

#### FOR IMMEDIATE RELEASE

# Aton reports new surface sampling results from the Zeno and Semna regional target areas

Vancouver, British Columbia, July 31, 2023: Aton Resources Inc. (AAN: TSX-V) ("Aton" or the "Company") is pleased to update investors with the latest results from surface sampling programmes at its Zeno and Semna regional target areas, at the Company's 100% owned Abu Marawat Concession ("Abu Marawat" or the "Concession"), in the Eastern Desert of Egypt.

#### **Highlights:**

- A total of 106 selective grab samples were collected from Zeno and the Semna regional prospect areas;
- The Semna regional samples were taken in a wide and previously unsampled area to the southeast
  of the historic Semna gold mine, which has been heavily exploited by artisanal miners in recent times,
  and the Zeno samples were taken from new artisanal workings where newly and/or more deeply
  exposed mineralised structures had previously been sampled at or near surface;
- 34 samples were collected from the Zeno prospect area, and returned assays including 36.20 g/t Au,
   15.30 g/t Au and 14.15 g/t Au. 3 more samples also returned assays greater than 10 g/t Au, and a further 3 samples also returned assays greater than 5 g/t Au;
- 72 samples were collected from the Semna regional prospect area, and returned assays including **25.70 g/t Au, 16.55 g/t Au and 15.20 g/t Au.** 4 more samples returned assays greater than 10 g/t Au, and a further 6 samples returned assays greater than 5 g/t Au;
- The structural orientations and style of mineralisation at both prospects bear similarities to those observed at the nearby Semna gold mine;
- This sampling programme significantly expands the area of mineralised veins and structures in the broader Semna-Zeno area.

"We are very pleased with another set of impressive sampling results from the Semna and Zeno areas, which significantly expands the area of known mineralisation, as well as helping us to better understand the distribution of the mineralisation and its structural controls. The entire Semna-Zeno regional area is a very high priority target for us, and we have now started RC drilling at Semna, and expect to start drilling at Zeno in the middle of August" said Tonno Vahk, Interim CEO. "We continue to push ahead, and remain firmly on track to submit our application for the mining licence at Abu Marawat in the coming weeks. We were also pleased to have recently attended the very successful Egypt Mining Forum in Cairo, and would like to congratulate our partners at the Ministry of Petroleum and the Egyptian Mineral Resources Authority for organising and hosting such a great event which will surely aid in the development of the mineral exploration and mining sectors in Egypt. We are already looking forward to next year's event!"

#### Abu Marawat regional sampling programme

The Company has recently undertaken several surface sampling programmes, as part of its preparation and planning activities for the ongoing regional RC exploration drilling programme started in May 2023 (see news release dated May 19, 2023), and also to guide future exploration activities. Samples from the surface sampling programme have returned assays up to and including 67.5 g/t Au from Abu Gaharish, 54.9 g/t Au from Bohlog,

and 27.6 g/t Au from Semna (see news release dated May 29, 2023), and 104.5 g/t Au from Zeno (see news release dated June 26, 2023).

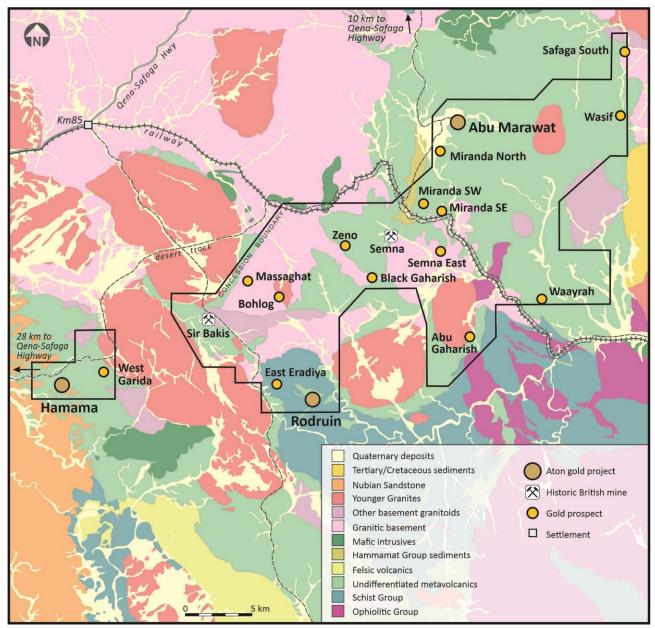


Figure 1: Geological map of the Abu Marawat Concession, showing the location of Zeno

# **Discussion of results**

### Zeno

Sampling was undertaken at the Zeno prospect area, located approximately 12 km north of the Rodruin mineral deposit and 4 km west of the old Semna gold mine (Figure 1). Artisanal miners have been very active in the general Zeno area in the previous 3 years, and have excavated numerous open pit and underground workings on what Aton believe to be potentially very high grade gold mineralised veins and structures. Previous surface sampling by Aton of visible gold and iron oxide bearing quartz veins returned assays including 117.5 g/t Au, 100.5 g/t Au, 72.3 g/t Au, 56.5 g/t Au and 48.3 g/t Au (see news release dated May 30, 2018), and more recently 104.5 g/t Au, 67.1 g/t Au and 43.0 g/t Au (see news release dated June 26, 2023).

Aton has recently completed a follow-up programme of selective grab sampling at Zeno, in areas previously sampled in 2018 (Figure 2), but which have recently been exploited by artisanal miners. A total of 34 samples

were collected from recently mined veins and structures, or from excavations that were previously sampled at a higher level or along strike. Selected results from the recent sampling programme are shown in Table 1, and full assay results are presented in Appendix A.

Sample ID	Project	E	N	Sample type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
AHA-45616	Zeno	555097	2924519	Grab	14.15	2.5	112	9	892
AHA-45622	Zeno	555309	2924030	Grab	11.20	2.2	387	10	301
AHA-45625	Zeno	554711	2924464	Grab	13.40	2.6	527	7	294
AHA-45640	Zeno	555265	2923672	Grab	36.20	4.2	2	9	1
AHA-45644	Zeno	555014	2924404	Grab	15.30	1.6	8	4	10
AHA-45645	Zeno	554940	2924426	Grab	10.20	1.5	13	7	25

Table 1: Selected surface sampling results from Zeno

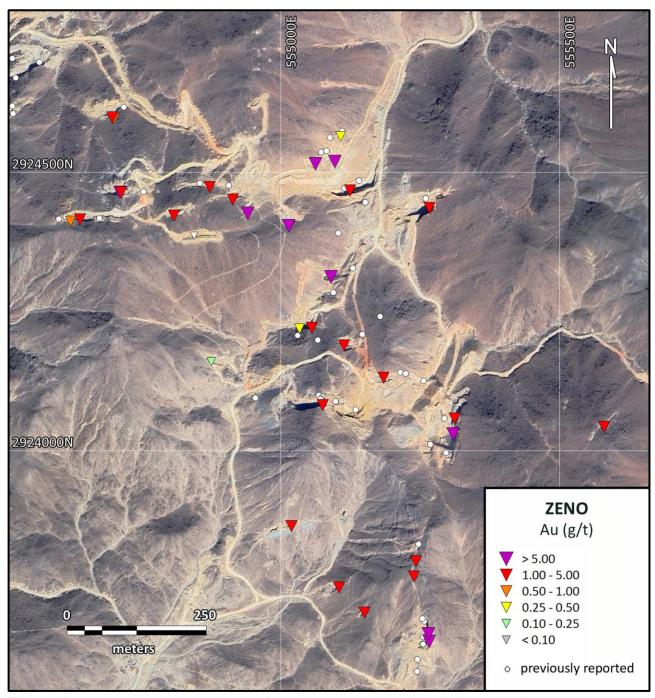


Figure 2: Zeno prospect – sample location plan (recent imagery showing artisanal mining activity)

The mineralisation has been worked extensively in both ancient and recent times in the Zeno area and appears to consist predominantly of narrow (typically <2m) quartz veins and quartz veined shear zones, typically hosted within grey to pinkish coarse grained granodiorites. Some of the individual veins and workings can be traced for 300m or more. Previous sampling has indicated that the mineralisation is hosted within both the quartz veins and their altered and sheared wall rock. In places the veins appear to pinch and swell with some of the underground workings reaching up to 5m width in places (see news release dated May 30, 2018).

Of the 34 samples taken during the current programme 6 (18% of the samples) returned assays greater than 10 g/t Au (see Table 1), 9 (26%) returned assays greater than 5 g/t Au, and 28 in total (82%) returned assays greater than 1 g/t Au.

The current sampling programme has confirmed that gold is hosted in both quartz veins and their surrounding altered and sheared wall rocks in typically narrow zones, that sometimes pinch and swell. In some locations multiple veins were observed to coalesce together and anastomose, returning higher grades of gold mineralisation where the shearing is more intense.

The veins are typically steep, and occur in multiple orientations, however there appears to be a dominant orientation striking approximately east-southeast to east-northeast throughout the area, with the veins and shear zones generally dipping between about 60° to sub-vertically to the south. There are also a number of approximately north to north-northeast striking structures and veins that generally dip to the east, one of which previously returned a gold grade of 104.5 g/t Au (see news release dated June 26, 2023). A different north striking structure returned a grade of 36.20 g/t Au during this phase of sampling, and Aton plans to drill these potentially high grade structures during the upcoming RC drill programme.

The current sampling programme has considerably expanded the mineralised area and understanding of the mineralisation at the Zeno prospect. It has also confirmed the presence of multiple high grade gold bearing veins and structures, up to several hundreds of metres long, throughout the general area. The style and structural setting of the Zeno mineralisation bears distinct similarities to that at the Semna gold mine, approximately 4 km to the east.

# Semna (regional)

An additional programme of selective grab sampling and mapping was completed in the regional Semna area, where extensive exploitation of mineralised veins and structures has again been carried out by artisanal miners in recent years. The area sampled in the current programme is located between 1.5 km - 4 km southeast of the old British-era Semna gold mine (Figure 1), and had been largely been previously unsampled by Aton.

A total of 72 samples were collected in the current programme (Figure 3). In addition, 2 QAQC samples, one blank and one duplicate sample, were inserted into the sample run sent for assaying. Selected results from the sampling programme are shown in Table 2, and full assay results are presented in Appendix A.

Sample ID	Project	E	N	Sample type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
AHA-45541	Semna (regional)	559969	2923599	Grab	13.45	6.0	2220	11	3070
AHA-45558	Semna (regional)	560013	2922952	Grab	13.50	6.1	3670	26	278
AHA-45560	Semna (regional)	559679	2922722	Grab	10.25	2.4	601	11	28
AHA-45571	Semna (regional)	560023	2922623	Grab	10.30	2.1	746	4	18
AHA-45586	Semna (regional)	561046	2922169	Grab	16.55	70.9	762	3000	582
AHA-45601	Semna (regional)	559847	2922376	Grab	25.70	17.1	555	6	32
AHA-45605	Semna (regional)	560023	2922102	Grab	15.20	22.7	146	1710	227

Table 2: Selected surface sampling results from the Semna regional area

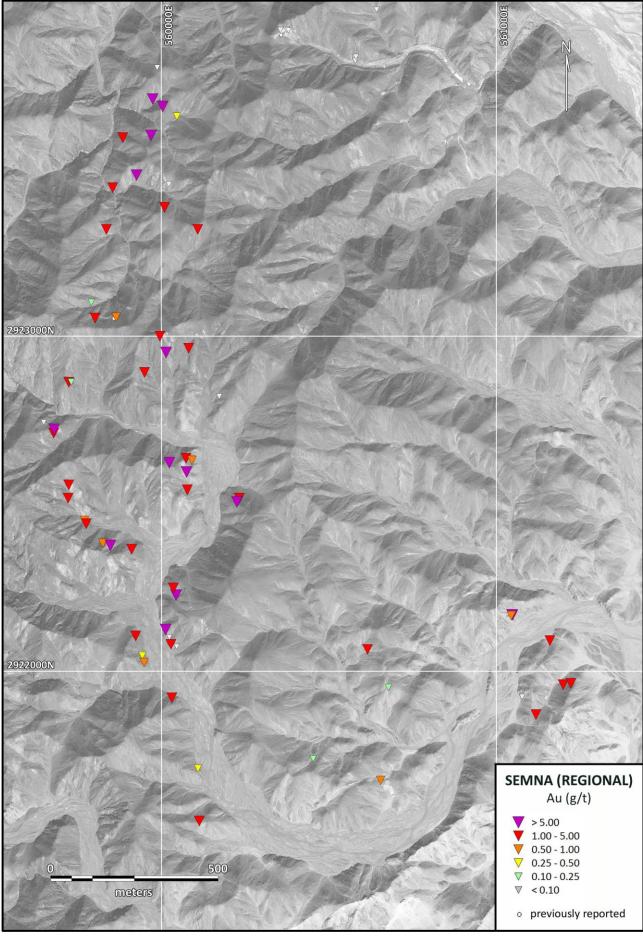


Figure 3: Semna regional area prospect – sample location plan

The mineralisation worked in recent times in the Semna regional prospect area appears to consist predominantly of narrow (typically <1m) quartz veins and quartz veined, carbonate altered shear zones, typically hosted within dark green fine grained diorites. The veins and shear zones mapped and sampled are predominantly moderate to steeply dipping to the southwest, and returned assays up to 25.70 g/t Au (AHA-45601). Other north-south striking structures, reminiscent of the Zeno and main Semna gold mine areas, returned assays of up to 16.55 g/t Au (AHA-45586). Some of the individual veins and workings can be traced for 200m or more with minor apparent strike slip offsets. This sampling programme has indicated that mineralisation is hosted within both the quartz veins and their altered and sheared wall rocks.

Of the 72 samples taken in the current programme 7 (10% of the samples) returned assays greater than 10 g/t Au (see Table 1), 13 (18%) returned assays greater than 5 g/t Au, and 42 in total (58%) returned assays greater than 1 g/t Au.

The current sampling programme has considerably expanded the area of known mineralisation away from the historic Semna gold mine, and has confirmed the presence of multiple previously unidentified high grade gold bearing veins and structures, up to several hundreds of metres long, throughout the regional Semna area.

#### Sample processing and analytical procedures

Samples were collected in the field by Aton's exploration teams. The selective grab samples were collected manually, and were mostly, but not entirely, collected *in situ*, with some samples collected from the artisanal miners' residual rock dumps and ore piles, for example.

The samples were weighed and crushed to -4mm onsite at the Rodruin sample prep facility, and split to a nominal *c.* 250-500g sample size. The coarse crushed reject samples are retained onsite.

The *c.* 250-500g dried, crushed and split 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 reject pulps were returned from ALS, and are also retained onsite.

Samples were analysed for gold by fire assay with an atomic absorption spectroscopy ("AAS") finish (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 (>10 g/t Au) were re-analysed using analytical code Au-GRA21 (also fire assay, but with a gravimetric finish).

#### **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 Hurghada and Luxor.

### **Qualified person**

The technical information contained in this News Release was prepared by Paul Angus BSc (hons), PgD, MIMMM, FGS, Senior Exploration Geologist of Aton Resources Inc. Mr. Angus is a qualified person (QP) under National Instrument 43-101 Standards of Disclosure for Mineral Projects.

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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.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Sample ID	Project	E	N	Sample type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
AHA-45615	Zeno	555107	2924564	Grab	0.47	<0.2	4	3	21
AHA-45616	Zeno	555097	2924519	Grab	14.15	2.5	112	9	892
AHA-45617	Zeno	555062	2924515	Grab	6.31	1.6	61	10	234
AHA-45618	Zeno	555124	2924467	Grab	1.94	1.0	8	9	9
AHA-45619	Zeno	555090	2924312	Grab	7.90	0.6	58	4	24
AHA-45620	Zeno	555267	2924436	Grab	1.63	0.3	123	5	39
AHA-45621	Zeno	555312	2924058	Grab	2.46	0.7	29	4	32
AHA-45622	Zeno	555309	2924030	Grab	11.20	2.2	387	10	301
AHA-45623	Zeno	555580	2924043	Grab	4.21	0.4	1115	2	4
AHA-45624	Zeno	555184	2924131	Grab	1.18	0.9	140	5	117
AHA-45625	Zeno	554711	2924464	Grab	13.4	2.6	527	7	294
AHA-45626	Zeno	554713	2924464	Grab	3.83	0.7	120	6	213
AHA-45627	Zeno	554639	2924415	Grab	2.45	0.2	84	7	23
AHA-45628	Zeno	554622	2924412	Grab	0.77	<0.2	29	4	8
AHA-45629	Zeno	555055	2924221	Grab	4.94	0.5	24	4	55
AHA-45630	Zeno	555033	2924219	Grab	0.36	0.2	13	3	5
AHA-45631	Zeno	555113	2924189	Grab	2.85	0.5	5	6	16
AHA-45632	Zeno	555242	2923802	Grab	1.11	0.4	249	6	601
AHA-45633	Zeno	555239	2923775	Grab	1.14	1.2	327	7	261
AHA-45634	Zeno	555075	2924082	Grab	4.10	1.6	913	8	25
AHA-45635	Zeno	554875	2924160	Grab	0.13	<0.2	18	3	13
AHA-45636	Zeno	555019	2923865	Grab	3.39	0.2	13	6	37
AHA-45637	Zeno	555150	2923710	Grab	1.78	0.3	3	4	9
AHA-45638	Zeno	555104	2923755	Grab	1.31	0.2	132	6	7
AHA-45639	Zeno	555266	2923658	Grab	6.20	1.2	12	9	50
AHA-45640	Zeno	555265	2923672	Grab	36.20	4.2	2	9	1
AHA-45641	Zeno	554700	2924596	Grab	0.66	0.3	13	2	6
AHA-45642	Zeno	554697	2924598	Grab	1.32	0.5	400	5	23
AHA-45643	Zeno	554914	2924451	Grab	1.81	0.2	3	4	9
AHA-45644	Zeno	555014	2924404	Grab	15.30	1.6	8	4	10
AHA-45645	Zeno	554940	2924426	Grab	10.20	1.5	13	7	25
AHA-45646	Zeno	554872	2924473	Grab	4.42	1.6	24	4	102
AHA-45647	Zeno	554808	2924422	Grab	3.73	0.4	15	11	27
AHA-45648	Zeno	554844	2924386	Grab	0.07	<0.2	8	4	49
AHA-45541	Semna (regional)	559969	2923599	Grab	13.45	6.0	2220	11	3070
AHA-45542	Semna (regional)	560046	2923656	Grab	0.43	<0.2	31	8	82
AHA-45543	Semna (regional)	560004	2923686	Grab	5.79	12.3	43	590	135
AHA-45544	Semna (regional)	559974	2923708	Grab	5.62	2.8	23	119	149
AHA-45545	Semna (regional)	559987	2923802	Grab	0.04	<0.2	13	6	11
AHA-45546	Semna (regional)	559885	2923593	Grab	1.20	1.4	91	315	77
AHA-45547	Semna (regional)	559854	2923443	Grab	1.39	0.6	26	23	67

Sample ID	Project	E	N	Sample type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
AHA-45548	Semna (regional)	559926	2923481	Grab	6.07	47.0	20	11400	273
AHA-45549	Semna (regional)	560022	2923454	Grab	0.07	0.2	7	29	18
AHA-45550	Semna (regional)	560009	2923385	Grab	1.87	2.2	75	166	33
AHA-45551	Semna (regional)	560108	2923319	Grab	1.16	0.8	271	97	187
AHA-45552	Semna (regional)	559836	2923319	Grab	1.11	0.3	58	48	133
AHA-45553	Semna (regional)	559791	2923101	Grab	0.15	<0.2	60	9	133
AHA-45554	Semna (regional)	559802	2923054	Grab	1.39	0.5	186	8	491
AHA-45555	Semna (regional)	559868	2923058	Grab	0.03	<0.2	130	9	78
AHA-45556	Semna (regional)	559865	2923057	Grab	0.66	0.3	223	9	85
AHA-45557	Semna (regional)	559995	2923000	Grab	1.20	1.6	32970	9	107
AHA-45558	Semna (regional)	560013	2922952	Grab	13.50	6.1	3670	26	278
AHA-45559	Semna (regional)	559678	2922711	Grab	1.03	0.3	610	8	57
AHA-45560	Semna (regional)	559679	2922722	Grab	10.25	2.4	601	11	28
AHA-45561	Semna (regional)	559648	2922743	Grab	0.06	<0.2	23	9	111
AHA-45562	Semna (regional)	559723	2922863	Grab	4.05	1.4	973	13	34
AHA-45563	Semna (regional)	559729	2922865	Grab	0.11	<0.2	19	6	41
AHA-45564	Semna (regional)	559730	2922864	Grab	0.19	<0.2	40	7	47
AHA-45565	Semna (regional)	560232	2922517	Grab	2.49	2.3	483	130	55
AHA-45566	Semna (regional)	560225	2922506	Grab	7.40	43.0	374	990	624
AHA-45567	Semna (regional)	560081	2922964	Grab	4.70	12.9	117	323	70
AHA-45568	Semna (regional)	559949	2922892	Grab	1.09	0.9	17	42	134
AHA-45569	Semna (regional)	560172	2922821	Grab	0.09	<0.2	8	5	11
AHA-45570	Semna (regional)	560073	2922636	Grab	4.73	1.9	2130	8	113
AHA-45571	Semna (regional)	560023	2922623	Grab	10.30	2.1	746	4	18
AHA-45572	Semna (regional)	560077	2922542	Grab	1.44	3.1	47	350	58
AHA-45573	Semna (regional)	560091	2922630	Grab	0.65	<0.2	27	5	11
AHA-45574	Semna (regional)	560075	2922595	Grab	7.83	1.2	8	53	23
AHA-45575	Semna (regional)	559723	2922557	Grab	1.30	0.2	183	4	16
AHA-45576	Semna (regional)	559721	2922517	Grab	2.14	1.1	1650	3	12
AHA-45577	Semna (regional)	559770	2922451	Grab	0.64	0.3	165	6	33
AHA-45578	Semna (regional)	559775	2922441	Grab	2.11	1.5	549	6	68
AHA-45579	Semna (regional)	559911	2922365	Grab	3.63	0.5	509	5	11
AHA-45580	Semna (regional)			Blank	<0.01	<0.2	4	14	64
AHA-45581	Semna (regional)	561199	2921960	Grab	1.45	6.6	145	513	90
AHA-45582	Semna (regional)	561222	2921964	Grab	1.71	5.8	620	828	603
AHA-45583	Semna (regional)	561118	2921871	Grab	2.05	5.1	762	586	1475
AHA-45584	Semna (regional)	561077	2921924	Grab	0.08	12.9	14	132	15
AHA-45585	Semna (regional)	561048	2922169	Grab	4.96	54.5	986	3590	980
AHA-45586	Semna (regional)	561046	2922169	Grab	16.55	70.9	762	3000	582
AHA-45587	Semna (regional)	561044	2922167	Grab	0.55	1.5	52	43	114
AHA-45588	Semna (regional)	561159	2922092	Grab	4.26	10.6	271	721	311
AHA-45589	Semna (regional)	560654	2921674	Grab	0.85	2.3	22	324	211
AHA-45590	Semna (regional)	560654	2921674	Grab	0.80	3.6	87	113	41
AHA-45591	Semna (regional)	560355	2923914	Grab	0.03	0.4	258	7	30

Sample ID	Project	E	N	Sample type	Au (ppm)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
AHA-45592	Semna (regional)	560373	2923916	Grab	0.01	<0.2	105	6	25
AHA-45593	Semna (regional)	560379	2923913	Grab	0.09	0.7	49	8	84
AHA-45594	Semna (regional)	560642	2923975	Grab	0.01	<0.2	22	6	65
AHA-45595	Semna (regional)	560579	2923823	Grab	0.03	<0.2	6	4	17
AHA-45596	Semna (regional)	560581	2923834	Grab	0.02	<0.2	5	4	11
AHA-45597	Semna (regional)	560453	2921739	Grab	0.14	0.2	21	4	32
AHA-45598	Semna (regional)	560678	2921952	Grab	0.12	2.6	65	43	36
AHA-45599	Semna (regional)	560615	2922066	Grab	3.61	9.4	162	1000	435
AHA-45600	Semna (regional)	559825	2922383	Grab	0.66	0.2	205	9	16
AHA-45601	Semna (regional)	559847	2922376	Grab	25.70	17.1	555	6	32
AHA-45602	Semna (regional)	560043	2922228	Grab	0.25	2.2	26	23	22
AHA-45603	Semna (regional)	560035	2922249	Grab	5.46	4.7	92	18	44
AHA-45604	Semna (regional)	560012	2922125	Grab	2.40	6.6	121	131	60
AHA-45605	Semna (regional)	560023	2922102	Grab	15.20	22.7	146	1710	227
AHA-45606	Semna (regional)	560045	2922074	Grab	0.08	<0.2	3	7	17
AHA-45607	Semna (regional)	560028	2922081	Grab	2.24	3.5	12	341	123
AHA-45608	Semna (regional)	559923	2922106	Grab	1.02	0.7	34	603	45
AHA-45609	Semna (regional)	559943	2922047	Grab	0.33	1.1	131	46	37
AHA-45610	Semna (regional)	559948	2922026	Grab	0.86	1.6	652	38	165
AHA-45611	Semna (regional)	560031	2921921	Grab	4.36	3.9	49	33	58
AHA-45612	Semna (regional)	560109	2921710	Grab	1.16	2.0	29	174	107
AHA-45613	Semna (regional)	560113	2921553	Grab	0.04	0.4	142	11	36
AHA-45614	Semna (regional)			Duplicate	0.04	0.4	138	11	35

All coordinates are UTM (WGS84) Zone 36R
 Au analysed using Au-AA23 analytical code, overlimit assays >10 ppm re-analysed using Au-GRA21 analytical code