained a further 255 km<sup>2</sup> of highly prospective exploration ground for further exploration for up to 4 years, with the plan to bring much of this into the exploitation lease, starting with Abu Marawat deposit and Semna

## NUMEROUS DRILL TARGETS

The Abu Marawat REA's host several untested targets including a former British mine at Sir Bakis. Aton is planning an aggressive drilling programme over many of these targets, with the long term plan to bring many of these areas into the mining licence and develop multiple mining operations over the Concession



# Key Milestones





# 3 Part Strategy



## 1. HAMAMA WEST MINE DEVELOPMENT

Aton plans to develop a starter open pit mining and modular CIL processing operation at Hamama West. The Company expects to start production from Hamama West by 2027, and become a cashflow positive company



## 2. FAST TRACK SEMNA PROJECT

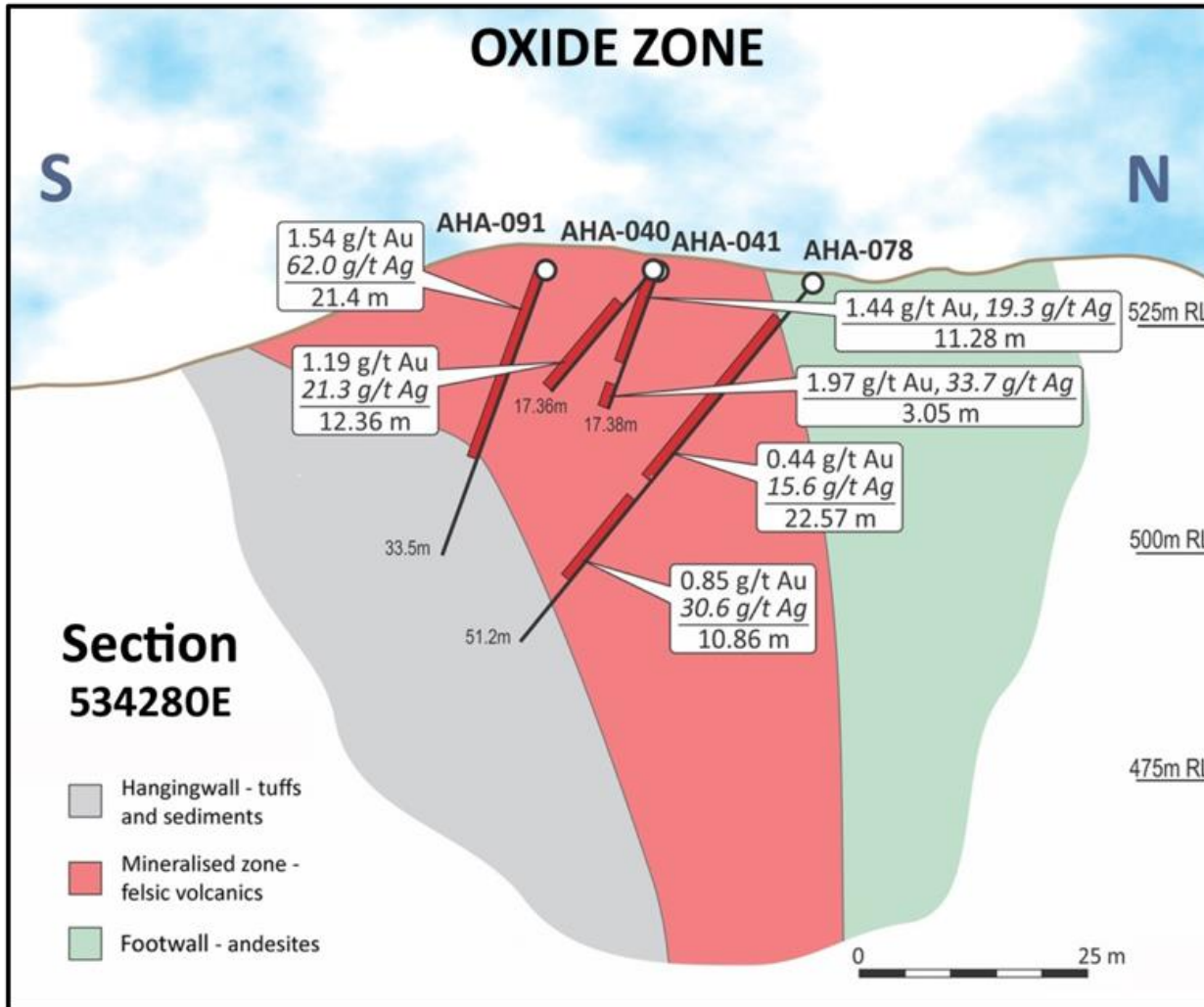
The high grade Semna discovery will be fast tracked, with the phase 3 RC drill programme to start in February 2025. Additional phase 4 diamond drilling is planned with the aim of moving to a maiden MRE by early 2026



## 3. AGGRESSIVE EXPLORATION OF REA's

Aton is developing extensive diamond and RC drilling programmes for the most promising targets in the REAs, including the old British mine at Sir Bakis and Bohlog. Diamond drilling has been ongoing at Abu Marawat since June 2024

# Hamama West - Geology



## GEOLOGY

The Hamama gold-silver-polymetallic deposit is located in the west of the Concession, in a sequence of Neoproterozoic age metavolcanic rocks. The local geology at Hamama is overturned, and consists of a stratigraphic footwall sequence of andesitic lavas and tuffs, overlain by a sequence of tuffaceous volcanoclastic and sedimentary rocks

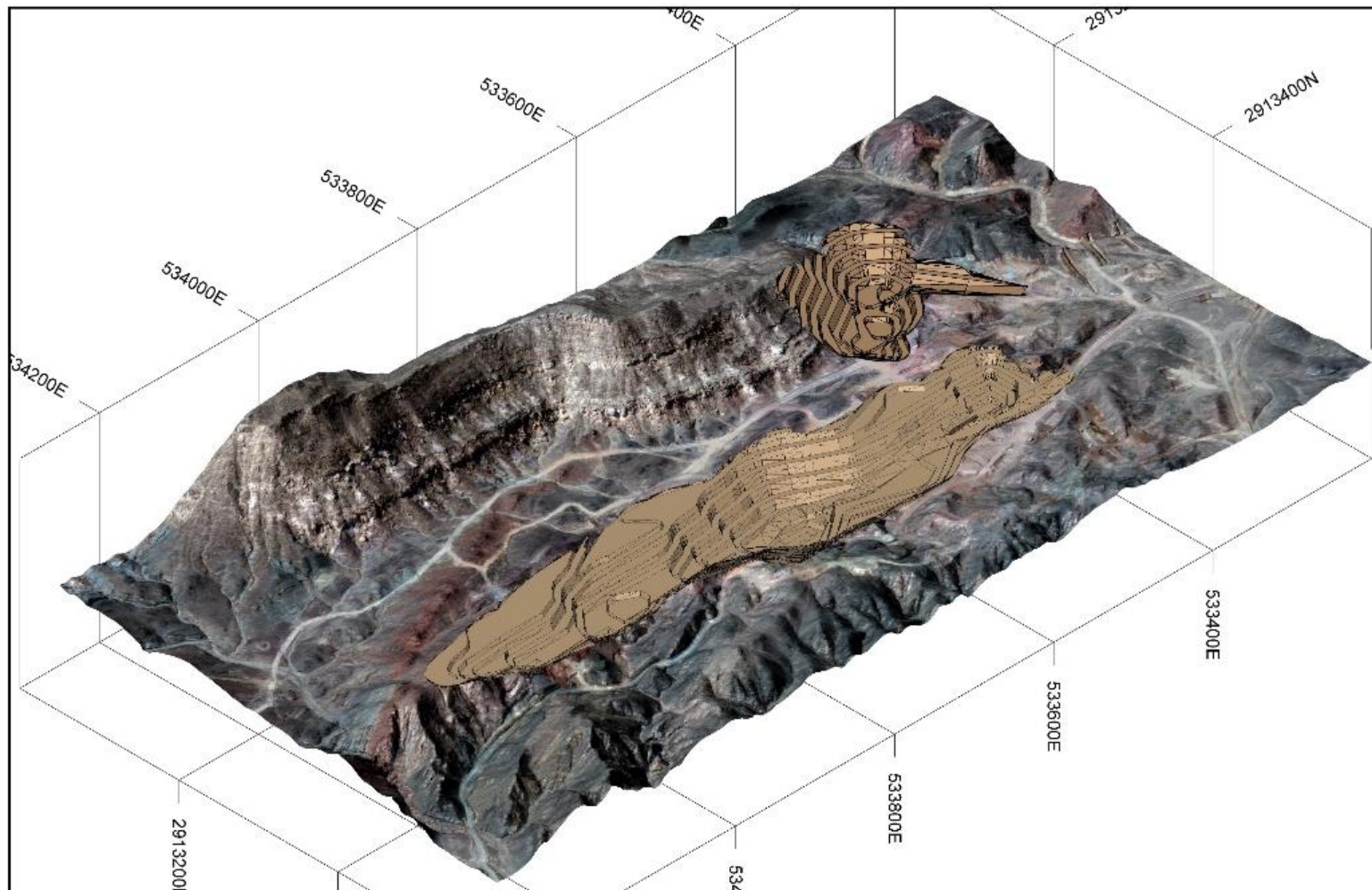
## MINERALISATION

The mineralisation at Hamama is located within a distinctive stratiform mineralised silica-carbonate horizon, and is currently interpreted as a 'VMS-epithermal hybrid' deposit, formed in a very shallow depositional environment. The carbonate horizon may be related to the formation of Neoproterozoic glaciogenic "cap carbonate" rocks. The Hamama West gold oxide cap consists of a 675m long outcropping zone of gossan-hosted Au-Ag mineralisation, up to 60m wide, and c. 50m in depth. The highest grades occur at surface. Sulphide mineralisation has been drilled to depths of about 275m below ground level





# Hamama West - Development



## BACKGROUND

In January 2017 Aton published a maiden mineral resource estimate for the Hamama West deposit, which included inferred oxide and transitional resources of 72 koz of gold and 2.33 Moz of silver in the Hamama West gold oxide cap. This MRE was originally based on 74 diamond drill holes. A further programme of RC drilling was completed in 2022

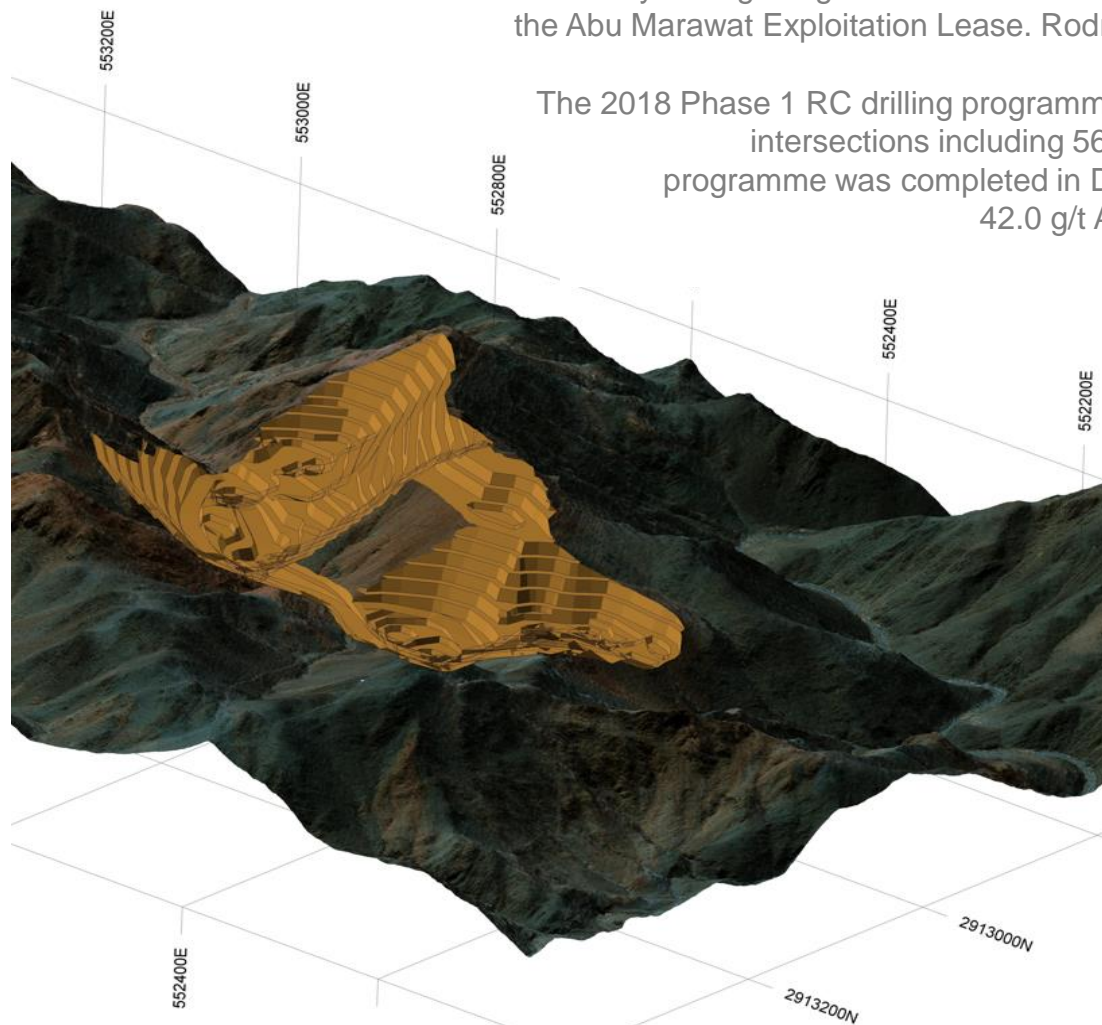
In August 2024 EMRA engaged Wardell Armstrong International to undertake a PFS on the Hamama area, and in December 2024 a new RC programme was started with the objectives of additional resource delineation, infrastructure sterilisation and ground water exploration



# Rodruin

Discovered by Aton geologists in December 2017, Rodruin is the first new gold discovery in Egypt for 100 years, and has been included in the Abu Marawat Exploitation Lease. Rodruin is a gold-silver-polymetallic deposit, and bears some similarities to the Hamama deposit

The 2018 Phase 1 RC drilling programme identified near surface oxide and deeper primary sulphide mineralisation, with mineralised intersections including 56m @ 8.20 g/t Au, and 163m @ 0.90 g/t Au, both from surface. The Phase 2 diamond drilling programme was completed in December 2022 with deep sulphide polymetallic intersections including 88.6m @ 5.76 g/t Au, 42.0 g/t Ag, 0.31% Cu and 2.40% Zn and 36.9m @ 7.04 g/t Au, 47.2 g/t Ag, 0.63% Cu and 7.18% Zn



DIAMOND DRILL INTERSECTIONS	
<b>ROD-055:</b>	88.25m @ 1.74 g/t Au, from 25.75m depth (Aladdin's Hill oxides)
<b>ROD-056:</b>	129.5m @ 1.00 g/t Au, from surface (Spiral Pit Zone oxides)
<b>ROD-062:</b>	40.0m @ 2.32 g/t Au, from 5.2m depth (South Ridge oxides)
<b>ROD-071</b>	88.6m @ 5.76 g/t Au, 42.0 g/t Ag, 0.31% Cu and 2.49% Zn from 117.2m depth (sulphides)
<b>ROD-075:</b>	36.9m @ 7.04 g/t Au, 47.2 g/t Ag, 0.63% Cu and 7.18% Zn from 112.1m depth (sulphides)
<b>ROD-117:</b>	19.3m @ 7.93 g/t Au, 55.2 g/t Ag, 0.21% Cu and 1.34% Zn from 245.3m depth (sulphides)





# Semna - RC and Diamond Drilling

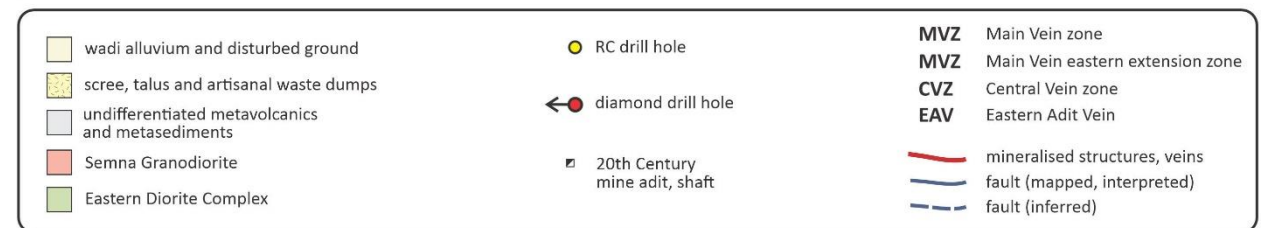
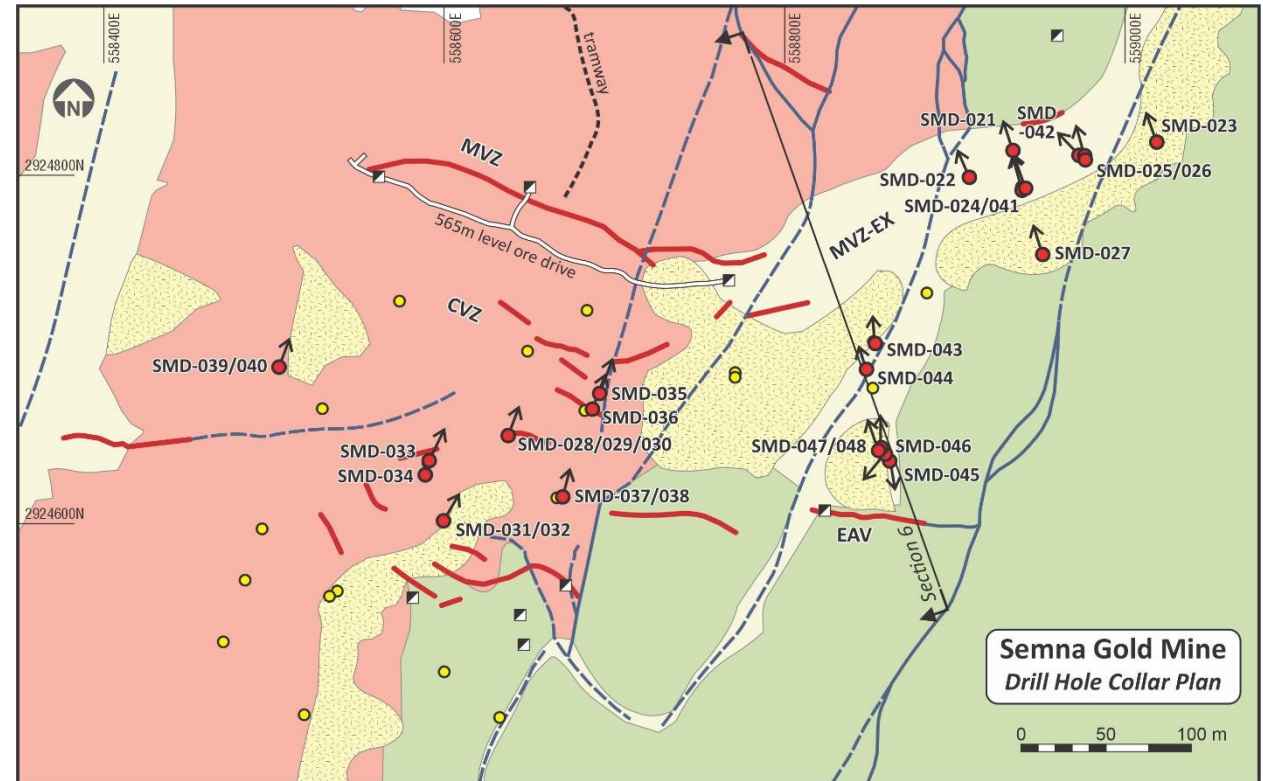
## HISTORY

Semna was mined by 2 British companies between 1904-1906, and briefly again in the 1950's. Since about 2019 Semna was heavily exploited by artisanal miners who the Company have now removed from the site

## ATON DRILLING

In Q3 2023, 21 RC holes for a total of 3,662m were completed, and in H1 2024 a further 28 diamond drill holes were completed for 4,701m. High grade structurally controlled and orogenic vein-hosted gold mineralisation was intersected over a strike length of about 500m, and remains open along strike and at depth

<b>SMP-003:</b>	4m @ 28.36 g/t Au, from 136m
<b>SMP-004:</b>	2m @ 12.45 g/t Au, from 184m
<b>SMP-006:</b>	2m @ 14.20 g/t Au, from 116m
<b>SMP-016:</b>	6m @ 50.07 g/t Au, from 75m
<b>SMP-017:</b>	14m @ 5.73 g/t Au, from 56m
<b>SMP-019:</b>	9m @ 10.61 g/t Au, from 130m
<b>SMD-025:</b>	2.55m @ 15.05 g/t Au, from 100.45m
<b>SMD-027:</b>	3.13m @ 8.10 g/t Au, from 135.83m
<b>SMD-044:</b>	1.55m @ 16.77 g/t Au, from 64.30m
<b>SMD-048:</b>	5.19m @ 11.69 g/t Au, from 126.35m
<b>SMD-048:</b>	1.50m @ 21.53 g/t Au, from 147.20m



# Semna - Mineralisation

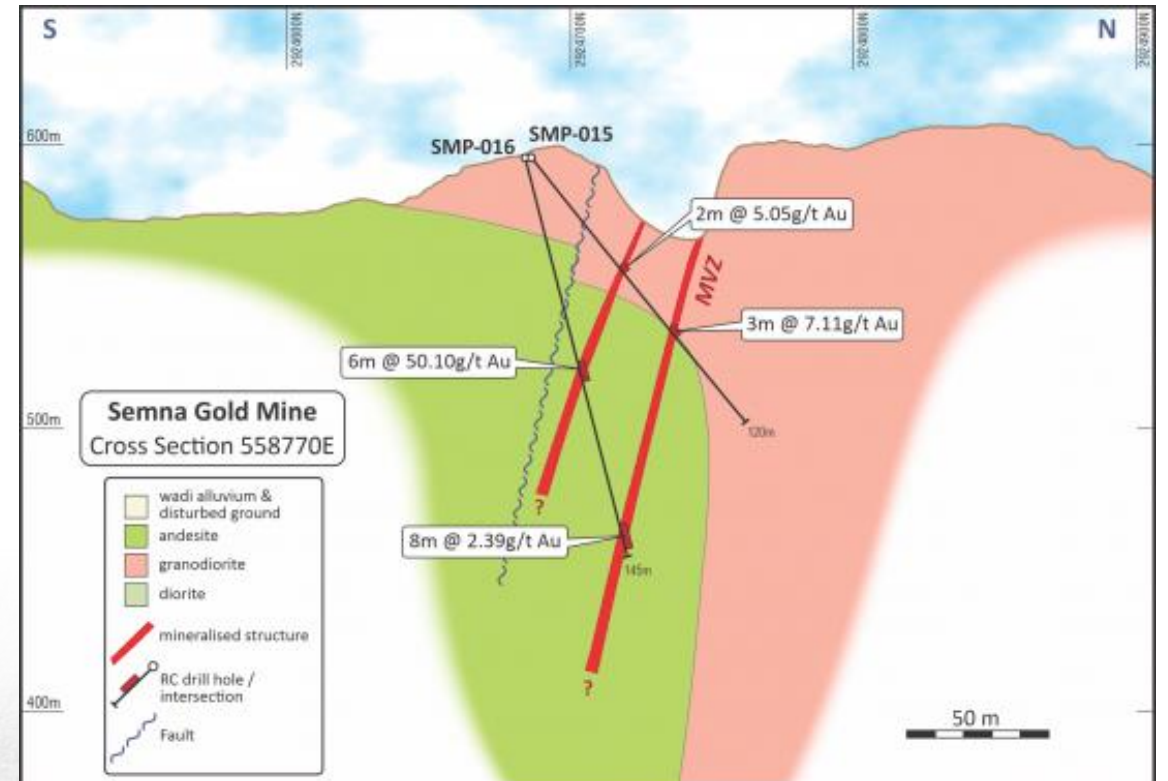
## CLASSIC OROGENIC DEPOSIT TYPE

Multiple steep south-dipping shear-hosted auriferous quartz veins, with evidence for multiple mineralised structural orientations in a significant structural system. High grade mineralisation identified over a strike length of c. 500m, and is open at depth and along strike. The high grade Semna mineralisation contains abundant coarse gold, and occasionally significantly elevated silver and copper



## METALLURGICAL TESTWORK

Whole ore leach tests have indicated exceptional gold recoveries of >97%, and gravity separation recovered >56% of the gold to concentrates. The Semna mineralisation is amenable to both conventional CIL and gravity concentration processing methods





# Retained Exploration Areas

## SIR BAKIS

Another early 20<sup>th</sup> century British gold mine, which exploited a high grade 1.5m wide vein underground. Surface sampling during 2017 returned assays including 150 g/t Au, 32.9 g/t Au, and 29.5 g/t Au

## ZENO

Multiple veins over a wide area, which have returned surface sample grades including 117.5 g/t Au, 104.5 g/t Au and 100.5 g/t Au. First pass RC drilling in 2023 returned intersections including 3m @ 9.77 g/t

## BOHLOG

Several zones of structurally controlled gold mineralization. Surface channel sampling has returned intersections including 16.7m @ 3.03 g/t Au, and surface samples have assayed up to 54.9 g/t Au and 48.4 g/t Au

## ABU MARAWAT

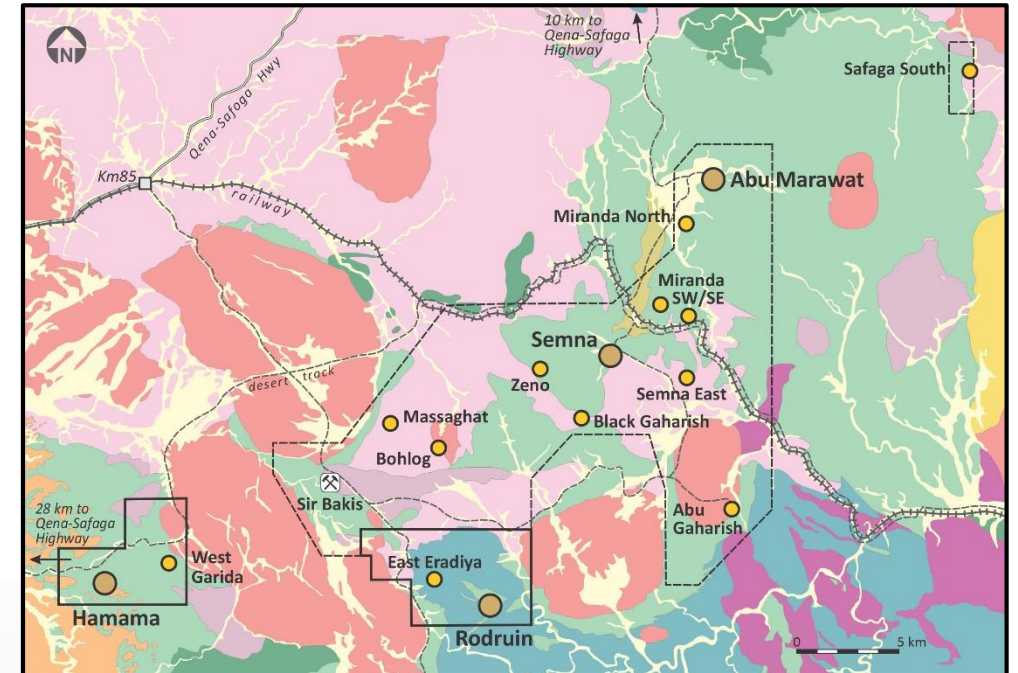
An established resource on multiple veins/structures, drilled over a combined strike length of 1,500m, and to a depth of >200m. Excellent upside potential on undrilled parts of the high grade Fin and J Vein structures

## ABU GAHARISH

Structurally controlled gold mineralisation over a 5km strike length along the eastern margin of the Gaharish pluton. First pass RC drilling during 2023 returned intersections including 9m @ 2.10 g/t Au

## SAFAGA SOUTH

Quartz veins over an area of several square kilometres, surface sampling has returned assays of up to 102.5 g/t Au and 95.7 g/t Au





# Hub and Spoke Model

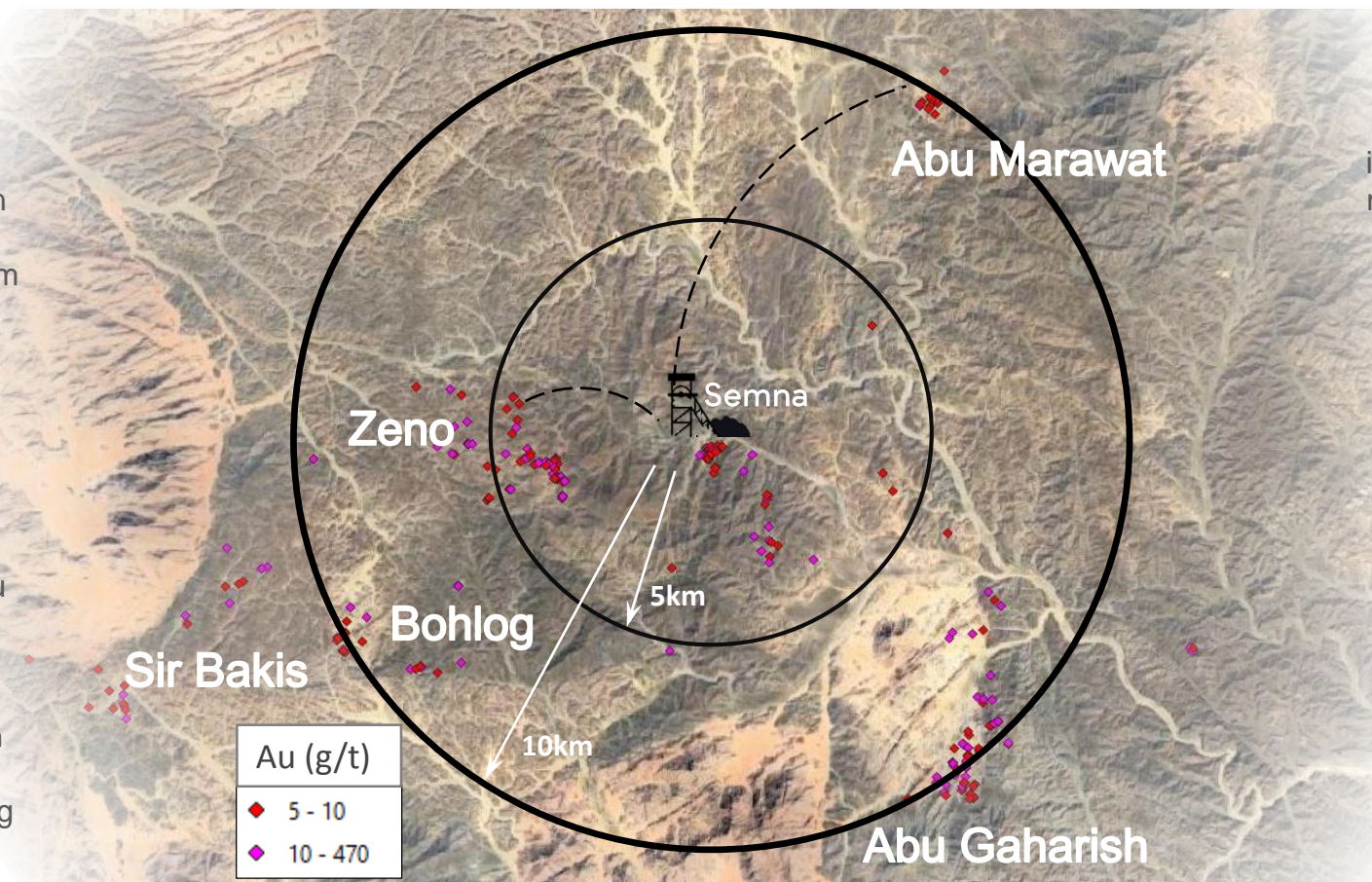
A central CIL plant at Semna would be able to process ore trucked from satellite deposits. The abundance of high grade surface mineralisation across the Concession, within close proximity of Semna, makes a 'hub and spoke' model an attractive strategy for the long term development of multiple mining operations at the Abu Marawat Concession

## ZENO

Zeno is an orogenic vein style Au prospect with surface samples returning grades including 117.5 g/t and 104.5 g/t Au. RC drilling in 2023 returned intersections including 3m @ 9.77g/t Au and 6m @ 4.16 g/t Au

## BOHLOG

Bohlog has yielded surface samples grading up to 54.9 g/t Au and 48.4 g/t Au. Aton geologists have mapped and collected abundant visible gold at Bohlog, and the high grade mineralisation has been worked recently by artisanal miners. First pass drilling is planned at Bohlog during 2025



## ABU MARAWAT

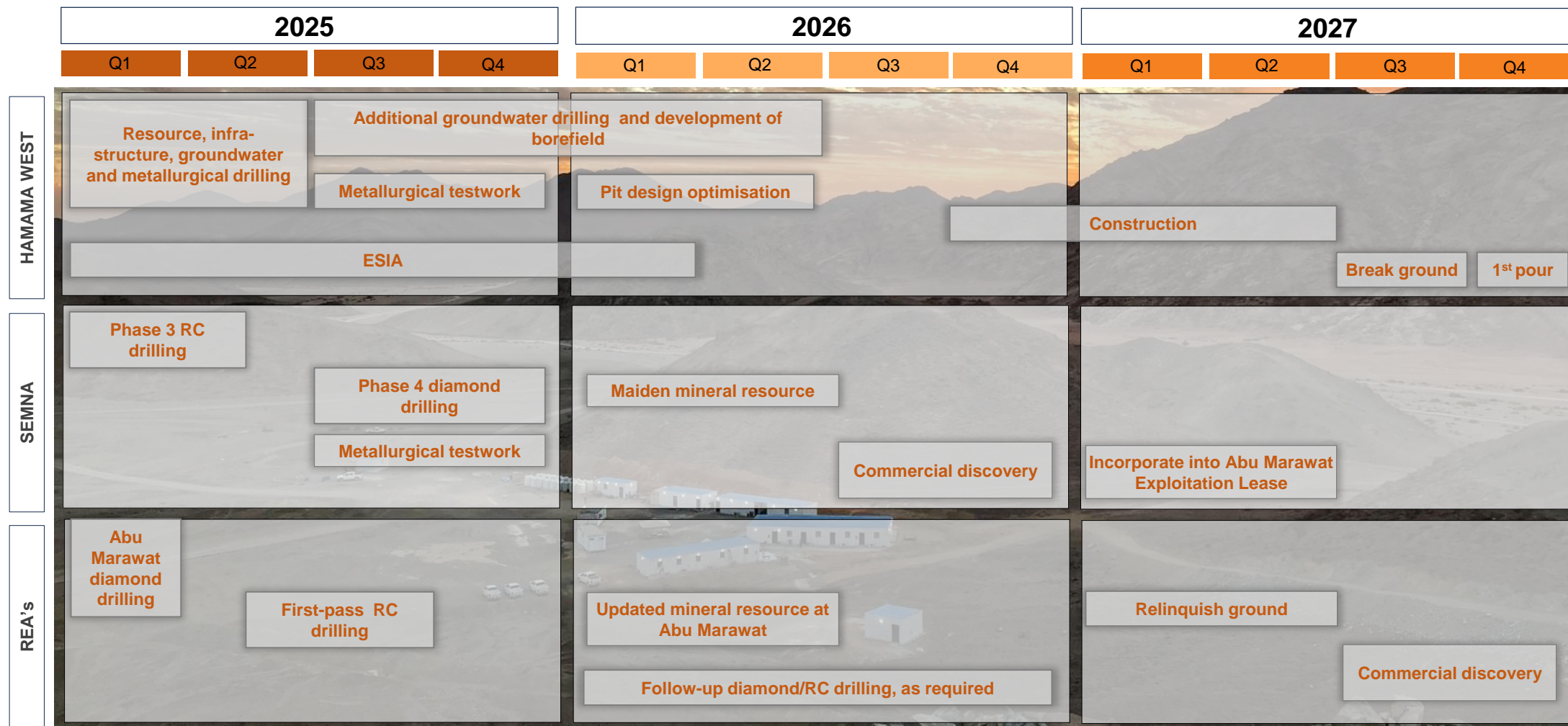
Abu Marawat is a gold-silver-polymetallic deposit with an inferred mineral resource of 2.88 million tonnes @ 1.75 g/t Au and 29.3 g/t Ag, containing 160,000 ounces of gold and 2.7 million ounces of silver. Ongoing diamond drilling started at Abu Marawat in June 2024

## ABU GAHARISH

Mineralisation occurs along the 5km eastern margin of the Gaharish pluton. RC drilling in 2023 returned intersections including 9m @ 2.10 g/t Au from the Abu Gaharish Main Zone



# Timeline



# ATON - EMRA Partnership

## 1. ABU MARAWAT EXPLOITATION LEASE

In January 2024, following a review of the Hamama and Rodruin Commercial Discovery by EMRA's technical committee, and its approval by EMRA, the Abu Marawat Exploitation Lease (AMXL) was issued for a period of 20 years, and renewable for an additional 10 years. The AMXL covers 57.7 km<sup>2</sup> over the Hamama and Rodruin deposits. This exploitation lease is enacted into Egyptian law

## 2. JV COMPANY FORMATION

Subsequent to the issuance of the AMXL a new joint venture company, Abu Marawat Gold Mines Ltd (AMGM), was incorporated and which is 50:50 owned by Aton Resources and EMRA. AMGM is the operator of the AMXL

Aton Resources will in practice act as the managing partner, with AMGM board approval, in much the same way that the Sukari gold mine is managed by Sukari Gold Mines Ltd with AngloGold Ashanti acting as the managing partner of the JV. This JV arrangement strongly incentivises the government to support Aton Resources towards production

## 3. PRODUCTION SHARING AGREEMENT

The AMXL will be operated under a Production Sharing Agreement model, as mandated by the Abu Marawat Concession Agreement. Under these PSA terms Aton Resources and EMRA will share 42% of annual production revenues equally, with a 3% royalty on production revenues due to the Egyptian Government. The remaining 55% of production revenues are allocated to cost recovery to Aton against historic exploration, development and exploitation costs



## 4. COST RECOVERY

Costs incurred during exploration, mine construction and operation are accounted for appropriately and are later recovered against production. Recovery of exploration costs are capped at 25% of production per annum. Recovery of exploitation (CAPEX and OPEX) costs are capped at 30% of production per annum. Excess revenues are distributed 60:40 in favour of EMRA

## 5. RETAINED EXPLORATION AREAS

Following the issuance of the AMXL in January 2024 Aton Resources has retained a further area of 255km<sup>2</sup> for additional exploration, for a maximum period of up to 4 years. Aton has commenced an aggressive exploration programme over the REA's, with the intention of bringing other areas to be defined as Commercial Discoveries into the AMXL during this period. This effectively gives Aton a further 4 years to continue work at areas including Semna and Abu Marawat, as well as its many other high value exploration targets, under its sole discretion, before bringing them into the AMXL



# Our Values

Aton Resources has worked at the Abu Marawat Concession for over 15 years and has built deep relationships with the local community and Bedouin groups. This long friendship with the traditional custodians of the desert lands in which we work enables Aton to create the bridges that underpin the strong relationship between our staff and the local community and an international Canadian-listed mining company



## More than a Social Licence to Operate

Aton's long standing in Egypt has given us a reputation in country amongst local stakeholders, which was ultimately rewarded with the issuance of the AMXL. Our strong relationships with the local Bedouin communities, Egyptian staff and authorities are crucial in this process



## Staying Local

Aton Resources uses local suppliers wherever possible, contributing to the local economy, and considers it good practice to maximise in-country and local spend. Aton employs its geologists, field staff and employees locally from Upper Egypt

## Employment and Training of Local Staff

Training local geologists and field crews is at the heart of our company ethos leading to a loyal work force and a very low level of staff turnover. We understand that training the next generation of geoscientists is crucial to the development of the minerals sector in Egypt



## Canadian Listing

Aton Resources has been listed in Toronto since 2010 and has maintained the highest levels of corporate governance that that listing obligates. Aton routinely informs its shareholders of company developments through press releases and active social media accounts



# Capital Structure

## ACTIVE & SUPPORTIVE SHAREHOLDERS

Aton has strong supportive shareholders through two long standing Estonian entities OU Hektik and OU Moonrider. Both parties are strongly incentivised to succeed owning more than 87% of the company.

OU MOONRIDER	70.38%	52-WEEK RANGE	0.15 - 0.345
OU HEKTIK	16.90%	MARKET CAP	25M
TOTAL	87.28%	CASH	1.0M

SHARES OUTSTANDING	127,454,413
BROKER WARRANTS	0
WARRANTS	0
OPTIONS	3,300,000
CONVERTIBLE DEBT	-
FULLY DILUTED	130,754,413
ROTALITIES: SANDSTORM	1% NSR



All prices in CAD  
Updated 22.01.25





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TSX.V: AAN

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# Appendix - Resource Inventory

Deposit	Class	Tonnes	GRADE				CONTAINED METAL				
			Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au (koz)	Ag (koz)	AuEq (koz)	Cu (mlbs)	Zn (mlbs)
<b>Inferred Mineral Resources</b>											
Abu Marawat	Open pit and u/g	2,879,000	1.75	29.3	0.77	1.15	162	2,713	-	49	73
Hamama West	Oxide and trans.	2,580,000	0.87	28.1	-	-	72	2,334	106	-	-
Hamama West	Sulphide	5,630,000	0.87	30.4	-	-	157	5,503	235	-	-
<b>Total</b>		<b>11,089,000</b>	<b>1.10</b>	<b>29.6</b>	<b>0.77</b>	<b>1.15</b>	<b>391</b>	<b>10,550</b>	<b>341</b>	<b>49</b>	<b>73</b>
<b>Indicated Mineral Resources</b>											
Hamama West	Sulphide	3,805,000	0.72	27.6	-	-	88	3,376	137	-	-
<b>Total</b>		<b>3,805,000</b>	<b>0.72</b>	<b>27.6</b>	<b>-</b>	<b>-</b>	<b>88</b>	<b>3,376</b>	<b>137</b>	<b>-</b>	<b>-</b>

Bampton, M. (2017): *Hamama West Deposit, Abu Marawat Concession, Arab Republic of Egypt*. NI43-101 Independent Technical Report for Aton Resources Ltd. by Cube Consulting Pty. Ltd. SEDAR published report, 20 June, 2017. [Available online at URL: [https://atonresources.com/site/assets/files/1172/hamama\\_west\\_jan2017\\_ni43-101tr\\_v3\\_final.pdf](https://atonresources.com/site/assets/files/1172/hamama_west_jan2017_ni43-101tr_v3_final.pdf)]