

FOR IMMEDIATE RELEASE

## Aton drills high grade gold mineralisation at Semna, including 14.63 g/t Au over an interval of 12 metres

Vancouver, British Columbia, October 13, 2023: Aton Resources Inc. (AAN: TSX-V) ("Aton" or the "Company") is pleased to update investors on the first results from the recent reverse circulation percussion ("RC") drilling at the Semna prospect, located within its 100% owned Abu Marawat Concession ("Abu Marawat" or the "Concession"), in the Eastern Desert of Egypt.

### Highlights:

- 21 holes were drilled at the Semna prospect, for a total of 3,662m, during the recently completed RC drilling programme;
- Preliminary results of 4m composite sampling are now available for the first 17 holes, SMP-001 to SMP-016, with 9 of the holes targeting the Main Vein zone;
- 8 out of the 9 holes targeting the Main Vein zone intersected moderate to high grade gold mineralisation;
- Significant mineralised intersections from the Semna Main Vein zone included **14.63 g/t Au over a 12m interval** (hole SMP-016); **29.8 g/t Au over a 4m interval** (hole SMP-003); **7.03 g/t Au over a 4m interval** (hole SMP-007) and **6.27 g/t Au over a 4m interval** (hole SMP-006);
- Drilling and underground mapping indicates that the mineralisation along the Main Vein zone appears to be generally quite consistent, and is open both along strike and continues at depth beneath the underground workings of the early twentieth century British mine at Semna.

*"I am pleased to be able to provide the first set of preliminary drill results from the Semna prospect, which was our primary target from the recent RC drilling programme" said Tonno Vahk, Interim CEO. "We have long regarded Semna as one of the most promising exploration targets on the Abu Marawat Concession, and we are delighted with this first set of preliminary composite sample results from the first phase of RC drilling at Semna. The drilling has indicated that the high grade orogenic style gold mineralisation at Semna continues at depth beneath the old mine stopes, and is also open along strike. These results further indicate the potential of the Abu Marawat Concession to host multiple deposits with a variety of mineralisation styles, and Aton continues to look forward to developing the Concession over the long term."*

### Semna Prospect

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The Semna prospect is located approximately 27km east-northeast of the Hamama West deposit and 13km north-northeast of the Rodruin deposit, and is accessed via desert tracks from either Hamama, Rodruin or the Abu Marawat deposit to the north (Figure 1). The Semna area has a long history of gold mining, during both ancient and modern times. There was archaeological evidence in the area suggesting that mining took place during the early Arab, Ptolemaic, and New Kingdom periods, and possibly dates back as far as the Old Kingdom period, over 4,500 years ago. In modern times, Semna was exploited between 1904 and 1906 by two British companies, the Eridia (Egypt) Exploring Company Limited and the Fatira (Egypt) Exploring Company Limited, which worked the Main Vein on two underground levels. By about 1908 however, the British gold mining industry in Egypt had been almost totally eclipsed by the discovery of oil, and was more or less moribund. There was also some further development work carried out at Semna in the 1950's by a subsidiary

of the Egyptian Phosphate Company. It has been reported that the Semna mine had the widest vein exploited during the British era of mining in Egypt, which reached up to 6m width in places, and the British companies reported mining grades of over 2 ounces per ton. Reports from the British Mining Journal from 1905 indicated that some remnant pillars within the ancient Pharaonic-era stopes assayed up to 5.5 ounces per ton of gold.

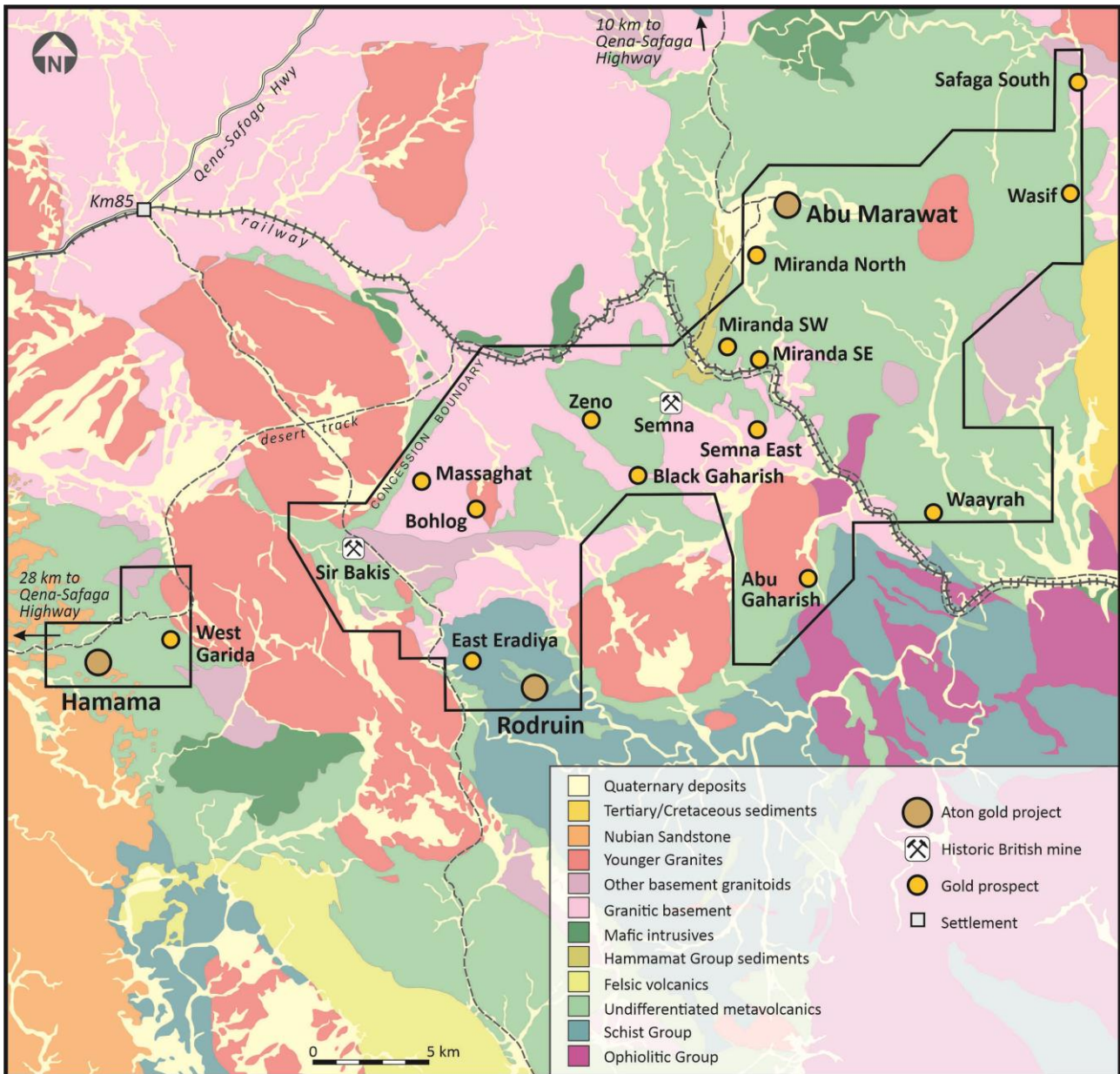


Figure 1: Geology plan of the Abu Marawat Concession, showing the location of the Semna prospect

The mineralisation at Semna appears to be mainly hosted in a granodiorite body that has been intruded into a package of mafic to intermediate composition metavolcanic rocks. Metasediments with BIF horizons outcrop to the west and north of the main Semna mine area. Small bodies of outcropping pink granites, possibly related to the Younger Granite suite, outcrop approximately 750m south of the old mine workings. There are 4 distinct mineralised zones – the Main Vein and the South Vein zones have been the primary focus of historic mining, but there are also workings developed on the North Vein and the Central Vein zones (see Figure 2). The mineralisation is strongly structurally controlled, and is hosted in a series of steeply south-dipping shear zones that contain the gold-bearing quartz veins. These sub-parallel quartz veins strike approximately east-west and dip 60-75° to the south, but the dip and strike is quite variable within each vein, and the veins noticeably pinch and swell. The auriferous quartz veins carry variable amounts of accessory sulphide minerals, and are typically quite gossanous and rich in iron oxides at surface, as a response to weathering. Levels of copper are elevated, notably in the Main and North Vein zones.

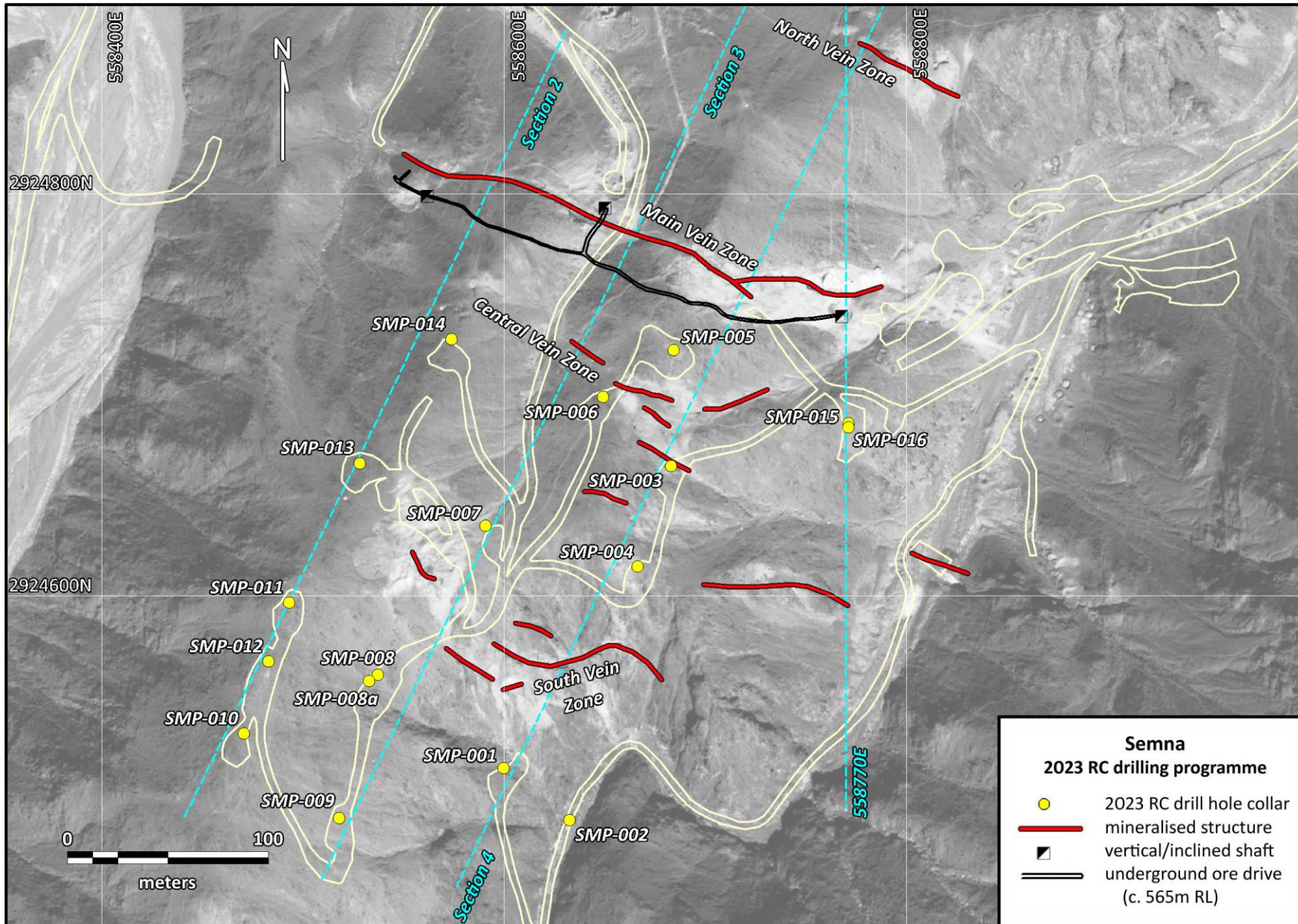


Figure 2: Semna gold mine drill hole collar plan

In 2017, Aton carried out a surface sampling programme at Semna, reporting up to 5.17 g/t Au over a 9.7m interval from surface channel sample profiles, and individual assays of up to 10.8 g/t Au from grab samples (see news release dated November 22, 2017). This year Aton has reported additional surface grab sample results from the immediate Semna mine area including 27.6 g/t Au, 24.0 g/t Au and 16.95 g/t Au (see news release dated May 29, 2023), and 25.70 g/t Au and 16.55 g/t Au from the wider Semna regional area (see news release dated July 31, 2023).

The Semna mine area has been heavily exploited by artisanal miners (or “*dahabbas*”) since about 2020, but the Company is on cordial terms with them. The *dahabbas* completely vacated the Semna area prior to the commencement of the RC drilling, and there is an ongoing agreement in place for them to not return. Artisanal mining has primarily targeted the Main Vein zone (“MVZ”) in recent years, both from surface and also from underground, but numerous other mineralised structures and veins have also been mined by the *dahabbas* in recent years (see news releases dated May 29, 2023, and July 31, 2023).

### Underground mapping at Semna

Recent artisanal mining has now exposed the eastern end of the lower level of the twentieth century British mine workings, at an elevation of c. 565m, which allows easy access into the old workings. Company geologists have this year carried out an underground survey of the old workings. The survey was carried out using a Leica DistoX hand held laser, with inbuilt inclinometry and a sensitive magnetic compass for azimuth readings, and a traditional Silva mapping compass and tape measures for local measurements. A series of primary stations were established along the lower 565m level and these were surveyed in using multiple foresights and backsights. The survey was tied into the Universal Transverse Mercator grid system using an external station which was sited a few metres outside the eastern entrance to the 565m level, and was accurately surveyed in using a Leica Viva GS15 differential GPS system, at the same time the drill hole collars were picked up.



Figure 3: Recent artisanal underground workings, below the 565m level of the Semna gold mine

The survey along the 565m ore drive level established that the MVZ had been stoped out pretty much in its entirety both above and below it, from between approximately 558720E, some 45m from the eastern entrance of the drive, and 558550E over a c. 170m strike length underground. The mineralisation above the 565m level drive appeared to have been stoped out by the British miners during the 20<sup>th</sup> century, with some recent remnant

pillar extraction by the *dahabbas*. The MVZ has also been recently mined to an approximate depth of some 10-15m below the 565m level by the artisanal miners (Figure 3).

Mapping of the recent workings has indicated that the dip of the MVZ is rather variable and ranges from about 56° to 80°, but always to the south, averaging about 70°. The mapping indicates that the MVZ is a strong shear zone which contains a white quartz vein, which pinches and swells, and has a width of variably but typically between 1 to 2m. In places the quartz vein branches into separate footwall and hangingwall veins, with the total width of vein and internal wall rock reaching up to at least 6m horizontally. The internal wall rock between the branches has been extensively worked and appears to contain abundant quartz vein splays from the main vein. In the deepest recent stopes the quartz vein is typically 1.2 to 1.8m wide and is well mineralised (Figure 3). Observations from the recent underground mapping appear to confirm the earlier geological interpretations of the MVZ.



**Figure 4:** MVZ quartz vein underground, showing lenses and ribbons of vein-parallel sulphidic material (\*)

The vein itself consists of massive white quartz, which in the deepest stopes contains a sparse scattering of sulphide grains or less frequently ribbons and selvages of highly sulphidic vein material up to 8cm thick running parallel to the walls of the vein (Figure 4). The primary sulphide is pyrite, in places with subsidiary chalcopyrite, as well as other supergene and oxide copper minerals at higher elevations. In the deepest stopes the vein itself is heavily sheared, and the sheared and altered vein appears to be well mineralised, carrying abundant sulphides. The vein has persistent sheared margins 0.2 to 0.5m wide that are also phyllic altered and locally sulphide rich. Above the 565m level, oxidation of the sulphides is practically complete and only red and brown iron oxides are present, often filling the cavities left by the oxidation of the original sulphides and giving rise to the characteristic dark red honeycombed material widely seen on surface. In some areas the central part of the white quartz vein itself appears barren, and in the deepest stopes beneath the 565m level there is clear evidence that the artisanal miners were targeting the vein margins. This again confirms historical observations that the gold was primarily concentrated in sheared and altered wall rocks.

2 chip channel samples of 1m in width, across the quartz vein (1.8m wide at the sampled points), taken manually from the deepest underground stopes, returned assays of 9.06 and 4.08 g/t Au (sample numbers AHA-45649 and AHA-45650).

## Semna gold mine RC drilling

21 RC drill holes, SMP-001 to SMP-020, were completed at the Semna prospect, for a total of 3,662m metres (see Table 1, Figure 2 and Appendix A) during the recently completed RC drill programme. Preliminary results are now available for holes SMP-001 to SMP-016, from 4m composite samples (full details of the drill hole sampling procedure are provided in the next section).

Hole ID	Collar co-ordinates <sup>1,2</sup>			EOH depth (m)	Dip	Grid azimuth	Comments
	X	Y	Z				
SMP-001	558599.7	2924514.6	604.6	214	-55.1	28.9	South / Central Vein zones
SMP-002	558632.5	2924488.5	583.8	200	-65.4	2.7	South / Central Vein zones
SMP-003	558683.0	2924664.7	622.6	180	-62.5	21.3	Central / Main Vein zones
SMP-004	558666.3	2924614.8	631.5	260	-66.2	14.8	Central / Main Vein zones
SMP-005	558684.3	2924722.4	629.8	140	-74.6	44.7	Central / Main Vein zones
SMP-006	558649.2	2924699.0	635.7	140	-66.1	357.5	Central / Main Vein zones
SMP-007	558590.7	2924635.0	643.1	220	-56.7	12.9	Central / Main Vein zones
SMP-008 <sup>3</sup>	558537.2	2924561.0	645.5	12	-55.0	20.6	Hole abandoned, collapsing at collar
SMP-008a	558532.7	2924558.0	645.6	260	-56.2	24.2	South / Central Vein zones (re-drill of SMP-008)
SMP-009	558517.8	2924489.8	648.4	187	-55.4	17.9	South Vein zone
SMP-010	558470.6	2924531.7	666.6	180	-54.9	18.4	South Vein zone
SMP-011	558493.2	2924596.7	667.6	240	-58.7	20.6	South Vein zone
SMP-012	558482.8	2924567.6	666.4	160	-55.4	322.2	South Vein zone
SMP-013	558528.3	2924666.1	652.8	240	-63.9	24.7	Central / Main Vein zones
SMP-014	558573.7	2924727.7	638.1	160	-64.9	16.8	Central / Main Vein zones
SMP-015	558771.1	2924686.0	595.5	120	-51.5	0.9	Main Vein zone
SMP-016	558771.2	2924684.0	595.5	145	-75.6	358.9	Main Vein zone
SMP-017	558852.6	2924704.1	569.3	200	-47.6	356.3	Main Vein Extension zone
SMP-018	558939.8	2924792.9	567.0	140	-52.0	342.7	Main Vein Extension zone
SMP-019	558851.9	2924677.7	570.3	152	-51.6	357.6	Main Vein Extension zone
SMP-020	558883.8	2924732.4	568.8	112	-46.7	4.1	Main Vein Extension zone

**Notes:**  
1) All co-ordinates are UTM (WGS84) Zone 36R  
2) Collar surveys undertaken using a Leica Viva GS15 differential GPS system  
3) All drill holes were surveyed using a gyroscopic survey tool, except SMP-008, which was not surveyed

Table 1: Collar details of RC exploration drill holes at Semna

9 of the first 17 holes targeted the MVZ, with the other holes targeting the South Vein (“SVZ”) and Central Vein (“CVZ”) zones. Hole SMP-008 was abandoned due to the collar collapsing, and was re-drilled with hole SMP-008a.

Of the 9 holes which targeted the MVZ all holes, except SMP-005, intersected significant mineralisation at moderate to high grades, with all the other 8 holes intersecting a minimum of 3.43 g/t Au over a 4m composite sample interval. All mineralised intersections from the initial 4m composite samples greater than 0.3 g/t Au are provided in Table 2. Significant mineralised intervals from the MVZ included **14.63 g/t Au over a 12m interval** from 72m downhole depth (hole SMP-016); **29.8 g/t Au over a 4m interval** from 136m downhole depth (hole SMP-003); **7.03 g/t Au over a 4m interval** from 156m downhole depth (hole SMP-007), **6.27 g/t Au over a 4m interval** from 116m downhole depth (hole SMP-006) and **5.37 g/t Au over a 4m interval** from 184m downhole depth (hole SMP-004). The drill results suggest that the MVZ has a true width typically of a minimum of about 3m.

Holes targeting the SVZ and CVZ returned only sporadic mineralised intercepts, such as 2.61 g/t Au over a 4m interval from 40m downhole depth (hole SMP-014 on the CVZ) and 1.11 g/t Au over a 4m interval from 28m downhole depth (hole SMP-001 on the SVZ).

Hole ID	Intersection (m)			Au (g/t)	Sample type	Zone	Comments
	From	To	Interval				
SMP-001	28	32	4	1.11	RC composite	SVZ	
SMP-002	20	24	4	0.68	RC composite	SVZ	
SMP-003	28	32	4	0.59	RC composite	CVZ	
	<b>136</b>	<b>140</b>	<b>4</b>	<b>29.80</b>	<b>RC composite</b>	<b>MVZ</b>	
SMP-004	132	136	4	0.85	RC composite	CVZ	
	<b>184</b>	<b>188</b>	<b>4</b>	<b>5.37</b>	<b>RC composite</b>	<b>MVZ</b>	
SMP-005	60	64	4	1.60	RC composite	MVZ (HW?)	Possible h/w structure?
SMP-006	12	16	4	0.67	RC composite	CVZ	
SMP-006	<b>116</b>	<b>120</b>	<b>4</b>	<b>6.27</b>	<b>RC composite</b>	<b>MVZ</b>	
SMP-007	<b>156</b>	<b>160</b>	<b>4</b>	<b>7.03</b>	<b>RC composite</b>	<b>MVZ</b>	
	176	180	4	0.50	RC composite	MVZ (FW?)	Possible f/w structure?
SMP-008	-	-	-	-	-	-	Not assayed
SMP-008a	-	-	-	-	-	-	NSA > 0.08 g/t Au
SMP-009	104	108	4	0.40	RC composite	SVZ	
SMP-010	-	-	-	-	-	-	NSA > 0.06 g/t Au
SMP-011	112	116	4	0.48	RC composite	SVZ	
SMP-012	52	56	4	0.31	RC composite	SVZ?	
SMP-013	<b>184</b>	<b>192</b>	<b>8</b>	<b>2.20</b>	<b>RC composite</b>	<b>MVZ</b>	
SMP-014	40	44	4	2.61	RC composite	CVZ	
	<b>108</b>	<b>116</b>	<b>8</b>	<b>2.86</b>	<b>RC composite</b>	<b>MVZ</b>	
SMP-015	48	52	4	2.52	RC composite	MVZ (FW?)	Possible f/w structure?
	76	84	8	3.03	RC composite	MVZ	
SMP-016	<b>72</b>	<b>84</b>	<b>12</b>	<b>14.63</b>	<b>RC composite</b>	<b>MVZ (FW?)</b>	Possible f/w structure?
	136	144	8	2.50	RC composite	MVZ	

Table 2: Significant intersections from Semna RC drilling

## Discussion of results

This first pass phase of drilling and underground mapping has confirmed the historical interpretations of the MVZ mineralisation at Semna as being associated with a shear hosted quartz vein that pinches and swells, and carries locally very high to bonanza grades (eg. 29.8 g/t Au over a 4m interval in hole SMP-003). The mineralisation is interpreted as being structurally controlled and orogenic in style. This style of mineralisation is suggestive of significant depth potential.

The 9 holes targeted the MVZ beneath the old British mine workings below the 565m ore drive level, with all drill sections reported herein appended to this release. The only hole, SMP-005, which failed to intersect mineralisation on the MVZ was drilled beneath the eastern end of the 565m level where the MVZ shear had not been stopped, but it did intersect 1.60 g/t Au over a 4m interval from 60m downhole depth, in a possible separate structure, in the hangingwall of the MVZ shear.

The 9 holes drilled on the MVZ indicate good continuity of the mineralisation both along a strike length of c. 200m, and at depth beneath the old workings. Recent underground surveying and mapping has shown that the mineralisation was largely continuous from surface at a maximum elevation of 620m, down to an elevation of c. 550m, which represents the current base of the artisanal workings, although it has mostly been exploited by now, with very little potential for any recoverable mineralisation remaining above the 565m level. The current

drilling intersected mineralisation to a minimum elevation of c. 460m in hole SMP-004 (5.37 g/t Au over a 4m interval), with mineralisation intersected in the deepest hole on the MVZ on each of the 4 drilled sections.

The 2 holes drilled on the easternmost section 558770E, SMP-015 and SMP-016, both intersected 2 separate mineralised zones. It is not clear if these 2 mineralised zones are actually 2 separate zones, or if they represent fault repeated offsets of the MVZ shear.

The deepest intersections on sections 2, 3 and 4 are all jogged off south of the predominant c. 70-75° dip of the MVZ. At the current drill spacing it is unclear if this is due to a change in orientation of the MVZ structure, possible fault offset, or if the deepest mineralised intersections represent *en echelon* mineralised zones. However the MVZ mineralisation is open at depth and along strike to both the east and west after this first phase of drilling.

## **Sampling and analytical procedures**

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The RC holes were drilled at 5¾" or 5½" diameter, and the bulk percussion chip samples were collected directly into pre-written large plastic bags from the cyclone every metre, numbered with the hole number and hole depths, and laid out sequentially at the drill site. Between each metre of drilling the cyclone and top box were cleaned out with compressed air. The bags were logged on the drill sites by Aton geologists. The bulk 1m samples were weighed, and subsequently riffle split through a 3-tier splitter onsite by Aton field staff to produce an approximately 1/8 split, which was collected in cloth bags, numbered and tagged with the hole number and depth. The splitter was cleaned with compressed air between each sample. The reject material from this initial bulk split was re-bagged, labelled and tagged, and retained on the drill sites. A representative sample of each metre was washed and stored in marked plastic chip trays, each containing 20m of samples, photographed, and retained onsite as a permanent record of the drill hole.

The 1m split samples, weighing approximately 5kg each were then transported to the Rodruin sample processing facility, where they were 1/2 riffle split into 2 separate sub-samples, weighing approximately 2.5kg. One of these sub-samples was marked and labelled, and retained at the laboratory for storage. The second 1m sub-samples were then combined into 4m composite samples, weighing approximately 10kg. These were thoroughly mixed and again riffle split to produce nominal c. 250-500g 4m composite samples which were dispatched to ALS Minerals for analysis. Again the splitter was cleaned with compressed air between each sample. The 4m composite samples were allocated new sample numbers. The bulk reject material from the riffle split 4m composite samples was disposed of. QAQC samples were inserted into the 4m composite sample stream at a rate of approximately 1 certified reference material (or "standard" sample) every 60 samples, 1 blank sample every 30 samples, and 1 field duplicate split sample every 30 samples.

The 4m composite samples were shipped to ALS Minerals sample preparation laboratory at Marsa Alam, Egypt, where they were pulverised to a size fraction of better than 85% passing 75 microns. From this pulverised material a further sub-sample was split off with a nominal c. 50g size, which was shipped on to ALS Minerals at Rosia Montana, Romania for analysis. The 4m composite samples were analysed for gold by fire assay with an atomic absorption spectroscopy ("AAS") finish (analytical code Au-AA23. High grade samples (Au >10 g/t) were re-analysed using analytical code Au-GRA21 (also fire assay, with a gravimetric finish).

Upon receipt of the final 4m composite assay results from the full Semna programme from ALS, a number of the retained 1m sub-samples will be selected by a senior Aton geologist for re-assaying, corresponding to 4m composite assays deemed to be of significance. The selected 1m sub-samples will again be riffle split to produce nominal c. 250-500g 1m split samples which will be allocated new sample numbers. These will be dispatched to ALS Minerals for the same sample preparation at Marsa Alam, and for subsequent analysis at Rosia Montana. The bulk reject material from the 1m sub-sample splits will be re-bagged and retained onsite for storage at Rodruin. QAQC samples will be inserted into the 1m split sample stream at a rate of approximately 1 standard every 30 samples, 1 blank sample every 15 samples, and 1 field duplicate split sample every 15 samples.



The 1m split samples will again be analysed for gold by fire assay (analytical code Au-AA23), and for silver, copper, lead and zinc using an aqua regia digest followed by an AAS finish (analytical code AA45). Any high grade gold samples (Au >10 g/t) will again be re-analysed using analytical code Au-GRA21 (also fire assay, with a gravimetric finish). Any high grade Ag and base metal samples (Ag >100 g/t, and Cu, Pb and Zn >10,000ppm or >1%) will be re-analysed using the ore grade technique AA46 (also an aqua regia digest followed by an AAS finish).

All intersections herein reported relate to 4m composite samples, results from the subsequent 1m splits will be reported when they become available.

### About Aton Resources Inc.

Aton Resources Inc. (AAN: TSX-V) is focused on its 100% owned Abu Marawat Concession ("Abu Marawat"), located in Egypt's Arabian-Nubian Shield, approximately 200 km north of Centamin's world-class Sukari gold mine. Aton has identified numerous gold and base metal exploration targets at Abu Marawat, including the Hamama deposit in the west, the Abu Marawat deposit in the northeast, and the advanced Rodruin exploration prospect in the south of the Concession. Two historic British gold mines are also located on the Concession at Sir Bakis and Semna. Aton has identified several distinct geological trends within Abu Marawat, which display potential for the development of a variety of styles of precious and base metal mineralisation. Abu Marawat is 447.7 km<sup>2</sup> in size and is located in an area of excellent infrastructure; a four-lane highway, a 220kV power line, and a water pipeline are in close proximity, as are the international airports at Hurgada and Luxor.

### Qualified person

The technical information contained in this News Release was prepared by Javier Orduña BSc (hons), MSc, MCSM, DIC, MAIG, SEG(M), Exploration Manager of Aton Resources Inc. Mr. Orduña is a qualified person (QP) under National Instrument 43-101 Standards of Disclosure for Mineral Projects.

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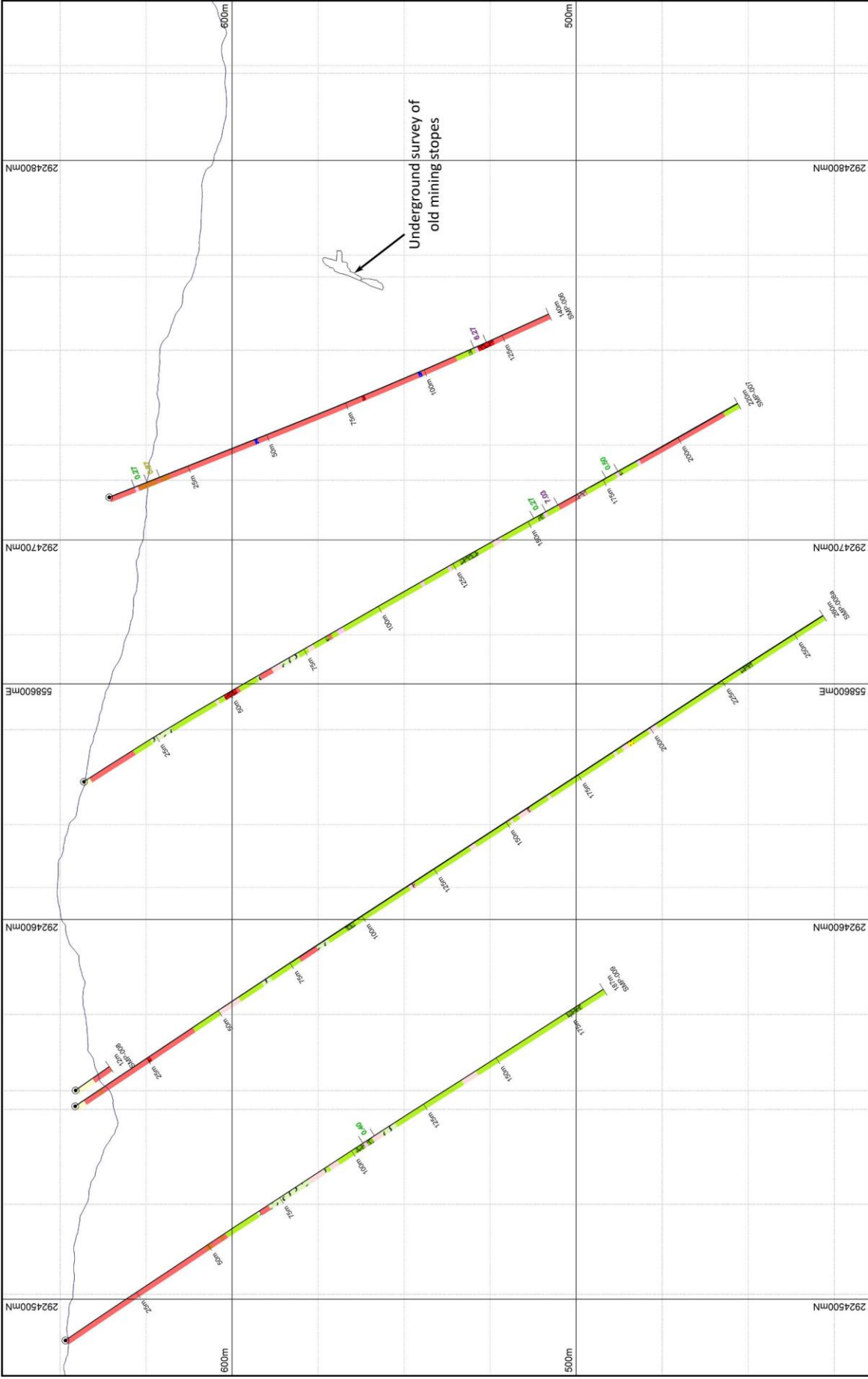
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### Note Regarding Forward-Looking Statements

Some of the statements contained in this release are forward-looking statements. Since forward-looking statements address future events and conditions; by their very nature they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements.

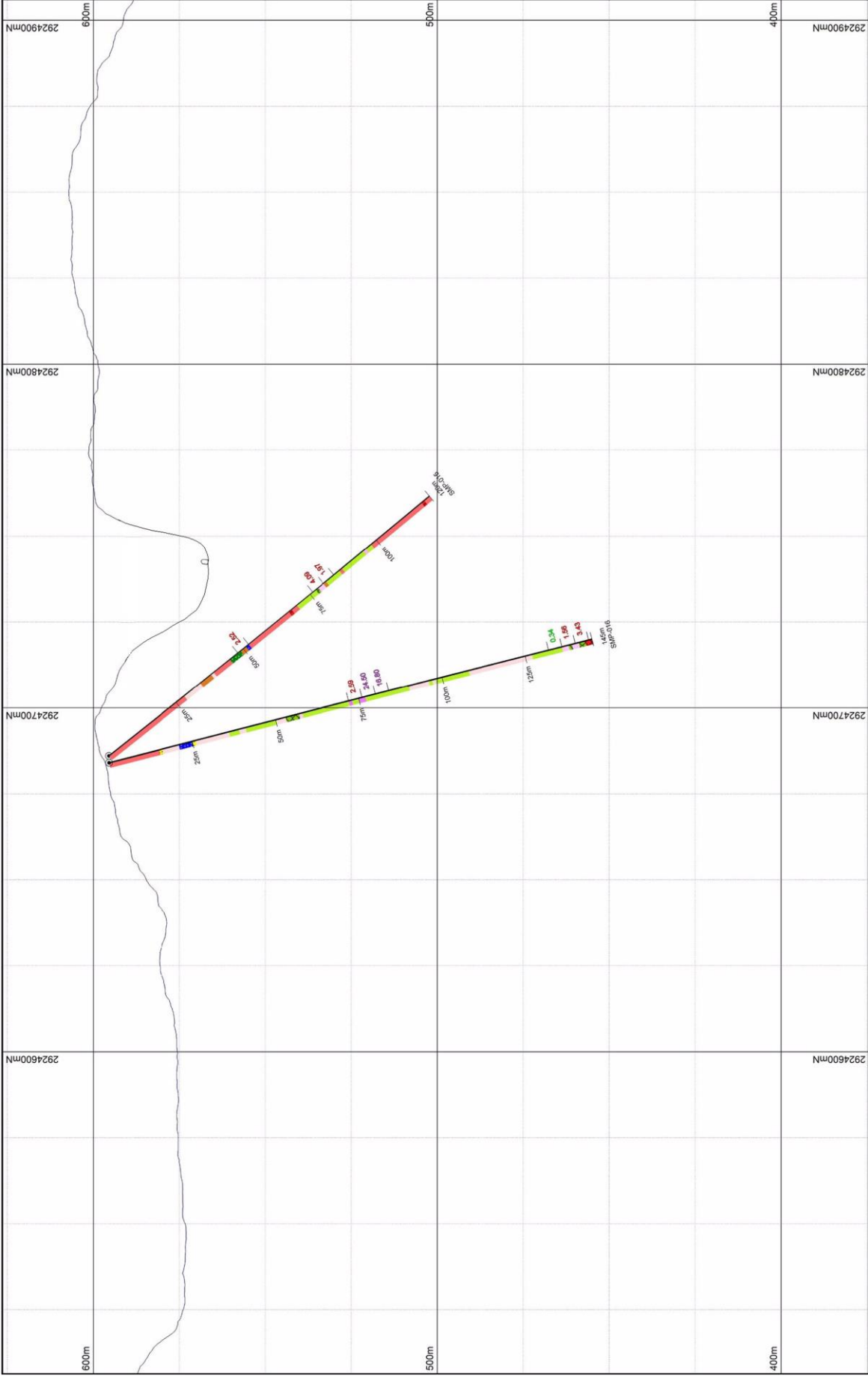
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	Semna Section 3 Composite Assays				





# Semna Section 558770E Composite Assays

Scale	1 : 1000
Plot Date	11-Oct-2023
Sheet	1 of 1

Notes:  
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