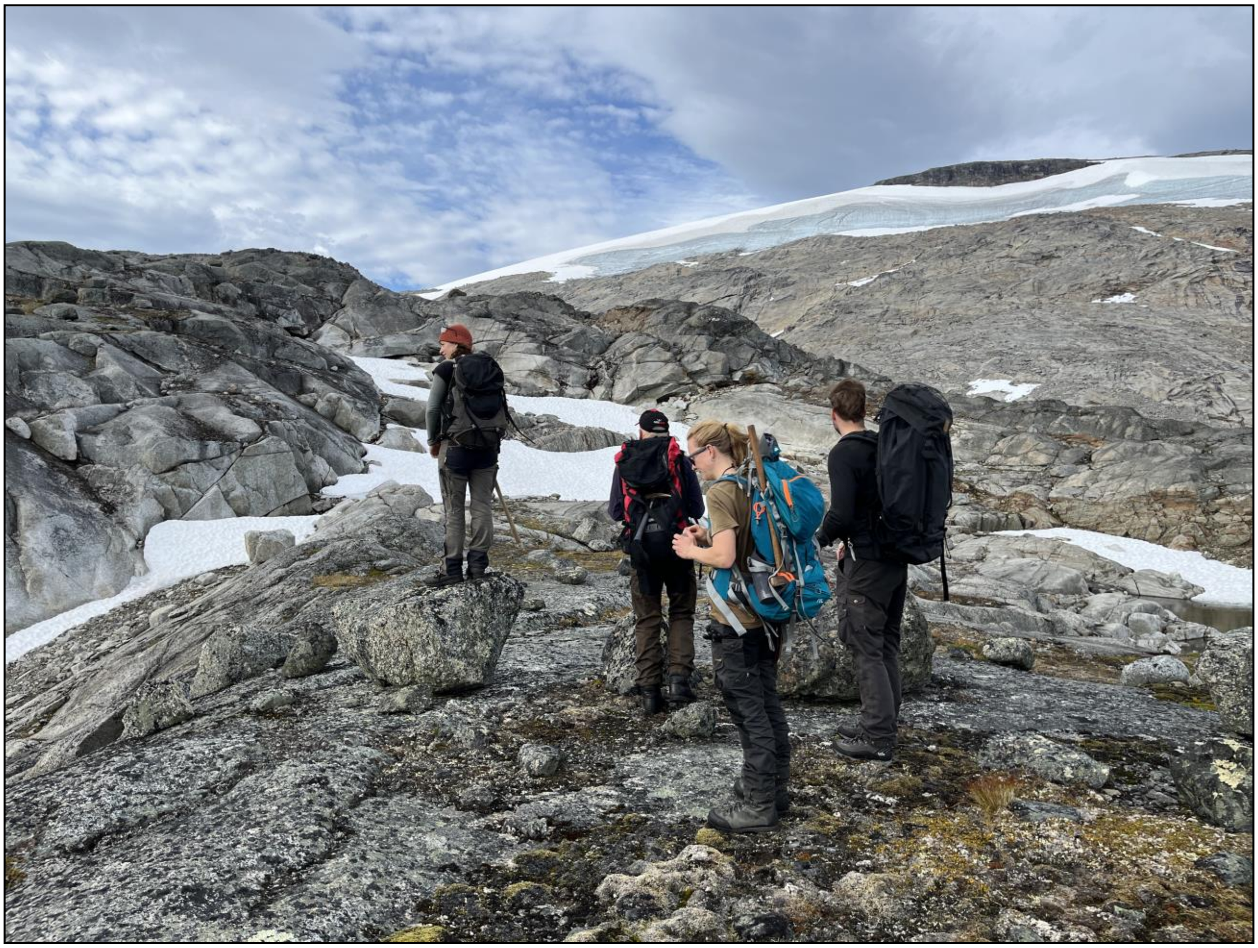
Arctic Exploration As

KATTERAT-SJANGELI FIELDWORK

August 2022



Tuomas Havela, 2nd of February 2023

Contents

INTRODUCTION

This report summarizes the results of the field work conducted between the 15th and 29th of August 2022. The work consisted of 12 field working days and the participants were: Jasmin Tordenro (JT) and Tenna Christiansen (TC) from 21st North, Tuomas Leskelä (TL) from GTK and Tuomas Havela (TH). In the first week field teams worked within the Katterat - Branten Shear Zone (BSZ) area and in the second week teams split into two camps, one operating in the Sjangeli area (JT & TC) and TH & TL working in the southern part of the BSZ.

The work included additional sampling of the known targets discovered by Geode Consulting (GC) and mapping and sampling of the previously unsampled rusty outcrops associated with an approximately 10 km long Branten shear zone. The "rusty spots" defined by GC from air photos were used as a guide for the sampling and the general fieldwork. A portable XRF was in use to map the gold pathfinder elements. It was mainly used to get a quick general impression of the elements` distribution within occasionally quite extensive rusty outcrops and as a rough guide for sampling.

The project´s background, previous exploration, general geological setting, etc. is well documented in the project presentation by Geode Consulting, therefore this report will mainly focus on presenting and reviewing the geochemical results. The results from the Branten Shear zone (BSZ) are summarized in three parts and sampling in the Sjangeli extension and the NW areas at the end.

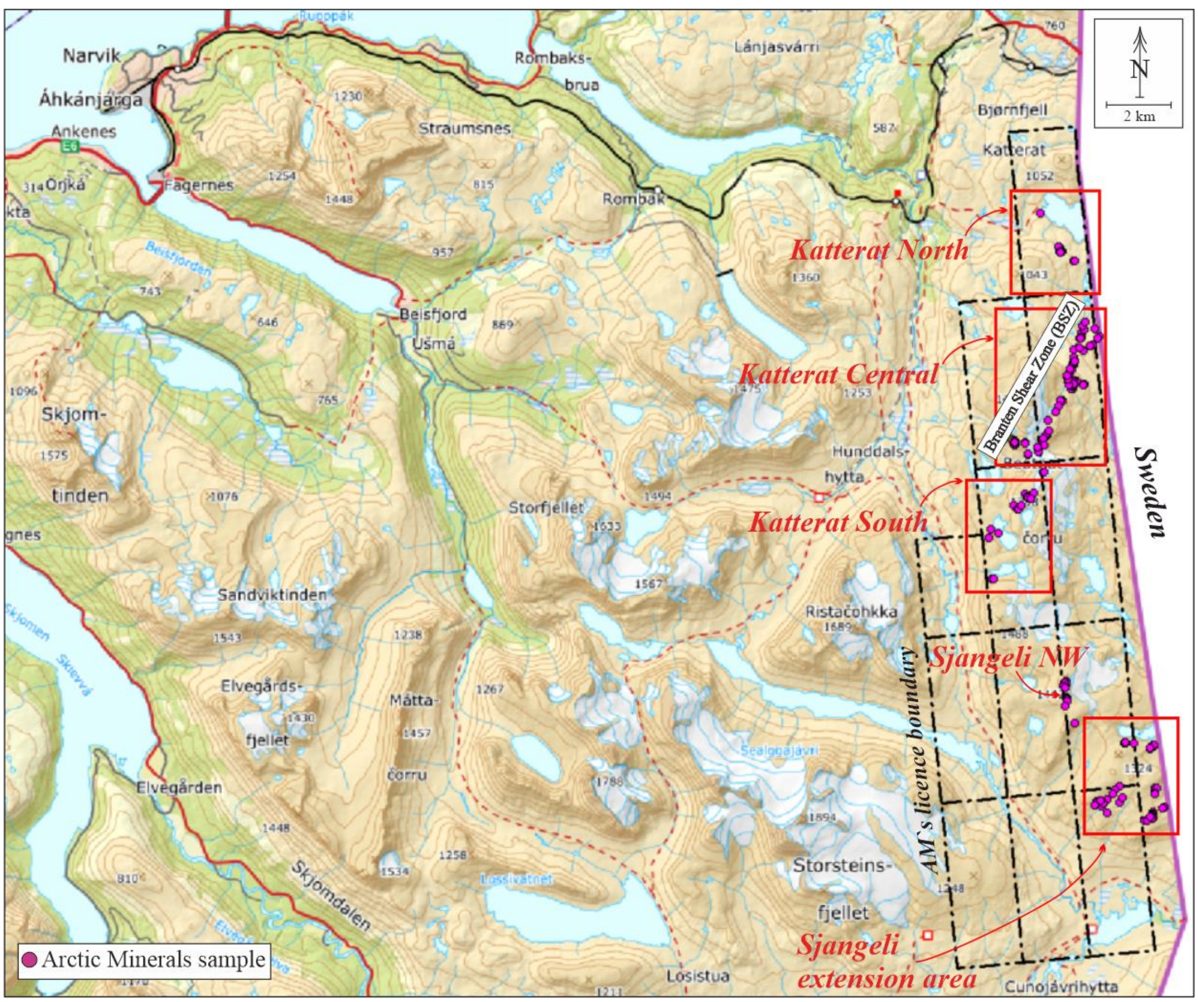


Figure 1. An overall map showing the general location of the project areas.

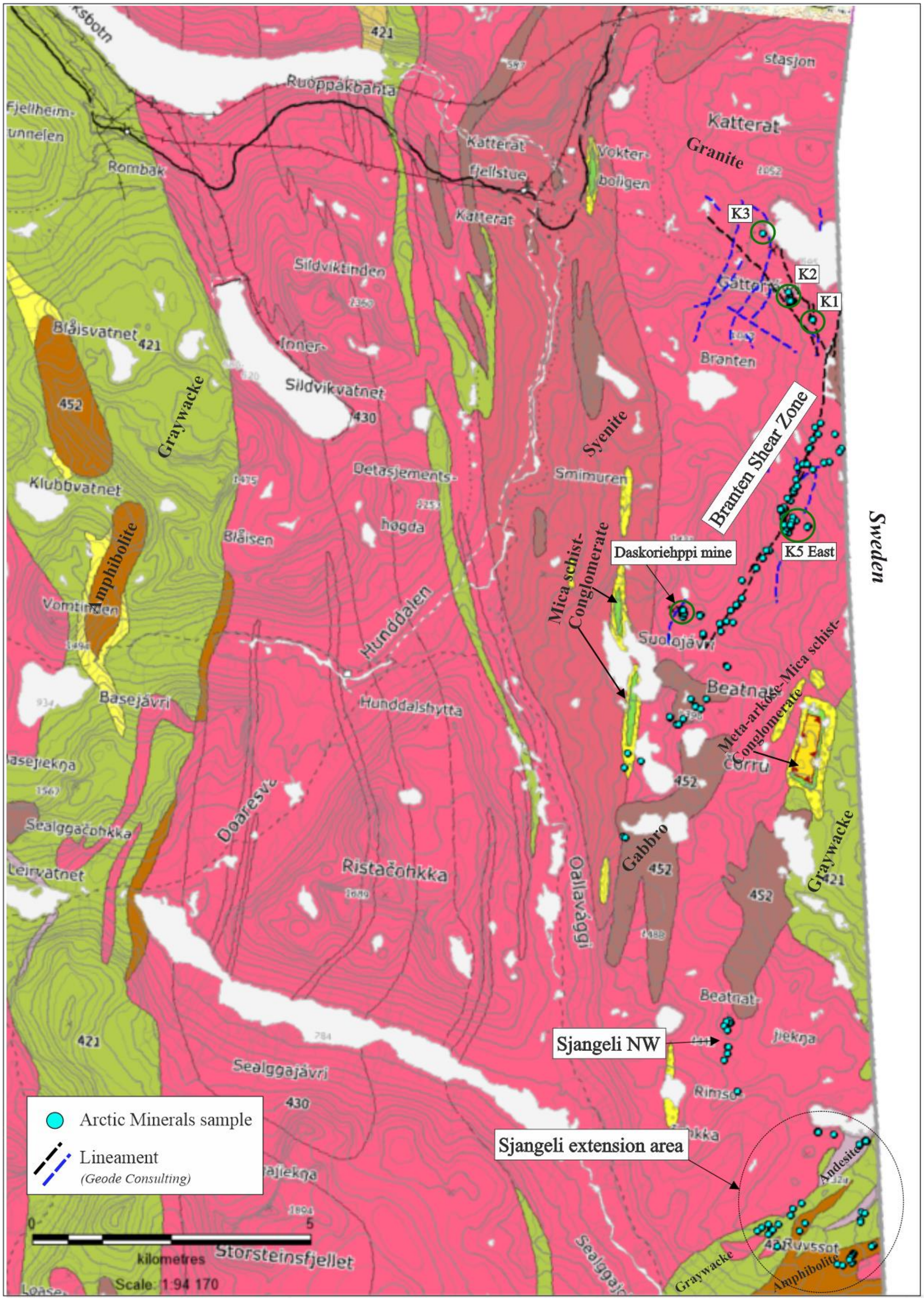


Figure 2. Project areas shown on top of a geological map and topography. The background map is downloaded from https://geo.ngu.no/kart/arealis_mobil/.

GEOCHEMISTRY

246 samples were delivered to ALS Geochemistry in Piteå on the 31st of August with results received on the 20th of December 2022 – almost 4 months later. 159 samples are from the Katterat – BSZ area and 87 from the Sjangeli extension and Sjangeli NW areas.

Below in tables 1-3 are basic statistics and element correlations from the Katterat area. Basic statistics from the Sjangeli areas are presented in the report later.

The report is then followed by figures showing the distribution of Au, Ag, Pb, Zn, As, Bi, Te, Sb, Sn, Se, W, Mo, Cu, Co, Ni, S and Fe within the main sub-areas as well as more detailed sample descriptions and commentary.

N = 159	Au	As	Bi	Te	Sb	Se	W	Sn	Ag	Pb	Zn	Cu	Co	Ni	Mo	S	Fe	Na	K
Average	0,295	565	5,6	0,3	14	8	8	9	31	5736	9261	275	30	121	24	2	7	1,3	2,2
Median	0,006	63	0,8	0,2	1	5	3	2	1	77	232	169	16	65	10	1	7	1,4	2,1
Maximum	16,45	>10000	333	5,2	1265	61	470	163	2560	>200000	>300000	3780	409	1740	195	29	33	2,8	5,4
80th percentile	0,081	157	2,2	0,3	3	12	6	6	5	1049	2244	341	29	144	33	3	9	1,9	3,0
90th percentile	0,258	407	9,1	0,5	9	18	9	24	13	2064	7976	576	61	216	68	5	12	2,2	3,7
95th percentile	1,471	2520	16,4	0,8	19	25	18	44	48	5507	38390	791	98	413	117	9	15	2,5	4,0

Table 1. Basic statistics of the samples from the Katterat – BSZ area. Only AM`s samples are included. Except for iron, sulphur, sodium and potassium, units are in ppm.

N = 159	Au	As	Bi	Te	Sb	Se	W	Sn	Ag	Pb	Zn	Cu	Co	Ni	Mo
Strong correlation	Ag, Sb, In, Cd	-	Ag, Te	Se, Bi	Pb, Au, Ag	Te, Re, Mo	-	In, Pb, Zn, Cd	Pb, Bi, Cd, Au, Zn, S, Sb, In	Ag, Zn, Cd, Sb, Sn	Cd, In, Pb, Ag, Sn	-	Ni	Co	Re, V, Se
Moderate correlation	Sn, As, Mn, Zn, Pb	Au, Sb	Pb, Se	Cu, Ag	In, As, Zn, Cd, Sn	Cu, Bi, Ag	-	Au, Ag, Mn, Sb	Sn, S, Se, Te	In, Bi, Au	Mn, Au, Sb	Te, Se, S	S	S	U
Weak correlation	Bi, S	Pb, Sn, Ag, Cd, Zn, In	Cd, Au, Cu, In, Zn, S, Sn	Re, Mo	Mn	V	U, Mo, V	As, Bi	As, Cu	As	S, As, Bi	Re, Bi, Ni, Fe, Ag, Mo	Mn	Cu, Ca	Zr, Hf, Te, W, Cu

Table 2. A summary of correlations based on the spearman correlation coefficient values (table 3 below). I´ve considered values above 0.6 to represent a strong positive correlation, values between 0.5-0.6 moderate and values between 0.4-0.5 a weak positive correlation. Only AM`s samples associated with Katterat – BSZ are included.

Field	Au_ppm	Ag_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm	Bi_ppm	Sb_ppm	Se_ppm	Te_ppm	Ni_ppm	Co_ppm	Mo_ppm	Sn_ppm	W_ppm	Fe_ppm	S_ppm
Au_ppm	1	0,69138	0,25563	0,55256	0,55816	0,5592	0,47159	0,63905	0,19251	0,30344	0,13645	0,22782	-0,04661	0,56892	0,08837	0,22485	0,4211
Ag_ppm	0,69138	1	0,41272	0,79121	0,65993	0,4689	0,76509	0,63499	0,52559	0,51967	0,07598	0,07994	0,114663	0,56098	0,13389	0,11703	0,5575
Cu_ppm	0,25563	0,41272	1	0,08793	0,25184	0,02692	0,45218	0,07244	0,57509	0,57566	0,44718	0,38468	0,40113	-0,076	0,23405	0,43502	0,5241
Pb_ppm	0,55256	0,79121	0,08793	1	0,68112	0,49475	0,57316	0,67995	0,24806	0,21753	-0,0407	-0,01877	-0,02556	0,64378	0,08137	-0,11516	0,371
Zn_ppm	0,55816	0,65993	0,25184	0,68112	1	0,43871	0,43174	0,55252	0,28809	0,17641	0,29628	0,29742	-0,04319	0,60831	0,07893	0,1426	0,4888
As_ppm	0,5592	0,4689	0,02692	0,49475	0,43871	1	0,265	0,55424	0,03777	0,17749	0,16006	0,22719	0,06869	0,47925	0,16238	0,05608	0,3132
Bi_ppm	0,47159	0,76509	0,45218	0,57316	0,43174	0,265	1	0,37386	0,53123	0,61874	-0,0565	-0,03748	0,250343	0,41366	0,19881	0,1416	0,4179
Sb_ppm	0,63905	0,63499	0,07244	0,67995	0,55252	0,55424	0,37386	1	0,09757	0,1722	0,09034	0,18798	-0,12688	0,522	-0,0649	0,01088	0,3318
Se_ppm	0,19251	0,52559	0,57509	0,24806	0,28809	0,03777	0,53123	0,09757	1	0,63723	0,07817	-0,09979	0,608154	0,08252	0,28278	0,22527	0,3563
Te_ppm	0,30344	0,51967	0,57566	0,21753	0,17641	0,17749	0,61874	0,1722	0,63723	1	0,15389	0,15425	0,459069	-0,0346	0,07611	0,30867	0,3901
Ni_ppm	0,13645	0,07598	0,44718	-0,0407	0,29628	0,16006	-0,0565	0,09034	0,07817	0,15389	1	0,88548	0,064124	-0,0918	-0,1118	0,38484	0,5482
Co_ppm	0,22782	0,07994	0,38468	-0,0188	0,29742	0,22719	-0,0375	0,18798	-0,0998	0,15425	0,88548	1	-0,10759	-0,0072	-0,2373	0,38646	0,5578
Mo_ppm	-0,0466	0,11466	0,40113	-0,0256	-0,0432	0,06869	0,25034	-0,1269	0,60815	0,45907	0,06412	-0,10759	1	-0,0995	0,44023	0,13298	-0,023
Sn_ppm	0,56892	0,56098	-0,076	0,64378	0,60831	0,47925	0,41366	0,522	0,08252	-0,0346	-0,0918	-0,00724	-0,09953	1	0,13197	-0,10281	0,2988
W_ppm	0,08837	0,13389	0,23405	0,08137	0,07893	0,16238	0,19881	-0,0649	0,28278	0,07611	-0,1118	-0,23726	0,440231	0,13197	1	0,01454	-0,039
Fe_ppm	0,22485	0,11703	0,43502	-0,1152	0,1426	0,05608	0,1416	0,01088	0,22527	0,30867	0,38484	0,38646	0,132977	-0,1028	0,01454	1	0,2211
S_ppm	0,42113	0,55752	0,52411	0,37099	0,48879	0,31318	0,41791	0,33178	0,35633	0,39011	0,54818	0,55779	-0,02344	0,29881	-0,039	0,22115	1
Al_ppm	-0,2951	-0,5154	-0,3128	-0,3343	-0,2151	-0,1927	-0,5588	-0,2953	-0,4651	-0,5089	0,02412	0,07623	-0,17627	-0,1137	-0,0816	-0,0541	-0,277
Ba_ppm	-0,3759	-0,4678	-0,4422	-0,1754	-0,2251	-0,2037	-0,4367	-0,2401	-0,3824	-0,4436	-0,2131	-0,19945	-0,06902	-0,0845	0,00144	-0,21872	-0,507
Be_ppm	-0,4173	-0,4821	-0,256	-0,28	-0,3265	-0,1658	-0,4075	-0,284	-0,3009	-0,3126	-0,0702	-0,11183	0,049042	-0,198	0,09973	-0,14098	-0,292
Ca_ppm	-0,0851	-0,2329	0,06978	-0,2934	-0,0609	-0,1628	-0,3357	-0,2454	-0,0925	-0,1577	0,40928	0,37866	0,024629	-0,277	-0,098	0,10958	0,0642
Mg_ppm	-0,0687	-0,2742	-0,0884	-0,2962	-0,0167	0,02753	-0,3786	-0,1512	-0,2223	-0,2442	0,36387	0,38724	-0,06743	-0,1362	-0,0945	0,36062	0,0192
Na_ppm	-0,4346	-0,4765	-0,2162	-0,3079	-0,3098	-0,3274	-0,4965	-0,4292	-0,2786	-0,2789	0,07163	0,04499	-0,05544	-0,3673	-0,1774	-0,17415	-0,245
K_ppm	-0,1804	-0,1815	-0,2635	0,03414	0,01167	0,00541	-0,2433	-0,0699	-0,2035	-0,3628	-0,0874	-0,13743	-0,02682	0,22265	0,11618	-0,21555	-0,184
Mn_ppm	0,55906	0,34438	0,05047	0,34511	0,58733	0,39268	0,12548	0,43084	-0,124	-0,0452	0,32391	0,48571	-0,28135	0,5256	-0,1588	0,33779	0,3453
Cd_ppm	0,60312	0,7096	0,28611	0,68008	0,89016	0,46413	0,49129	0,54944	0,32118	0,21023	0,30223	0,28945	-0,03077	0,60657	0,07547	0,05603	0,534
Ce_ppm	-0,1491	-0,3282	-0,0446	-0,2047	-0,0273	-0,1669	-0,3644	-0,277	-0,2883	-0,2624	0,16094	0,21109	-0,11397	-0,1202	-0,0673	0,00211	-0,054
Cr_ppm	-0,4043	-0,4472	-0,1664	-0,3773	-0,2155	-0,12	-0,4246	-0,4143	-0,1297	-0,2078	0,05096	0,00805	0,147518	-0,2693	0,04803	0,0881	-0,231
Cs_ppm	-0,3245	-0,2582	-0,1184	-0,1693	-0,0917	-0,1162	-0,2287	-0,3455	-0,1217	-0,1927	0,02187	-0,02268	0,093996	0,11545	0,14144	-0,10423	-0,026
Ga_ppm	-0,3325	-0,5402	-0,2963	-0,3569	-0,2599	-0,2004	-0,5594	-0,3127	-0,4278	-0,4585	0,01228	0,05463	-0,1062	-0,1651	-0,0269	-0,04246	-0,271
Ge_ppm	-0,1577	-0,1799	0,05928	-0,2148	-0,1296	-0,3385	-0,2209	-0,2763	0,13406	-0,0201	0,06115	0,032	0,079262	-0,1728	-0,1138	0,05004	0,0124
Hf_ppm	-0,3172	-0,1496	-0,0333	-0,0444	-0,1235	-0,049	-0,0881	-0,1942	0,17079	-0,0625	-0,1686	-0,31878	0,469065	-0,0342	0,36313	-0,27356	-0,232
In_ppm	0,62653	0,60908	0,13083	0,5966	0,71693	0,41846	0,44557	0,59033	0,1683	0,15636	0,06165	0,14144	-0,07753	0,6783	0,1126	0,19438	0,2951
La_ppm	-0,215	-0,3729	-0,0637	-0,2638	-0,085	-0,2206	-0,3758	-0,3526	-0,2501	-0,2523	0,1225	0,14845	-0,04671	-0,1489	-0,0309	-0,03463	-0,102
Li_ppm	-0,4544	-0,5204	-0,4089	-0,2852	-0,2274	-0,0985	-0,5029	-0,2487	-0,4108	-0,4436	-0,0102	-0,03314	-0,04927	-0,1334	-0,0613	-0,09064	-0,363
Nb_ppm	-0,1286	-0,3707	-0,1898	-0,1626	-0,0748	-0,148	-0,4226	-0,1215	-0,3656	-0,3293	0,06696	0,10598	-0,15789	-0,0446	-0,0058	0,01218	-0,197
P_ppm	-0,1641	-0,1565	-0,0401	-0,0751	-0,0014	-0,0504	-0,2407	-0,1817	-0,044	-0,3014	0,08291	-0,02546	0,017437	0,01378	0,16983	-0,06412	-0,047
Rb_ppm	-0,2049	-0,1812	-0,1371	0,0084	0,00037	-0,0434	-0,208	-0,1434	-0,0767	-0,2862	-0,0767	-0,17877	0,103562	0,18983	0,18518	-0,19094	-0,171
Re_ppm	0,0351	0,19523	0,47734	-0,0111	0,11945	0,06005	0,26583	-0,0999	0,63435	0,46542	0,25869	0,08429	0,859986	-0,045	0,35882	0,16113	0,2209
Y_ppm	-0,0135	-0,0025	0,18626	0,05232	0,26374	0,08396	-0,0549	-0,0771	0,10602	-0,0905	0,29503	0,18896	0,247988	0,10548	0,27121	0,00521	0,0528
Zr_ppm	-0,3267	-0,1588	-0,0266	-0,0735	-0,157	-0,0732	-0,1012	-0,2148	0,1829	-0,0572	-0,1768	-0,3278	0,499207	-0,0365	0,37228	-0,23744	-0,249
Sc_ppm	-0,2156	-0,3983	-0,1084	-0,3025	-0,0765	-0,0634	-0,4336	-0,2623	-0,2346	-0,2604	0,2138	0,24536	0,017316	-0,1438	0,02729	0,225	-0,072
Sr_ppm	-0,2528	-0,4166	-0,1025	-0,3706	-0,2349	-0,2271	-0,5053	-0,3399	-0,2764	-0,2638	0,26363	0,26119	-0,01237	-0,3601	-0,1066	-0,04636	-0,078
Ta_ppm	-0,101	-0,2777	-0,1711	-0,095	-0,0177	-0,0973	-0,3649	-0,0942	-0,2903	-0,3001	0,02031	0,05096	-0,11436	0,03518	0,06905	-0,02164	-0,181
Th_ppm	-0,3542	-0,3097	-0,2445	-0,0603	-0,1508	-0,1767	-0,2566	-0,2749	-0,2216	-0,2614	-0,1913	-0,19679	-0,01123	-0,0609	0,07133	-0,30247	-0,24
Ti_ppm	-0,2067	-0,4189	-0,234	-0,2406	-0,0652	-0,1494	-0,468	-0,2251	-0,3463	-0,3861	0,10262	0,13676	-0,08884	-0,0356	-0,0551	0,09139	-0,229
Tl_ppm	-0,2766	-0,1589	-0,1378	-0,039	0,00392	-0,0272	-0,1524	-0,1637	0,00206	-0,1941	-0,0144	-0,08931	0,142692	0,18178	0,17125	-0,12849	-0,034
U_ppm	-0,1023	0,06768	0,22525	0,07419	0,09288	0,05568	0,0989	-0,0809	0,35336	0,12944	0,0493	-0,13893	0,566198	0,05439	0,44922	-0,18179	-0,047
V_ppm	-0,1951	-0,1063	0,19952	-0,1771	-0,0694	-0,0124	-0,0259	-0,2617	0,43338	0,19177	0,08687	-0,07867	0,788892	-0,1419	0,40071	0,21092	-0,134

Table 3. Spearman correlation coefficient values. The higher the value, the stronger the statistical correlation.

KATTERAT NORTH

The following figures present the distribution of most of the elements of interest. A close-up of K1 and K2 targets will then follow.

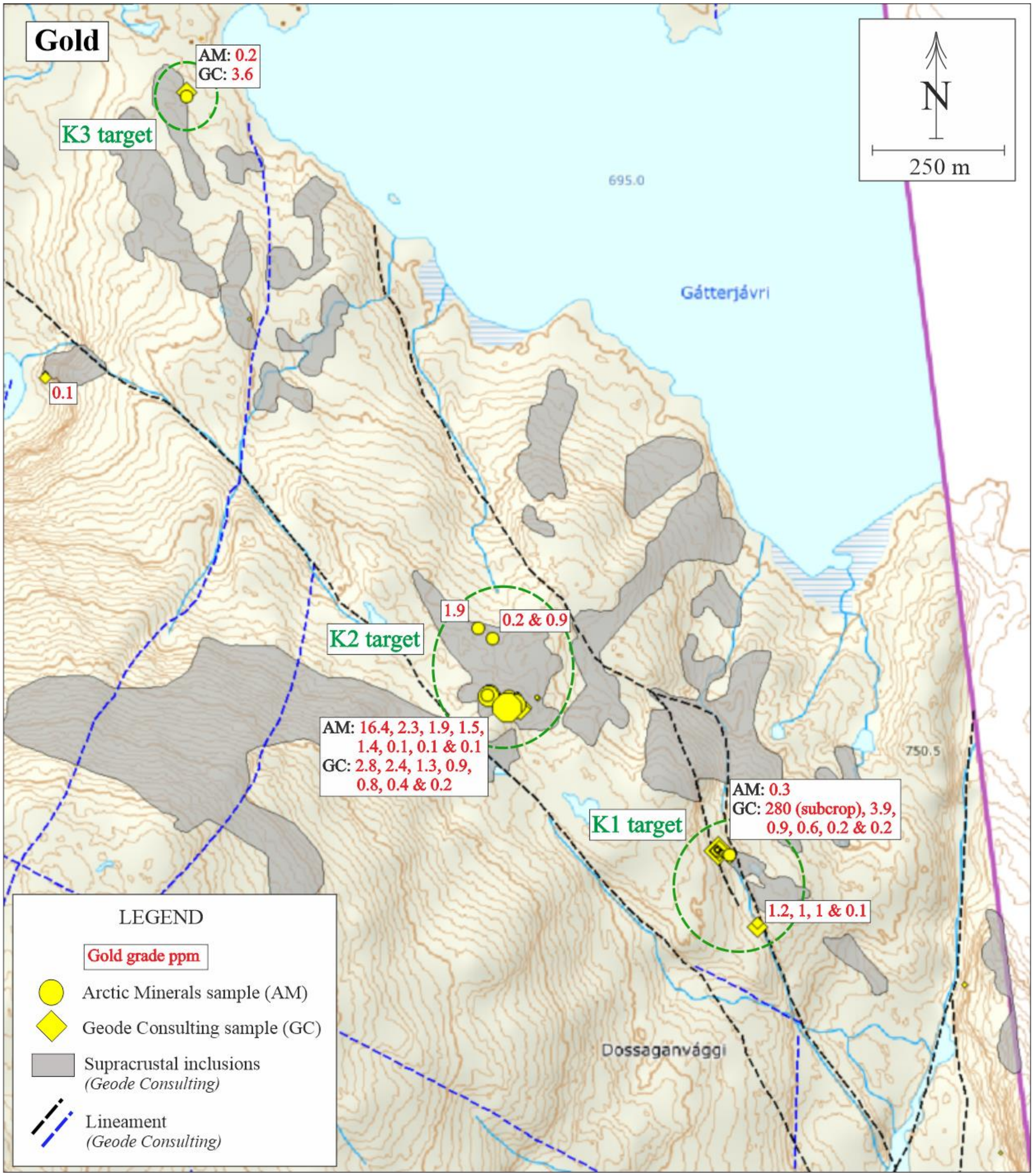


Figure 3. Gold contents > 0.1 ppm are displayed in numbers. Statistically, gold has a strong to moderate positive correlation with silver, antimony, indium, cadmium, tin, arsenic, manganese, lead and zinc.

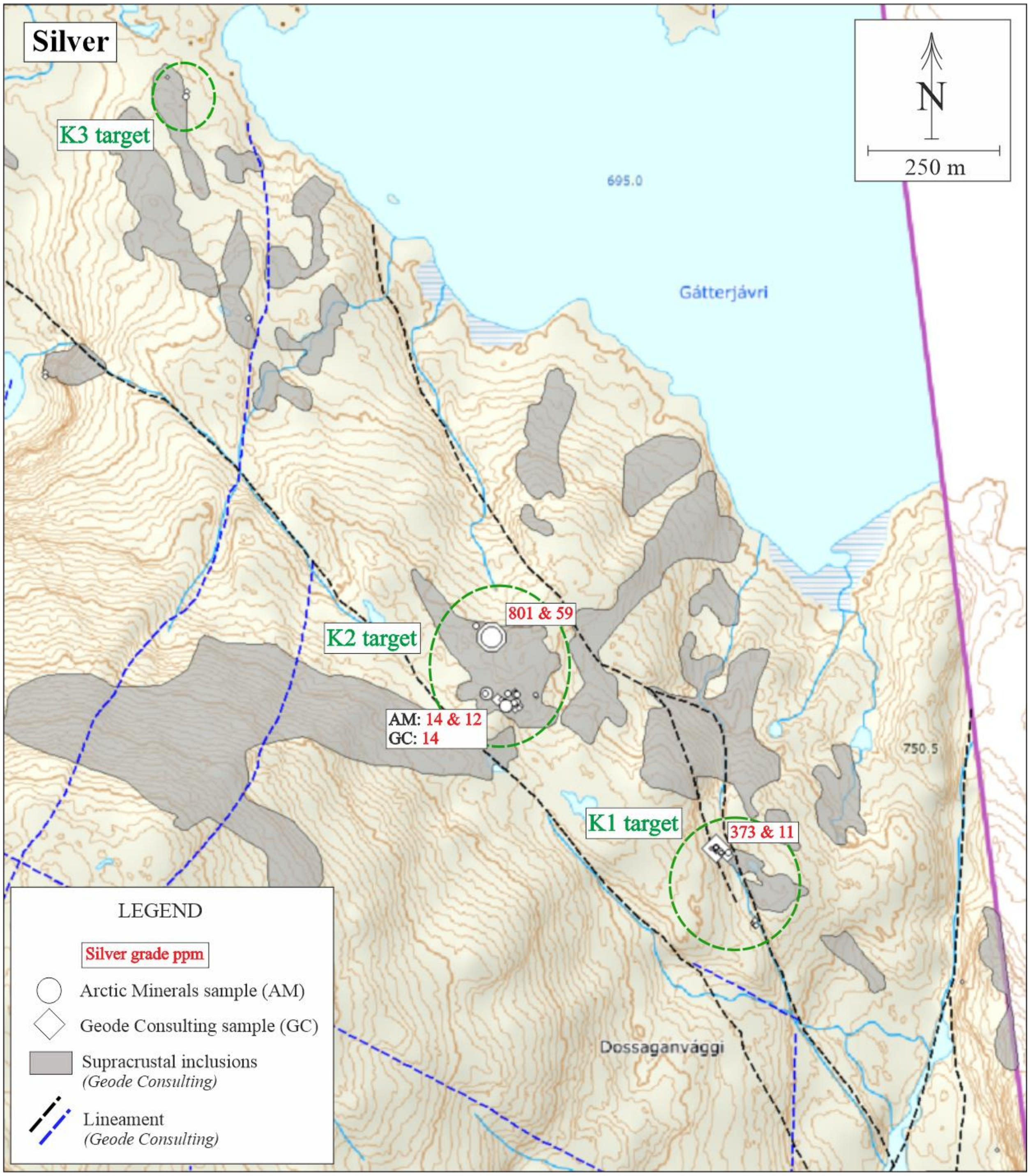


Figure 4. Silver contents >10 ppm are displayed in numbers. High silver in the K2 target occurs in a massive galena vein and is associated with high lead, zinc, bismuth, antimony, tin and cadmium as well as anomalous gold.

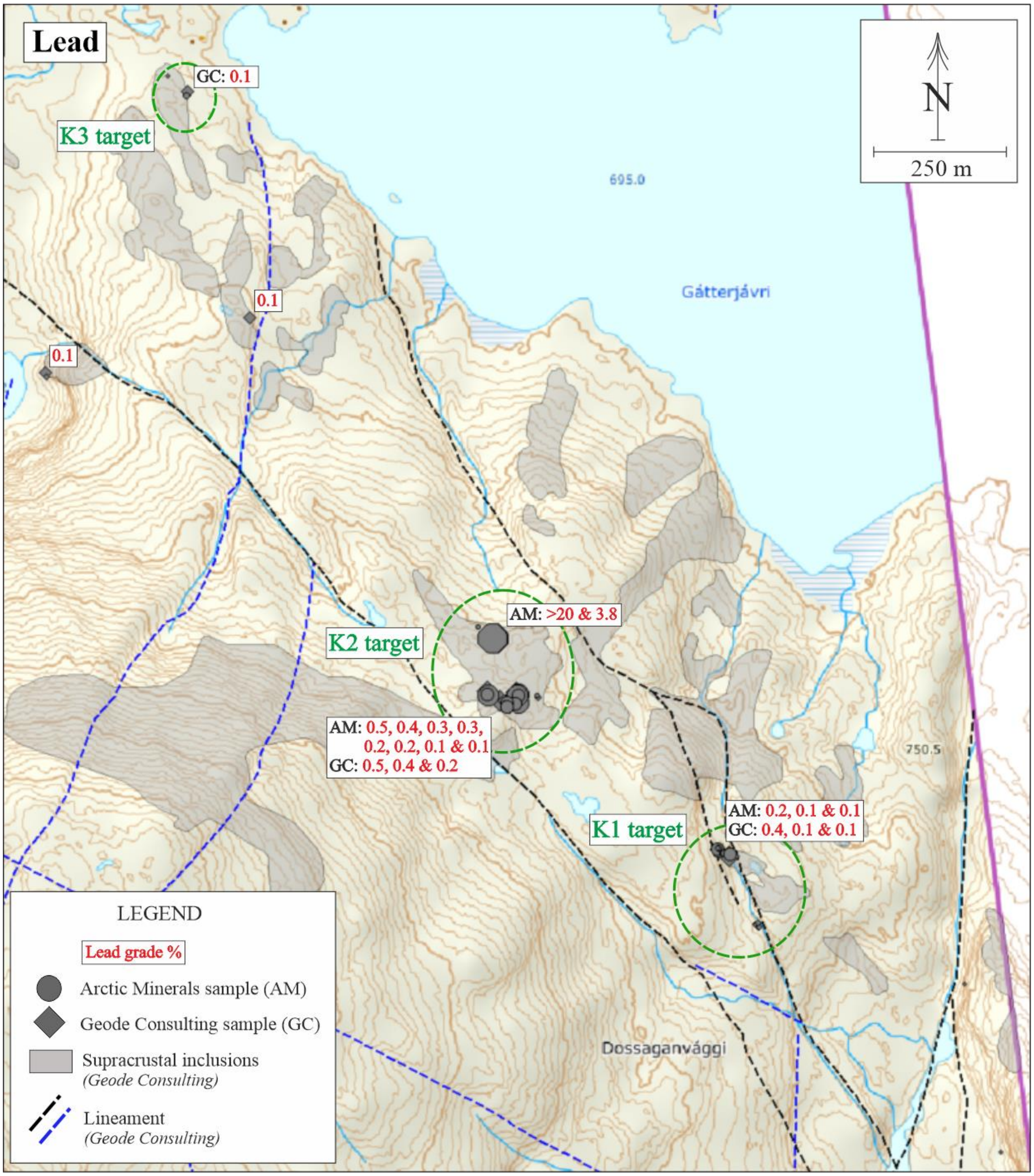


Figure 5. Lead contents > 0.1 % are displayed in numbers. The highest content relates to a 20 cm wide massive galena vein. Often times galena occurs as fine-grained and can only be traced with an XRF. Lead has a strong to moderate positive correlation with silver, zinc, cadmium, antimony, tin, indium, bismuth and gold.

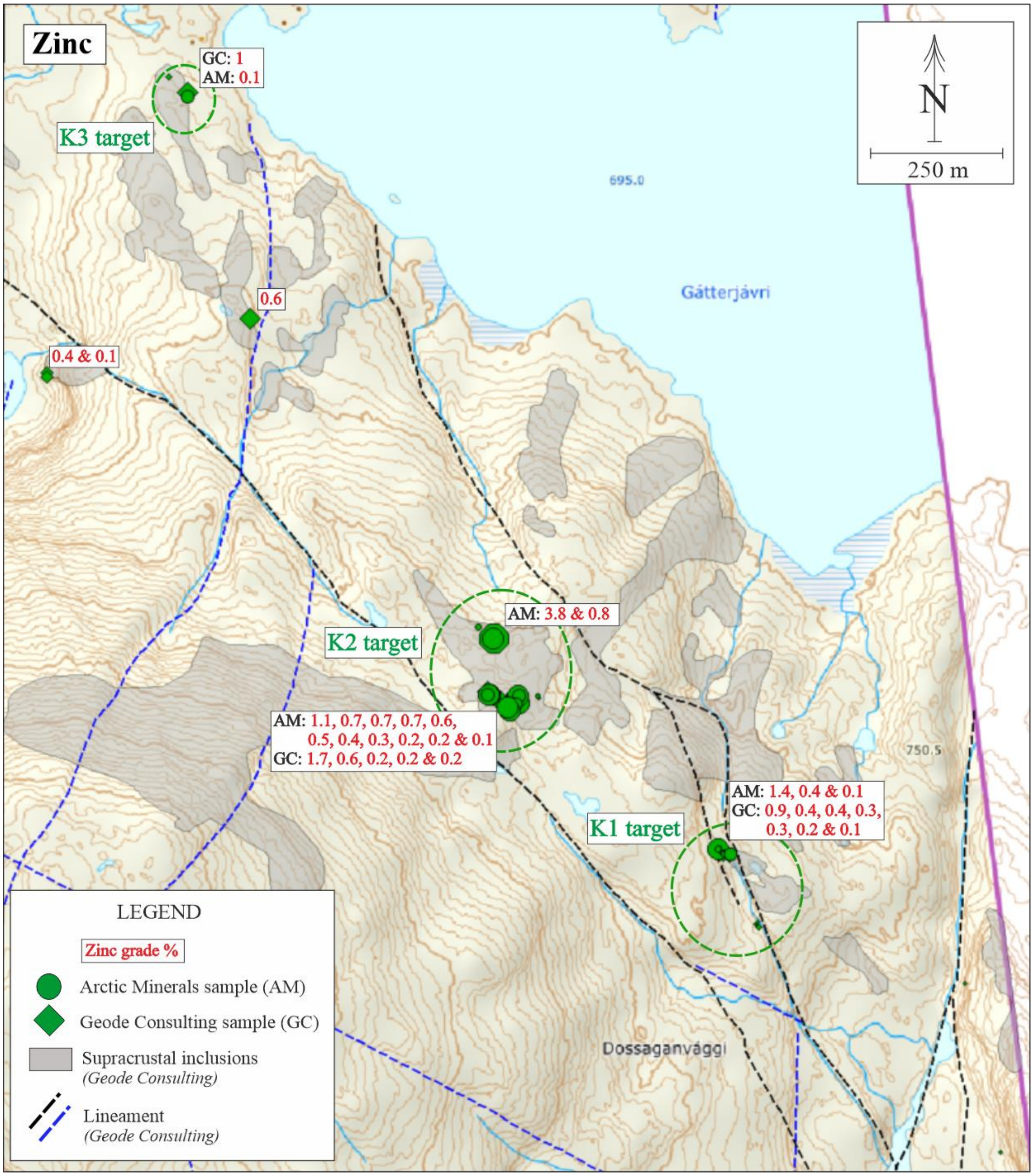


Figure 6. Zinc contents > 0.1 % are displayed in numbers. What was said about lead largely also applies to zinc.

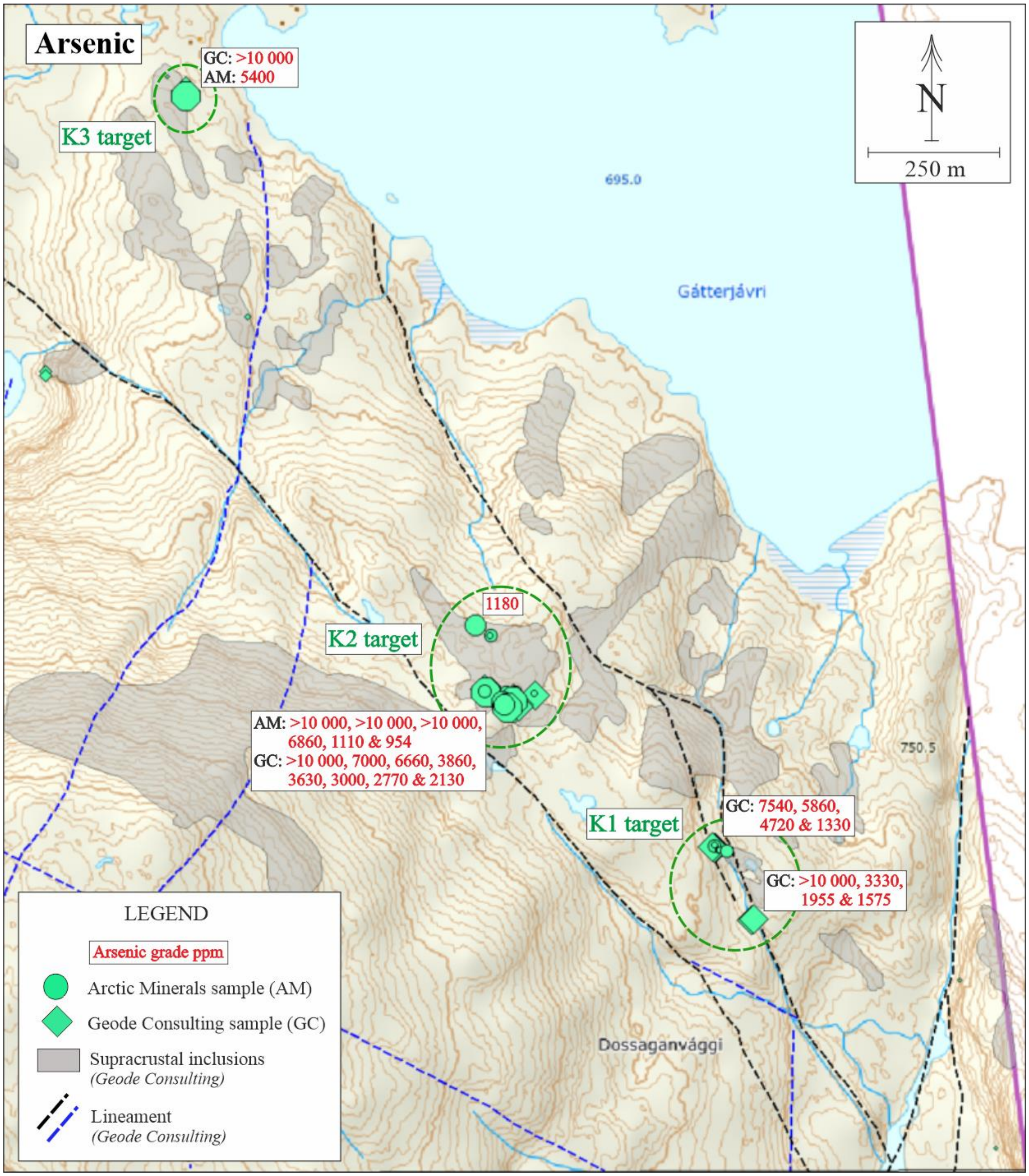


Figure 7. Arsenic grades > 500 ppm are displayed in numbers. Statistically arsenic has the highest correlation with gold and antimony. Where arsenic is elevated gold tends to pick up however, the correlation is not linear.

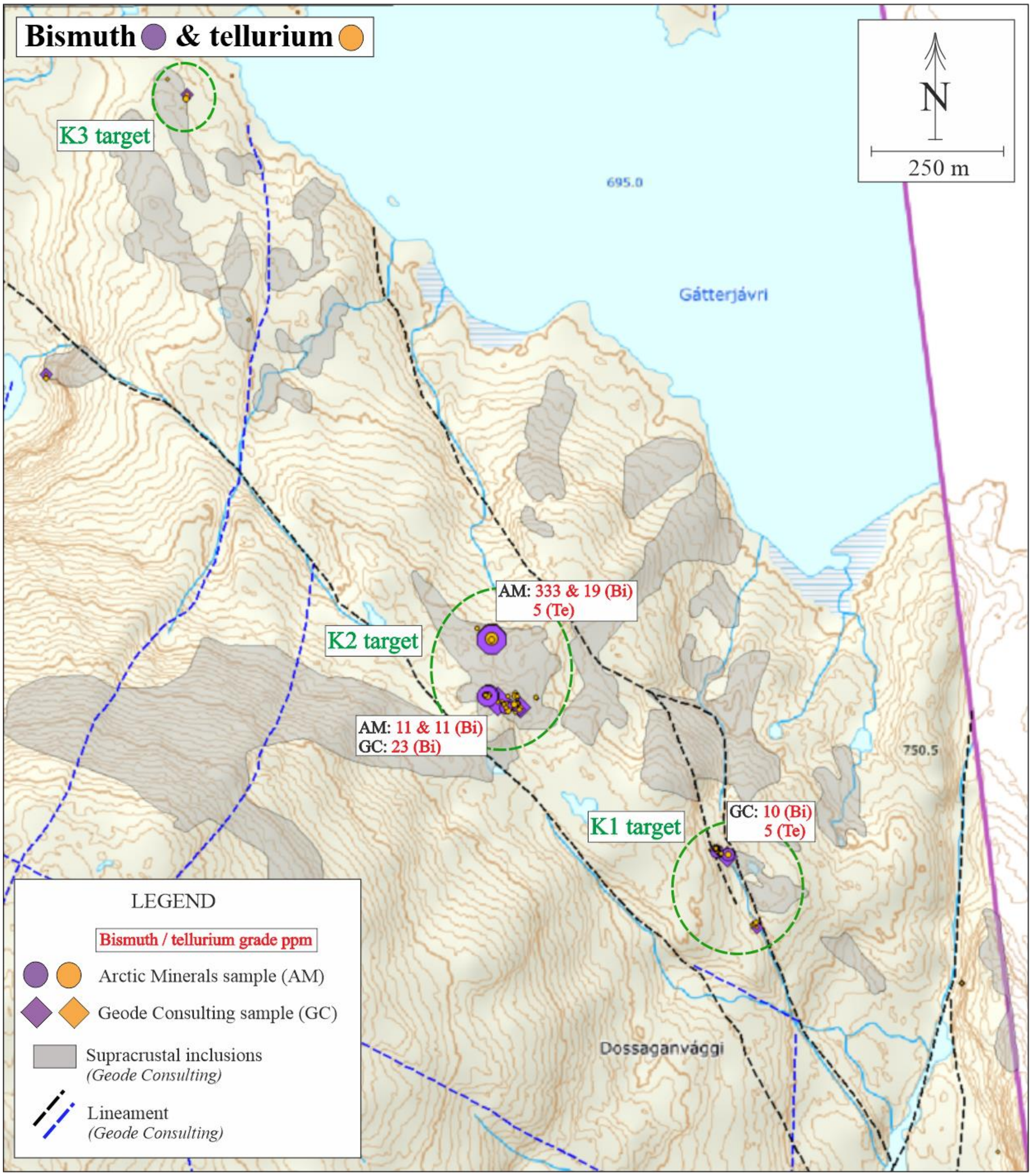


Figure 8. Bismuth grades > 9 ppm and tellurium contents > 2 ppm are displayed in numbers. Tellurium contents are generally low with 5.2 ppm and 16.3 ppm being the highest among AM`s and Geode Consulting`s samples, respectively.

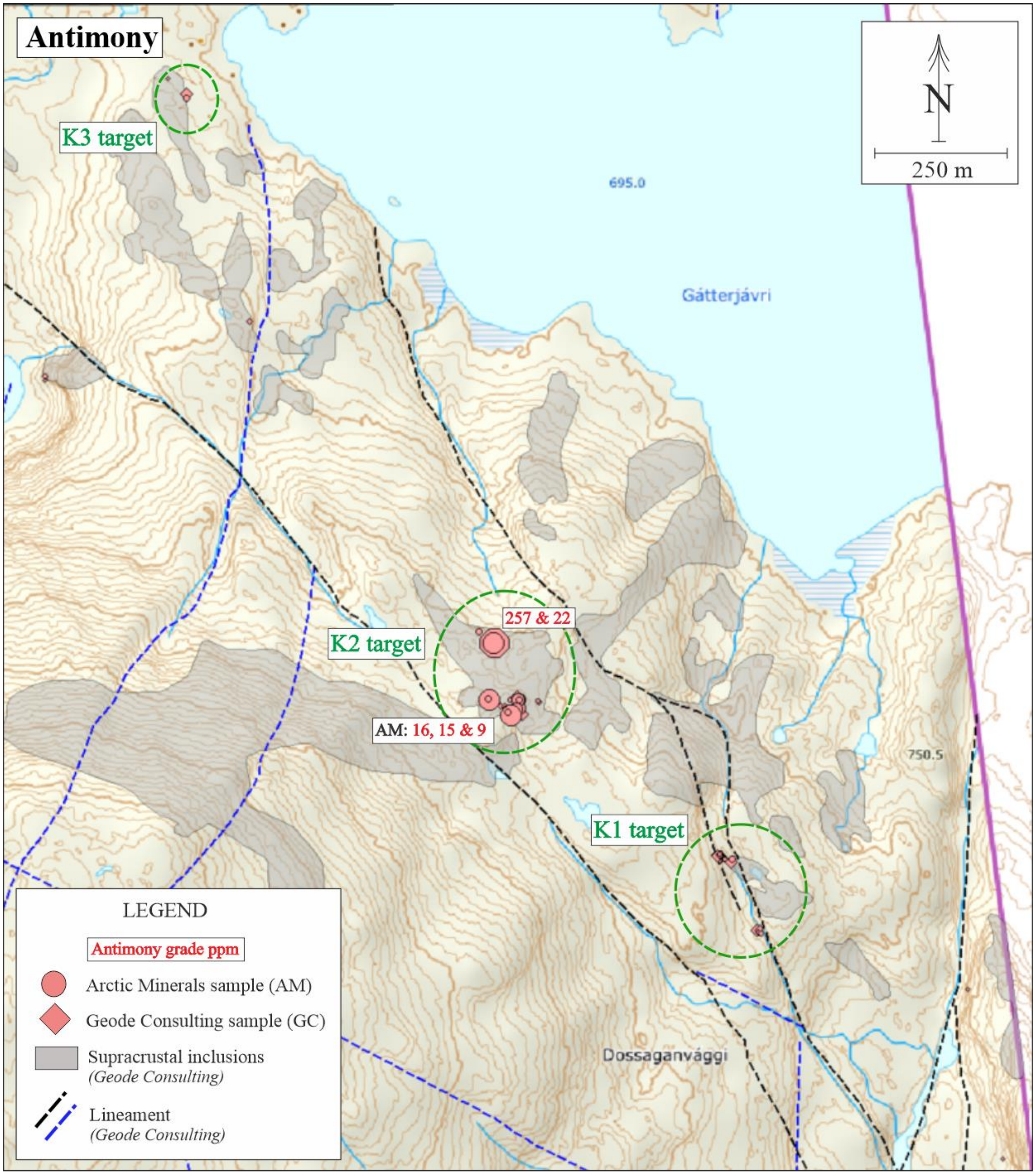


Figure 9. Antimony contents > 9 ppm are displayed in numbers. The highest antimony content occurs in a sample taken from a massive galena vein. Antimony tends to correlate with lead, gold, silver, indium, arsenic, zinc, cadmium and tin.

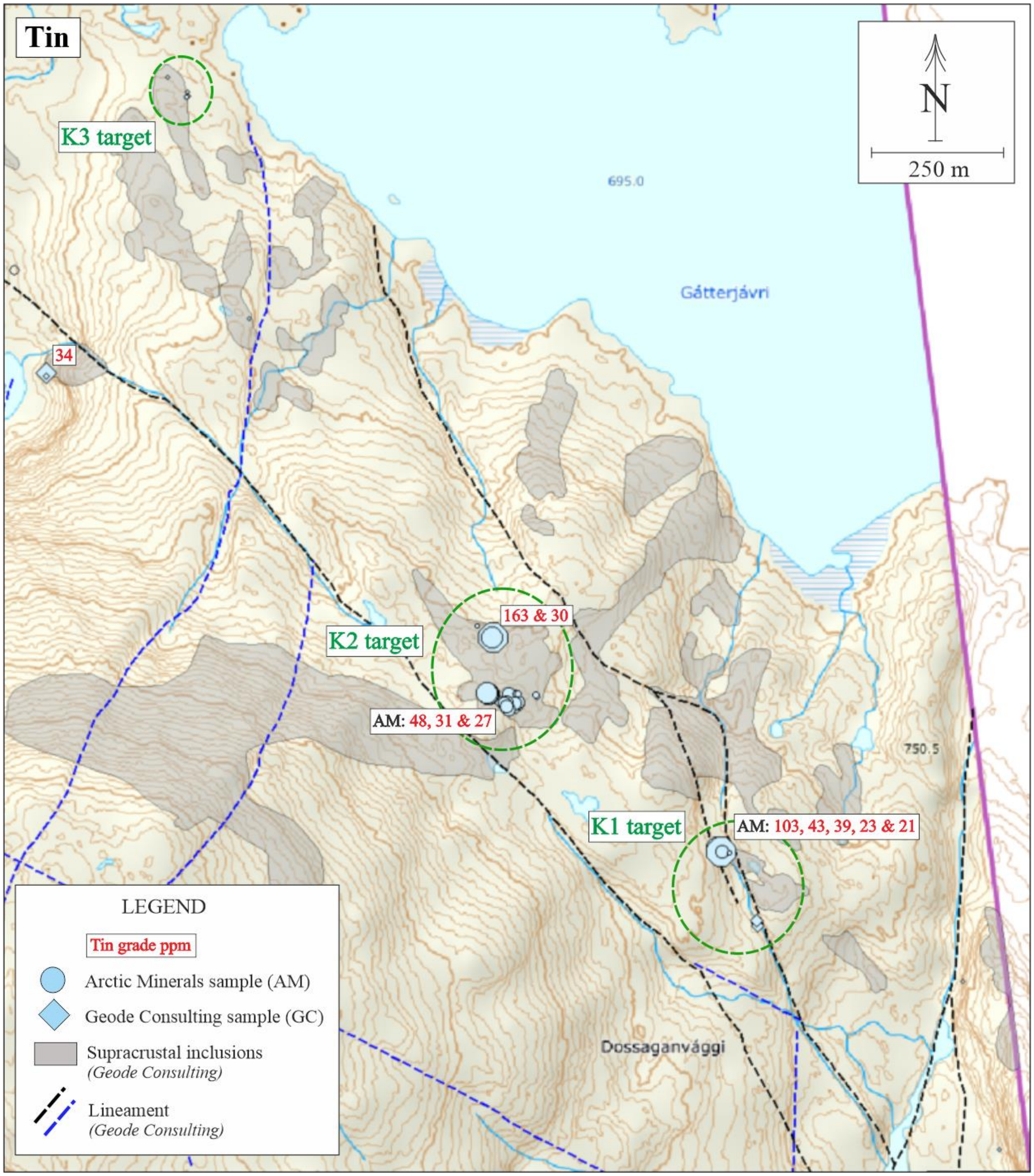


Figure 10. Tin contents > 20 ppm are displayed in numbers. The highest tin content is in a sample taken from a massive galena vein. Tin has a strong to moderate positive correlation with indium, lead, zinc, cadmium, gold, silver, manganese and antimony.

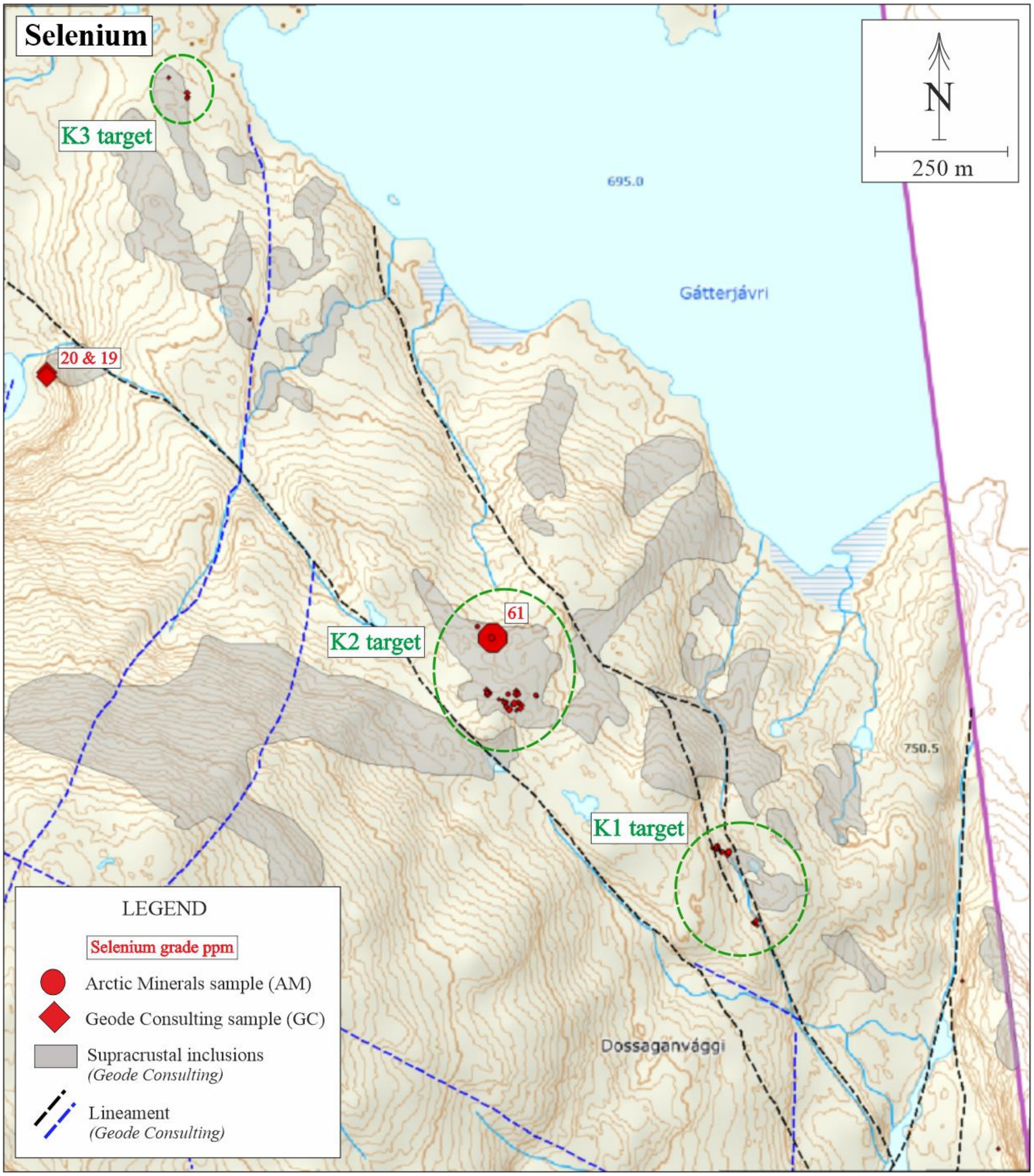


Figure 11. Selenium contents > 10 ppm are displayed in numbers. On average the selenium contents are low. The highest content among AM´s samples, 61 ppm, is from a galena-rich vein in K2 target.

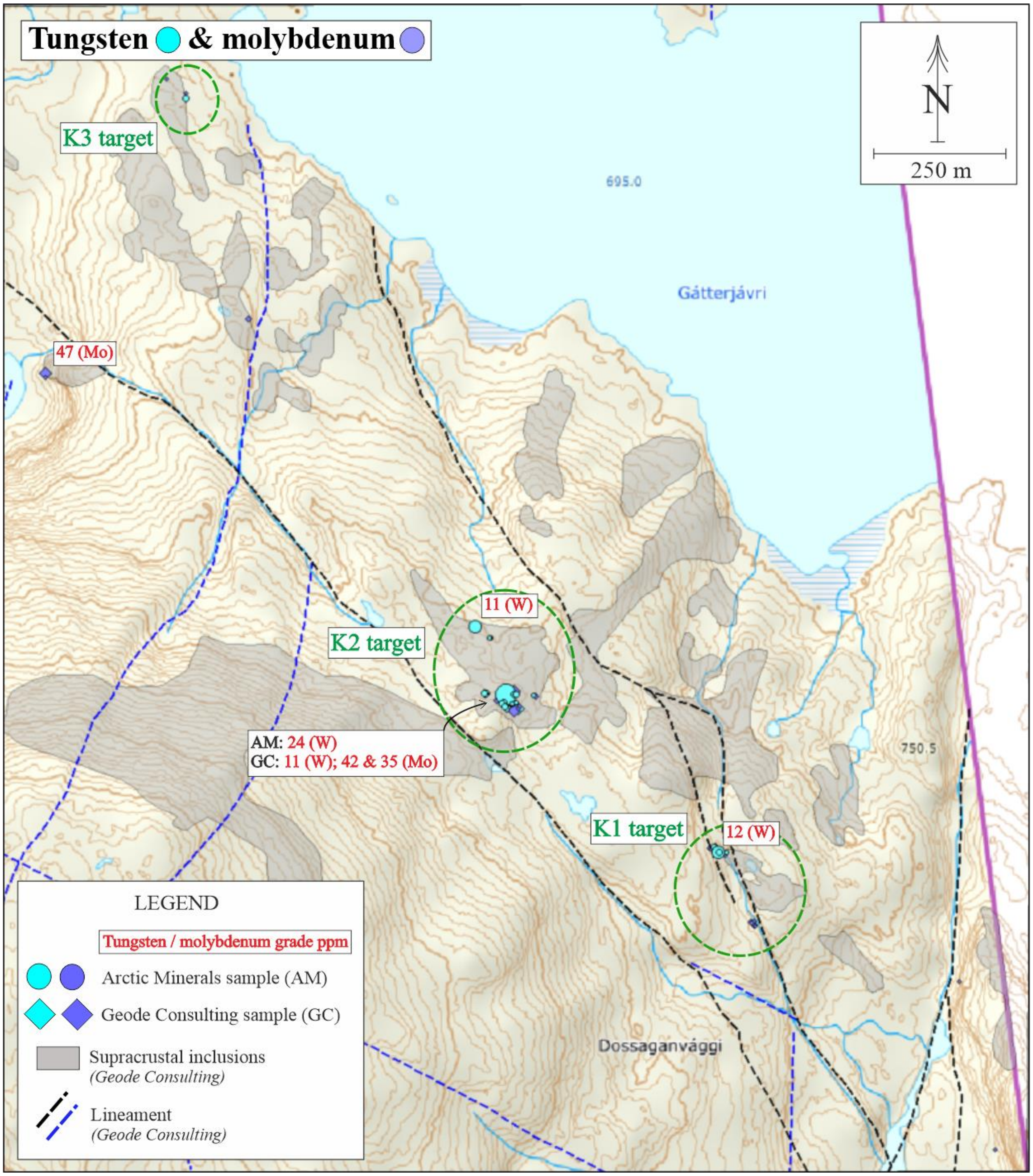


Figure 12. Tungsten grades > 9 ppm and molybdenum contents > 20 ppm are displayed in numbers. Tungsten and molybdenum contents are low and are not associated with gold-base metal mineralization.

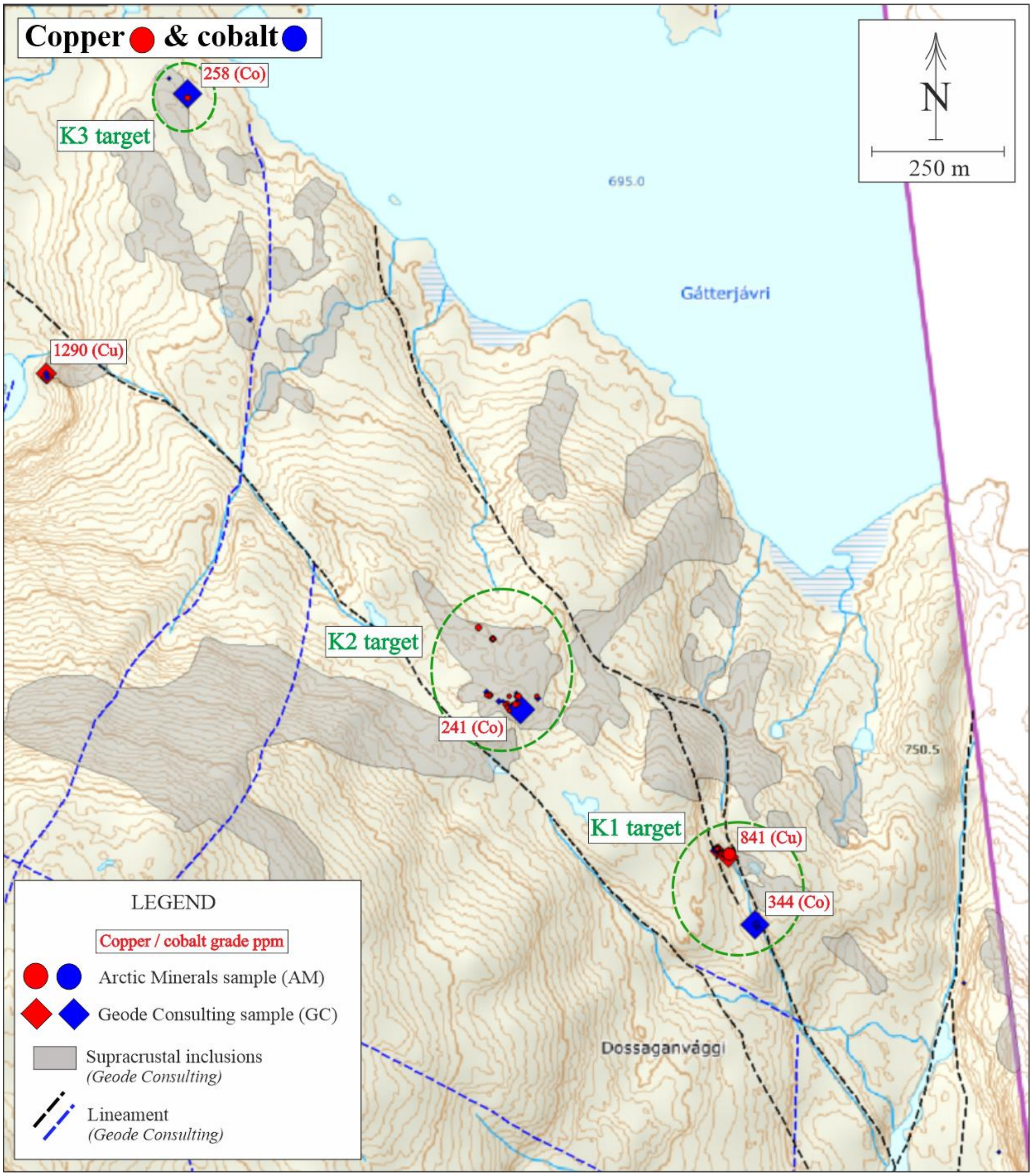


Figure 13. Copper grades > 800 ppm and cobalt contents > 90 ppm are displayed in numbers. Chalcopyrite is observed throughout the Katterat area, however copper content very rarely exceeds 0.1 %. Anomalous cobalt is associated with weakly anomalous nickel, but overall, the cobalt grades are low.

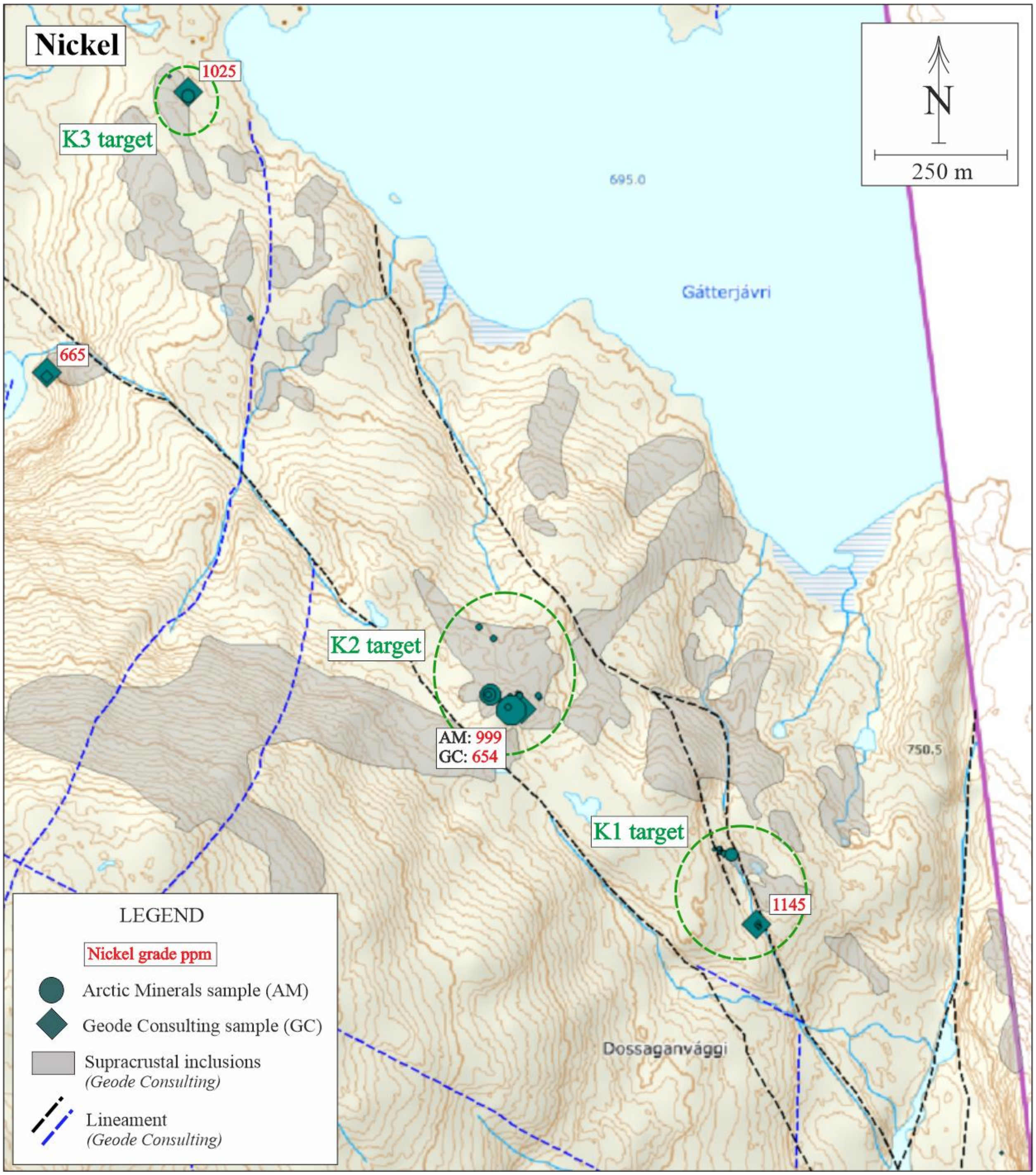


Figure 14. Nickel contents > 600 ppm are displayed in numbers. Occasional anomalous nickel contents likely indicate a presence of minor (cobaltian?) pentlandite.

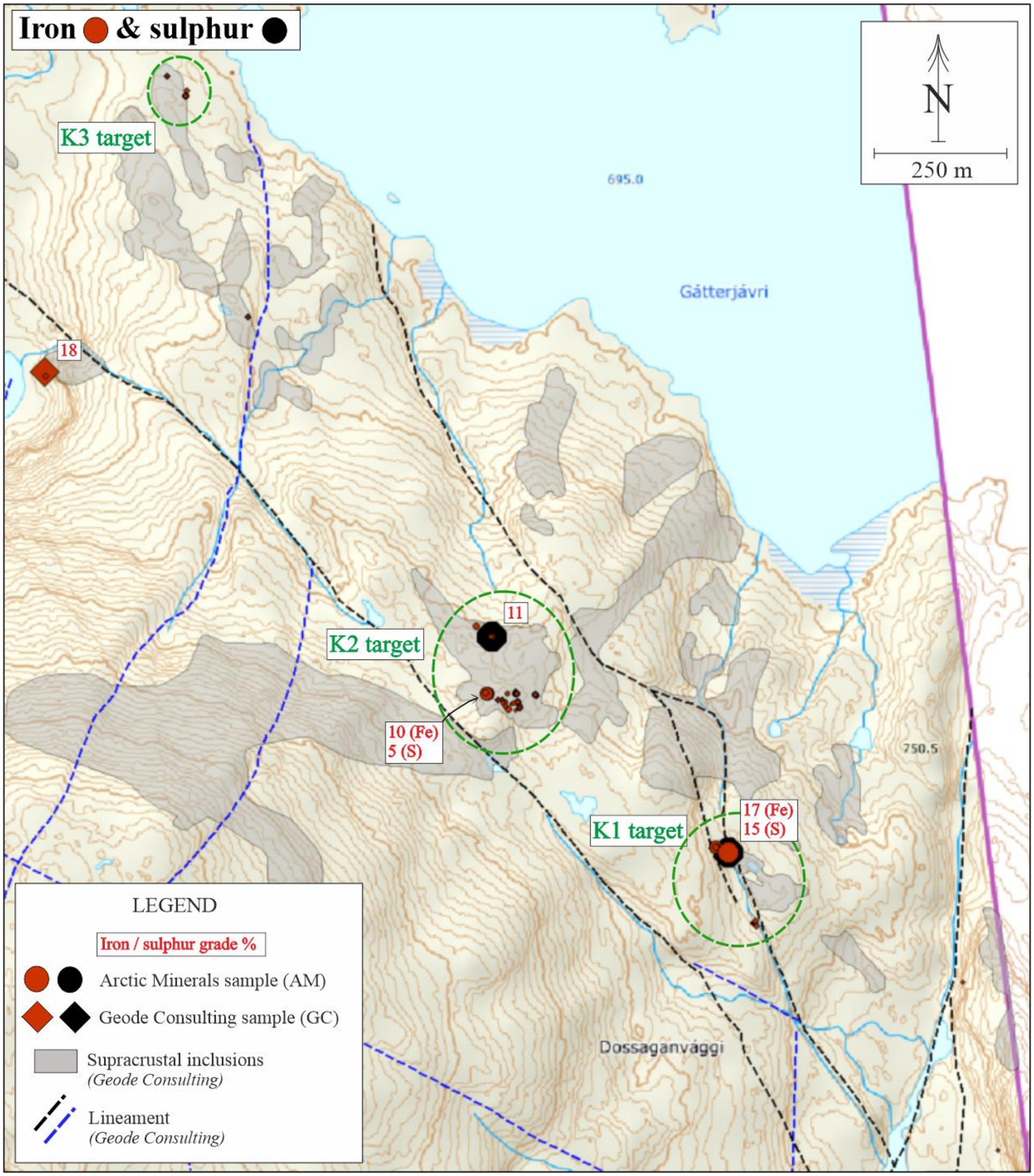


Figure 15. Sulphur grades > 5 % and iron contents > 12 % are displayed in numbers. High sulphur in K2 relates to a massive galena vein. In K1 the high sulphur and iron are related to a strongly weathered and sulphidized part of the outcrop with 0.3 ppm gold, 0.2 % lead and 0.4 % zinc. Generally, the iron content appears to reflect the oxidation of the sulphides rather than the pyrrhotite content.

CLOSE-UP: K1 & K2

Figure 16. Due to the sudden harsh weather, the conditions for sampling in K1 were not ideal. The supracrustal lens in the northern part of K1 is strongly oxidized and weathered with evident sericite alteration and silicification. The highest gold content is in a sample collected by GC from a local subcrop material. The surface expression of the rusty outcrops is fairly limited. The aerial photo is taken from the website https://www.norgeibilder.no/.

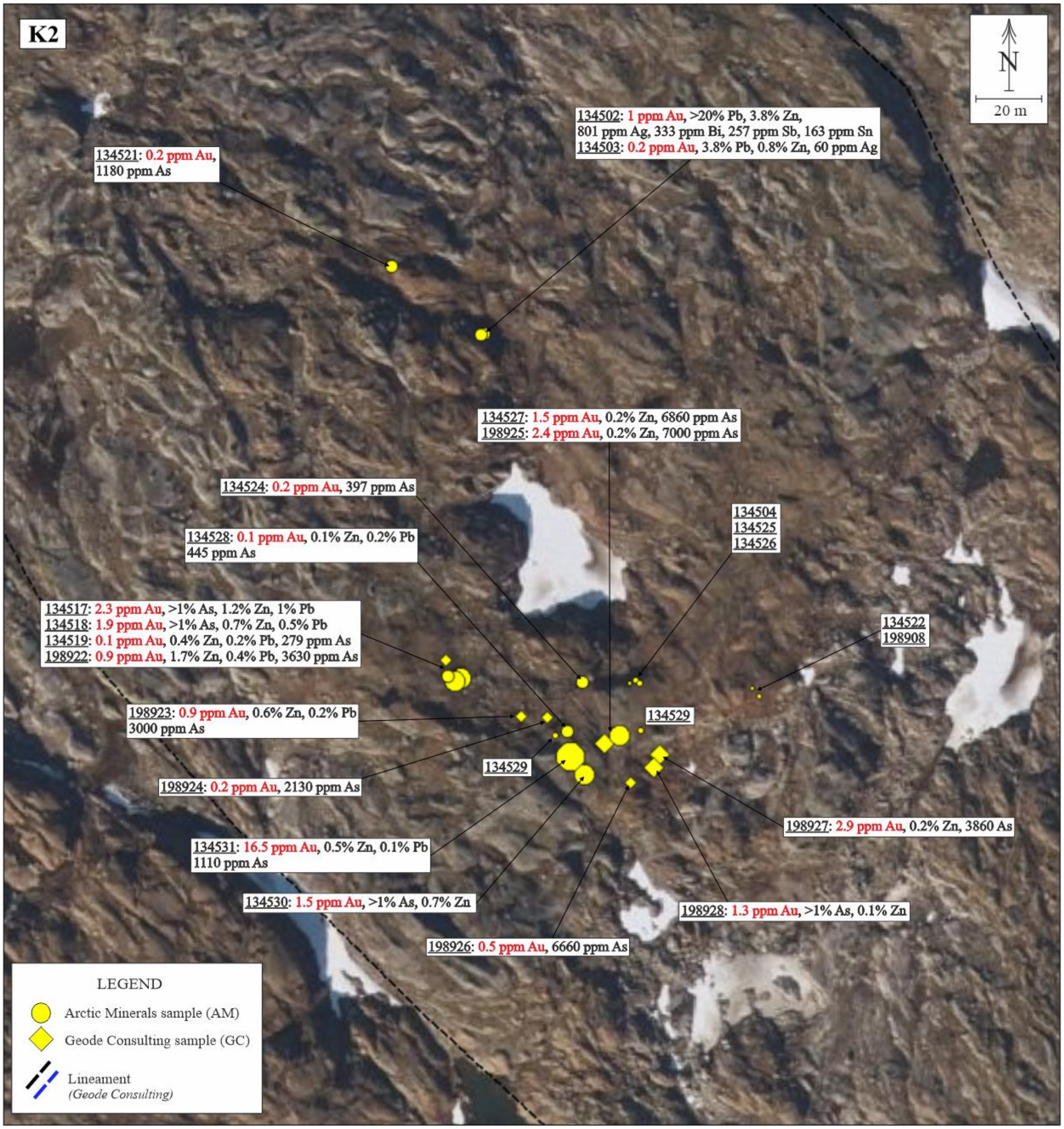


Figure 17. Aerial photo displaying the distribution of gold and other elements of significance. Galena and sphalerite are in most cases not visible to the naked eye with the exception of sample 134527 which was taken from a 20 cm wide galena-rich vein. Arsenopyrite is detected in samples with very high arsenic contents. Otherwise, the sulphides consist mostly of fine-grained disseminated pyrrhotite. The host rock is the typical feldspar-quartz-biotite rock (andesite) with variable degrees of sericite alteration, silicification and local graphite. The sample with the highest gold content had no visible arsenopyrite (or the sulphides were too fine-grained to distinguish), whereas the sample 134530 next to it had plenty. Interestingly, in relation to samples 134530, 134531 and 134527, one can observe 190-200 striking fractures and cm-scale silicified seams with arsenopyrite, and thus likely gold associated with them (figure 18). It is worth noting that only one day including a two-hour walk each way was spent in K2. Still, the area was reasonably well covered with an XRF.

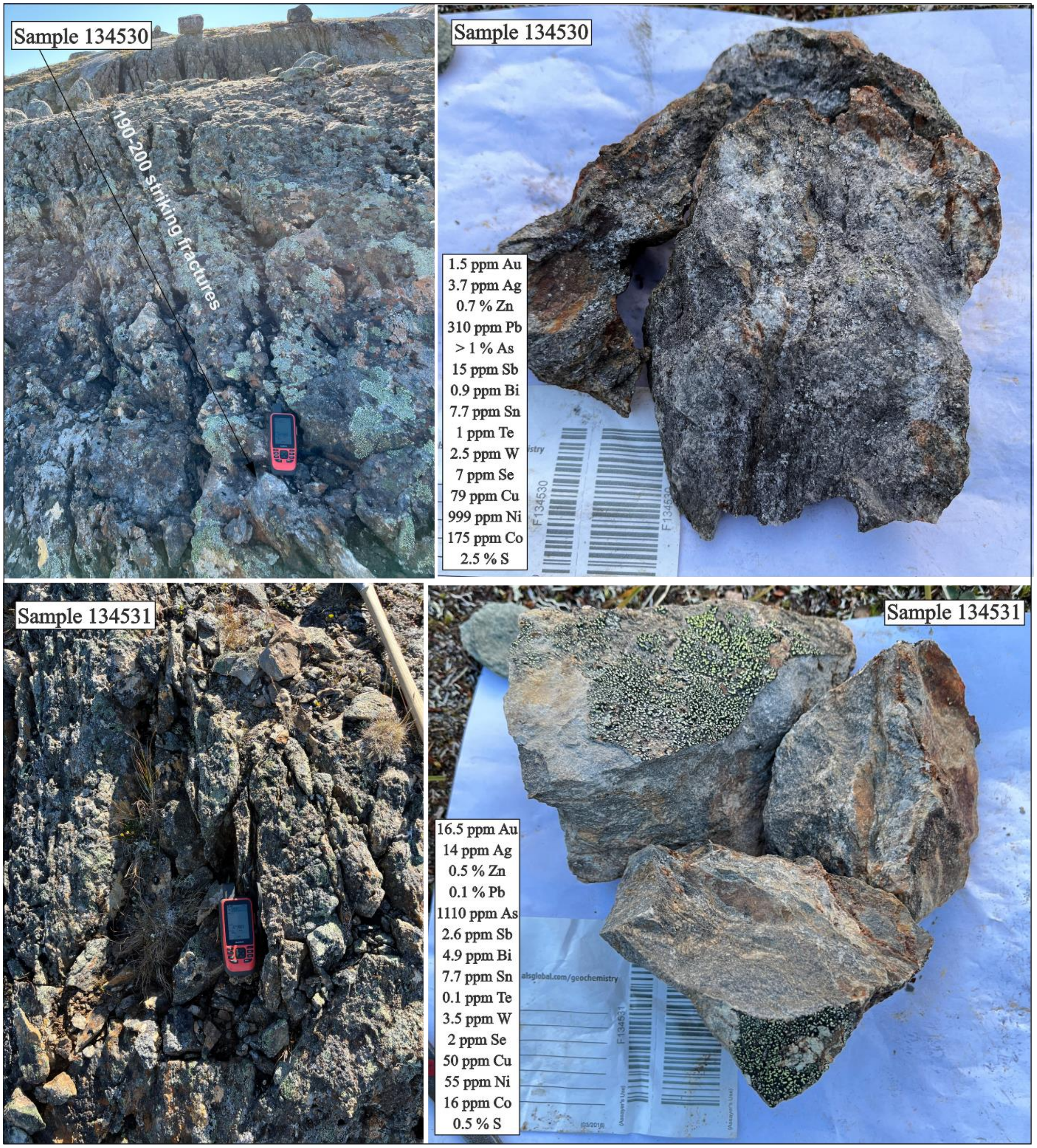


Figure 18. Sample 134530 is from a margin of a 190-200 striking fracture with plenty of visible arsenopyrite, patchy silica and minor sericite. Sample 134531 had minor visible disseminated sulphides and the host rock appears silicified.

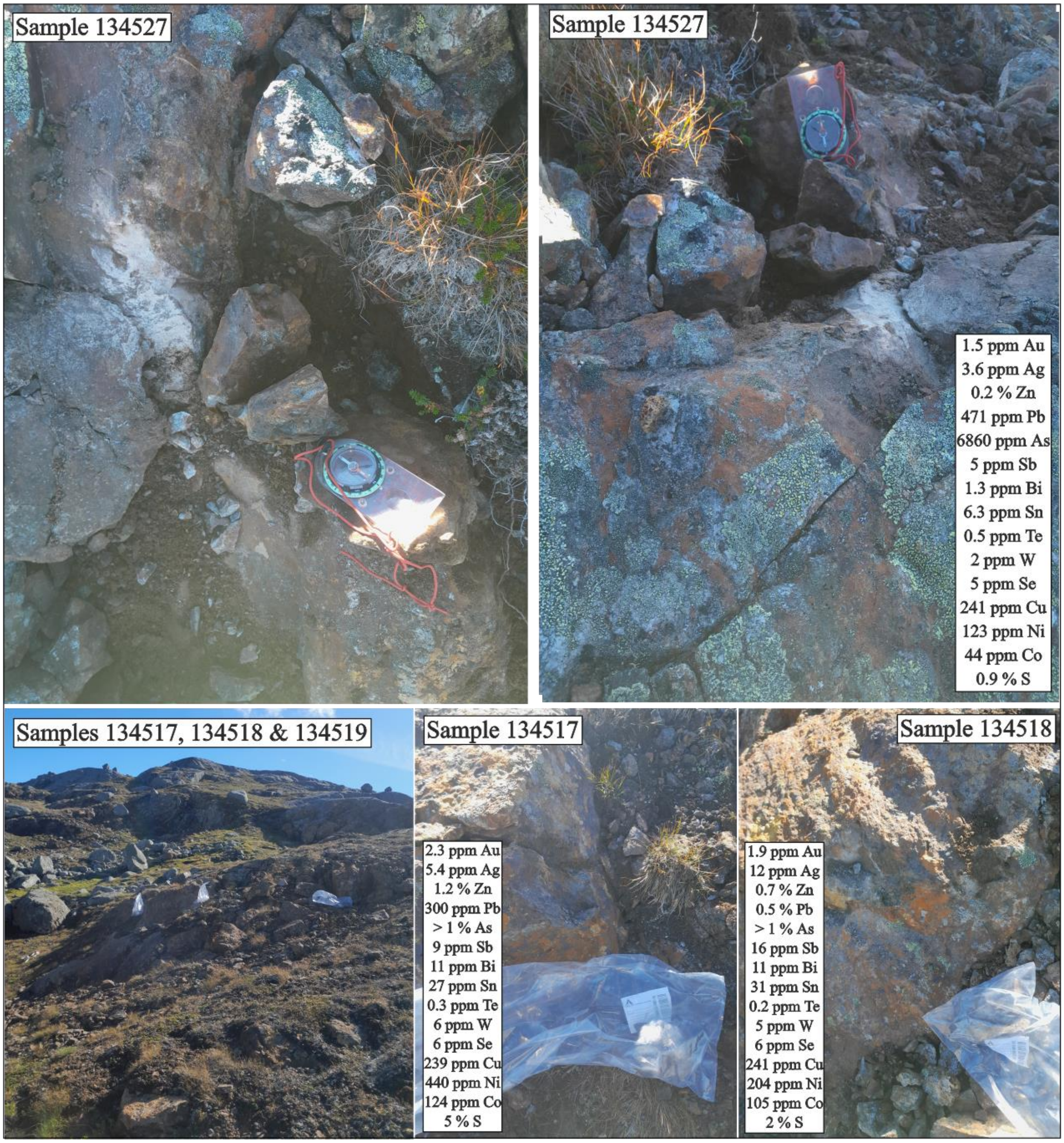


Figure 19. Sample 134527 comes from a 3-15 cm wide silicified seam that cuts the host andesite. Samples 134517 and 134518 are taken from a very rusty part of an outcrop with visible arsenopyrite described in sample 134517.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
134501	379657	7589502	TL	0,25	2	289	1100	5400	0,5	0,2	2	4	1	267	222	65	5	6	7	1,9
134502	380143	7588406	TL	0,98	801	>200000	38200	163	333,0	5,2	257	61	163	200	10	11	4	1	8	10,6
134503	380142	7588406	TL	0,24	60	38000	7660	102	18,6	0,3	22	5	30	77	46	12	4	1	6	1,9
134504	380180	7588293	TH	0,04	5	3700	3220	247	0,5	0,1	5	3	4	97	44	10	13	8	3	1,0
134509	380536	7587956	TH	0,08	3	1045	1015	80	2,8	0,1	2	2	39	117	57	9	2	4	5	1,2
134510	380534	7587960	TH	0,07	3	1055	13950	188	2,1	0,1	1	5	43	331	82	10	8	6	10	5,1
134511	380536	7587962	TH	0,01	1	186	131	7	0,9	0,0	1	1	9	6	3	2	2	2	3	0,1
134512	380534	7587961	TH	0,01	1	50	231	118	0,2	0,1	1	3	21	53	12	3	12	4	9	0,2
134513	380542	7587951	TH	0,07	2	196	610	129	2,2	0,0	1	2	103	334	26	7	4	12	6	1,2
134514	380544	7587950	TH	0,01	1	160	606	66	0,3	0,0	1	2	23	71	40	9	1	4	4	0,6
134515	380557	7587948	TL	0,34	6	1995	3730	199	4,5	1,0	3	11	2	638	410	132	9	1	17	15
134517	380125	7588299	TL	2,34	5	300	11550	>10000	11,1	0,3	9	6	27	239	440	124	16	6	10	4,9
134518	380123	7588298	TL	1,93	12	4830	7410	>10000	11,3	0,2	16	6	31	241	204	105	32	5	9	2,3
134519	380121	7588300	TL	0,12	3	1635	3700	279	1,5	0,0	3	3	48	92	49	8	2	6	8	1,8
134521	380116	7588430	TL	0,25	2	50	665	1180	0,4	0,1	1	3	2	222	87	35	16	11	7	1,1
134522	380216	7588287	TH	0,01	0	38	168	117	0,1	0,1	1	2	3	107	84	21	3	1	6	1,4
134523	380180	7588277	TH	0,05	4	3080	7270	137	2,1	0,1	4	2	6	76	79	12	1	1	5	1,6
134524	380163	7588294	TH	0,12	1	397	231	397	0,5	0,1	1	3	6	121	25	9	9	24	4	0,5
134525	380178	7588292	TH	0,03	5	3070	5510	447	0,5	0,2	5	5	2	181	90	16	3	5	4	1,3
134526	380181	7588292	TH	0,04	3	1095	2350	318	0,3	0,1	2	4	3	229	71	14	17	7	6	1,4
134527	380173	7588276	TL	1,47	4	471	2340	6860	1,3	0,5	5	5	6	241	123	44	14	2	5	0,9
134528	380157	7588279	TH	0,10	2	1500	1125	445	0,4	0,0	3	2	13	52	30	5	1	6	7	0,3
134529	380153	7588278	TH	0,06	1	312	435	954	0,2	0,1	1	2	10	77	56	16	4	3	7	0,8
134530	380161	7588265	TH	1,53	4	310	7060	>10000	0,9	1,2	15	7	8	79	999	175	10	3	9	2,5
134531	380157	7588271	TH	16,45	14	1405	5000	1110	4,6	0,1	3	2	8	50	55	16	1	4	4	0,5
198901	379475	7589958	GC	0,00	1	280	195	6	0,1	0,1	1	2	1	162	34	14	5	0	4	1,3
198902	379335	7588999	GC	0,07	8	480	4380	281	2,3	0,1	1	20	34	1290	665	67	47	2	18	5,0
198903	379335	7588991	GC	0,15	4	345	1080	192	1	0,8	1	19	4	420	336	30	4	2	8	3,9
198904	379521	7589455	GC	0,00	0	9	191	5	0,1	0,0	0	0	1	62	71	17	1	1	4	0,4
198905	379625	7589544	GC	0,00	0	31	270	7	0,0	0,0	0	0	0	12	19	4	0	0	6	1,5
198906	379660	7589503	GC	0,00	1	53	181	78	0,2	0,0	0	1	1	75	84	17	2	1	4	0,9
198907	379736	7589065	GC	0,02	3	1140	6380	62	0,2	0,1	2	5	0	169	117	28	16	1	5	1,9
198908	380218	7588284	GC	0,04	1	81	161	2770	0,3	0,2	2	3	3	125	81	43	20	4	4	1,4
198909	380535	7587958	GC	280	373	550	1530	1330	5,6	5,3	2	4	7	358	7	1	10	1	8	0,5
198910	381019	7587326	GC	0,02	0	20	143	8	0,3	0,2	0	2	1	74	32	11	8	1	6	0,3
198911	380982	7587656	GC	0,07	0	19	165	4	0,9	0,2	0	1	2	146	34	16	1	2	7	0,4
198912	380535	7587955	GC	0,48	3	1170	3240	177	1,9	0,0	2	3	9	95	35	10	3	1	6	1,3
198913	380536	7587956	GC	0,28	3	865	4110	5860	3,2	0,1	7	4	6	173	71	48	16	8	8	1,5
198914	380536	7587956	GC	0,05	4	1410	9090	407	2,2	0,0	2	3	7	279	22	5	7	1	7	1,6
198915	380537	7587957	GC	3,95	7	506	914	279	2,1	0,2	3	2	6	76	5	2	5	0	2	0,4
198916	380538	7587958	GC	0,00	0	93	300	17	0,5	0,0	0	1	3	66	3	2	2	0	8	0,1
198917	380525	7587960	GC	0,00	0	115	391	34	0,1	0,0	1	0	1	17	34	10	2	0	3	0,0
198918	380555	7587943	GC	0,68	11	4280	2550	139	10,4	1,5	3	5	2	841	8	4	5	0	11	1,5
198919	380592	7587809	GC	0,99	1	49	97	>10000	0,6	0,7	8	8	2	137	1145	344	13	2	6	2,4
198920	380593	7587808	GC	0,80	1	150	108	1575	0,7	0,1	2	4	3	137	87	18	22	2	6	1,5
198921	380178	7588298	GC	0,00	7	4880	1570	469	0,9	0,2	6	9	1	152	19	5	42	3	4	0,5
198922	380121	7588305	GC	0,90	8	3650	17150	3630	7,8	0,3	4	5	10	204	93	49	10	3	7	3,0
198923	380143	7588285	GC	0,85	14	2390	6210	3000	22,6	0,7	2	4	7	102	47	17	10	8	5	1,5
198924	380151	7588284	GC	0,24	1	927	528	2130	0,6	0,1	1	3	3	126	51	17	21	1	6	1,3
198925	380168	7588274	GC	2,44	6	869	1750	7000	2,3	0,4	5	4	4	91	71	21	3	1	4	0,6
198926	380175	7588261	GC	0,49	2	70	133	6660	0,5	0,1	4	4	2	10	4	1	35	2	3	0,2
198927	380185	7588269	GC	2,89	7	503	1700	3860	11,0	0,8	3	7	3	127	191	56	25	7	6	2,1
198928	380183	7588265	GC	1,34	3	163	975	>10000	3,5	0,5	7	6	2	175	654	241	9	11	6	2,2
198929	379659	7589511	GC	3,56	6	1170	10400	>10000	6,1	0,5	7	6	0	136	1025	258	6	3	7	2,9
198930	380543	7587948	GC	0,00	2	103	1160	101	1,8	0,0	1	1	9	391	74	14	3	0	7	3,2
198931	380535	7587956	GC	0,28	4	924	926	4720	4,2	0,1	5	6	2	227	10	9	9	18	3	0,8
198932	380531	7587958	GC	0,98	5	1310	4330	7540	5,1	0,2	4	6	6	409	19	23	10	6	6	1,1
198933	380596	7587804	GC	1,05	1	135	173	1955	0,7	0,1	2	3	6	114	129	35	10	4	5	1,5
198934	380598	7587802	GC	0,00	2	266	337	215	3,4	0,1	1	2	14	41	28	7	7	1	8	0,1
198935	380597	7587812	GC	0,19	2	335	146	3330	0,5	0,2	2	6	11	167	22	16	5	1	8	0,9

Table 4. Contents of selected elements from the northern part of Katterat. Except for iron and sulphur, units are in ppm.

KATTERAT CENTRAL

The following figures present the distribution of most of the elements of interest from the central part of the Katterat area. A close-up of K5 East and Daskoriehppi mine will then follow.

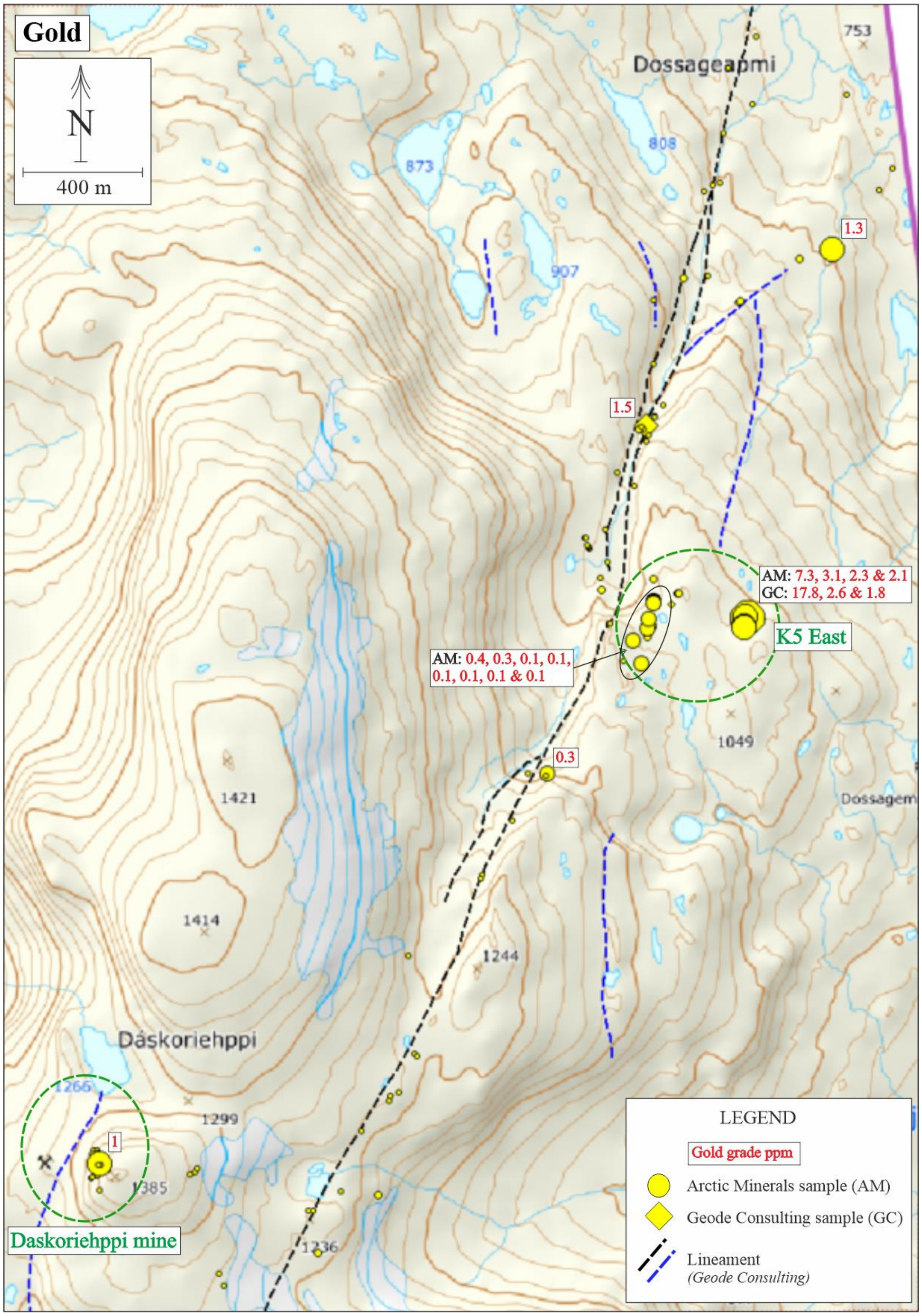


Figure 20. Gold contents > 0.1 ppm are displayed in numbers. The sample in the NE corner with 1.3 ppm Au is taken from an area with small rusty, chloritized outcrops with quartz veins and locally "vuggy" textures. No visible mineralization was described however zinc (0.2%) and arsenic (577 ppm) are clearly elevated. The mineralization could be related to a structure in a NE running creek.

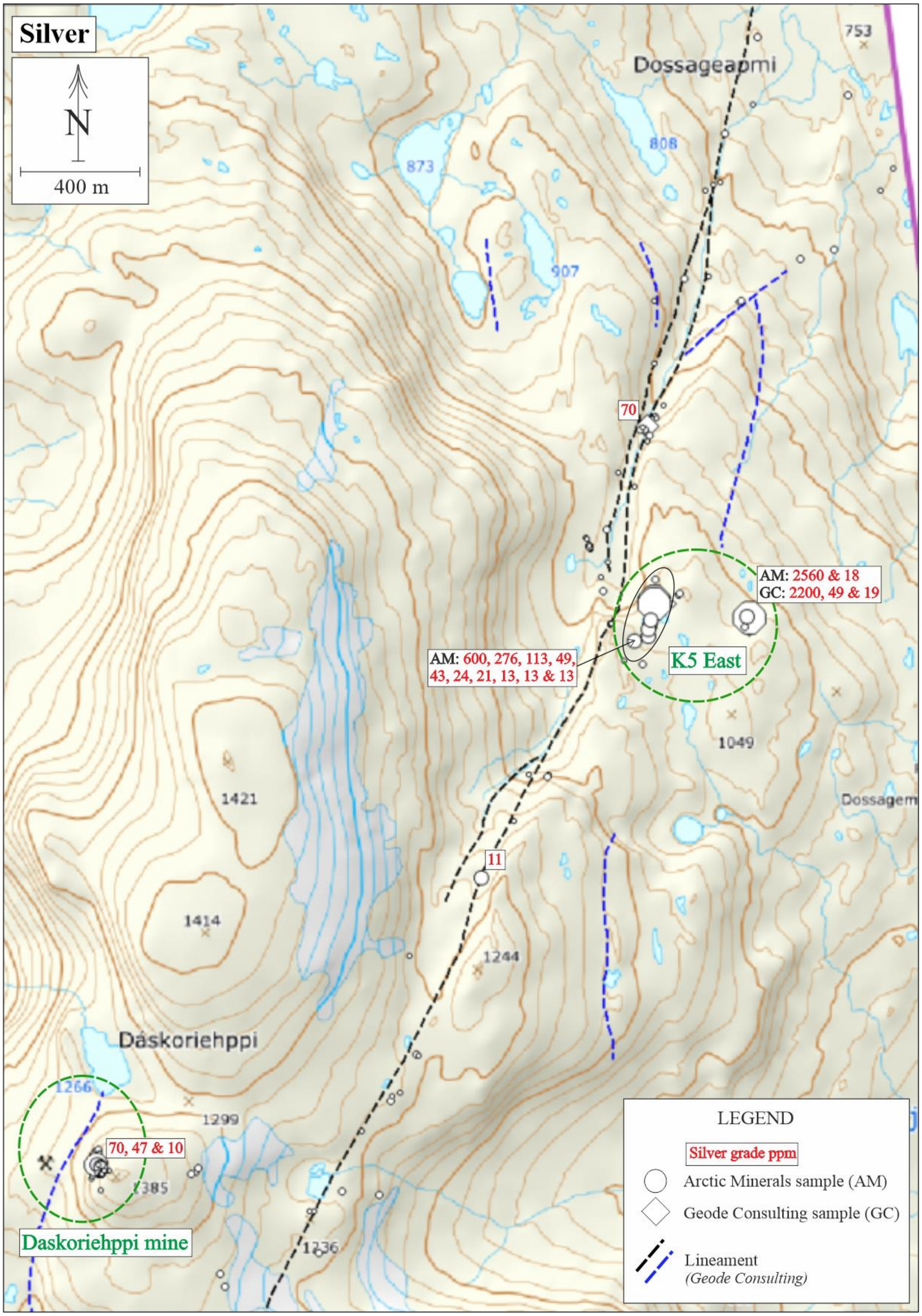


Figure 21. Silver contents >10 ppm are displayed in numbers. The highest silver contents occur together with high lead.

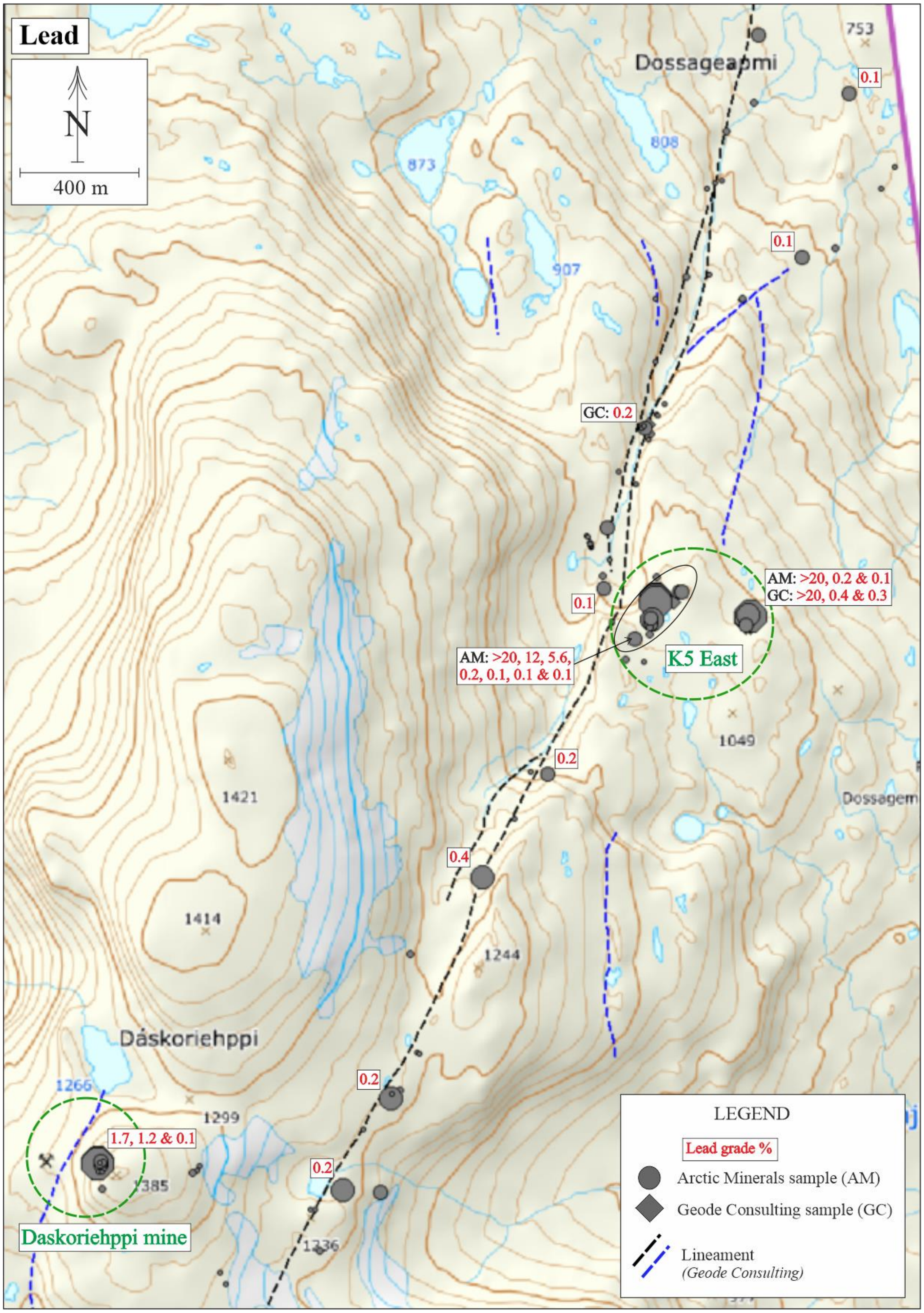


Figure 22. Lead contents > 0.1 % are displayed in numbers.

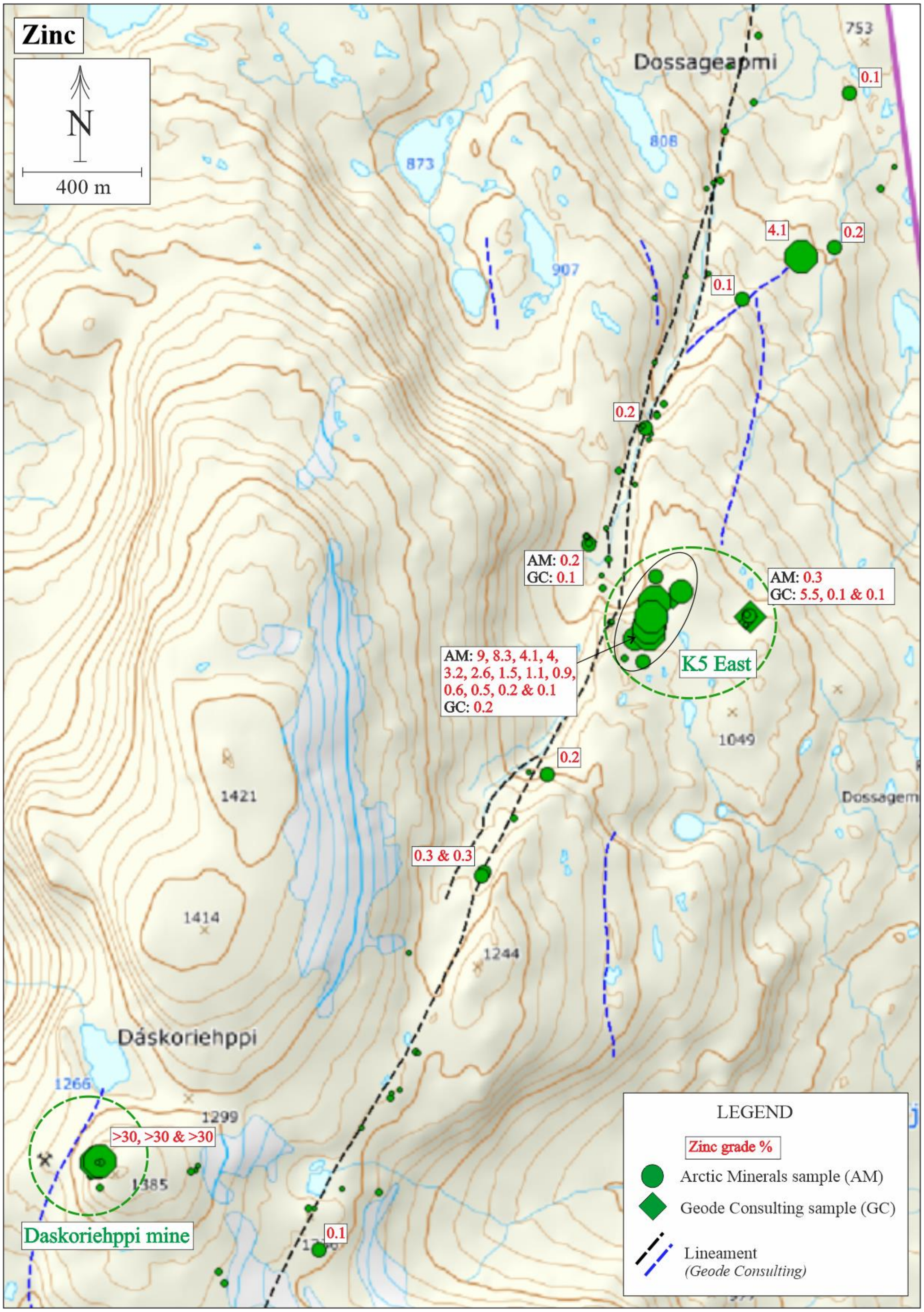


Figure 23. Zinc contents > 0.1 % are displayed in numbers.

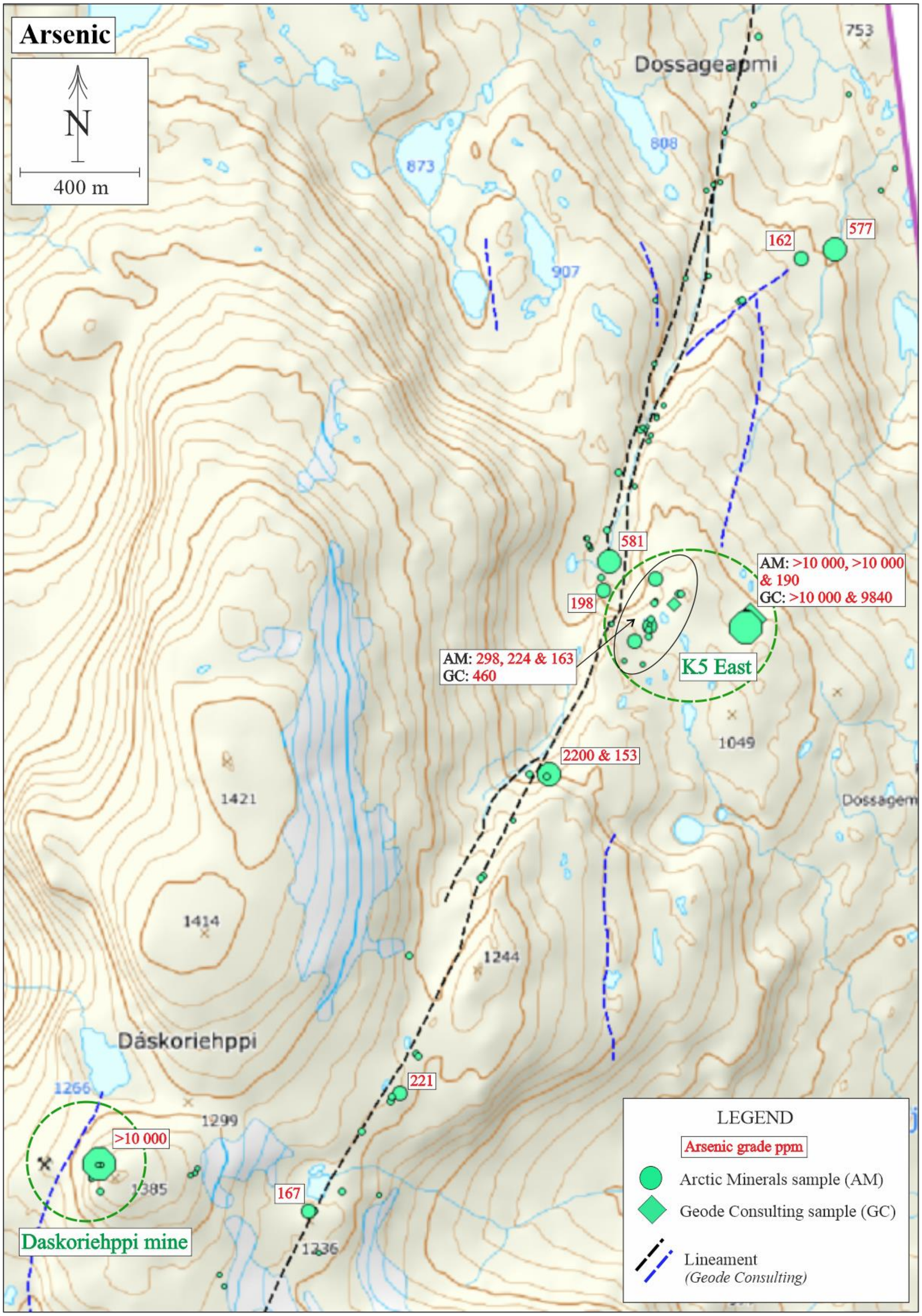


Figure 24. Arsenic grades > 100 ppm are displayed in numbers.

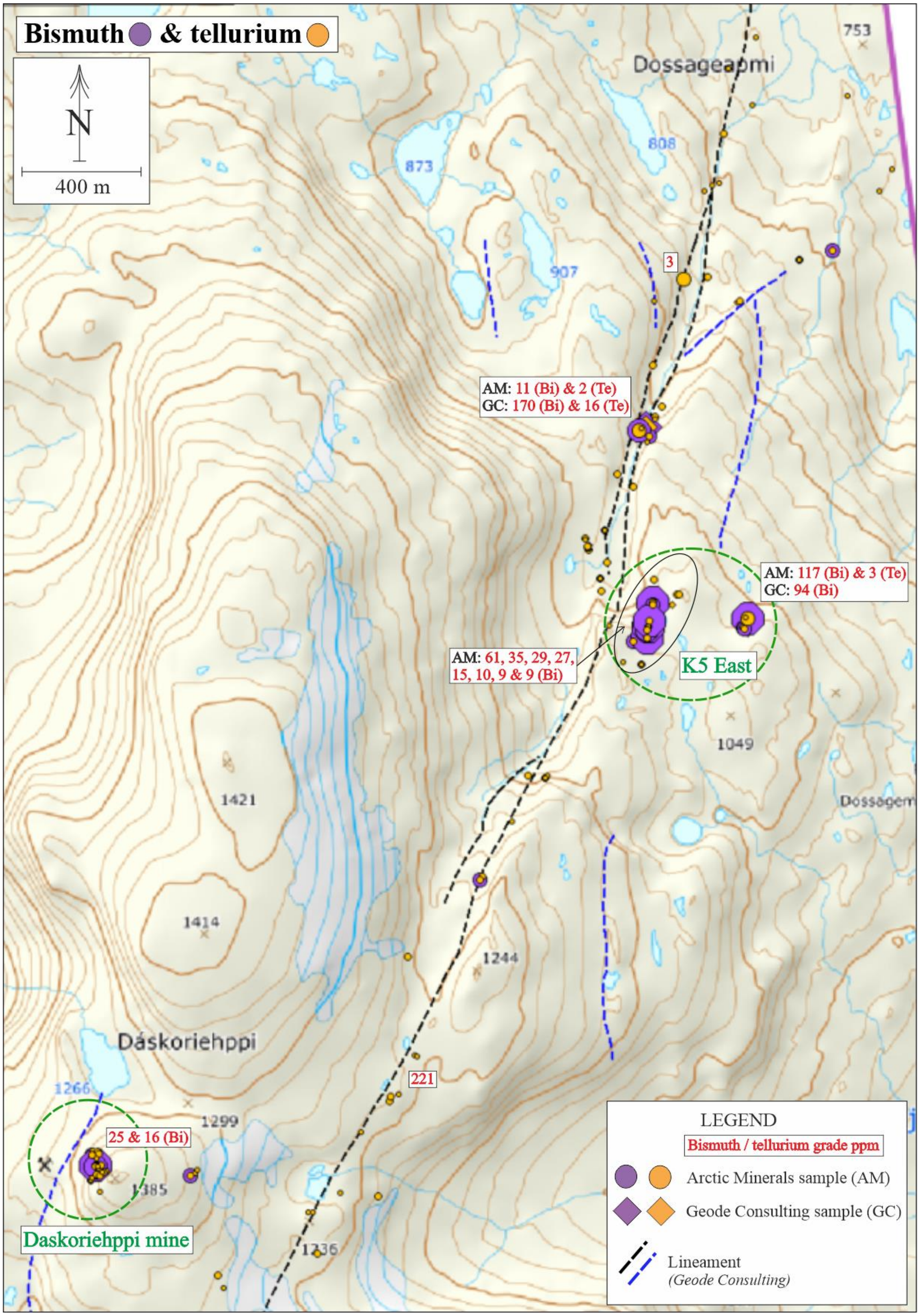


Figure 25. Bismuth grades > 9 ppm and tellurium contents > 2 ppm are displayed in numbers.

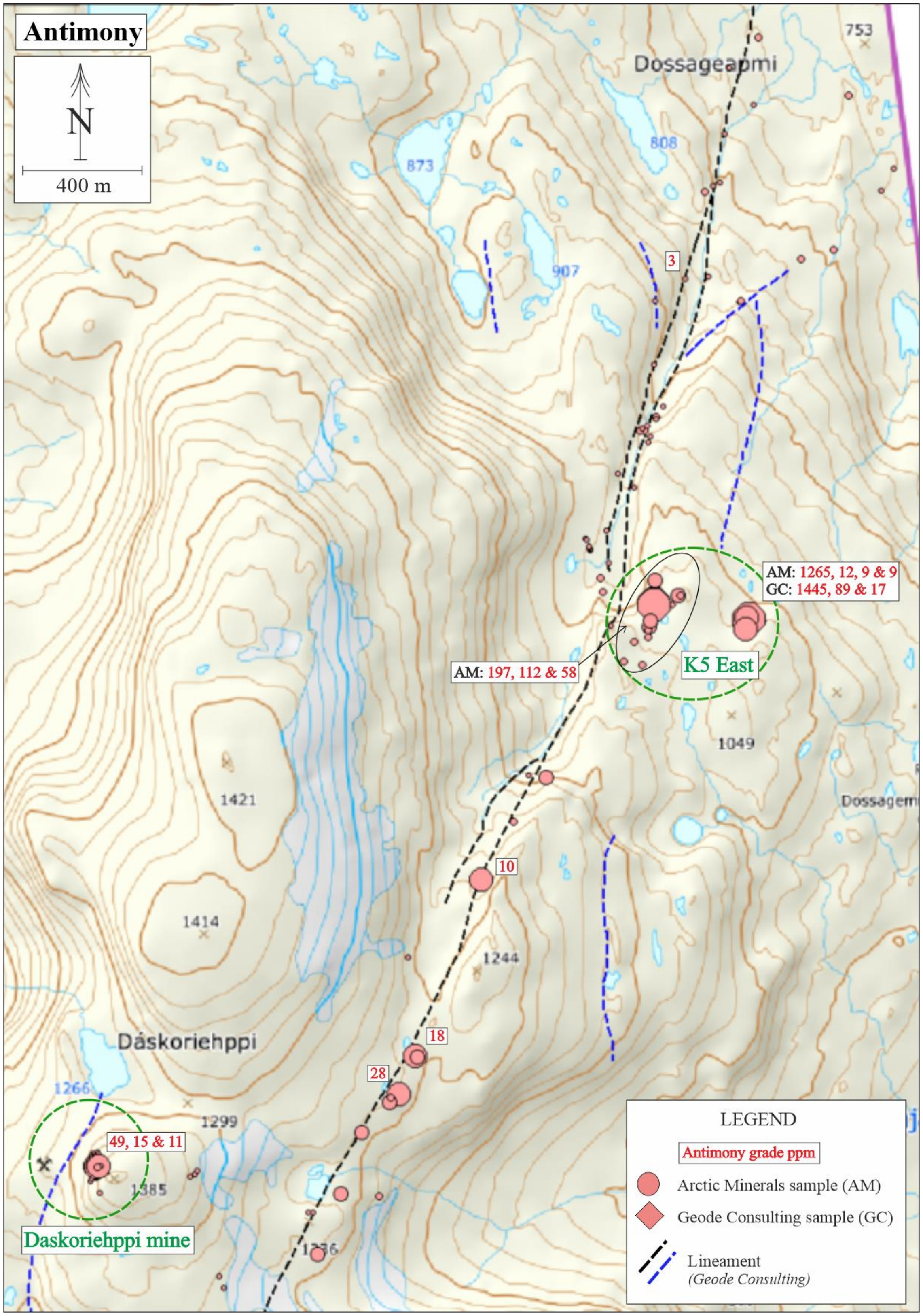


Figure 26. Antimony contents > 9 ppm are displayed in numbers. Antimony tends to be highest where the lead is high.

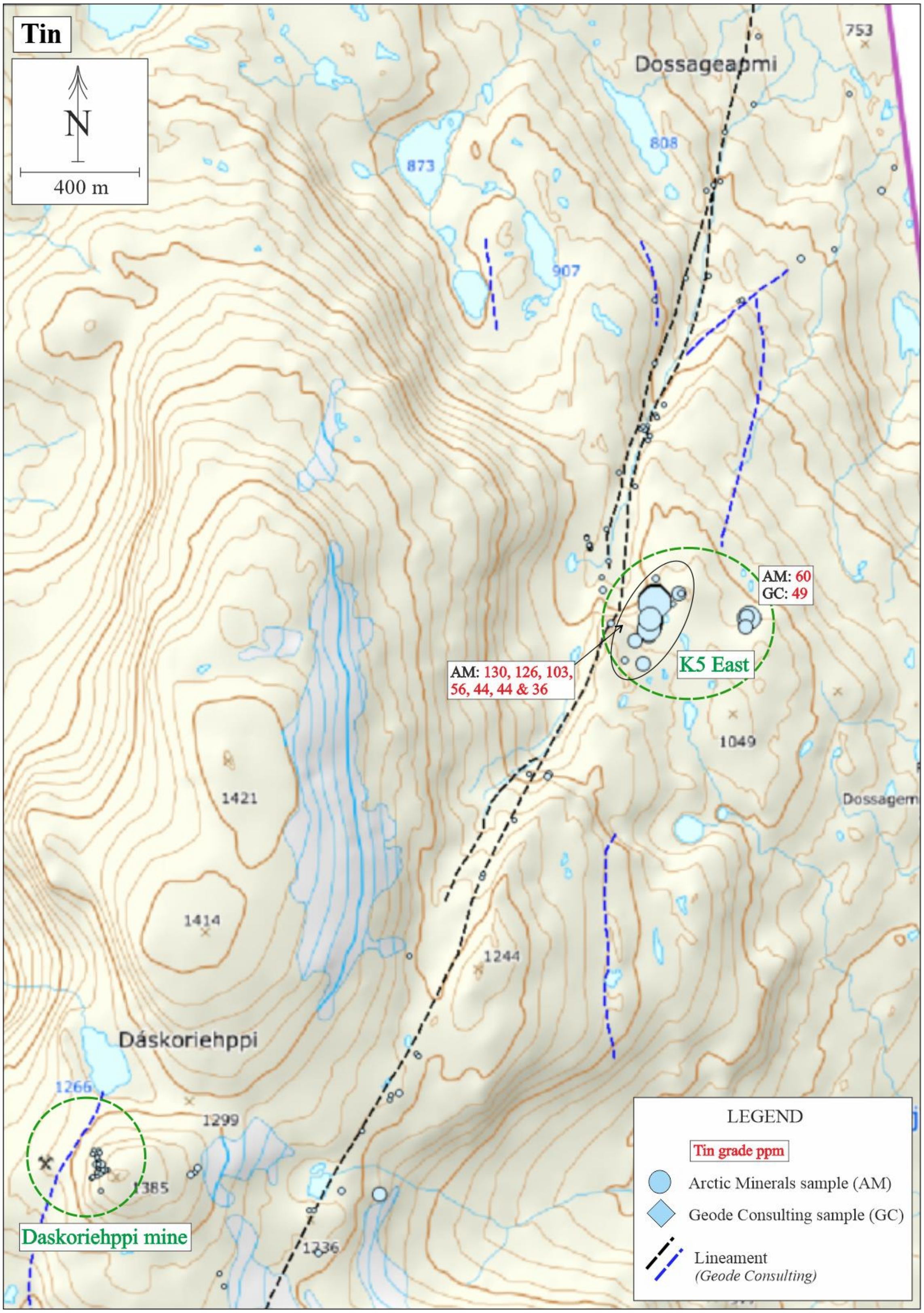


Figure 27. Tin contents > 20 ppm are displayed in numbers. Tin contents are elevated where lead-zinc (-silver) mineralization is observed.

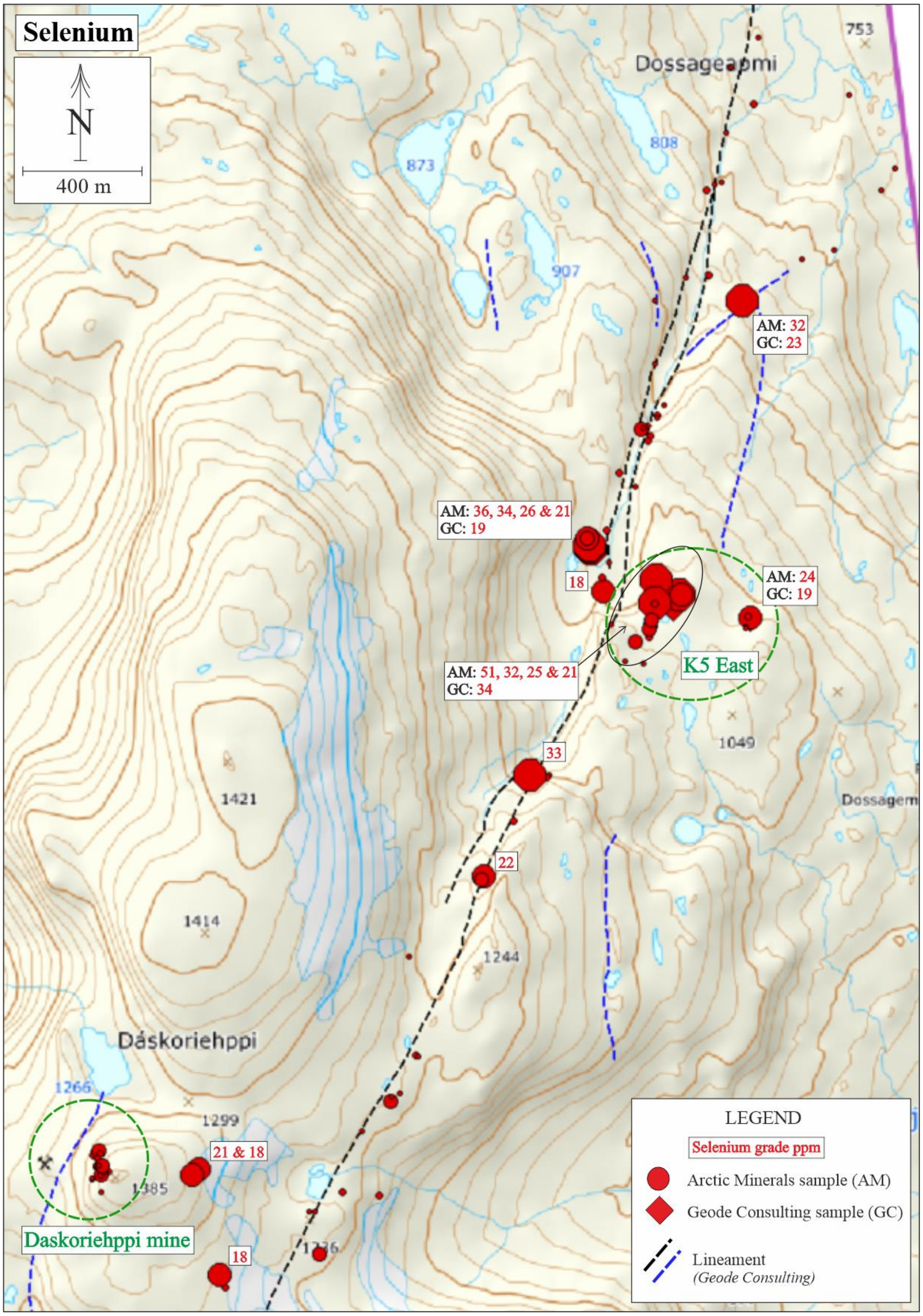


Figure 28. Selenium contents > 18 ppm are displayed in numbers. Selenium contents in general are insignificant. Selenium often goes with sulphur but the correlation coefficient is not particularly high.

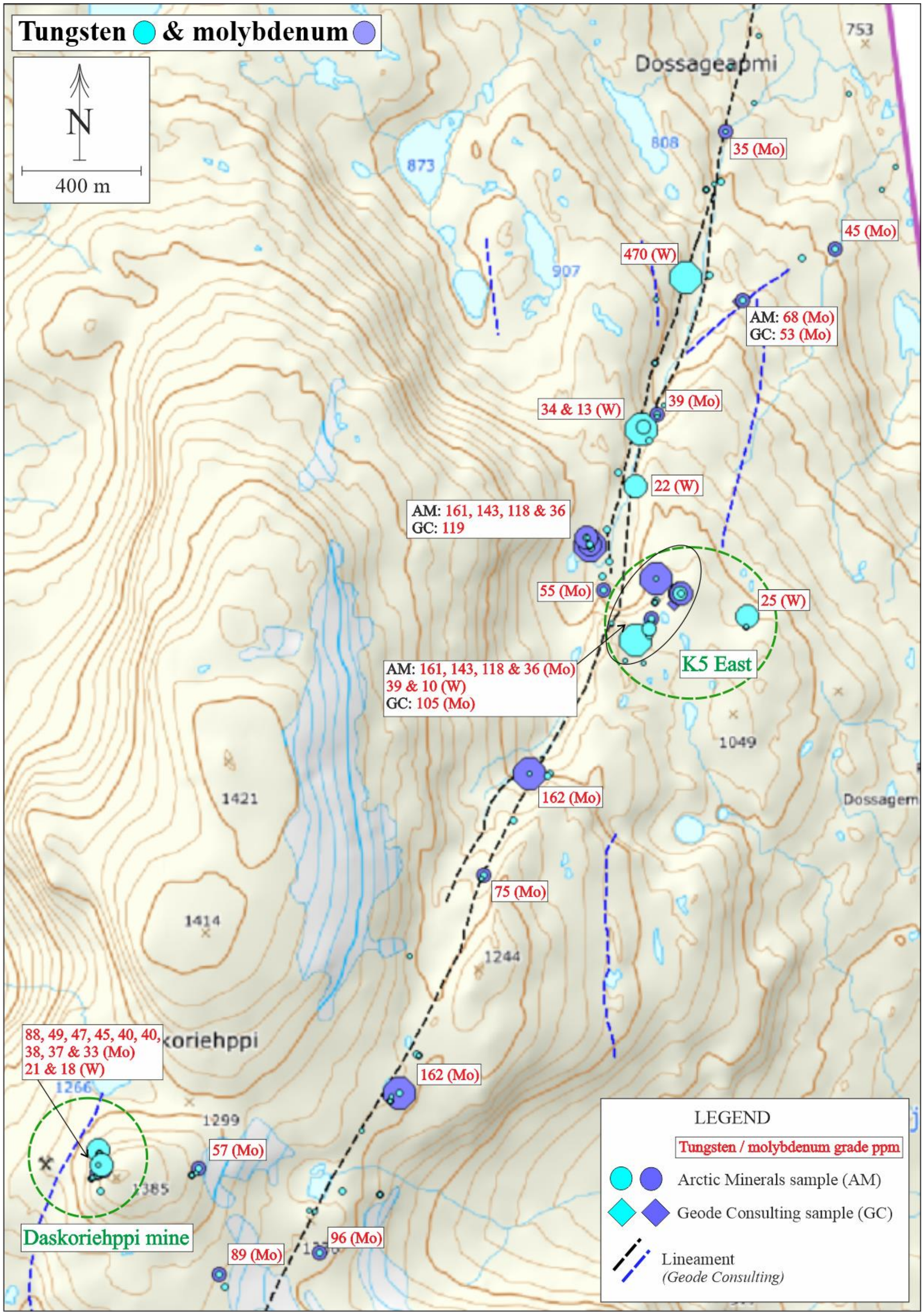


Figure 29. Tungsten grades > 9 ppm and molybdenum contents > 33 ppm are displayed in numbers. The highest tungsten content 470 ppm relates to a quartz vein without any visible mineralization and low base and precious metal contents. Anomalous molybdenum contents appear mostly to be related to graphitic sediments.

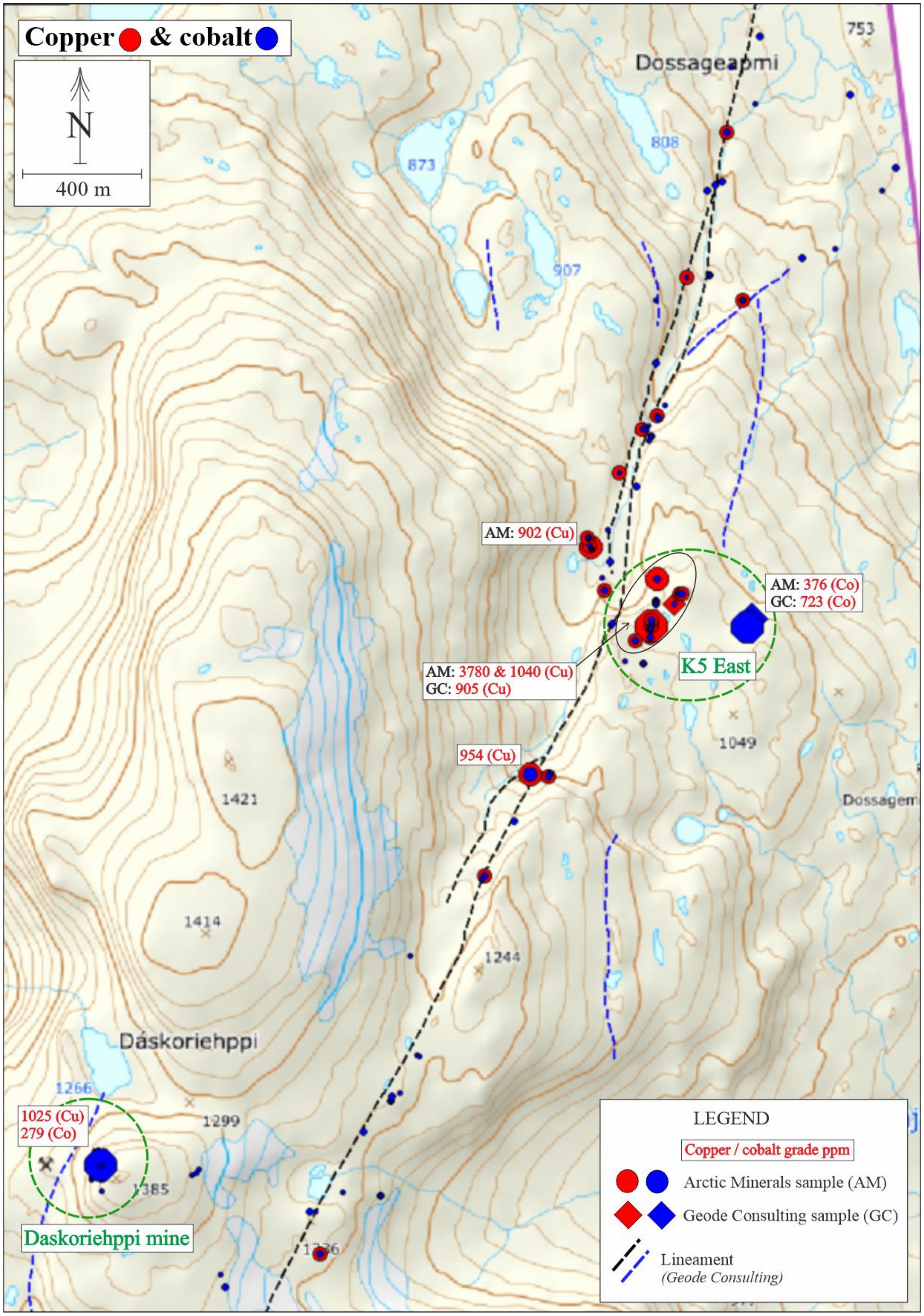


Figure 30. Copper grades > 800 ppm and cobalt contents > 90 ppm are displayed in numbers. What was said about copper and cobalt in the northern part also applies here.

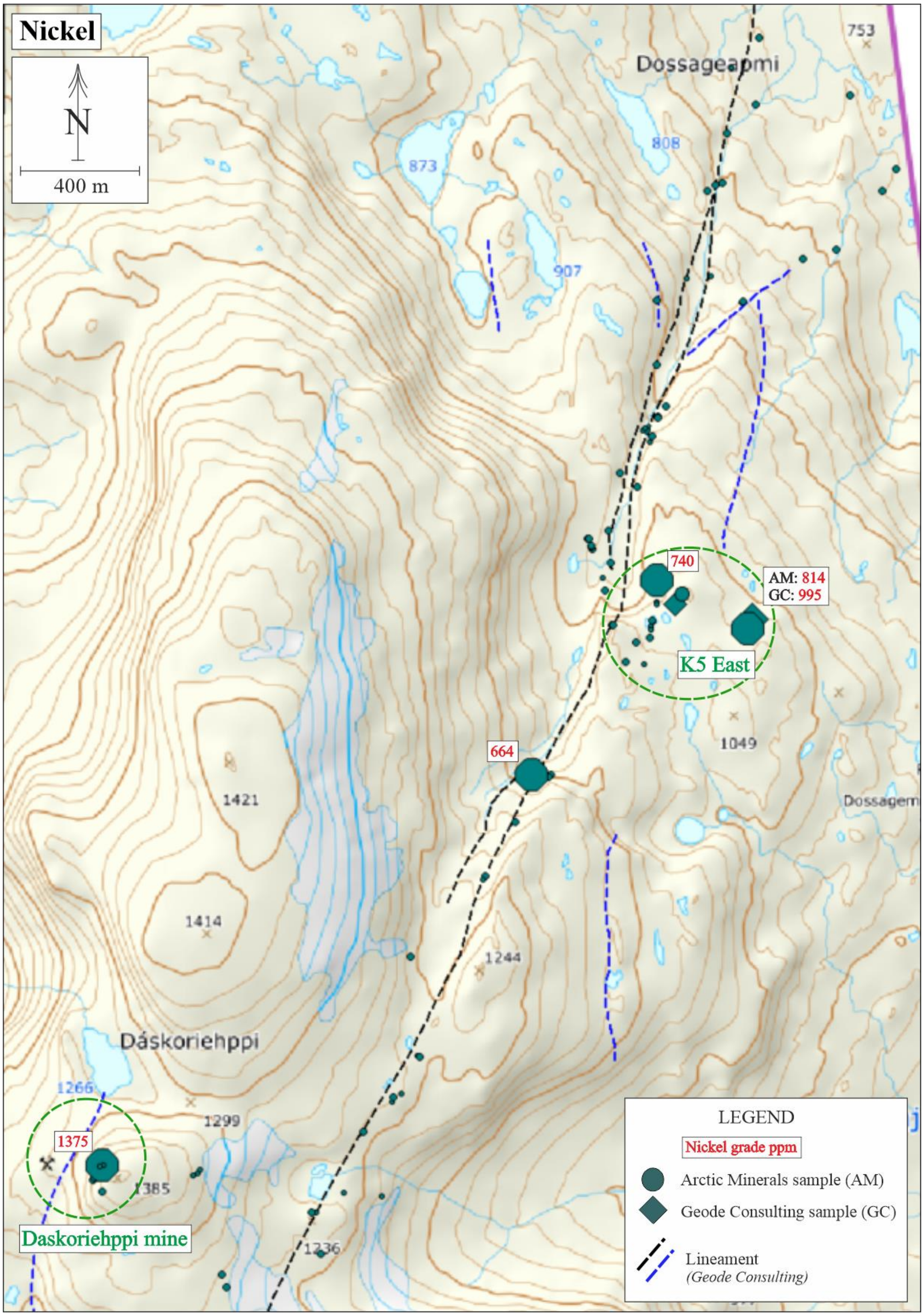


Figure 31. Nickel contents > 600 ppm are displayed in numbers.

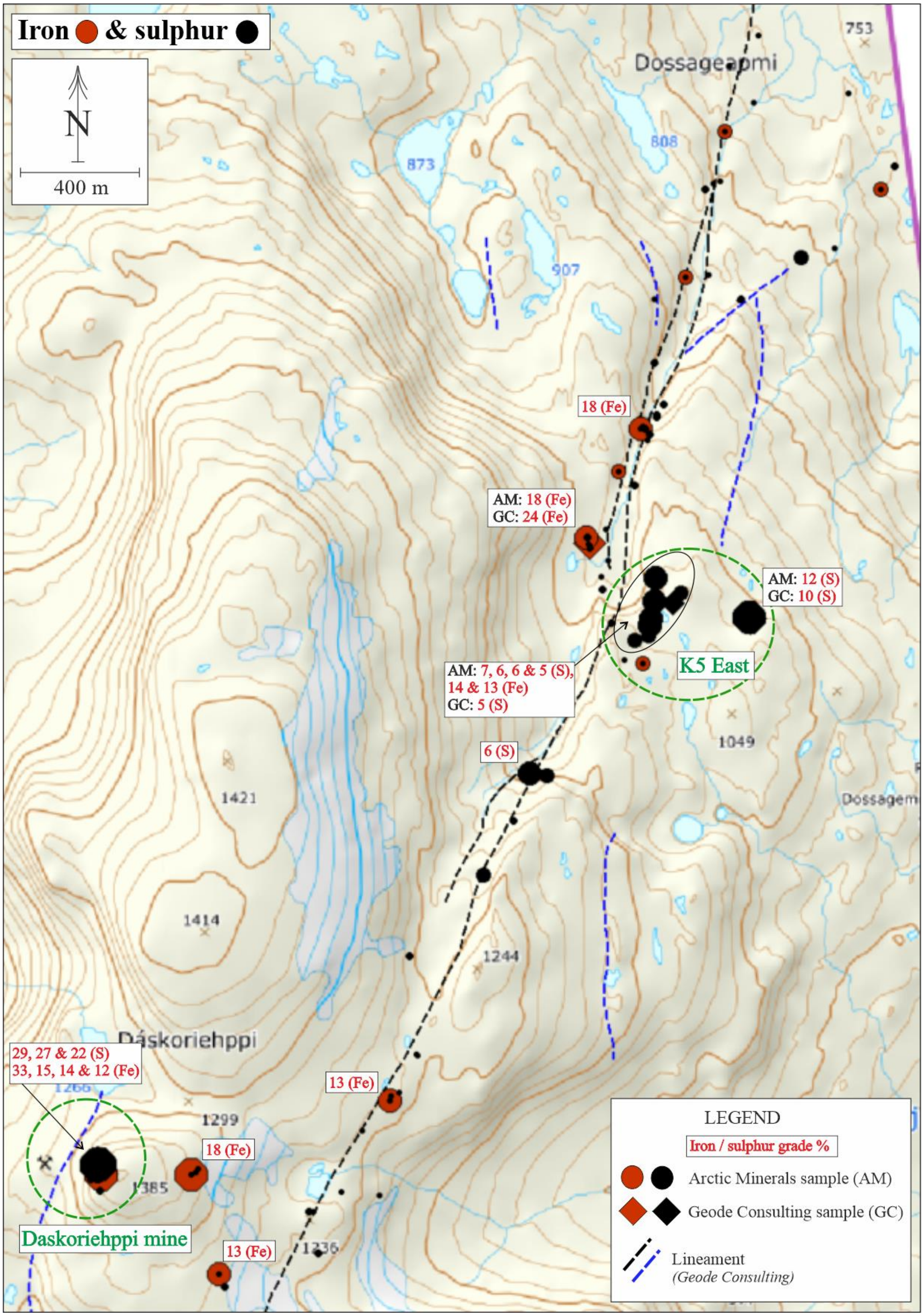


Figure 32. Sulphur grades > 5 % and iron contents > 12 % are displayed in numbers.

CLOSE-UP: K5 EAST & DASKORIEHPPI MINE

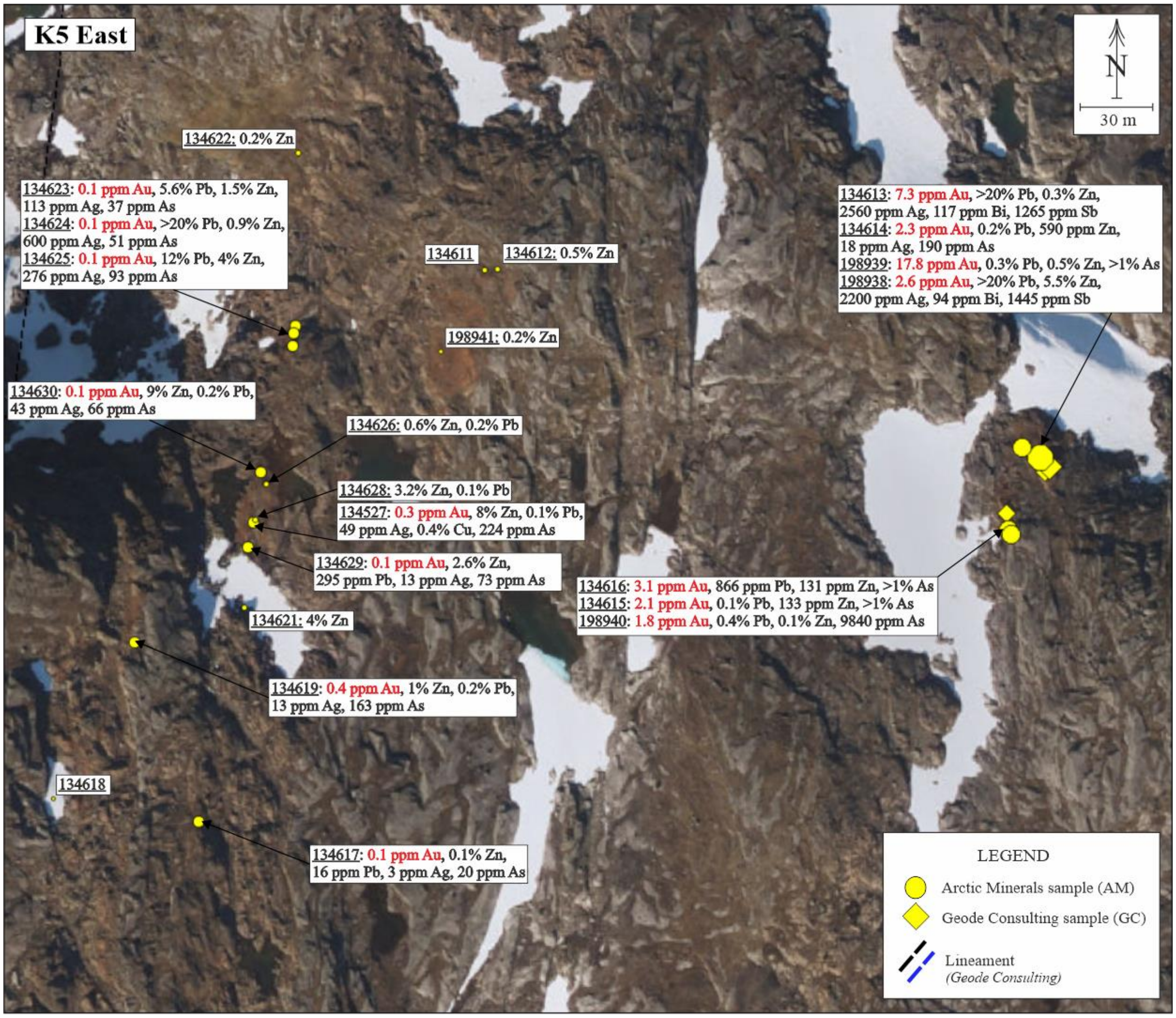


Figure 33. Aerial photo showing the sample locations in the K5 East area. The eastern outcrop with a massive galena lens was discovered by Geode Consulting and the western zone by AM. Mineralization in the western zinc-lead (-silver-gold) zone is related to a cm-scale vein(s) and spots with visible galena and sphalerite. Based on the sample descriptions the zone is likely to have limited horizontal extent. Sampling in this area was done without the XRF.

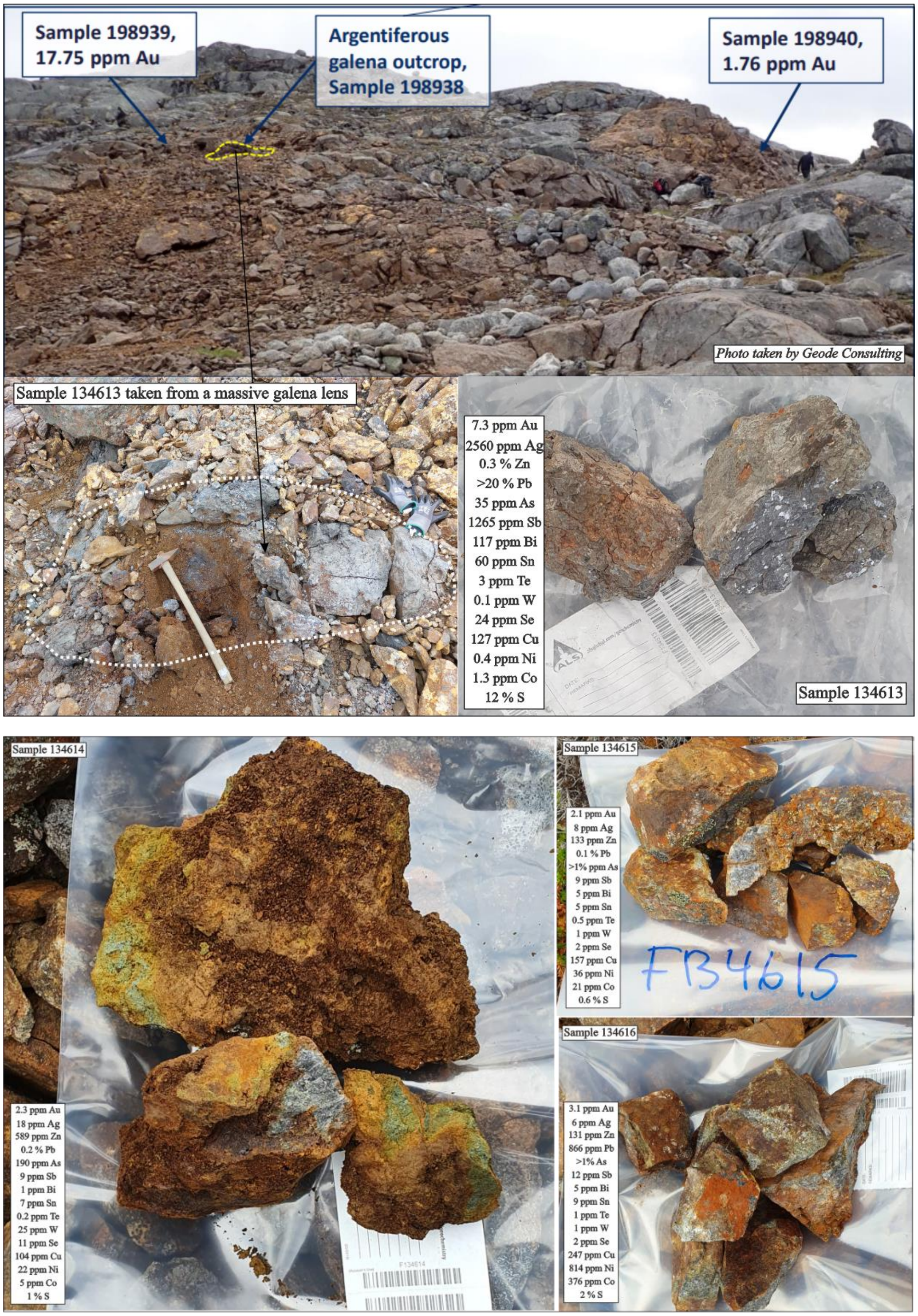


Figure 34. Samples taken from the massive galena outcrop discovered by Geode Consulting. Sample 134613 was taken from a massive galena lens. Sample 134614 is described to be taken from a rusty greenish-yellow part of the outcrop with breccia textures and cavities. Sample 134615 has visible galena and arsenopyrite and sample 134616 is taken from a quartz vein with pyrite and arsenopyrite.

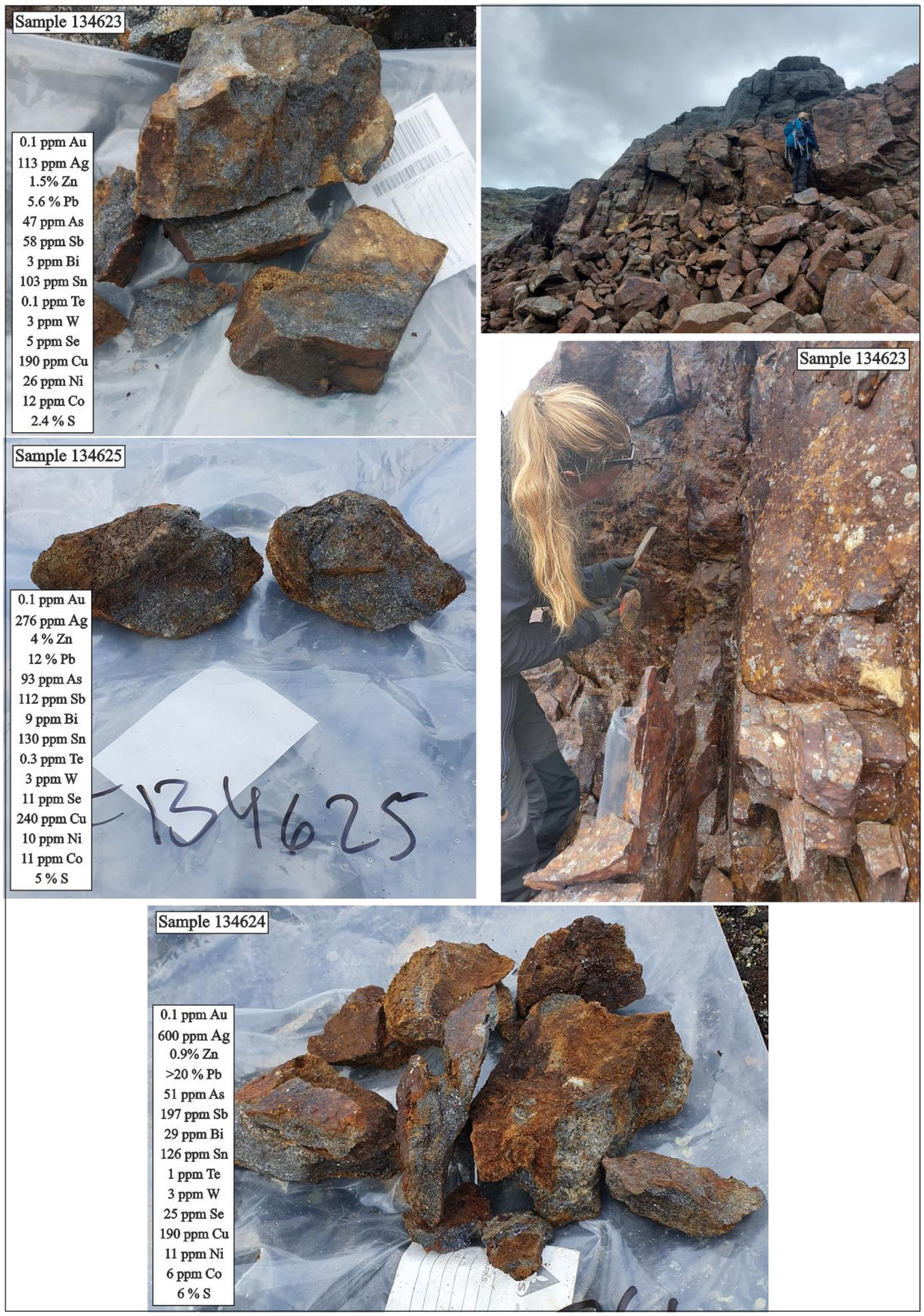


Figure 35. The upper right-hand figure is an overview photo showing the northwestern side of the outcrop where samples 134623-625 were taken. Sample 134623 contains visible galena mineralization as disseminated aggregates and thin up to cm-scale veinlets. Sample 134624 is also from a cm-scale vein with galena. Sample 134625 is from a dark rusty spot with sphalerite. These samples are likely related to the same zone/vein. Within the area, "vuggy" quartz has galena and sphalerite.

Figure 36. Samples with sphalerite taken from an approximately 50 m long and 20 m wide rusty supracrustal outcrop with sericite and silica alteration. Based on the sample descriptions mineralization is hosted in lenses and veins with "vuggy" quartz.

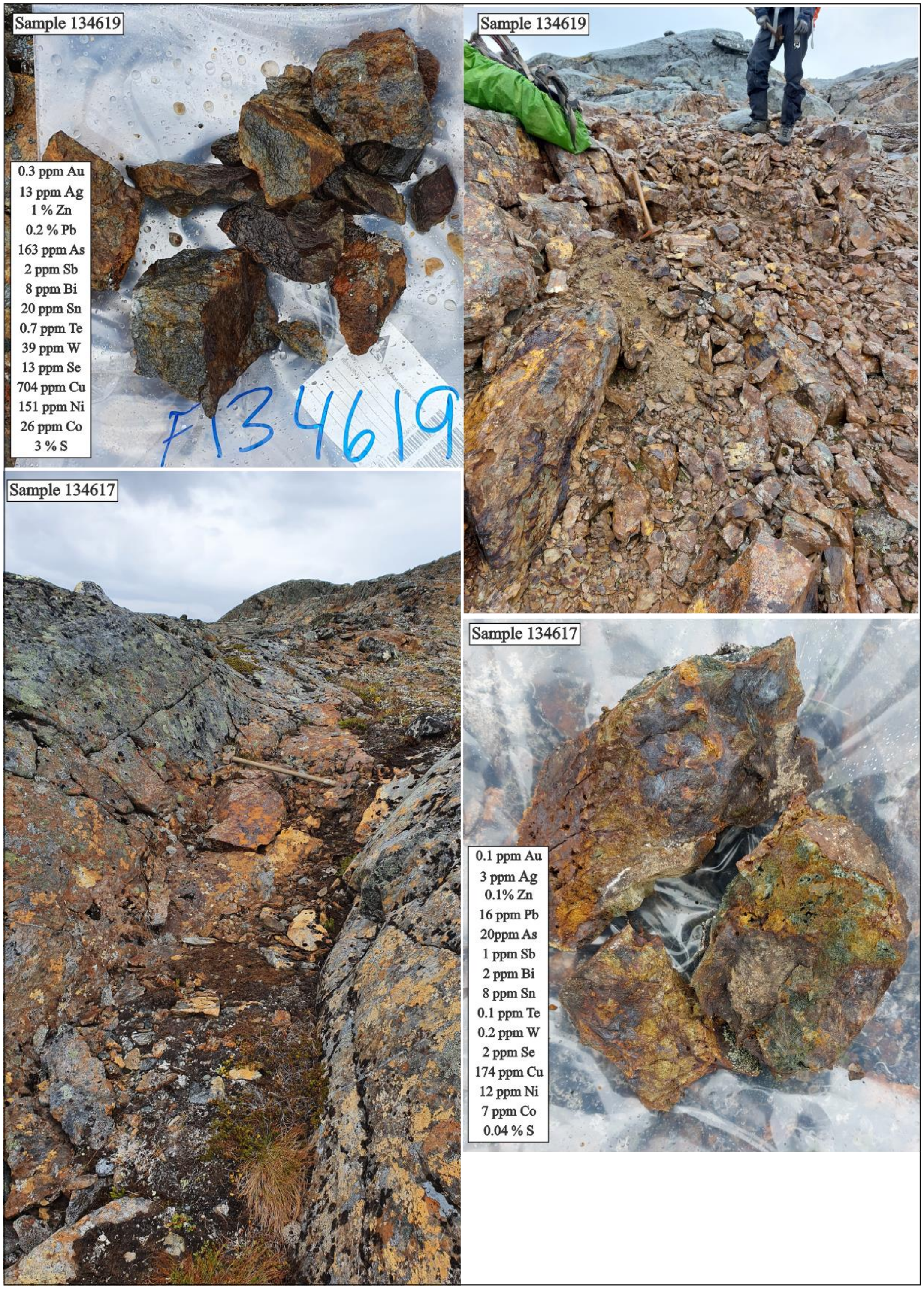


Figure 37. Samples taken from rusty sericite altered supracrustal lenses. Based on the sample description, 134617 comes from an intensely altered, rusty zone with a “vuggy” appearance containing needle-like amphiboles. Sample 134619 is from a dark, rusty spot with pyrite, chalcopyrite and traces of galena.

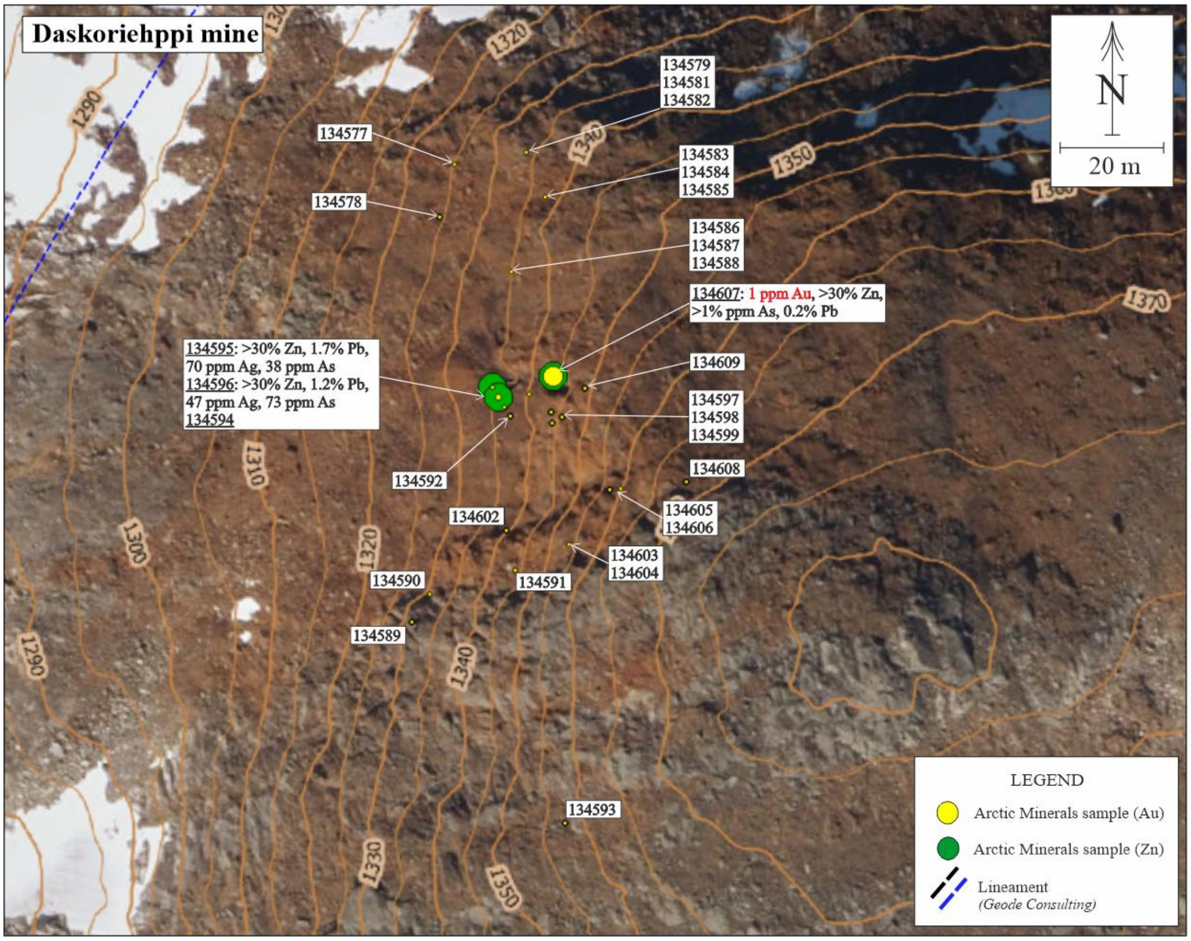


Figure 37. An air photo showing the location of the historic Daskoriehppi mine. Small-scale mining for zinc, lead and silver took place here for a brief period in the 1890s. Despite taking several samples, the only interesting base and precious metal contents are in fragments collected from the waste rock piles close to the old shafts. No XRF was used when this area was investigated and sampled.

Figure 38. Two 5-7m deep drifts. No zinc-lead mineralization exists on the walls of the shafts indicating the zone or lode mined had a limited extent. The host rock is described as mica schist that locally has graphitic zones and is commonly intensely sericitized and locally silicified.

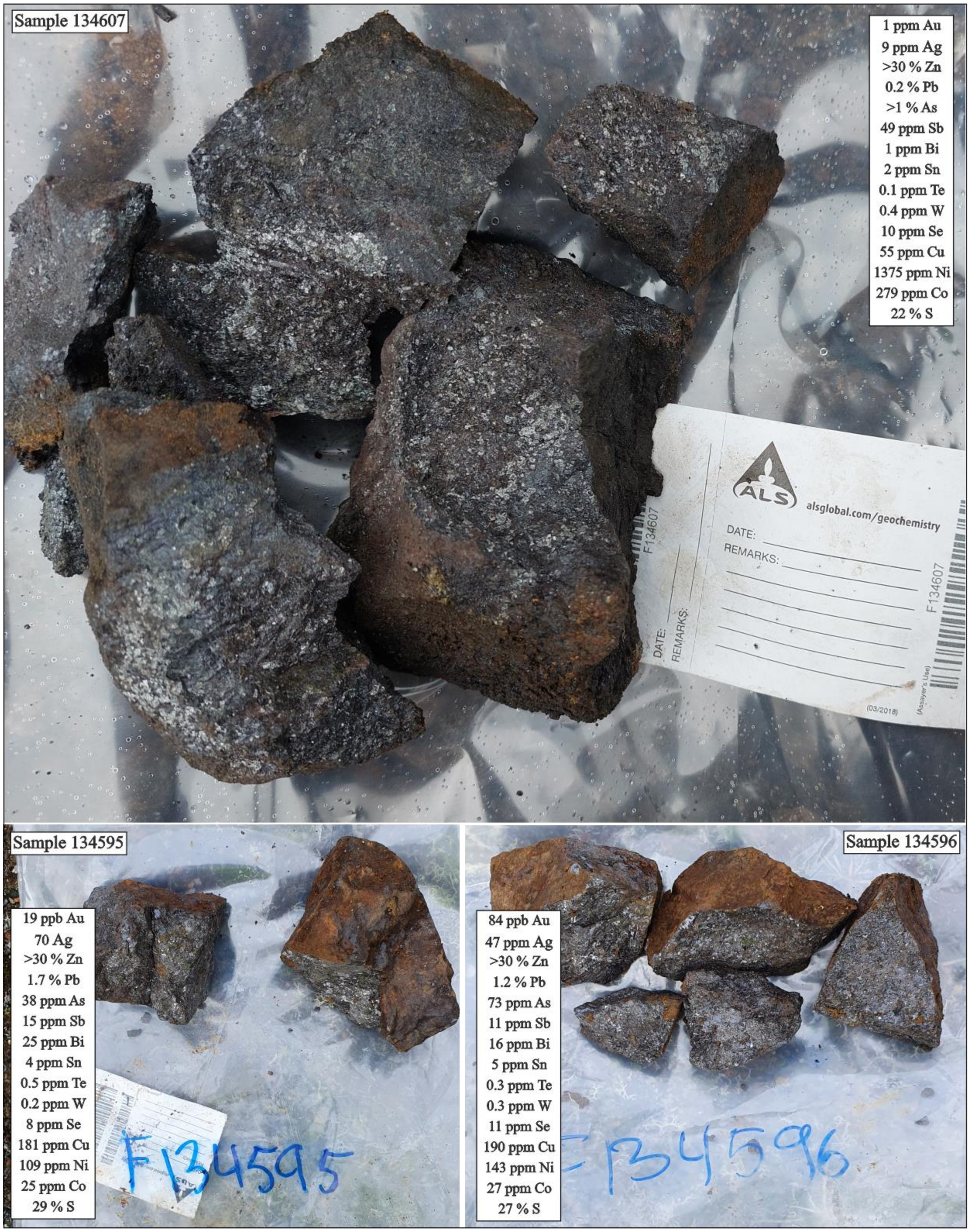


Figure 38. Fragments with massive to semi-massive sphalerite from the waste rock piles close to the old mine shafts in Daskoriehppi. In addition to sphalerite, sample 134607 also contains arsenopyrite and needle-like amphiboles.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
134505	379783	7583799	TL	0,28	0,3	56	267	2200	0,2	0,1	1	2	3	105	109	38	5	4	6	1,1
134506	379776	7583792	TL	0,00	4,6	1920	1625	153	2,0	0,2	5	8	3	351	114	27	31	5	5	3,7
134507	379720	7583805	TH	0,00	0,8	34	174	70	2,2	1,8	1	31	1	954	664	70	162	1	12	6,4
134508	379270	7582944	TH	0,00	1,0	55	430	135	0,6	0,1	18	7	2	101	13	2	22	3	7	0,5
134532	379205	7582826	TH	0,03	0,4	225	150	221	0,1	0,1	28	3	3	34	18	3	162	7	5	0,2
134533	379173	7582804	TL	0,00	4,0	2240	232	82	2,2	0,3	7	17	2	198	30	9	21	1	13	0,5
134534	379178	7582818	TL	0,00	0,4	11	116	148	0,1	0,2	2	1	1	89	82	37	2	1	6	0,6
134535	379655	7583661	TH	0,00	0,5	51	301	19	0,7	0,1	2	5	1	186	189	30	11	3	7	1,6
134536	379542	7583496	TH	0,01	2,8	385	2600	85	1,0	0,3	2	22	1	555	185	24	75	8	7	4,7
134537	379534	7583486	TL	0,01	11,5	3760	3190	98	3,3	0,7	10	17	0	162	35	6	9	1	4	0,4
134538	379279	7583261	TH	0,00	0,6	106	129	126	0,4	0,3	1	1	0	101	76	16	2	1	5	1,4
134539	379073	7582716	TL	0,00	0,5	19	163	115	0,1	0,1	6	1	1	87	86	27	4	1	7	0,9
134541	380013	7584370	TH	0,05	2,6	1035	676	198	1,2	0,3	2	18	6	357	154	28	55	4	6	1,7
134542	380040	7584460	TH	0,01	0,4	15	265	581	0,5	0,2	1	3	2	226	70	63	16	3	7	0,1
134543	380043	7584563	TH	0,00	1,4	465	154	89	1,7	0,2	1	7	2	170	46	12	26	4	6	0,1
134544	379985	7584507	TH	0,01	0,8	20	174	4	0,4	0,2	0	26	1	154	21	1	117	5	6	0,3
134545	379985	7584509	TH	0,00	0,4	19	822	4	0,3	0,1	0	14	1	331	55	5	79	5	8	0,2
134546	379983	7584515	TH	0,00	1,0	27	1725	10	1,1	0,3	0	36	1	902	118	15	195	9	8	0,0
134547	379982	7584518	TH	0,00	0,6	13	227	10	0,7	0,3	0	34	1	389	102	9	133	5	7	0,1
134548	380238	7584913	TH	0,01	0,3	15	158	41	0,8	0,3	1	8	1	441	59	10	39	8	8	0,3
F134551	379276	7582938	JT	0,00	0,2	44	199	86	0,0	0,0	7	1	1	15	43	12	12	1	2	0,0
F134552	380374	7585344	TC	0,05	2,7	127	107	3	6,2	2,6	0	4	0	552	8	5	4	470	11	0,6
F134553	380517	7585639	TC	0,00	0,3	14	208	9	0,3	0,1	0	2	1	194	99	30	5	6	7	0,6
F134554	380647	7585878	TC	0,00	0,3	110	280	31	0,1	0,0	1	5	1	85	47	10	6	1	4	0,5
F134555	380582	7586003	TC	0,00	0,1	23	27	6	0,2	0,1	0	1	1	26	4	2	3	2	3	0,0
F134556	380682	7586092	TC	0,01	1,7	925	792	65	0,5	0,1	2	4	2	179	89	18	10	1	5	0,7
F134557	380954	7585880	TC	0,01	1,6	1140	1075	51	0,2	0,1	2	4	1	170	107	23	1	1	6	0,9
F134558	381077	7585630	TC	0,00	0,5	50	195	9	0,2	0,1	0	1	1	90	163	40	2	0	8	0,4
F134559	381027	7585563	TC	0,01	0,4	36	623	22	0,2	0,1	0	1	2	80	45	16	2	1	10	0,3
F134561	380859	7585389	TC	1,33	3,4	94	1865	577	5,5	0,6	1	4	1	128	75	16	45	6	7	0,5
F134562	380751	7585370	TC	0,04	3,2	1540	40900	162	1,0	0,1	2	4	5	29	79	27	1	3	8	3,1
F134563	380249	7585079	TC	0,01	0,3	30	179	2	0,3	0,3	0	2	1	305	121	39	15	1	8	1,3
F134564	380270	7585283	TC	0,00	0,2	62	176	7	0,1	0,1	0	1	0	83	40	13	3	1	7	0,4
F134565	380467	7585617	TC	0,01	0,6	32	159	7	0,2	0,1	1	7	1	145	114	26	12	1	5	2,7
F134566	380494	7585633	TC	0,00	0,2	27	124	2	0,4	0,2	0	2	1	194	64	23	3	1	6	0,8
F134567	380547	7585796	TC	0,00	1,2	236	223	1	1,3	0,3	1	2	0	401	51	21	35	3	11	0,6
F134568	380547	7585254	TC	0,01	0,6	14	134	7	0,2	0,1	1	13	1	241	108	21	1	2	5	1,2
F134569	380547	7585254	TC	0,05	2,5	144	1040	118	1,1	0,4	1	32	1	387	93	13	68	4	8	1,6
F134570	380197	7584872	JT	0,01	1,9	724	1795	11	1,4	0,2	1	8	2	276	153	23	17	5	6	1,7
F134571	380184	7584873	JT	0,07	2,0	57	26	103	11,1	2,2	3	14	0	474	2	1	52	34	18	0,3
F134572	380192	7584879	JT	0,00	0,2	13	92	4	0,7	0,1	0	3	1	110	13	3	5	13	7	0,2
F134573	380204	7584834	JT	0,00	0,7	77	135	1	0,6	0,1	1	5	1	167	20	5	16	4	4	0,6
F134574	380213	7584850	JT	0,01	1,6	310	120	1	2,4	0,3	1	7	1	219	46	11	19	4	4	1,3
F134575	380238	7584906	JT	0,00	0,3	12	203	3	0,4	0,1	0	3	1	165	113	30	4	2	6	1,1
F134576	380266	7584943	TC	0,00	0,3	13	221	31	0,3	0,2	0	3	0	115	57	16	7	3	7	1,1
F134577	378209	7582735	JT	0,00	0,7	14	74	17	0,7	0,2	0	11	1	81	8	2	28	4	6	0,3
F134578	378205	7582725	TC	0,00	1,5	176	292	111	3,1	0,3	0	6	1	173	65	13	25	3	4	1,2
F134579	378223	7582736	JT & TC	0,00	0,5	37	111	11	0,9	0,2	0	10	1	124	13	2	30	5	5	0,2
F134581	378223	7582736	JT & TC	0,00	0,6	28	86	18	0,7	0,2	0	7	1	102	10	2	33	8	7	0,3
F134582	378223	7582736	JT & TC	0,00	1,0	72	113	13	0,9	0,2	0	13	1	206	10	2	40	18	8	0,2
F134583	378226	7582727	JT & TC	0,00	0,7	45	106	9	0,8	0,3	0	8	1	89	7	1	40	9	8	0,3
F134584	378226	7582727	JT & TC	0,00	0,5	41	86	47	1,0	0,1	0	5	1	69	15	3	24	3	6	0,4
F134585	378226	7582727	JT & TC	0,00	0,4	14	124	86	0,5	0,2	0	5	2	62	22	7	19	3	6	0,5
F134586	378218	7582713	JT & TC	0,01	0,5	22	104	133	0,8	0,1	0	4	1	79	15	4	12	2	5	0,5
F134587	378218	7582713	JT & TC	0,00	0,5	14	50	80	0,5	0,1	0	2	1	55	29	7	19	3	3	0,7
F134588	378218	7582713	JT & TC	0,00	0,5	20	66	111	0,6	0,1	0	5	1	53	12	4	21	4	4	0,4
F134589	378192	7582647	TC	0,00	0,6	104	278	26	0,8	0,2	0	4	1	158	78	14	13	2	3	1,1
F134590	378196	7582652	TC	0,00	0,4	19	91	86	1,2	0,1	0	3	1	203	69	16	11	2	8	1,2
F134591	378213	7582655	TC	0,00	0,7	48	189	22	1,1	0,2	0	5	1	272	150	27	3	4	5	3,1

Table 5. Contents of selected elements from the central part of Katterat. Except for iron and sulphur, units are in ppm.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
F134592	378215	7582685	TC	0,00	0,7	78	217	62	0,8	0,1	0	4	2	140	114	22	9	2	5	2,6
F134593	378218	7582605	TC	0,00	0,7	136	630	120	0,6	0,1	0	4	2	132	90	16	13	6	4	1,8
F134594	378214	7582687	TC	0,01	1,6	80	334	112	0,6	0,3	0	11	2	383	228	31	45	5	9	4,6
F134595	378212	7582691	TC	0,02	70,1	17350	>300000	38	25,2	0,5	15	8	4	181	109	25	0	0	14	29,3
F134596	378213	7582689	TC	0,08	47,3	11600	>300000	73	16,2	0,3	11	11	5	190	143	27	1	0	15	27
F134597	378225	7582684	TC	0,01	1,7	381	662	64	0,5	0,2	1	11	2	225	153	25	49	4	7	3,3
F134598	378223	7582683	TC	0,01	10,5	573	707	66	2,1	0,1	1	10	3	1025	124	18	47	3	5	3,2
F134599	378223	7582685	TC	0,00	1,2	22	294	133	0,9	0,2	0	9	2	277	212	33	19	5	9	4,4
F134601	380450	7585344	JT	0,00	0,5	58	107	31	0,8	0,3	0	7	1	267	32	9	32	4	6	0,2
F134602	378212	7582663	JT	0,00	0,9	63	245	13	0,7	0,2	0	11	1	263	175	26	38	7	7	3,0
F134603	378224	7582659	JT	0,00	1,1	54	64	139	0,9	0,3	0	16	1	568	4	1	28	4	33	2,0
F134604	378224	7582659	JT	0,01	0,9	18	118	14	0,9	0,2	0	11	2	169	10	2	32	4	4	2,1
F134605	378233	7582669	JT	0,00	0,9	27	217	43	1,0	0,1	0	6	2	236	113	24	4	4	5	2,8
F134606	378235	7582669	JT	0,00	1,4	146	154	57	1,2	0,2	0	11	2	158	25	4	37	4	3	1,5
F134607	378224	7582692	JT	1	8,6	1500	>300000	>10000	0,9	0,1	49	10	2	55	1375	279	3	0	12	22,2
F134608	378248	7582669	JT	0,01	0,8	89	236	53	0,8	0,2	0	6	2	78	10	2	17	2	4	0,7
F134609	378230	7582689	JT	0,00	2,1	251	413	55	1,5	0,3	0	17	2	111	12	2	88	21	4	0,8
F134610	378219	7582689	JT	0,00	0,1	8	78	8	0,0	0,0	2	1	0	31	29	9	1	0	0	0,0
F134611	380255	7584335	JT	0,05	4,3	454	680	112	0,9	0,3	4	32	9	405	103	17	143	9	7	2,6
F134612	380260	7584335	JT	0,09	4,9	535	5050	122	1,6	0,3	2	21	5	495	366	29	118	8	10	3,9
F134613	380473	7584237	TC	7,33	2560	>200000	2670	35	117	2,9	1265	24	60	127	0	1	0	0	0	12,4
F134614	380466	7584242	TC	2,26	18,3	2280	589	190	1,4	0,2	9	11	7	104	22	5	4	25	10	1,1
F134615	380457	7584209	TC	2,12	7,8	1405	133	>10000	5,4	0,5	9	2	5	157	36	21	7	1	4	0,6
F134616	380458	7584207	TC	3,11	6,5	866	131	>10000	4,6	1,2	12	2	8	247	814	376	19	1	6	1,8
F134617	380117	7584123	JT	0,13	3,1	16	1055	20	1,6	0,1	1	2	8	174	12	7	4	0	10	0,0
F134618	380059	7584138	TC	0,00	0,6	125	262	23	0,1	0,0	1	1	2	56	59	16	2	2	5	0,3
F134619	380098	7584198	TC	0,36	13,4	1625	10500	163	8,1	0,7	2	13	20	704	151	26	79	39	8	3,3
F134621	380144	7584208	TC	0,06	24,4	176	41200	94	27,3	0,4	2	10	8	701	49	20	20	4	5	3,5
F134622	380184	7584390	TC	0,08	5,9	182	2180	298	1,1	0,6	6	51	4	1040	740	48	161	2	13	5,8
F134623	380176	7584320	TC	0,12	113	56200	15350	47	3,0	0,1	58	5	103	190	26	12	7	3	4	2,4
F134624	380175	7584317	JT	0,10	600	>200000	9240	51	28,9	0,8	197	25	126	190	11	6	6	3	3	5,9
F134625	380174	7584312	TC	0,09	276	122000	40100	93	9,1	0,3	112	11	130	240	10	11	25	3	5	5,0
F134626	380158	7584257	TC	0,08	21	2020	6060	82	10,4	0,2	3	4	56	289	13	4	1	6	7	0,7
F134627	380151	7584242	JT	0,28	49,3	1130	82700	224	35,1	0,5	3	17	15	3780	9	26	5	2	14	5,3
F134628	380152	7584243	TC	0,07	13,3	1060	32000	40	9,3	0,1	2	8	36	780	33	16	1	3	6	2,9
F134629	380148	7584232	TC	0,14	13,3	295	26100	73	15,4	0,2	2	12	44	208	4	6	2	10	5	2
F134630	380156	7584262	JT	0,12	42,7	1560	90600	66	61,4	0,7	4	12	44	609	45	28	36	3	7	7,2
134701	380027	7584259	TL	0,01	0,2	26	266	17	0,3	0,1	1	2	2	88	110	29	4	2	7	0,6
134702	380028	7584260	TL	0,00	0,2	27	129	12	0,3	0,1	0	1	2	72	49	15	7	2	5	0,3
134703	380029	7584260	TL	0,00	0,2	27	189	19	0,2	0,1	0	2	3	85	98	27	4	2	7	0,6
134704	380012	7584412	TL	0,01	1,0	148	127	97	1,3	0,1	1	6	1	140	21	6	20	4	6	0,3
134705	380148	7584693	TL	0,00	0,3	14	151	18	1,1	0,2	0	3	1	163	88	24	4	22	6	1,4
134706	379976	7584543	TL	0,01	0,8	21	336	7	0,8	0,3	0	21	1	406	118	6	136	6	18	0,6
134707	379978	7584542	TL	0,00	0,5	21	152	4	0,2	0,1	0	13	1	309	92	8	4	1	6	1,1
134708	380099	7584741	TL	0,01	1,0	29	229	63	1,3	0,4	0	9	1	540	55	12	25	4	11	0,3
134718	378585	7582261	TL	0,00	1,2	60	215	22	0,2	0,1	0	7	1	240	107	21	4	6	5	1,2
134719	378572	7582302	TL	0,00	1,8	67	938	58	0,5	0,3	0	18	2	164	108	15	89	4	13	0,6
134721	378528	7582634	TL	0,00	0,7	74	43	54	0,4	0,1	0	2	1	66	5	1	1	1	5	0,5
134722	378537	7582647	TL	0,00	1,3	38	73	4	0,7	0,1	0	18	2	55	6	1	57	4	3	0,3
134723	378513	7582629	TL	0,01	2,4	93	227	20	3,0	0,4	0	21	2	125	19	3	33	2	18	0,4
134752	378897	7582339	TH	0,04	2,0	238	1445	37	1,0	0,2	3	15	2	443	188	21	96	5	6	2,3
134753	378895	7582474	TH	0,00	0,8	31	142	67	0,2	0,2	0	2	1	59	18	6	5	1	6	0,6
134754	378879	7582476	TH	0,00	0,2	64	398	167	0,2	0,1	1	1	2	29	89	24	2	2	7	0,4
134755	378989	7582528	TH	0,01	5,7	2410	93	109	0,7	0,2	7	7	2	22	5	1	23	3	3	0,3
134756	379109	7582506	TH	0,08	4,0	409	517	46	0,5	0,3	1	9	6	190	27	8	12	1	6	0,5
198936	380538	7585251	GC	0,04	1,5	76,9	246	103,5	0,3	0,3	1	23	1	229	27	5	50	1	4	0,9
198937	380206	7584883	GC	1,47	70,1	1850	220	30,4	170	16,3	2	6	0	84	3	1	5	3	1	0,4
198938	380474	7584231	GC	2,55	2200	>200000	54700	47,2	94	2,5	1445	19	49	110	34	10	0	0	2	10
198939	380476	7584233	GC	17,75	49	2920	4910	>10000	3,6	0,6	89	7	1	747	995	723	6	0	7	2,3
198940	380457	7584216	GC	1,76	19	3790	1040	9840	2,0	0,5	17	5	1	226	24	19	6	0	4	0,7
198941	380234	7584304	GC	0,05	6,0	976	1840	460	1,9	0,2	2	34	4	905	461	52	105	2	9	5,5
198942	379985	7584522	GC	0,00	1,4	314	1190	33,1	0,4	0,2	1	19	0	372	61	5	119	1	24	0,4

Table 5. Continued: contents of selected elements from the central part of Katterat. Except for iron and sulphur, units are in ppm.

KATTERAT SOUTH

The following figures present the distribution of most of the elements of interest from the southern part of the Branten shear zone - Katterat area.

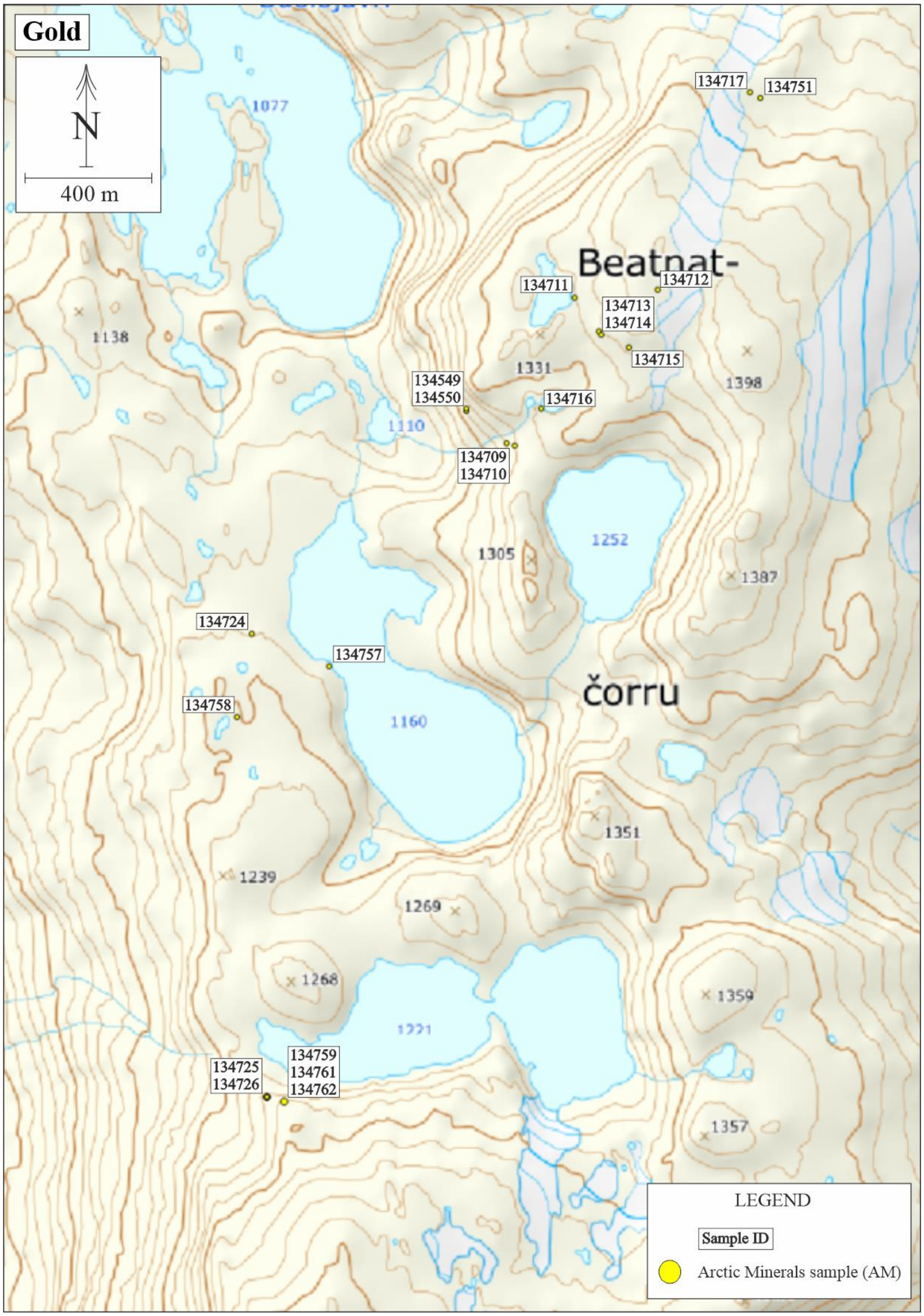


Figure 39. There are no significant gold contents in the samples from the southern part of Katterat – BSZ. The highest content is the 86 ppb in sample 134761 which comes from a rusty gabbroic outcrop with pyrrhotite, pyrite and trace chalcopyrite. The sample also has anomalous arsenic content of 286 ppm.

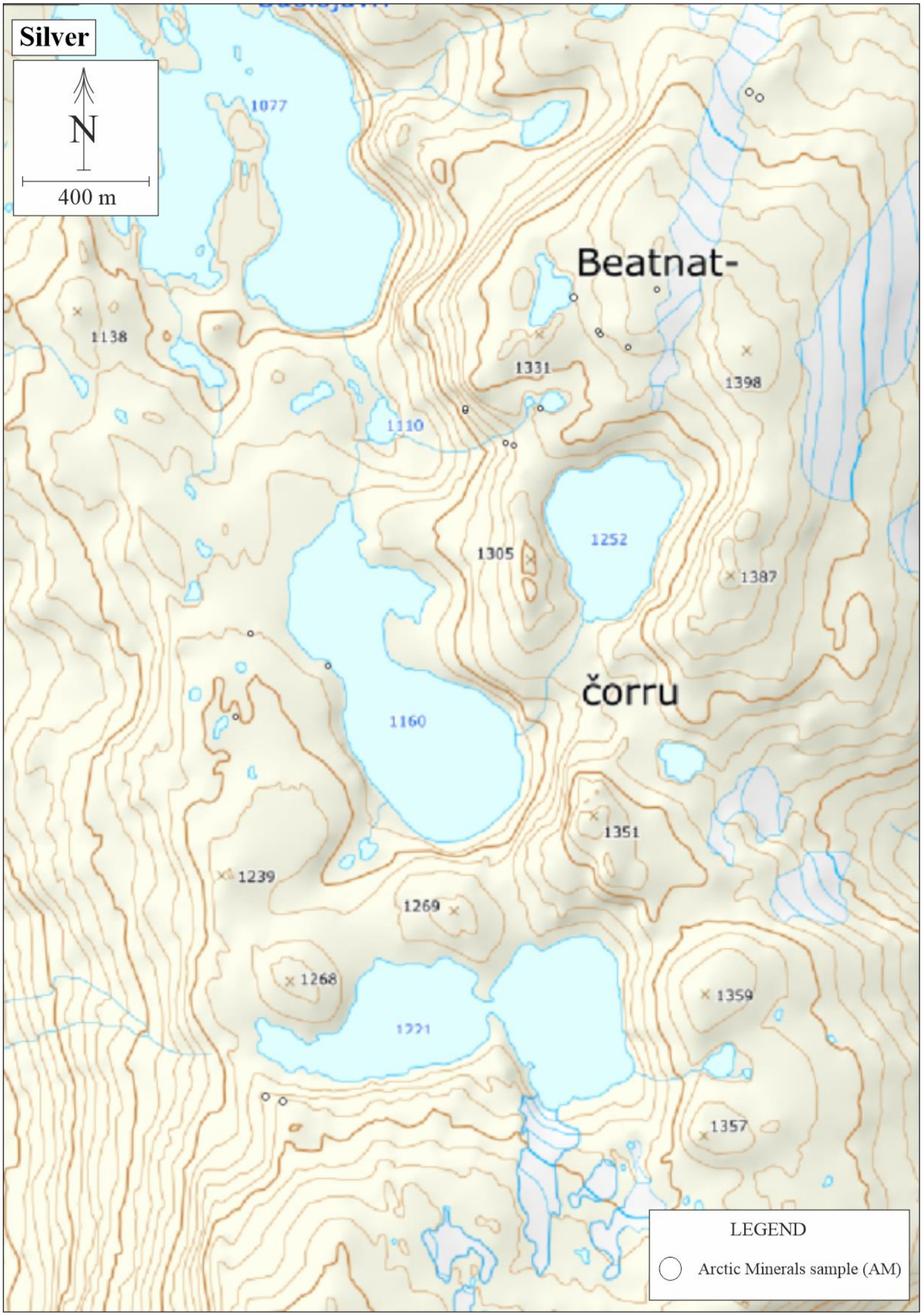


Figure 40. The highest silver content among the samples from the southern part of Katterat – BSZ is 8 ppm.

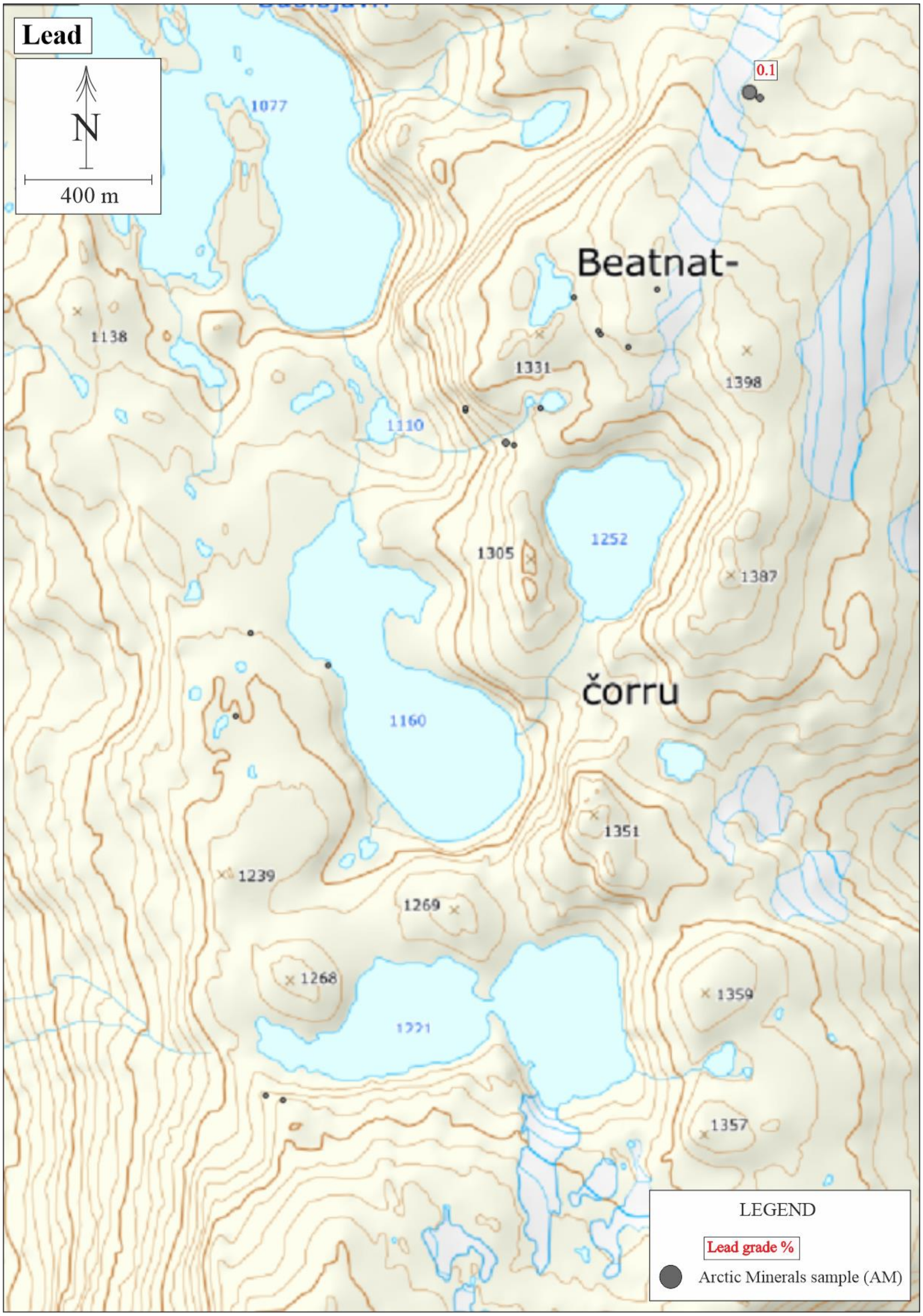


Figure 41. In the southern portion, most of the samples have less than 50 ppm lead. The sample with the highest lead comes from a small supracrustal lens with 0.1 % Zn, 92 ppm As and 19 ppb Au.

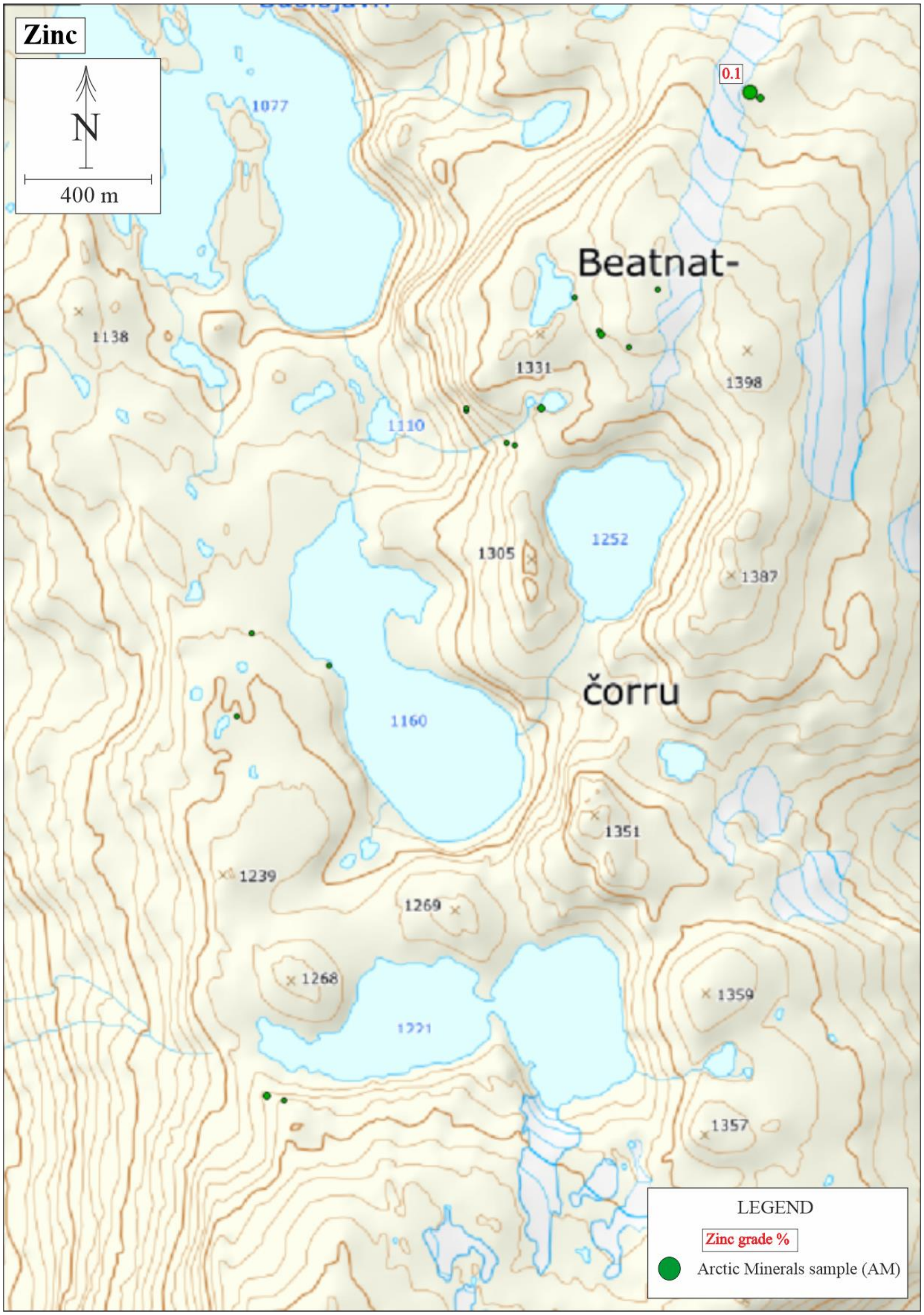


Figure 42. In the southern portion, the majority of the samples have zinc contents between 100-300 ppm.

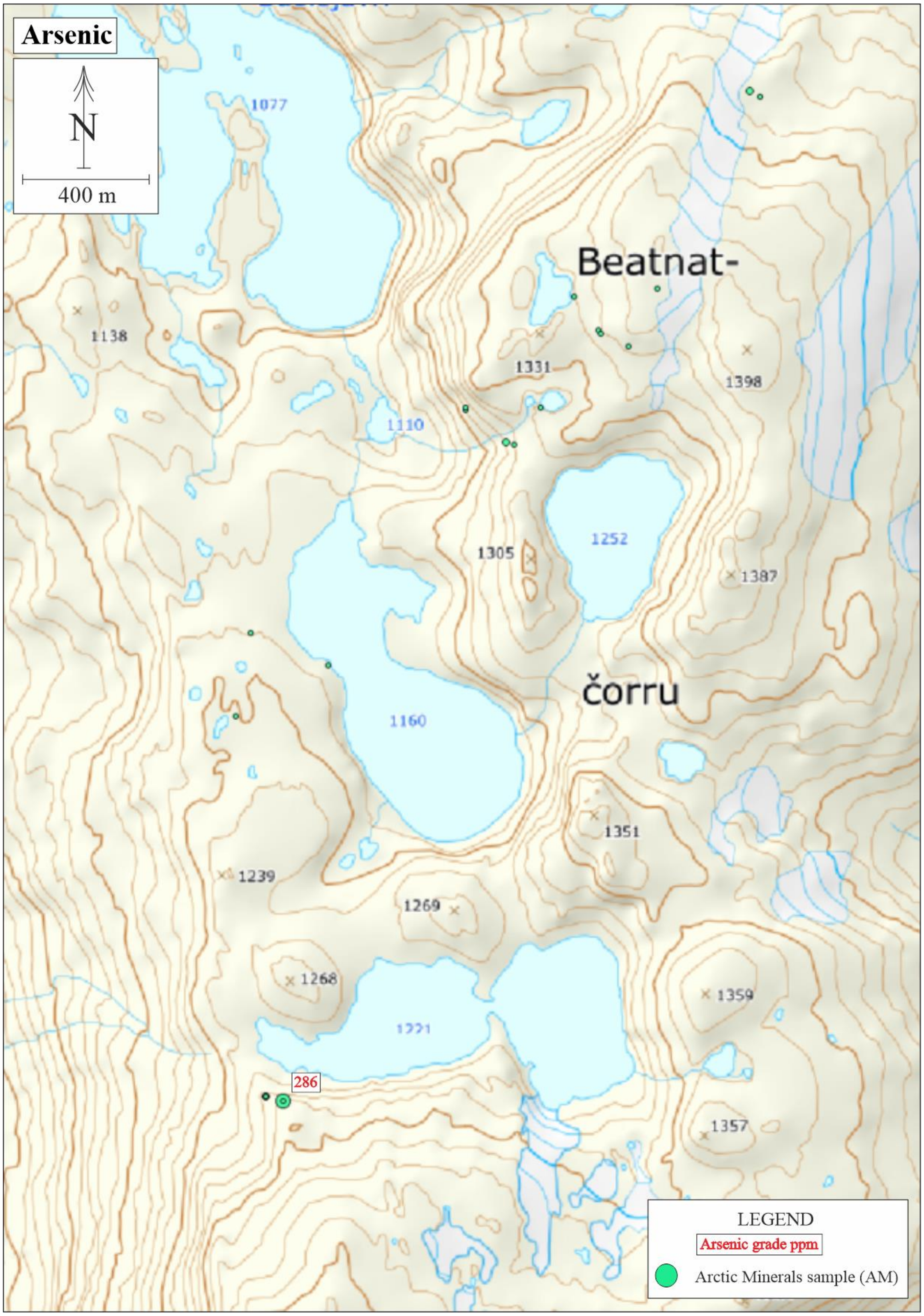


Figure 43. In the southern part, most of the samples have less than arsenic contents below 50 ppm. There are five samples with grades between 50-100 ppm and one sample, shown on the map, that has arsenic content over 100 ppm.

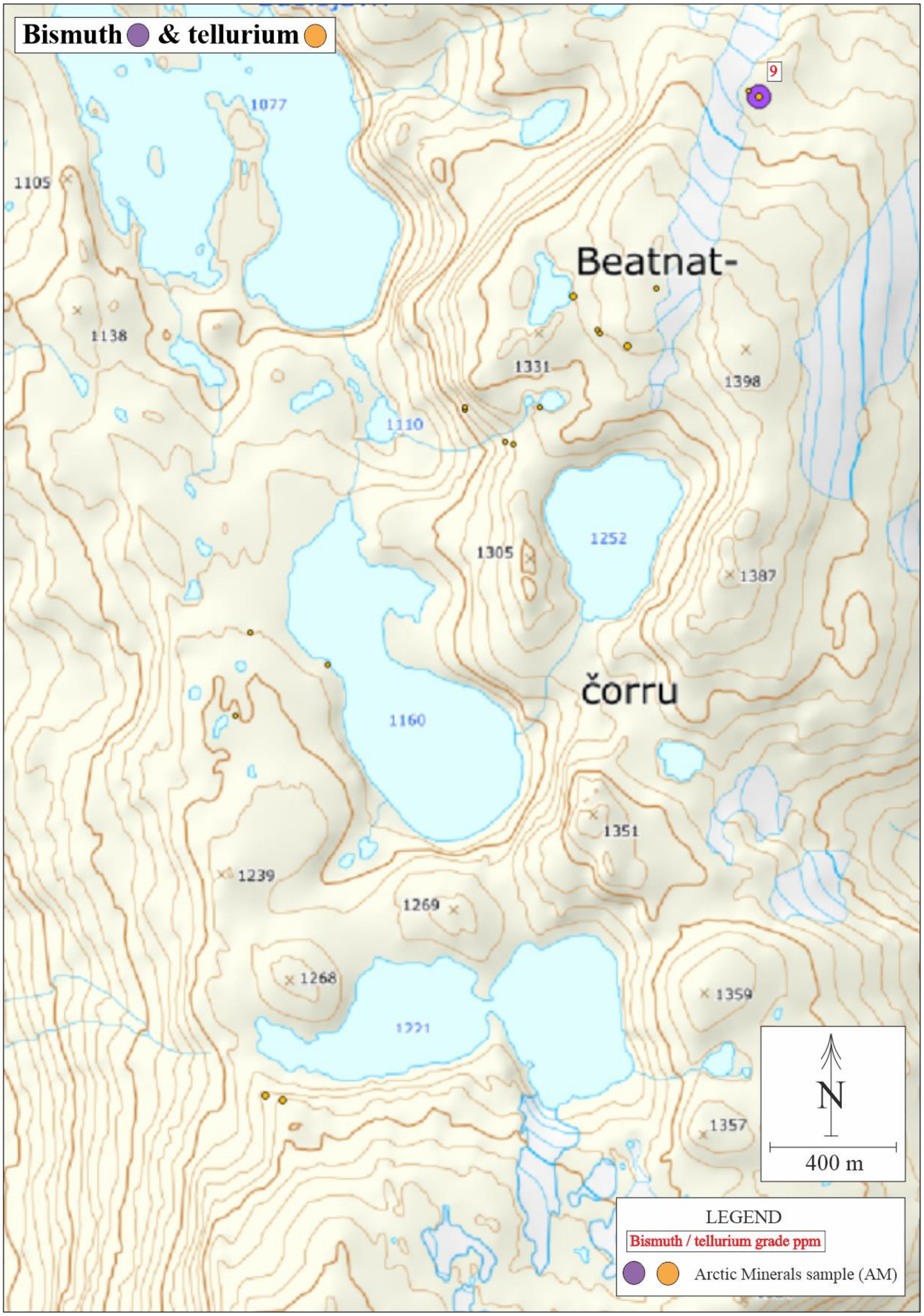


Figure 44. Most of the samples have bismuth contents below 1 ppm and tellurium contents below 0.5 ppm. The sample with the highest bismuth, 9 ppm, comes from a small rusty, strongly deformed supracrustal lens that also has anomalous silver (8 ppm) and copper (0.2%).

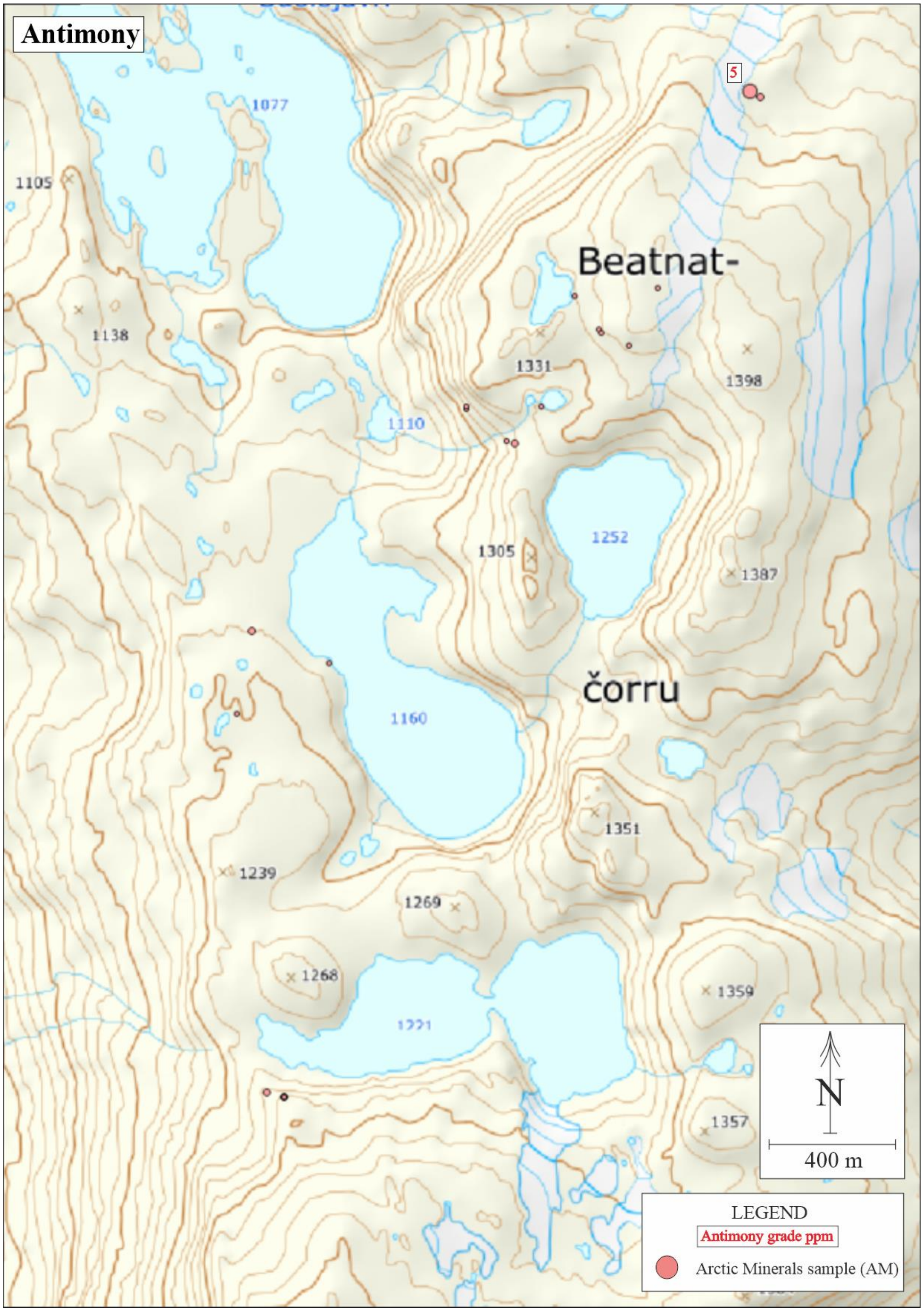


Figure 45. Most of the samples in the southern portion have antimony contents below 1 ppm. The sample with the highest content of 5 ppm also has anomalous lead and zinc.

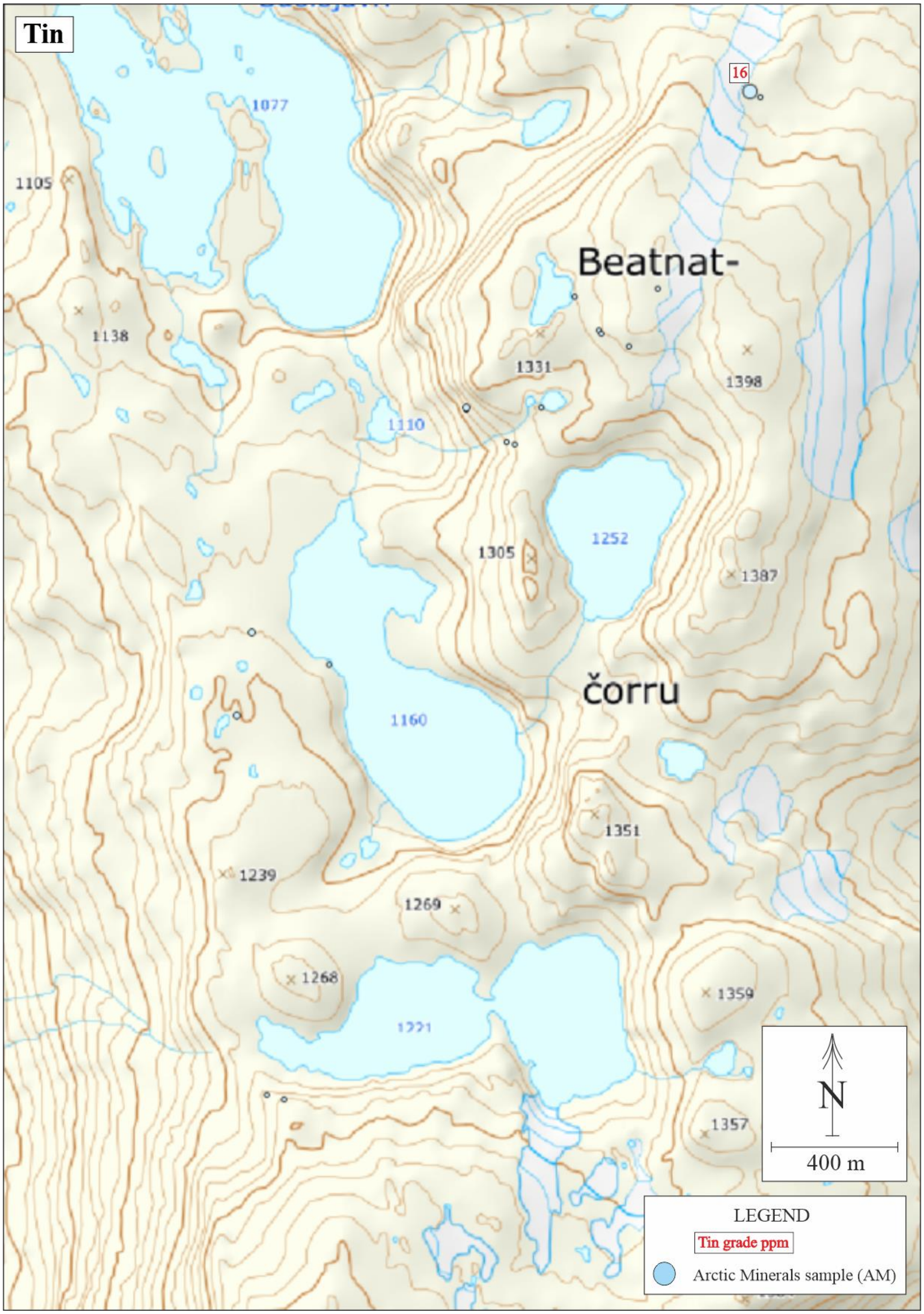


Figure 46. Most of the samples in the southern portion have c. 1 ppm tin. The sample with 16 ppm also has anomalous lead and zinc.

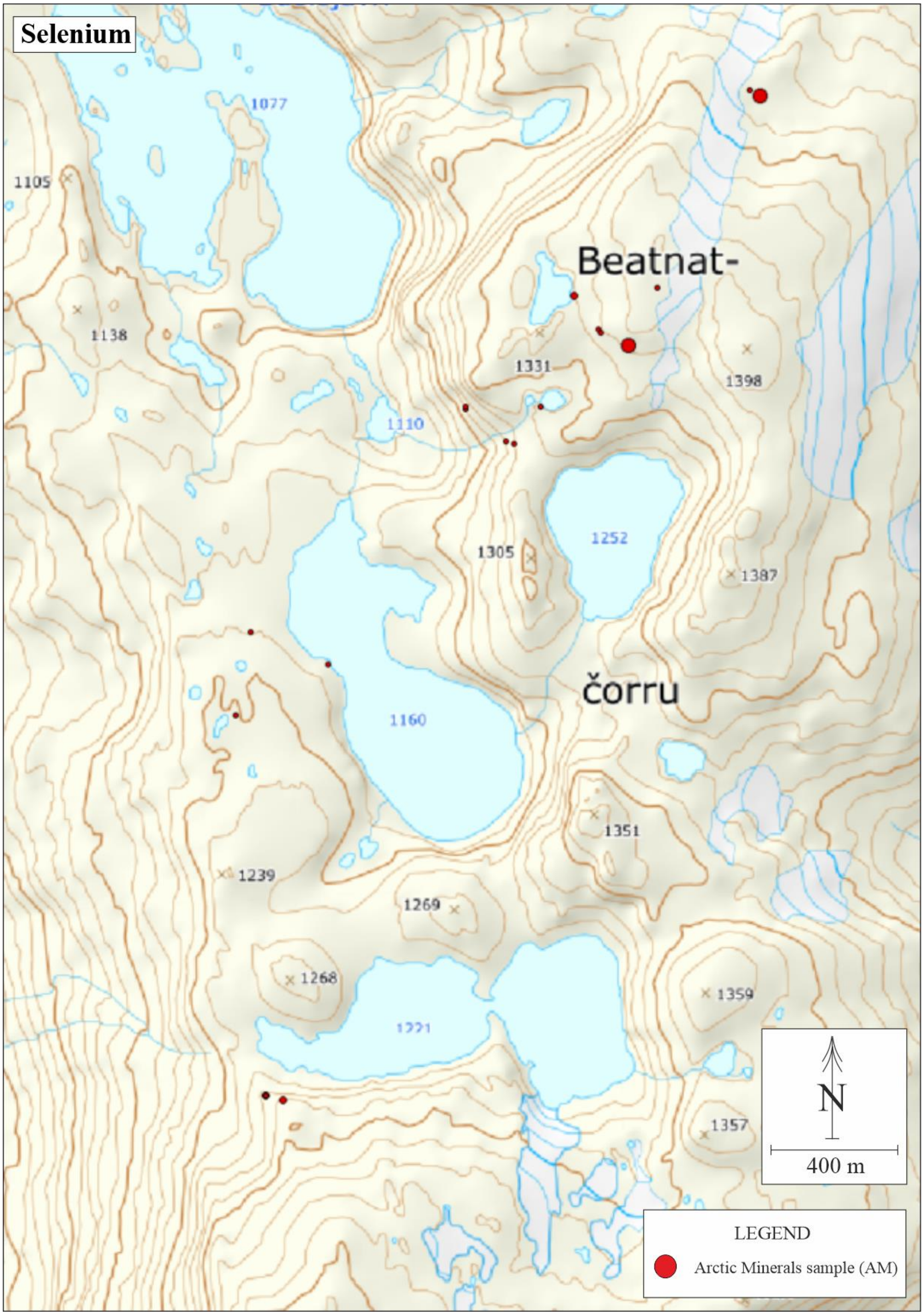


Figure 47. In the southern portion, the selenium contents are insignificant with the highest being only 13 ppm.

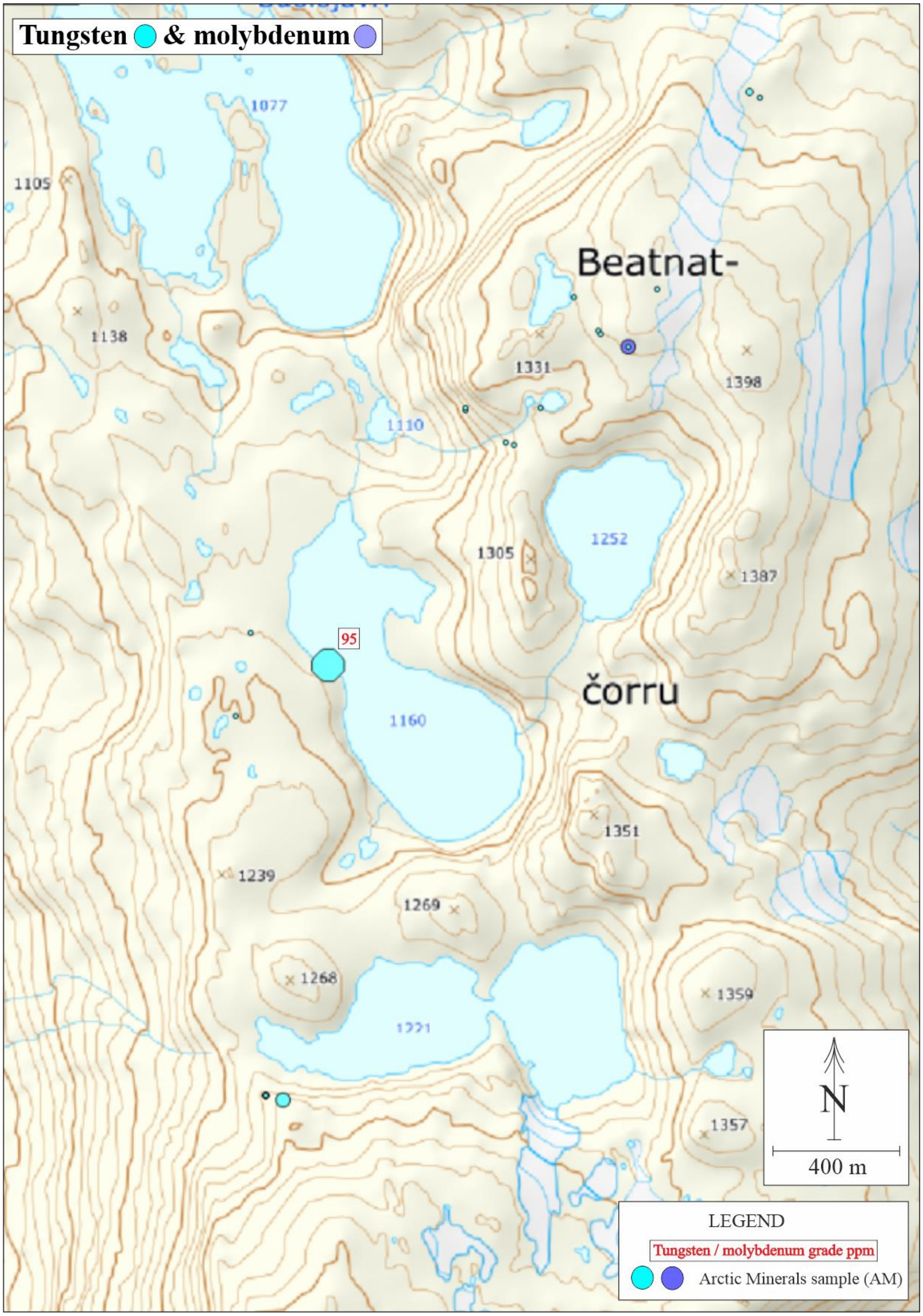


Figure 48. Most of the samples have molybdenum contents below 10 ppm and tungsten in the 1-2 ppm range.

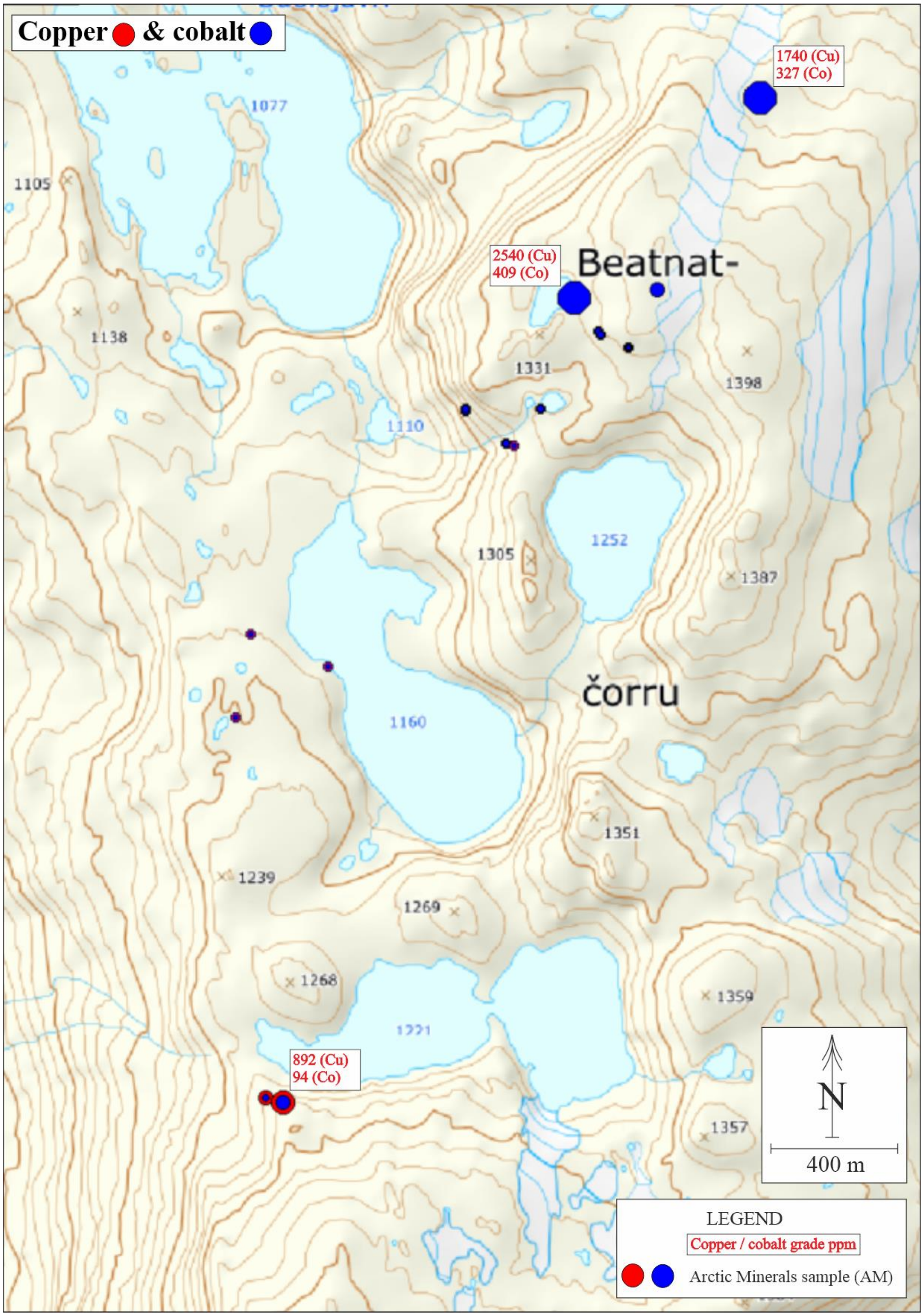


Figure 49. Occasional anomalous copper and cobalt together with nickel occur in some of the rusty supracrustal and sulphidized gabbroic rocks.

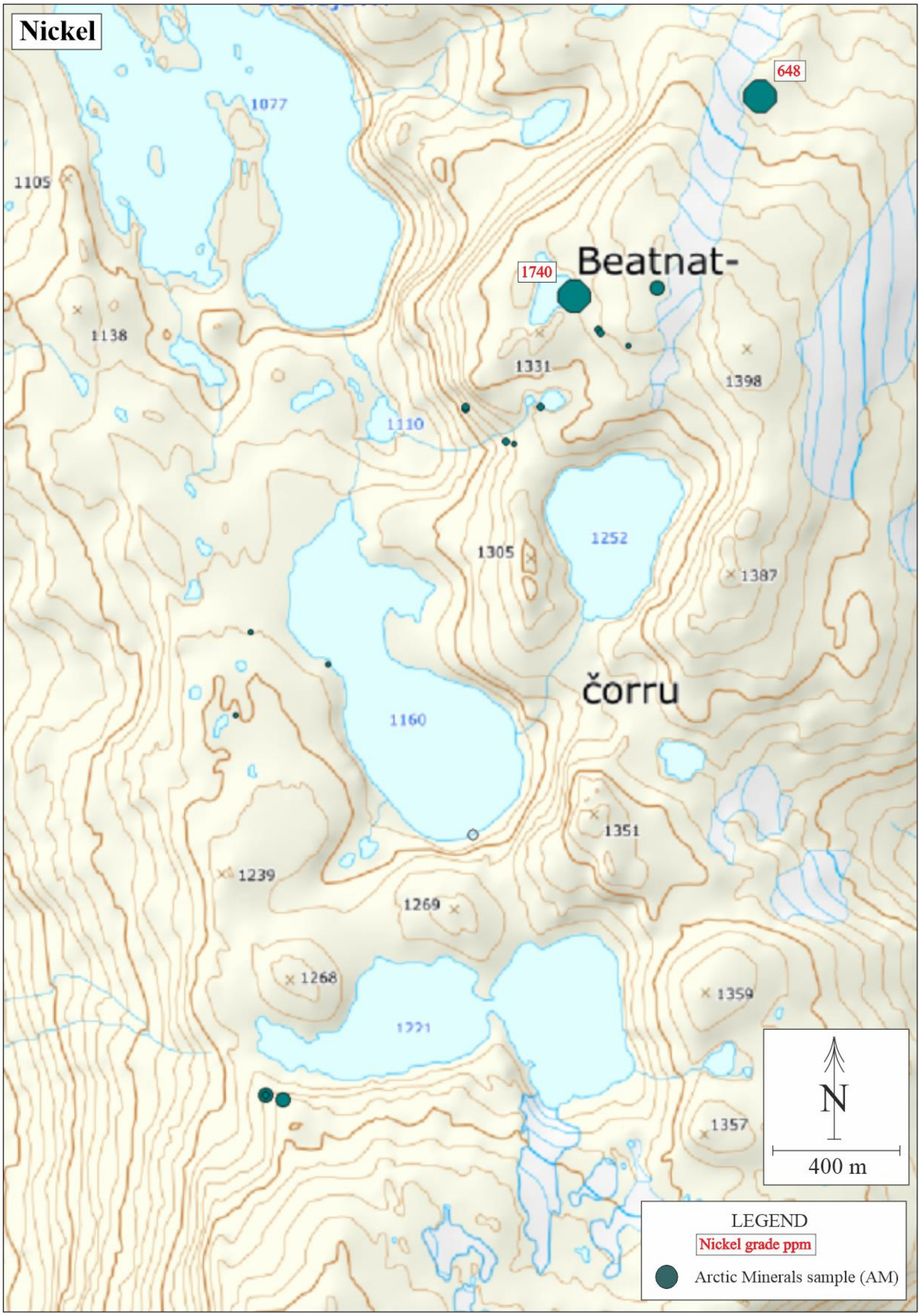


Figure 50. The highest nickel content relates to a sulphide-bearing gabbro. As has previously been shown, the nickel contents are generally insignificant.

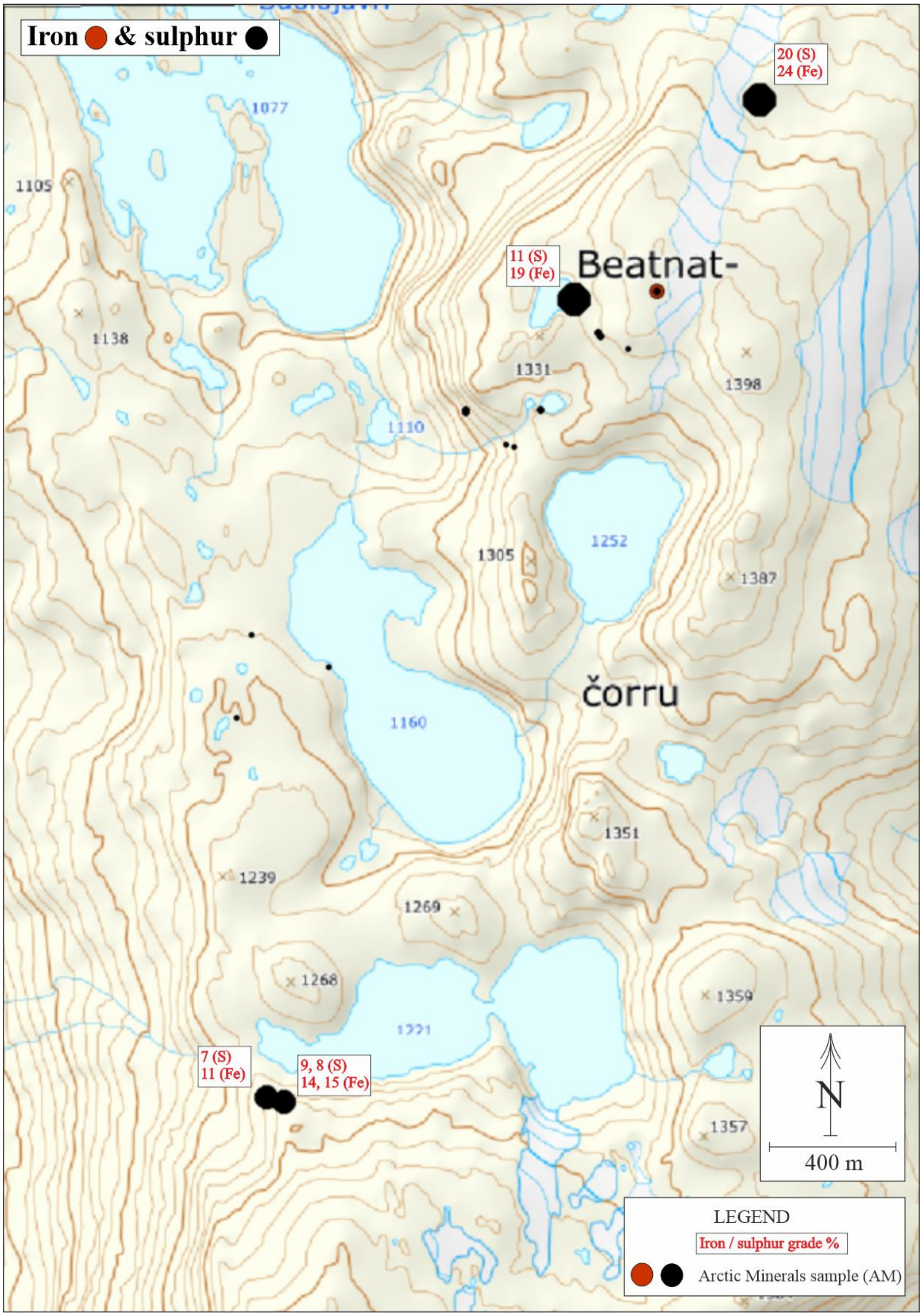


Figure 51. The highest iron and sulphur contents occur in gabbroic samples with fairly high pyrrhotite>pyrite content. Minor chalcopyrite can also occur. In what are interpreted as supracrustal rocks, the sulphides are commonly more fine-grained and more weathered.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
134549	377989	7580789	TH	0,00	0,3	16	164	10	0,2	0,0	0	1	1	121	183	66	1	1	9	0,5
134550	377987	7580797	TH	0,01	0,4	23	139	4	0,3	0,1	1	2	2	95	90	40	2	1	9	0,3
134709	378108	7580672	TL	0,00	0,5	85	199	85	0,7	0,1	1	1	1	51	75	29	3	1	7	0,4
134710	378131	7580664	TL	0,02	0,5	77	109	20	0,4	0,1	2	1	1	160	22	12	3	1	7	0,2
134711	378369	7581116	TL	0,02	4,7	8	124	14	0,4	0,4	1	10	1	2540	1740	409	2	0	19	11,4
134712	378639	7581117	TL	0,01	0,8	12	140	23	0,2	0,1	1	3	1	306	368	97	1	1	9	2,0
134713	378437	7581001	TH	0,01	0,2	8	183	14	0,2	0,1	0	3	1	107	87	23	5	1	8	0,8
134714	378444	7580992	TH	0,01	0,2	10	261	18	0,2	0,1	1	3	1	105	104	28	7	1	7	0,7
134715	378529	7580941	TH	0,02	0,9	61	174	19	1,0	0,2	0	13	1	186	28	7	68	1	7	0,2
134716	378227	7580772	TL	0,00	0,3	16	252	3	0,3	0,1	0	3	1	140	145	37	6	2	8	1,1
134717	378996	7581719	TL	0,02	5,5	1040	1300	92	0,4	0,1	5	2	16	84	74	22	2	5	6	1,0
134724	377232	7580145	TL	0,00	0,1	6	24	2	0,4	0,0	1	1	3	12	2	1	3	2	6	0,2
134725	377136	7578658	TL	0,05	2,1	43	145	61	0,9	0,3	1	5	1	627	253	64	26	2	11	6,8
134726	377136	7578658	TL	0,03	1,3	35	207	47	0,8	0,2	1	3	1	317	145	41	9	2	10	3,8
134751	379027	7581699	TH	0,02	7,7	215	287	2	9,4	0,2	2	13	1	1740	648	327	7	1	24	19,7
134757	377467	7580015	TH	0,01	0,1	30	122	5	0,2	0,1	1	2	1	89	13	8	2	95	4	0,3
134758	377158	7579883	TH	0,00	0,3	40	40	0	0,2	0,0	1	1	4	8	1	1	1	2	5	0,2
134759	377188	7578638	TH	0,03	1	19	71	96	0,8	0,4	1	5	0	892	254	94	11	4	15	7,6
134761	377188	7578639	TH	0,09	0,6	12	111	286	0,5	0,2	2	6	1	689	215	60	21	3	9	3,3
134762	377190	7578638	TH	0,08	1,1	13	117	58	0,7	0,3	1	5	1	650	270	78	11	9	14	8,8

Table 6. Contents of selected elements from the southern portion of Katterat - BSZ. Except for iron and sulphur, units are in ppm.

SJANGELI EXTENSION AREA & SJANGELI NW

The following figures present the distribution of most of the elements of interest from the Sjangeli extension and Sjangeli NW areas.

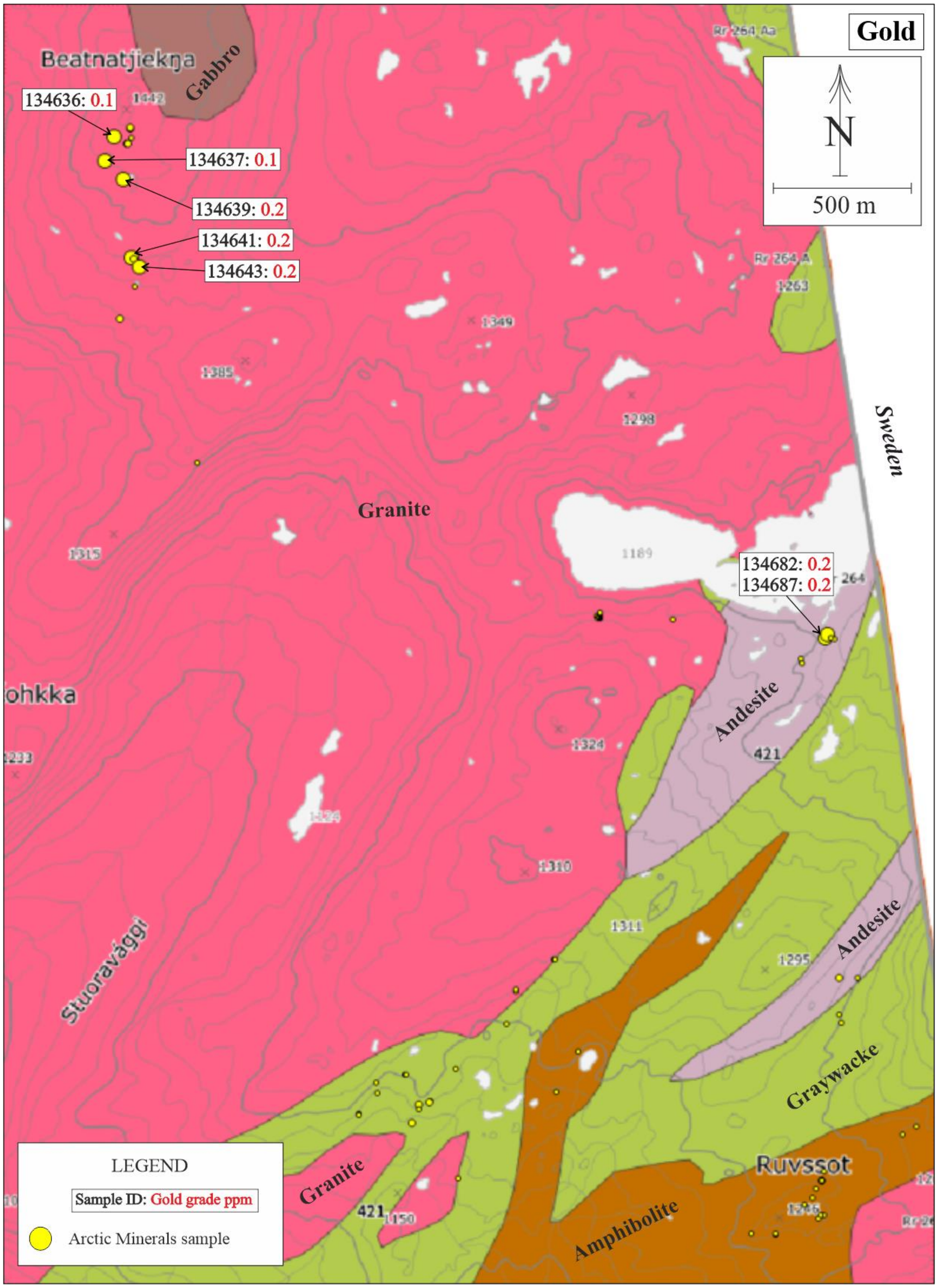


Figure 52. Gold contents > 0.1 ppm are shown in numbers. The gold within the samples from Sjangeli NW is associated with elevated arsenic and generally low lead and zinc. The geological setting is comparable with the main Katterat area with rusty, deformed, sericite- and silica-altered supracrustals as host rocks.

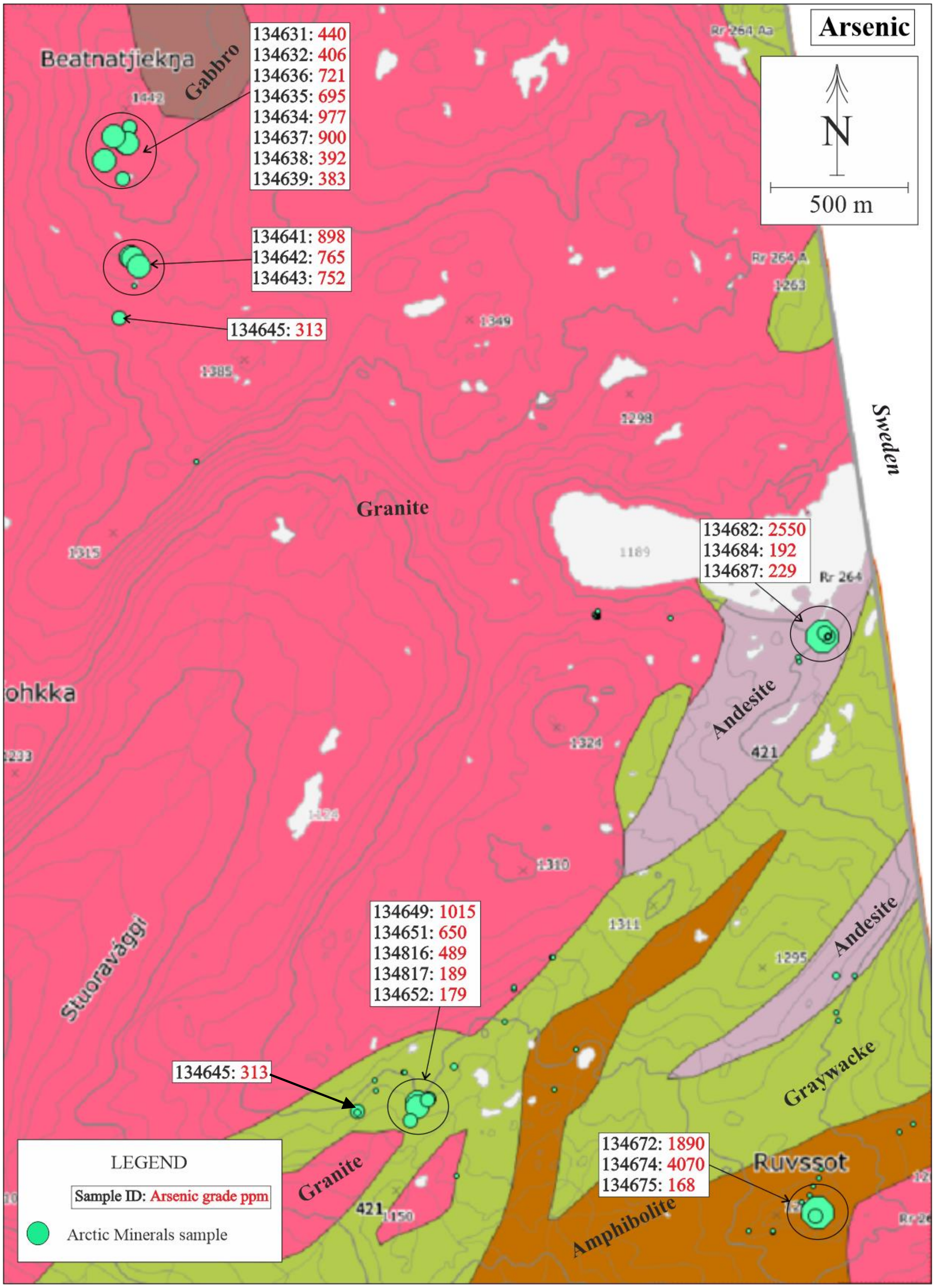


Figure 53. Arsenic contents > 160 ppm are shown in numbers. High arsenic in sample 134682 together with 0.2 ppm gold is related to a 1-meter-wide quartz vein with arsenopyrite and pyrite. High arsenic contents within the amphibolite are related to skarn,s and elevated contents within graywacke to rusty, sericite and silica-altered metasediments. The samples within these two last mentioned areas carry no gold.

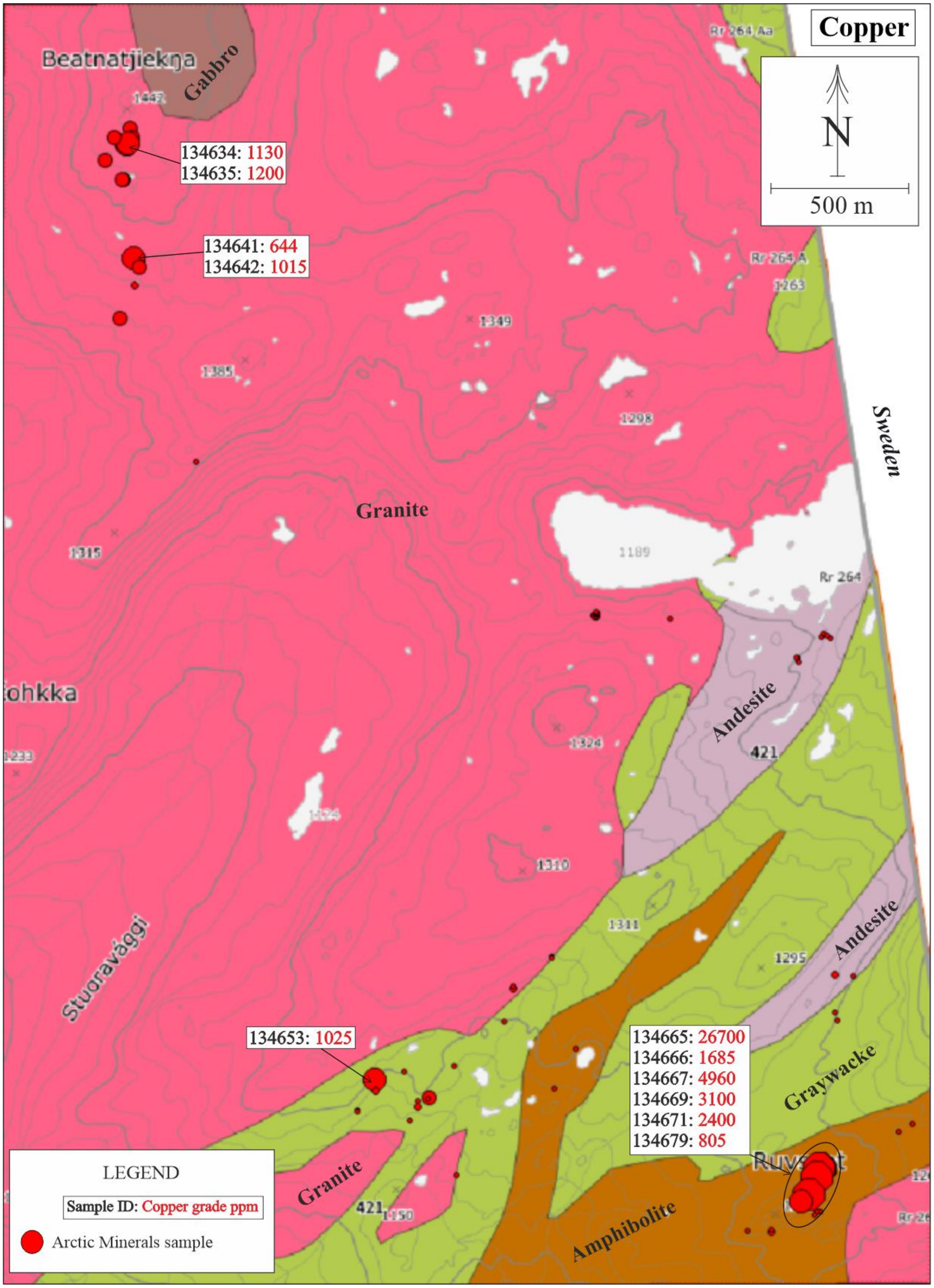


Figure 54. Copper contents > 600 ppm are shown in numbers. The SE cluster is magnetite-skarn outcrops with chalcopyrite and malachite. There are many old workings within this area.

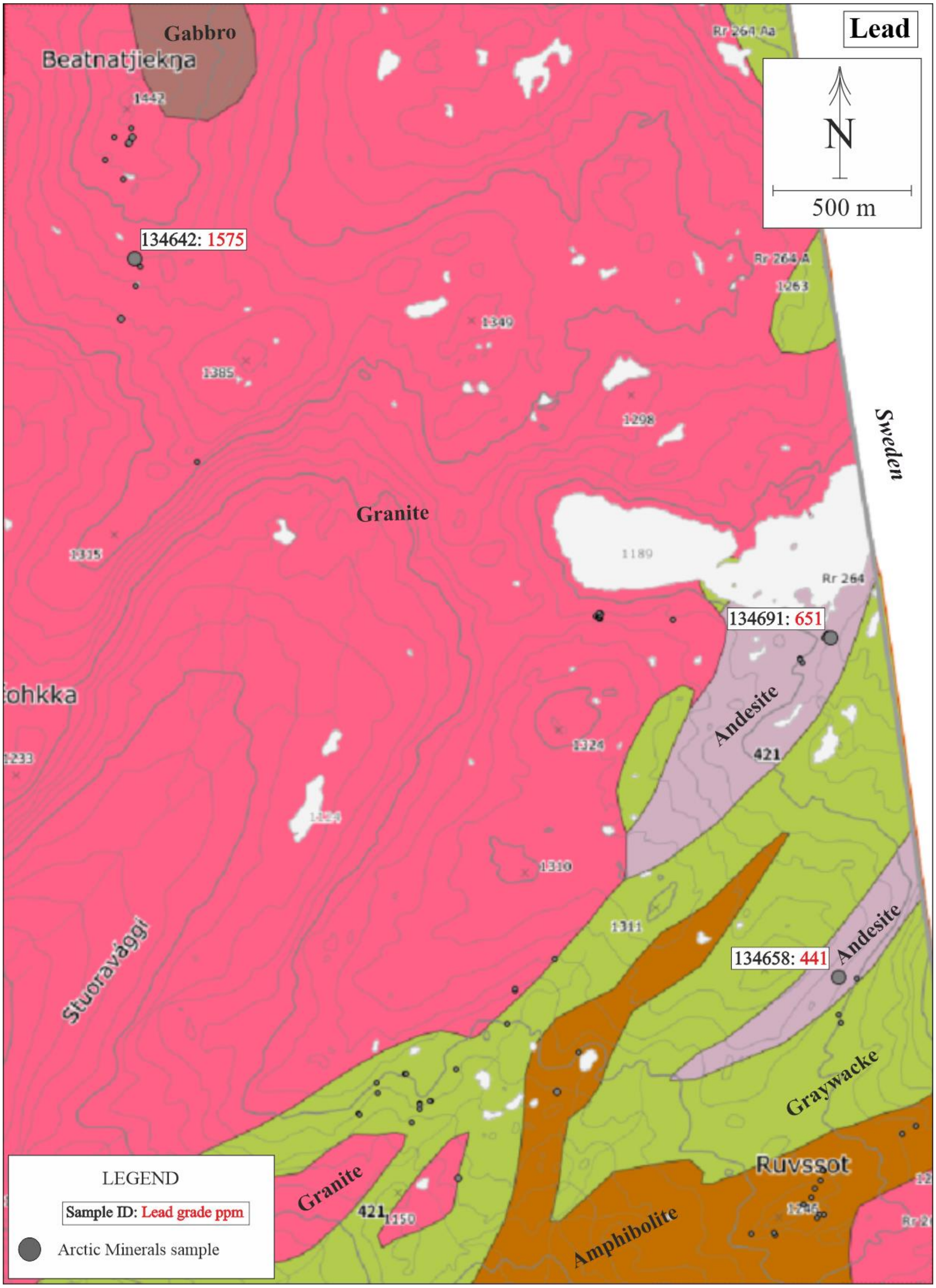


Figure 55. Lead contents > 400 ppm are shown in numbers.

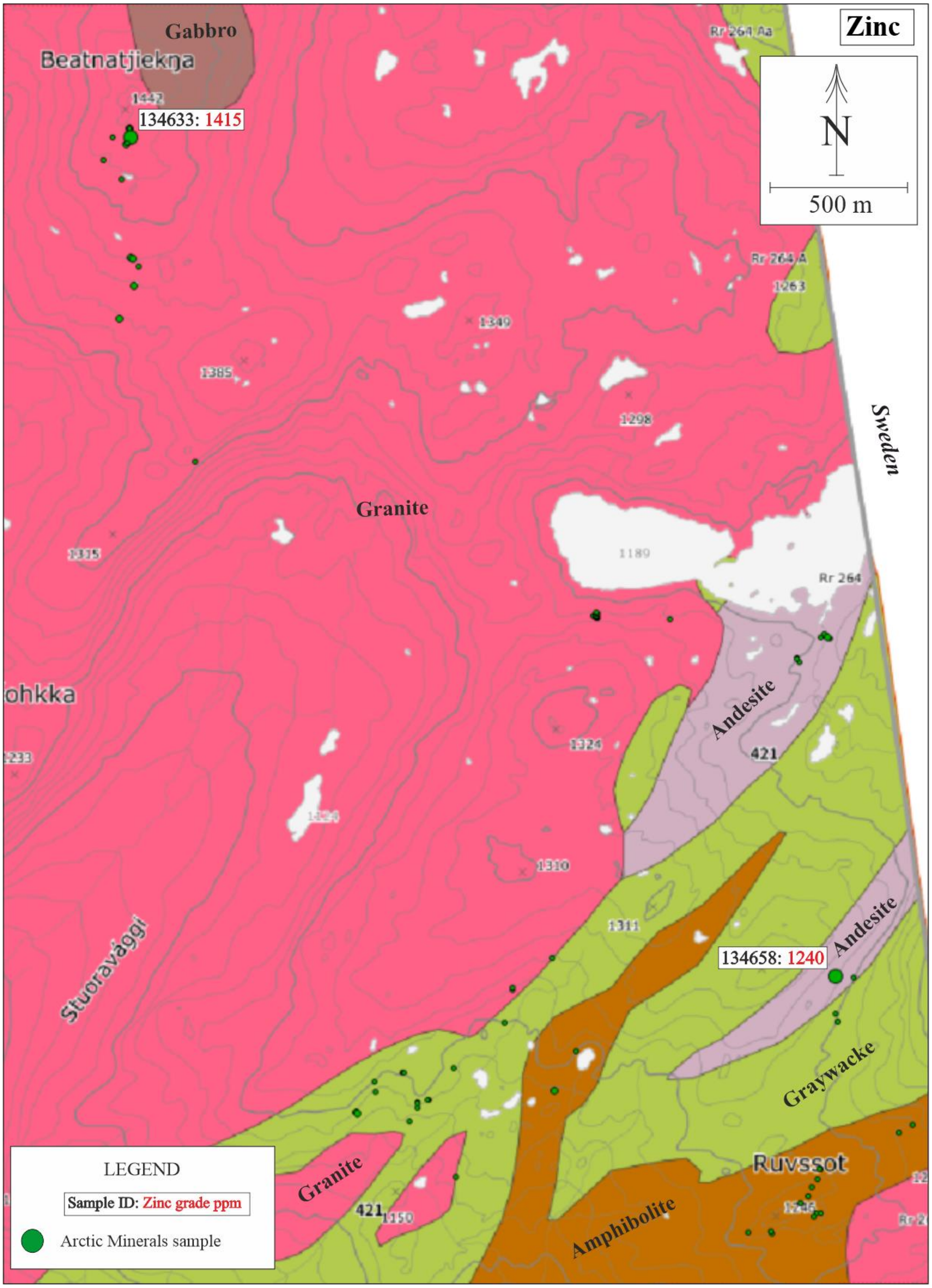


Figure 56. Zinc contents > 1000 ppm are shown in numbers.

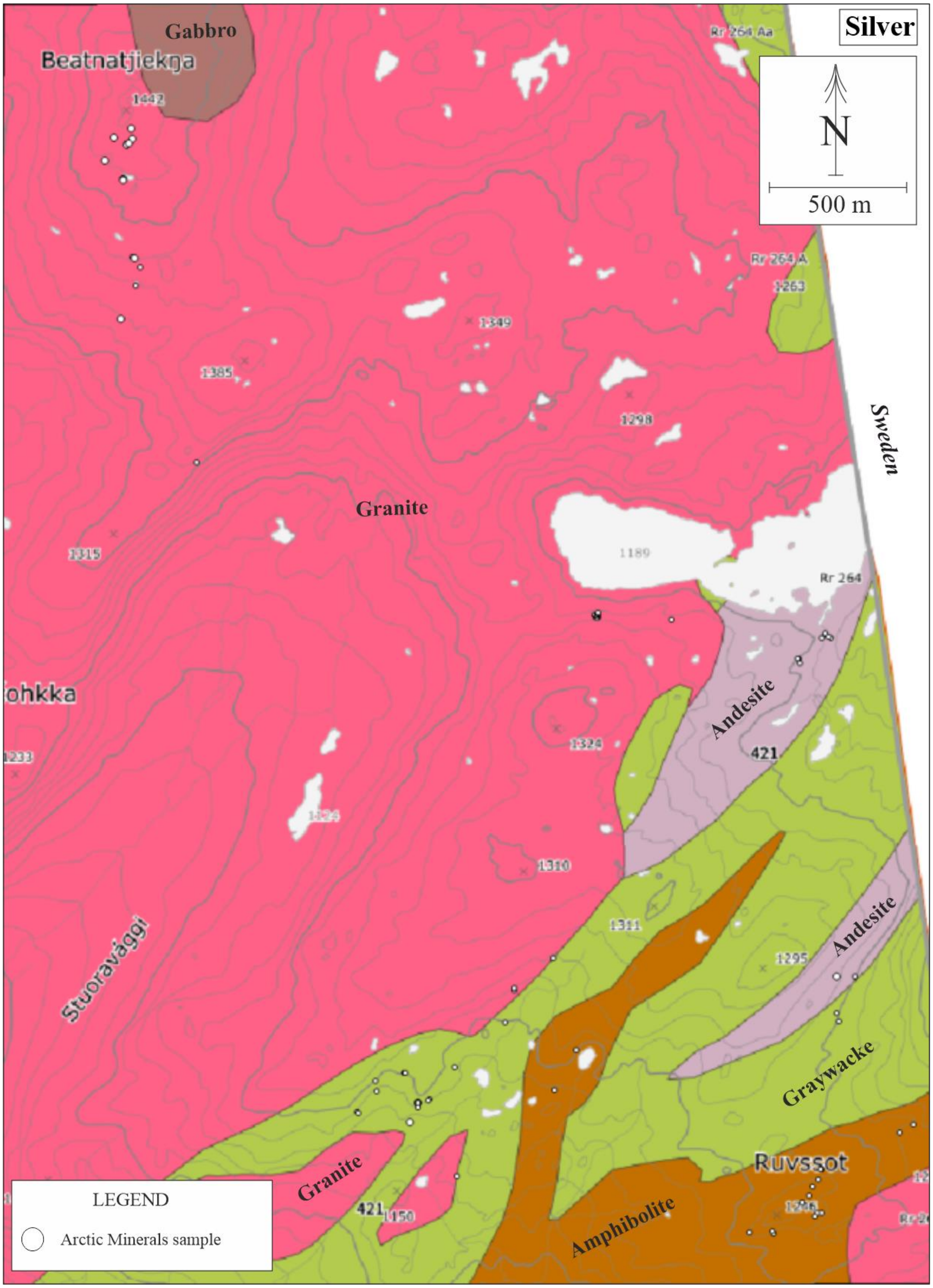


Figure 57. The highest silver content among the Sjangeli samples is 6 ppm in sample 134658 and it is associated with anomalous zinc (see previous page). In Sjangeli NW silver commonly ranges between 1-2 ppm as in other parts of Sjangeli silver contents rarely exceed 1 ppm. Overall, silver content are insignificant.

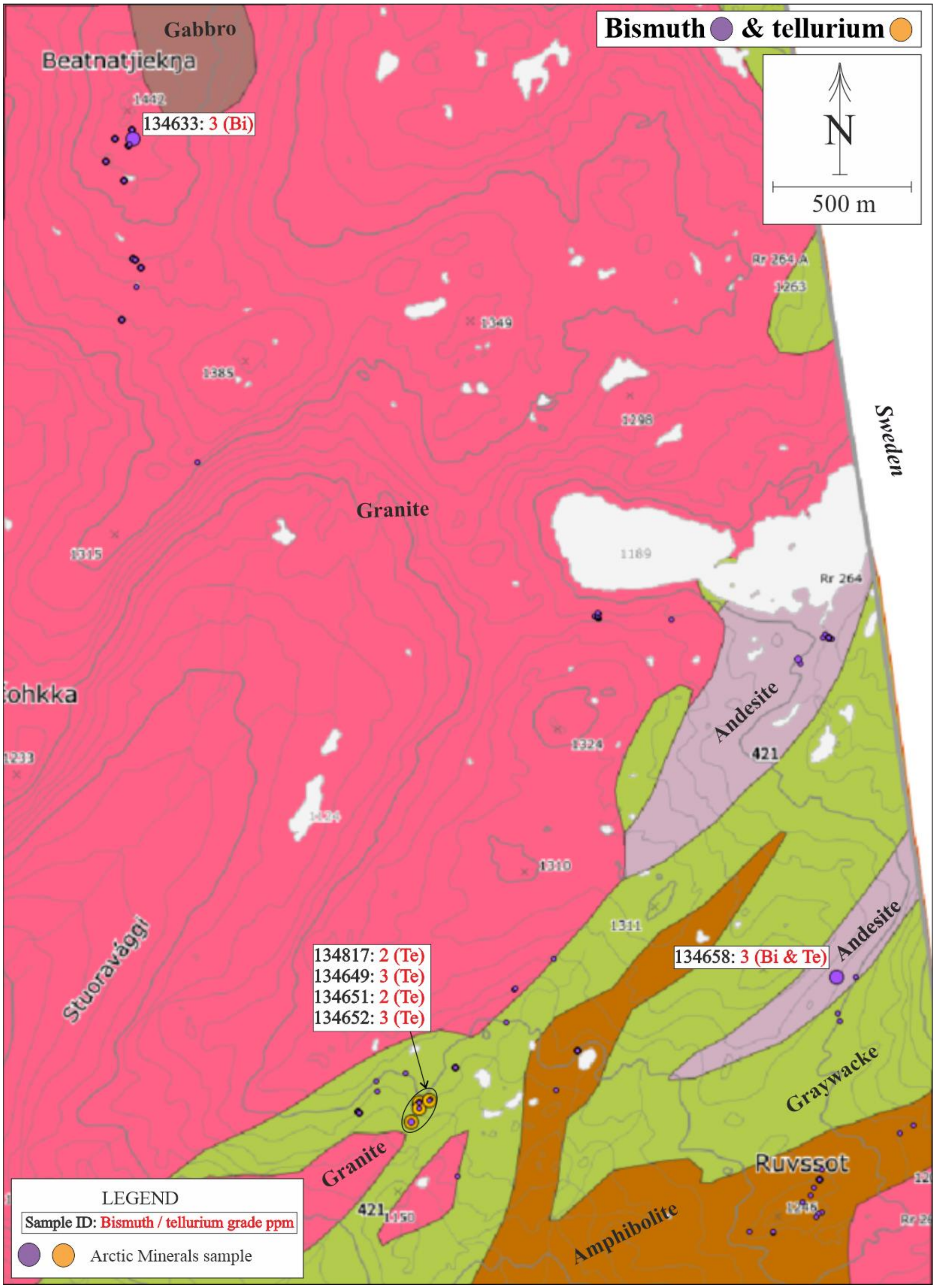


Figure 58. Bismuth and tellurium contents > 2 ppm are displayed in numbers. The highest bismuth contents are in two samples with anomalous zinc and silver. The highest tellurium occurs in samples with anomalous arsenic (see figure 53) and gold contents between 14-47 ppb.

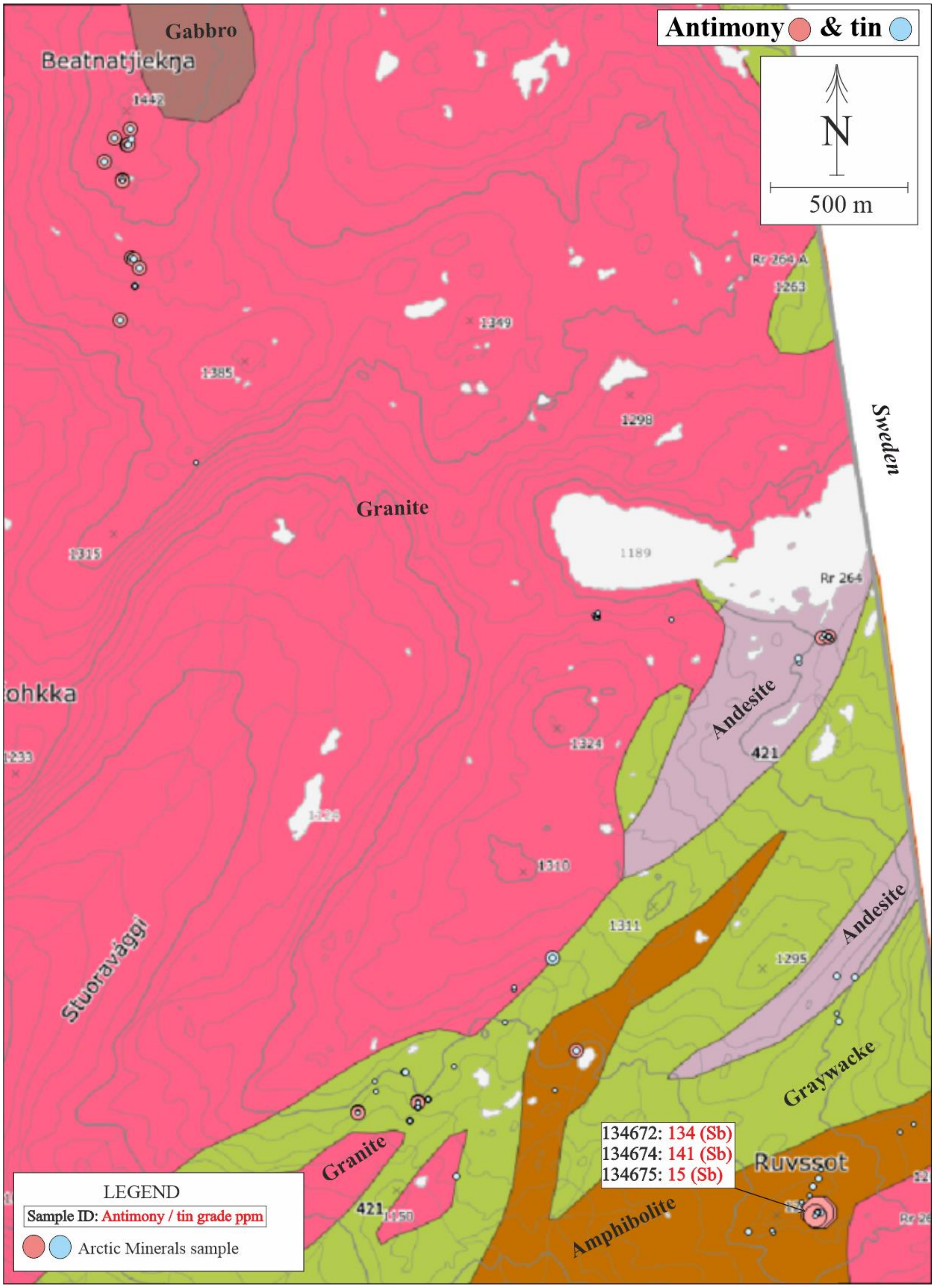


Figure 59. Antimony contents > 9 ppm are shown on the map. Samples with the highest antimony grades also have elevated arsenic but no gold. They come from limestone with magnetite and what was called serpentine, which I suspect is rather an epidote. Tin contents are low with the highest being 7 ppm.

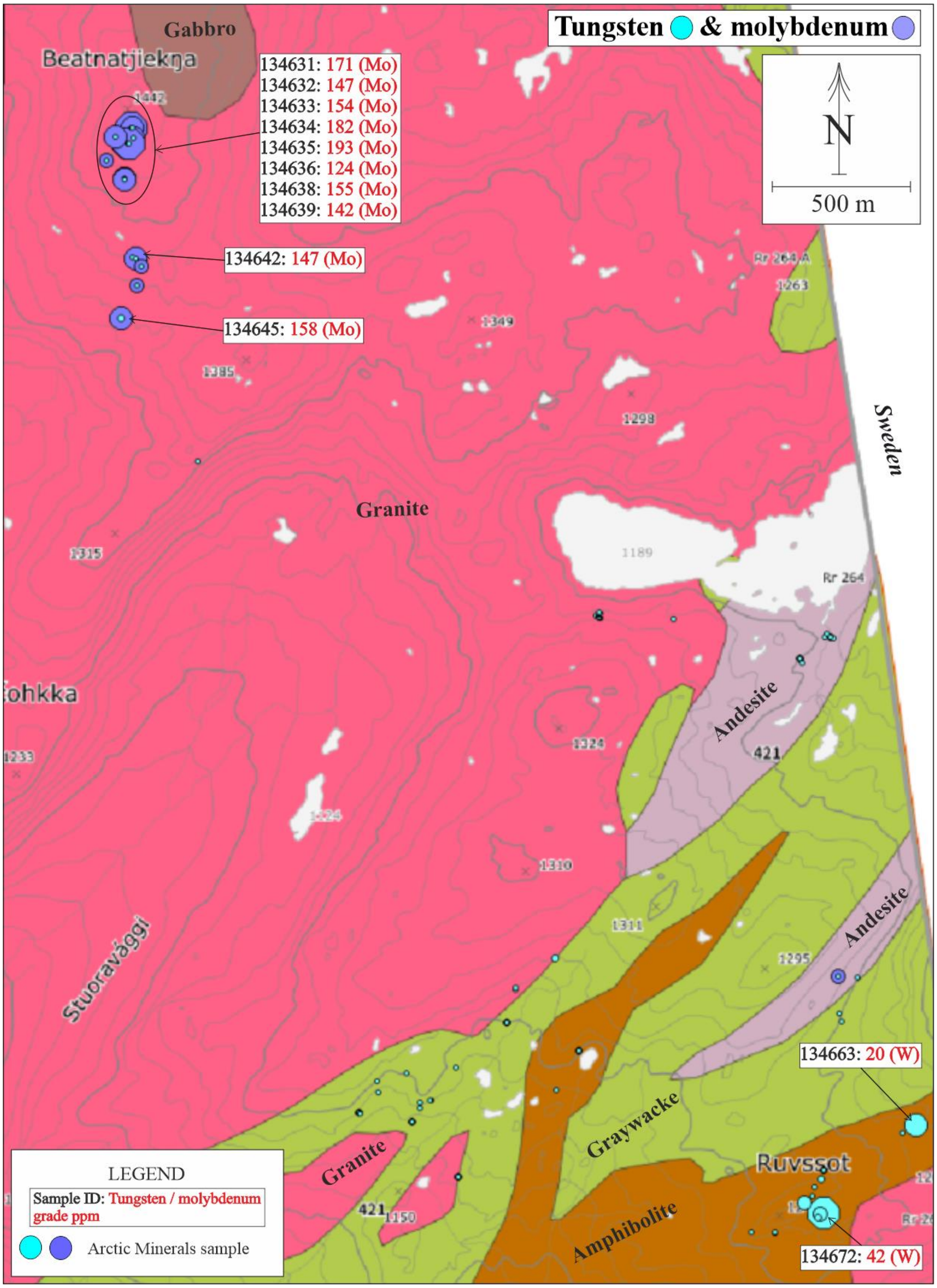


Figure 60. Tungsten contents > 18 ppm and molybdenum contents > 117 ppm are displayed in numbers. Weakly anomalous tungsten grades relate to skarn-altered limestones.

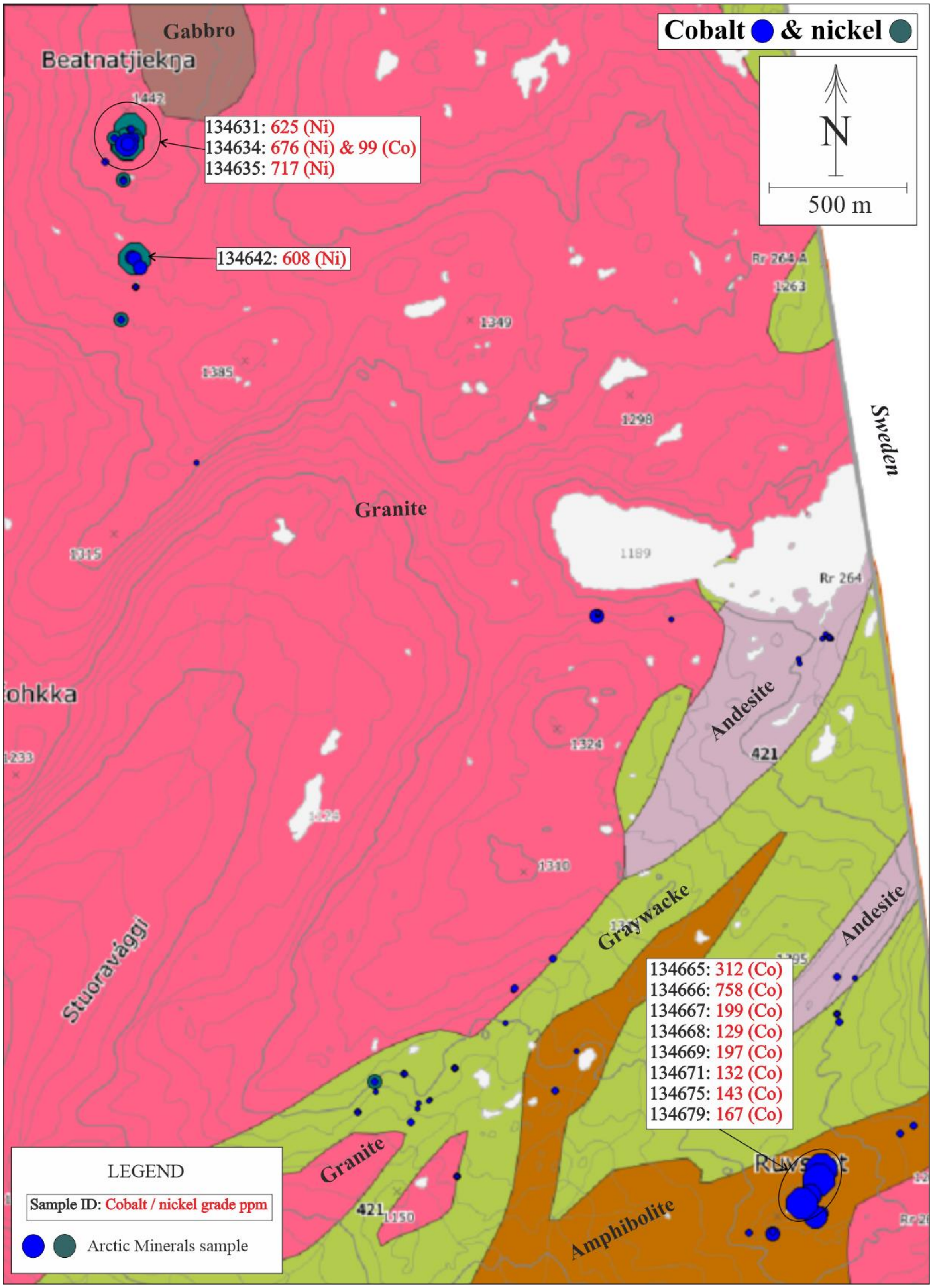


Figure 61. Cobalt contents > 97 ppm and nickel contents > 600 ppm are displayed in numbers. Cobalt in the SE cluster is related to magnetite-skarn outcrops.

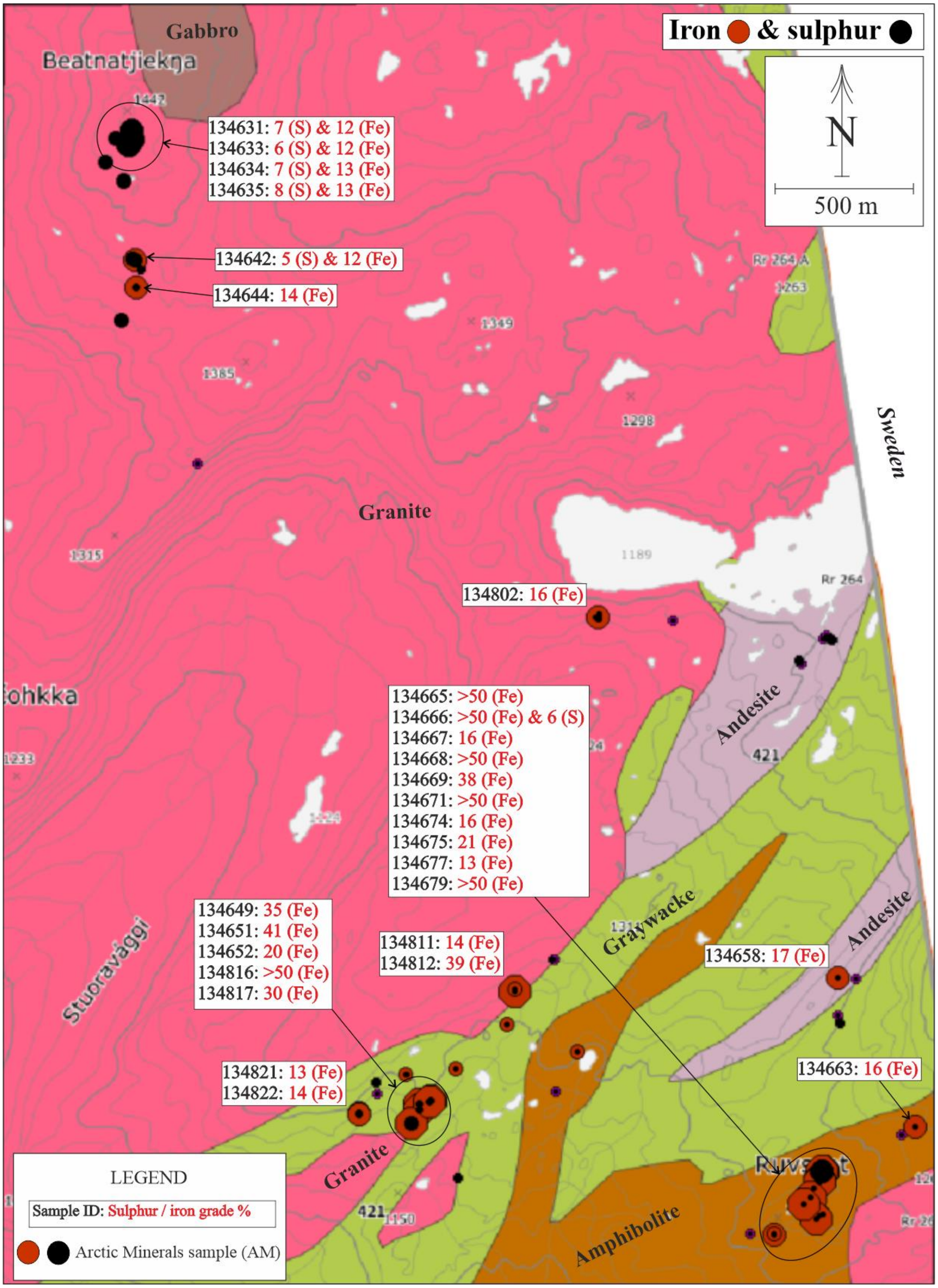


Figure 62. Sulfur grades > 5 % and iron contents > 12 % are displayed in numbers.

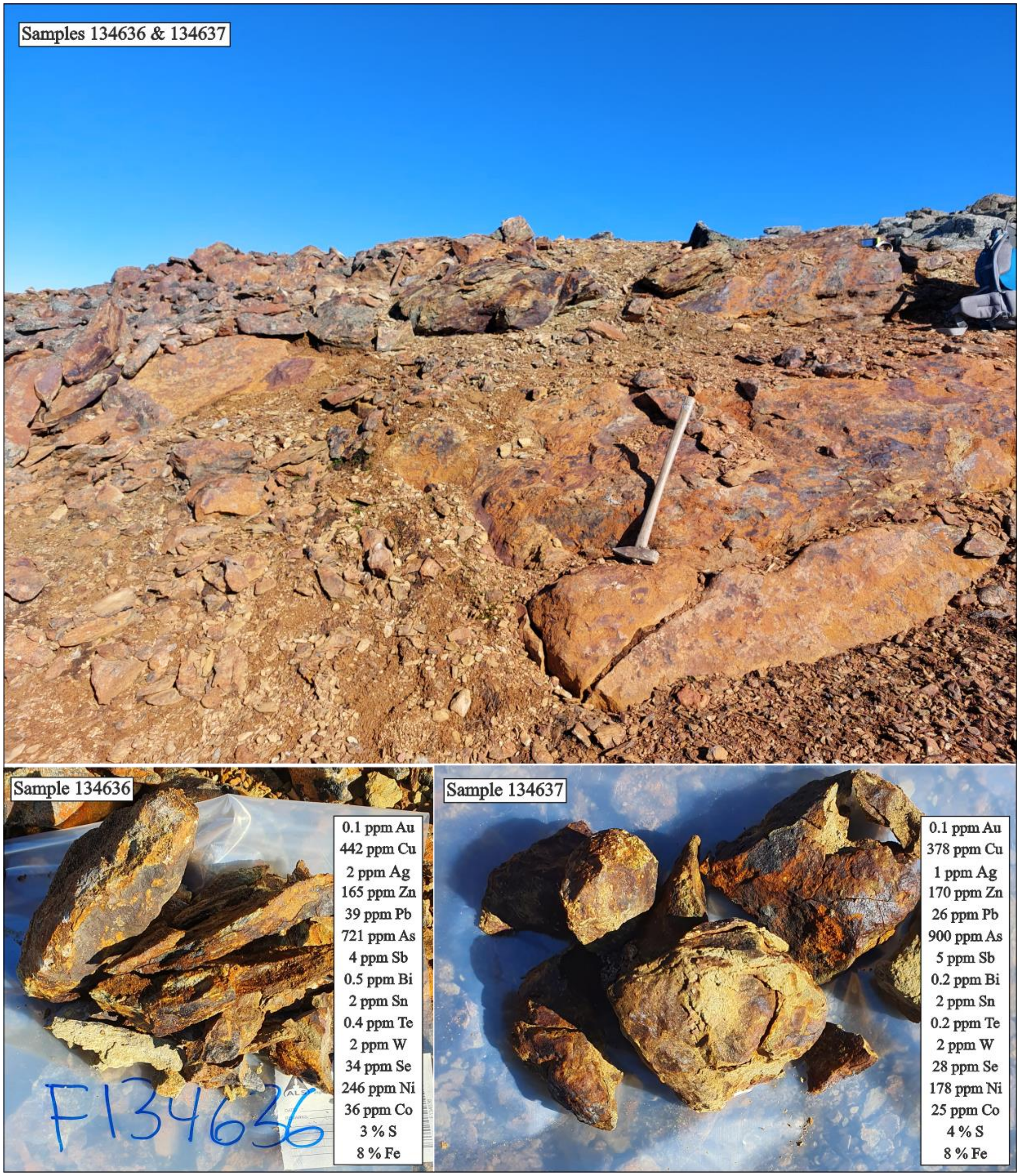


Figure 63. Samples with elevated arsenic and anomalous gold from the Sjangeli NW. Rusty, weathered and sericite altered supracrustals.

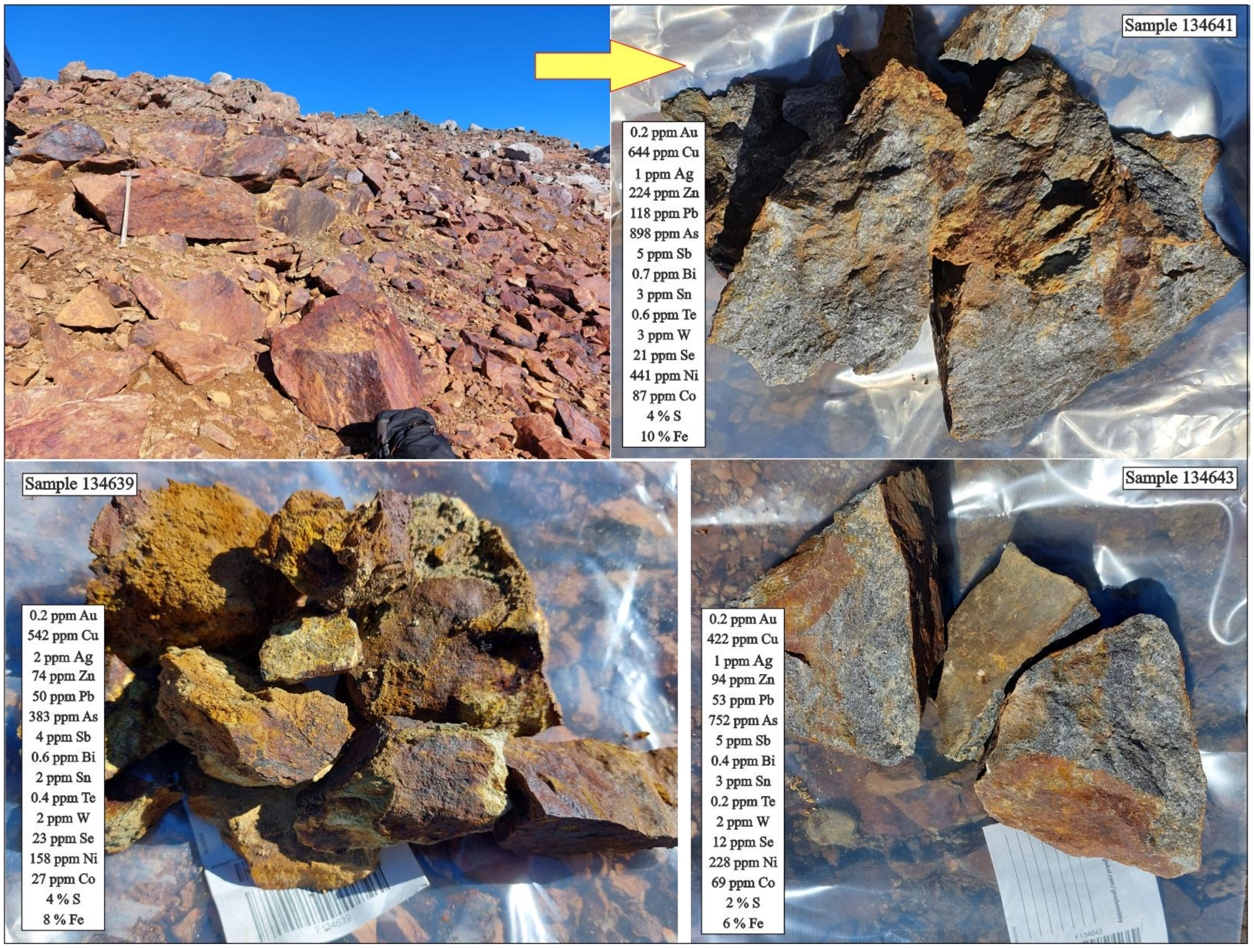


Figure 64. Samples with elevated arsenic and anomalous gold from the Sjangeli NW. Rusty, weathered and sericite altered supracrustals.

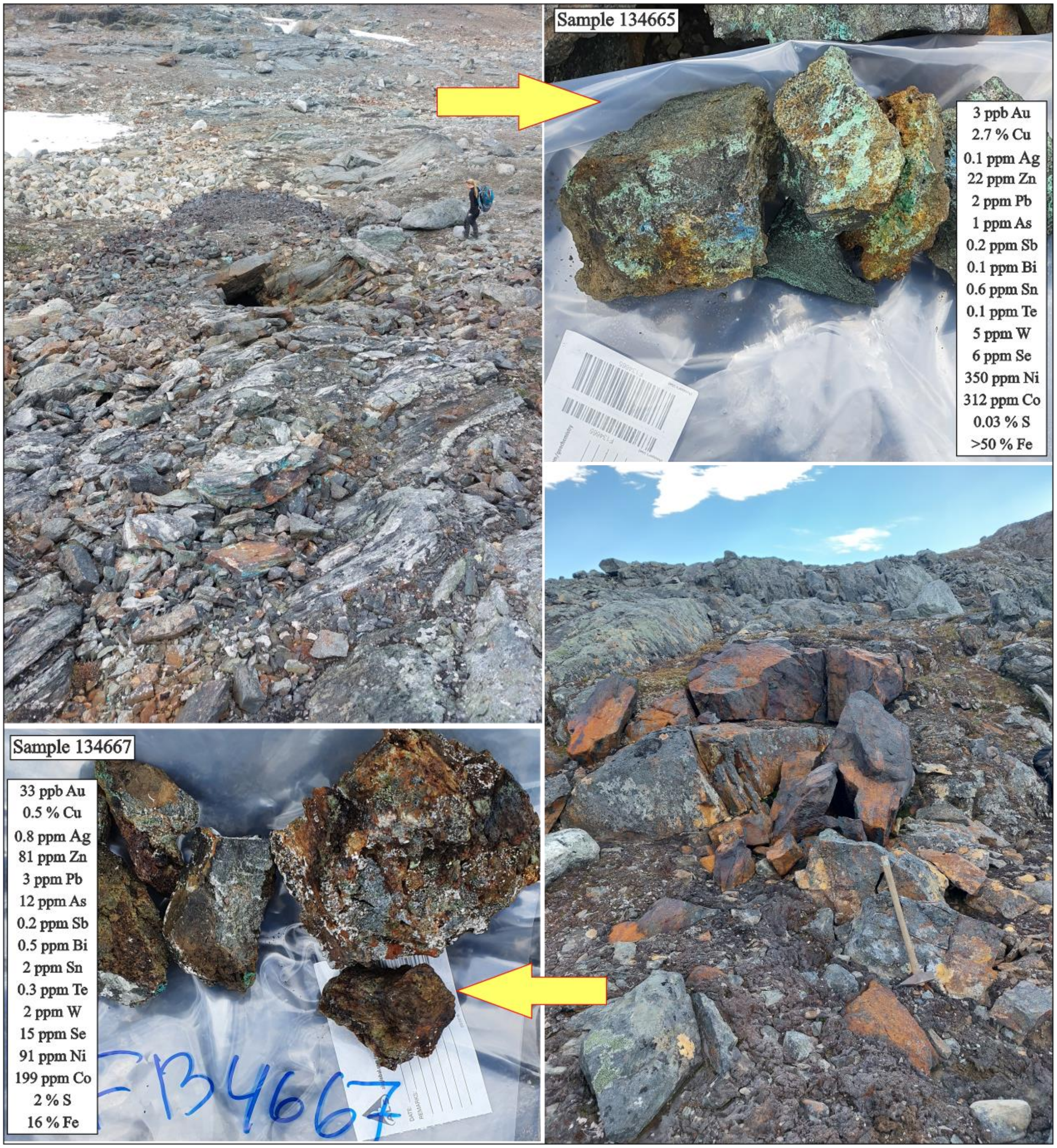


Figure 65. Sample 134665 is a massive magnetite fragment with the highest copper content among AM´s Sjangeli samples. Sample 134667 is taken from a skarn-altered limestone with magnetite and malachite. There are many old test pits like the one on the upper left-hand side figure within this area.

N = 87	Au	As	Bi	Te	Sb	Se	W	Sn	Ag	Pb	Zn	Cu	Co	Ni	Mo	Ba	S	Fe
Average	0,026	246	0,3	0,3	5	7	2	2	1	64	128	631	46	125	27	298	1,3	12
Median	0,003	24	0,2	0,1	1	2	1	1	0	12	64	90	17	35	4	110	0,5	8
Maximum	0,237	4070	2,6	3,3	141	46	42	7	6	1575	1415	26700	758	717	193	1800	7,6	50
80th percentile	0,037	369	0,5	0,4	4	11	2	3	1	66	169	438	68	190	22	560	2,0	15
90th percentile	0,068	733	0,7	0,6	5	24	3	3	1	110	239,4	889	97	419	131	764	3,9	36
95th percentile	0,154	954	0,9	2,0	6	31	10	4	2	177	444,8	1540	160	599	155	939	5,4	50

Table 7. Basic statistics of the samples from Sjangeli extension – Sjangeli NW areas. Except for iron and sulphur, units are in ppm.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
F134631	379065	7575352	TC	0,05	1,2	30	393	440	0,6	0,4	3	32	3	604	625	61	171	2	12	6,5
F134632	379066	7575353	TC	0,04	1,1	33	194	406	0,5	0,4	4	26	2	393	182	23	147	2	8	4,0
F134633	379067	7575315	TC	0,03	2,2	372	1415	136	2,6	0,5	2	34	2	530	504	69	154	2	12	5,7
F134634	379045	7575294	TC	0,05	1,5	39	254	977	0,5	0,5	5	43	3	1130	676	99	182	2	13	7,3
F134635	379051	7575296	TC	0,08	1,9	109	170	695	0,7	0,6	5	46	3	1200	717	95	193	3	13	7,6
F134636	379000	7575325	TC	0,14	1,6	39	165	721	0,5	0,4	4	34	2	442	246	36	124	2	8	3,2
F134637	378956	7575240	JT	0,12	1,4	26	170	900	0,2	0,2	5	28	2	378	178	25	114	2	8	3,7
F134638	379018	7575163	JT	0,08	1,5	71	177	392	0,9	0,4	4	22	2	740	269	44	155	2	10	4,2
F134639	379017	7575160	JT	0,16	1,6	50	74	383	0,6	0,4	4	23	2	542	158	27	142	2	8	3,6
F134641	379022	7574865	TC	0,16	1,0	118	224	898	0,7	0,6	5	21	3	644	441	87	81	3	10	3,8
F134642	379031	7574860	JT	0,06	5,1	1575	875	765	0,3	0,4	7	29	2	1015	608	72	147	2	12	4,6
F134643	379049	7574825	JT	0,23	1,0	53	94	752	0,4	0,2	5	12	3	422	228	69	95	2	6	2,2
F134644	379025	7574755	JT	0,01	0,4	11	467	34	0,3	0,2	2	10	2	183	170	17	42	1	14	1,4
F134645	378957	7574636	JT	0,05	1,6	113	202	313	0,5	0,4	4	19	4	571	332	43	158	3	11	4,4
F134646	379192	7574068	JT	0,00	0,0	3	4	2	0,0	0,0	0	1	0	4	2	0	2	0	1	0,0
F134647	380637	7573342	JT	0,00	0,2	7	16	4	0,1	0,0	0	1	0	80	4	2	3	0	2	0,5
F134648	379793	7571568	TC	0,03	0,5	13	125	58	0,3	1,4	3	5	1	119	18	6	5	2	9	1,6
F134649	379793	7571568	TC	0,04	1,1	23	41	1015	0,6	3,3	4	17	1	119	7	2	9	1	35	2,3
F134650	379792	7571567	TC	0,04	0,7	26	108	150	0,4	1,8	4	8	1	38	5	2	6	2	11	1,0
F134651	379790	7571548	JT	0,01	0,5	11	23	650	0,3	2,2	1	12	1	208	2	1	5	1	41	2,0
F134652	379756	7571498	JT	0,05	1,1	76	107	179	0,9	2,7	2	8	1	69	43	20	13	1	20	3,6
F134653	379638	7571664	JT	0,00	0,4	7	16	2	0,0	0,1	0	2	0	1025	209	42	3	0	3	1,2
F134654	379638	7571624	JT	0,00	0,1	4	3	2	0,0	0,0	0	1	0	221	28	8	3	0	2	0,0
F134655	379912	7571275	JT	0,00	0,4	86	89	0	0,2	0,0	1	2	3	122	46	14	15	2	4	1,7
F134656	380314	7571564	TC	0,00	0,1	109	299	17	0,2	0,1	1	1	2	62	111	28	7	1	6	0,0
F134657	380410	7571706	JT	0,02	0,8	20	82	34	0,8	0,4	3	8	3	50	4	2	30	2	10	0,2
F134658	381419	7571890	TC	0,06	5,7	441	1240	71	2,6	2,6	3	4	4	293	179	49	62	2	17	0,3
F134659	381489	7571881	JT	0,00	0,1	9	59	9	0,2	0,0	0	1	2	43	18	7	2	2	5	0,4
F134661	381406	7571750	JT	0,00	0,1	8	82	3	0,2	0,0	0	2	2	34	49	12	7	1	4	0,8
F134662	381412	7571719	TC	0,00	0,2	12	44	5	0,2	0,1	1	3	3	57	80	21	9	3	5	1,9
F134663	381655	7571300	JT	0,01	0,0	3	7	5	0,1	0,2	0	1	1	2	8	18	2	20	16	0,0
F134664	381601	7571275	TC	0,00	0,0	1	9	7	0,0	0,0	0	1	0	3	14	28	0	0	4	0,0
F134665	381291	7571167	TC	0,00	0,1	2	22	1	0,1	0,1	0	6	1	26700	350	312	1	5	>50	0,0
F134666	381289	7571167	TC	0,01	0,2	2	19	7	0,5	0,2	0	25	1	1685	613	758	1	1	>50	5,9

Table 8. Contents of selected elements from the Sjangeli – Sjangeli NW. Except for iron and sulphur, units are in ppm.

Sample_ID	E_UTM	N_UTM	Sampled_by	Au	Ag	Pb	Zn	As	Bi	Te	Sb	Se	Sn	Cu	Ni	Co	Mo	W	Fe	S
F134667	381277	7571131	TC, JT	0,03	0,8	3	81	12	0,5	0,3	0	15	2	4960	91	199	1	2	16	1,9
F134668	381277	7571131	TC	0,01	0,3	2	10	4	0,5	0,2	0	5	1	247	414	129	1	0	>50	1,7
F134669	381277	7571130	JT	0,01	0,3	2	41	4	0,5	0,4	0	11	3	3100	377	197	1	4	38	2,1
F134670	381252	7571103	JT	0,00	0,0	7	25	2	0,1	0,0	0	1	2	56	81	41	1	1	4	0,0
F134671	381237	7571072	TC	0,01	0,1	1	24	1	0,1	0,1	0	6	1	2400	579	132	2	1	>50	0,0
F134672	381275	7571002	JT	0,00	0,0	2	18	1890	0,0	0,0	134	1	3	12	82	76	1	42	11	0,0
F134673	381261	7571002	JT	0,00	0,0	3	49	110	0,0	0,0	16	1	3	4	35	61	1	12	5	0,0
F134674	381261	7571002	TC	0,00	0,0	2	37	4070	0,0	0,0	141	1	1	2	62	96	3	14	15	0,0
F134675	381251	7570990	JT	0,00	0,0	6	72	168	0,0	0,0	15	1	2	6	185	143	0	6	21	0,0
F134676	380995	7570957	JT	0,00	0,0	2	69	4	0,2	0,0	0	1	6	90	183	64	1	2	6	0,0
F134677	381085	7570944	JT	0,01	0,1	1	56	1	0,2	0,1	0	1	2	295	191	93	0	1	13	0,0
F134678	381083	7570950	TC	0,00	0,0	2	40	1	0,3	0,0	1	1	1	120	123	63	0	1	12	0,0
F134679	381205	7571049	JT	0,00	0,0	1	8	3	0,0	0,0	1	1	1	805	427	167	1	15	>50	0,0
F134681	381524	7573168	TC	0,00	0,1	40	29	61	0,1	0,1	1	1	1	35	20	10	4	2	3	1,0
F134682	381490	7573174	TC	0,23	0,2	47	31	2550	0,1	0,1	3	1	1	27	1	2	1	0	2	0,2
F134683	381514	7573174	JT	0,01	0,4	75	163	38	0,4	0,1	2	2	4	47	37	9	10	2	3	0,9
F134684	381514	7573174	JT	0,02	0,4	101	112	192	0,5	0,0	2	2	4	25	16	5	7	1	3	0,3
F134685	381514	7573174	JT	0,02	0,9	127	71	19	0,9	0,1	3	3	3	39	13	5	15	2	4	0,5
F134686	381514	7573174	JT	0,01	0,7	178	90	153	1,3	0,1	1	1	2	25	9	4	4	1	2	0,2
F134687	381502	7573188	TC	0,24	0,2	177	67	229	0,1	0,0	1	1	1	22	1	1	2	0	1	0,1
F134688	381514	7573174	JT	0,01	0,7	68	76	19	0,8	0,1	4	4	3	23	10	3	23	3	4	0,3
F134689	381514	7573174	JT	0,00	0,6	50	79	24	0,6	0,1	3	4	2	61	16	6	18	2	6	0,7
F134690	381514	7573174	JT	0,00	0,3	46	141	123	0,3	0,1	2	2	1	91	43	20	3	1	8	1,5
F134691	381514	7573174	JT	0,00	0,7	651	237	38	0,4	0,1	3	3	2	60	22	7	14	2	6	0,4
F134692	381396	7573088	TC	0,00	0,1	8	45	21	0,1	0,0	1	1	1	16	5	3	1	0	2	0,1
F134693	381392	7573105	TC	0,00	0,4	33	33	2	0,7	0,1	0	2	1	45	16	3	4	1	5	0,1
F134694	381391	7573105	TC	0,00	0,7	60	60	4	0,9	0,2	1	4	3	126	28	8	24	3	7	0,1
F134695	380926	7573299	JT	0,00	0,1	4	1	1	0,0	0,0	0	1	0	45	1	0	9	0	3	0,1
F134696	380651	7573332	TC	0,00	0,0	2	4	1	0,0	0,0	0	1	0	4	2	1	4	0	1	0,0
F134697	380648	7573332	TC	0,00	0,0	2	28	1	0,0	0,0	0	1	1	5	1	0	1	0	2	0,0
F134698	380644	7573335	TC	0,00	0,2	4	11	19	0,1	0,0	0	1	0	214	2	26	2	0	2	1,0
F134699	380648	7573336	TC	0,00	0,1	9	3	21	0,0	0,0	0	1	0	15	1	1	2	0	1	0,0
F134801	380648	7573342	TC	0,00	0,1	4	13	30	0,0	0,0	0	1	0	31	3	6	7	0	2	0,1
F134802	380648	7573342	JT	0,00	0,7	35	206	45	0,1	0,0	0	1	0	133	3	94	8	0	16	1,7
F134803	380652	7573347	TC	0,00	0,1	6	15	8	0,0	0,0	0	1	0	7	1	2	4	0	1	0,1
F134804	380651	7573347	TC	0,00	0,1	2	13	11	0,0	0,0	0	1	0	16	1	1	2	0	1	0,1
F134805	380652	7573349	TC	0,00	0,3	6	10	1	0,3	0,0	0	1	0	16	1	0	2	0	1	0,0
F134806	380653	7573348	JT	0,00	0,8	83	95	44	0,5	0,1	1	1	1	110	3	7	9	0	4	0,7
F134807	380651	7573352	JT	0,00	0,1	5	4	2	0,0	0,0	0	1	0	13	2	0	2	0	1	0,0
F134808	380651	7573352	JT	0,00	0,2	5	21	32	0,1	0,0	0	1	0	53	4	3	3	0	2	0,0
F134809	380354	7572063	JT	0,00	0,2	41	135	2	0,2	0,0	1	1	7	157	97	32	7	2	7	0,1
F134810	380355	7572062	JT	0,00	0,1	23	154	3	0,3	0,0	2	1	5	99	84	29	3	3	6	0,3
F134811	380195	7571958	JT	0,00	0,2	10	71	10	0,4	0,1	0	3	1	66	7	2	5	1	14	0,4
F134812	380195	7571958	JT	0,00	0,1	11	51	14	0,2	0,1	0	3	1	261	16	4	3	0	39	0,8
F134813	380197	7571965	TC	0,00	0,0	3	135	32	0,1	0,0	0	1	0	19	136	48	0	0	11	0,0
F134814	380151	7571838	JT	0,00	0,4	20	54	21	0,4	0,1	0	3	1	13	2	1	15	2	9	0,5
F134815	379942	7571687	TC	0,01	0,4	27	64	124	0,2	0,6	1	3	1	159	60	16	5	1	10	0,8
F134816	379836	7571575	JT	0,01	0,1	4	6	484	0,1	1,7	0	7	0	512	2	1	3	0	>50	1,2
F134817	379832	7571573	JT	0,04	0,5	8	21	189	0,4	2,1	2	10	1	160	3	1	9	1	30	1,3
F134818	379751	7571685	TC	0,00	0,2	9	194	18	0,1	0,2	1	4	3	130	110	33	2	1	11	0,8
F134819	379754	7571685	JT	0,00	0,1	21	25	4	0,1	0,1	0	2	4	17	20	6	1	1	1	0,0
F134821	379560	7571554	JT	0,02	0,6	33	560	428	0,1	0,7	5	4	1	129	123	27	11	1	13	1,2
F134822	379562	7571550	TC	0,00	0,4	17	243	61	0,1	0,2	3	3	1	87	31	11	3	1	14	1,0

Table 8. Continued: contents of selected elements from the Sjangeli – Sjangeli NW. Except for iron and sulphur, units are in ppm.

DISCUSSION

In the Katterat area, gold mineralization is associated with structures related to the Branten shear zone and the supracrustal units, having both structural and apparent chemical controls. Supracrustal rocks most observed include andesitic metavolcanics, metapelites and graphitic metasediments. The host rocks are locally very deformed accompanied by varying degrees of sericite alteration, silicification and sulphidization, mainly in the form of pyrrhotite with less pyrite, sphalerite, galena, chalcopyrite and arsenopyrite.

Gold is associated with arsenic but can also be elevated together with lead and zinc. Several stages of orogenic metamorphic-hydrothermal mineralization processes are likely, although, at this stage, the relations are challenging to establish. An interesting insight is provided by looking into the assays from Sjangeli NW. There, the anomalous gold, although of sub-economic grades, is associated with elevated arsenic but low base metal contents. This gives evidence for at least one mineralizing event being dominantly gold-arsenic bearing.

Gold mineralization is associated with silicification; however, one can rarely attribute a distinct vein or vein system to the mineralization. In many of the mineralized outcrops, late-stage quartz-carbonate alteration with “vuggy” textures is observed and some of these have been described to host galena, sphalerite and arsenopyrite.

Questions (and concerns) remain around the intensity, the scale, and the continuity of both the precious and the base metal mineralization. Based on the current knowledge the known mineralized structures are of limited extent. Further south of the K5 East, in the central parts of the Katterat area, the rusty outcrops are more extensive, however, unfortunately, limited indications of gold mineralization have been found there.

To further establish the grade distribution and continuity and to gain a better understanding of the controls – should one want to do that – of the mineralization, one could consider taking continuous samples in selected locations. One of the better candidates for this would be the K2 target in the northern part of the Katterat area. The options for this would be drilling and/or channel or chip sampling. Although being more costly, the drilling would outweigh the other options in terms of sample quality and geological information. A well planned, small-scale drill program would suffice. Still, one needs to consider if it is money well spent.

Using e.g., aerial photos, one can possibly identify additional rusty outcrops related to relevant structures, but I find it hard to come up with reasons to go back to the already prospected and sampled areas.

In the Sjangeli extension area, the known magnetite skarns do not seem to be carrying gold and have, based on the sampling done mostly sub-economic copper contents. Indications of arsenopyrite with anomalous gold in quartz vein(s) were done within this region. It is good to keep in mind, however, that only five field days were spent in Sjangeli. Still, it is hard to see these results as very encouraging.

Apart from the geological challenges, there are also challenges with the remoteness of the project, the relatively high cost of working there and the social-environmental issues that may arise.

REFERENCES

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