

MAP NO.: ASSESSMENT REPORT X
105 D 3 PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092874
MINING DISTRICT: Whitehorse
TYPE OF WORK: Trenching
Geochemical

REPORT FILED UNDER: Aurum Geological Consultants Inc.

DATE PERFORMED: Aug 9-Sept 25, 1989

DATE FILED: Aug 31, 1990

LOCATION: LAT.: 60°13'N

AREA: Wheaton River

LONG.: 135°09'W

VALUE \$: 15,400

CLAIM NAME & NO.: ROB 1-54

WORK DONE BY: Harmen Keyser of Aurum Geological Consultants Inc.

WORK DONE FOR: Adda Minerals Company Limited

DATE TO GOOD STANDING:

REMARKS: This property is located adjacent to the eastern margin of the Mt Skukum caldera complex. Work on the property in 1989 consisted of mapping, trenching and soil sampling. Analysis of soil samples returned up to 7,068 ppb Au, 4.5% Zn. Quartz float returned 6.273 opt Au and 15.21 opt Ag. Trenching was not successful on the Ridge zone but trenching did reveal significant skarn mineralization on the Skarn Zone. Here, sulphide mineralization appears restricted to the skarnified rocks.

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 15,400.

For *Dennis P. Chellette*
Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

SUMMARY

Adda Minerals Company Limited's Rob claims consist of 54 contiguous mineral claims located in the Wheaton River area, Yukon. They are accessible by road from Whitehorse. The ground became an attractive exploration target in 1981 with the discovery of a high grade gold ore body at nearby Mt. Skukum. A number of other successful exploration programs are being carried out in the area.

The property is located adjacent to the eastern margin of the Mt. Skukum caldera complex. Granitoid rocks of the Coast Plutonic Complex underlie most of the property, and intrude older metasediments. Eocene hypabyssal and volcanic intermediate to felsic rocks intrude and overlie all other lithologies. This is interpreted as a suitable host for precious metal deposits.

The current work program has consisted of geological mapping, geochemical sampling, prospecting, and trenching. Results of the work have identified the following new exploration targets: (1) skarn-type mineralization near the eastern part of the property where rock samples have returned up to 7,068 ppb gold and 4.5% zinc, and (2) potential quartz vein-type mineralization at or near the southwestern claim boundary as evidenced by float which has assayed up to 6.273 opt gold and 15.21 opt silver. Additional targets requiring further exploration are provided by geological and geochemical anomalies on other parts of the ground.

Based on these results, an exploration program consisting of diamond drilling, geological mapping, geochemical sampling, trenching, and claim surveying is warranted and recommended.

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INTRODUCTION

This report was prepared at the request of the directors of Adda Minerals Company Limited. Its purpose is to satisfy assessment requirements of the Yukon Quartz Mining Act through a description of 1989 exploration work on the Rob 1-54 claims.

The claims are located about 55 kilometers south of Whitehorse, Yukon and are accessible by road.

Gold and silver were first sought in the Wheaton River area in the late 1800's. No documentation of exploration work prior to 1985 is available for the Rob claims. The ground became an attractive exploration target with the discovery of a gold orebody at nearby Mt. Skukum in 1981, and a major gold-silver deposit at Skukum Creek in 1985.

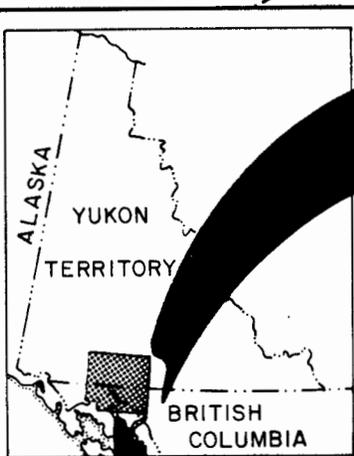
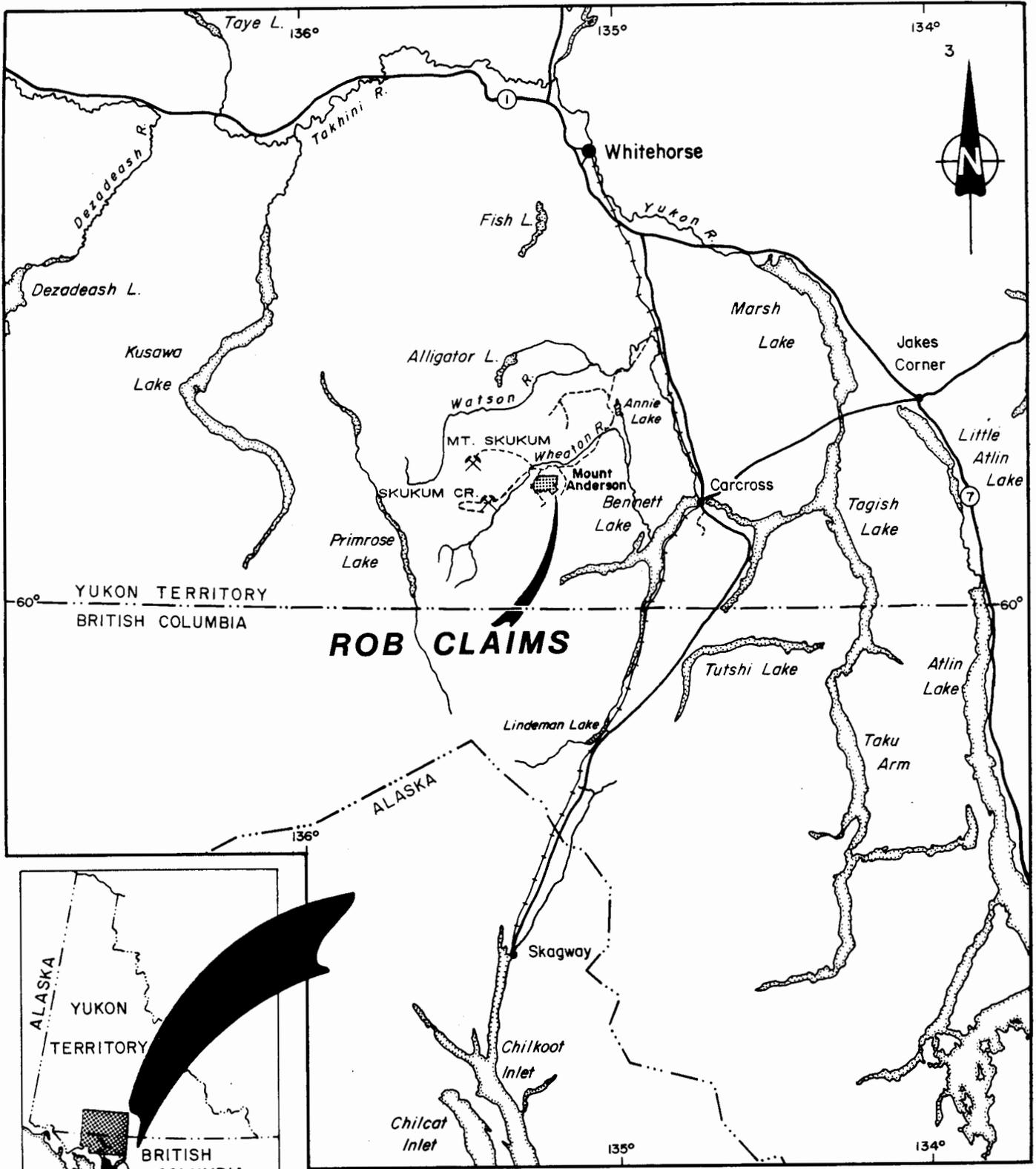
Mineral exploration work completed 1989 consisted of prospecting, geological mapping, geophysical surveying, geochemical sampling, and trenching. The work was supervised by Harmen Keyser, Roger Hulstein, and Lori Walton of Aurum Geological Consultants Inc. Trenching was performed by MBW Surveys Ltd. and Coleton Construction Ltd., both of Whitehorse. Only results of work applicable to assessment will be described in this report.

LOCATION AND ACCESS

The claims are located in southwestern Yukon, about 55 kilometers south of Whitehorse (Figure 1), and are centered on the north flank of Mt. Anderson. The geographic coordinates of a point approximately in the center of the property are 60° 13' North and 135° 09' West.

Access is by a good quality gravel road leading from the paved Whitehorse-Carcross Highway to the Mount Skukum and Skukum Creek properties. This road follows the south side of the Wheaton River and crosses the northern part of the Rob property, a distance of about 75 kilometers from Whitehorse. Access onto the claims is provided by 4WD roads leading into Partridge Creek and Becker Creek valleys.

Alternatively, helicopters are available for charter at Whitehorse.



ADDA MINERALS COMPANY LIMITED	
ROB CLAIMS	
WHITEHORSE MINING DISTRICT	
LOCATION	
Aurum Geological Consultants Inc.	JUNE 1990
Drawn by NH	Checked by HK
Scale 1:1,000,000	FIGURE 1

HISTORY

Considerable prospecting was carried out in the Wheaton River area starting in the early 1900's, culminating in the discovery of numerous gold and silver (and related metals) occurrences. Gold-silver mineralization has been previously located in the vicinity of the Rob claims at Mt. Anderson (1 km south), Gold Hill (10 km north), and Tally-Ho Mountain (6 km northeast). There is no record of exploration on ground now covered by the Rob claims prior to 1985.

In 1981 AGIP Canada Ltd. discovered a gold orebody at Mount Skukum, 16 kilometers west of the Rob claims. This deposit produced some 5000 ounces of gold per month from start-up in March 1986 to August 1988. Published pre-production proven reserves stood at 235,000 tonnes (259,000 tons) grading 20 g/t (0.58 opt) gold (Doherty, 1983).

A second potential gold-silver orebody was discovered by Omni Resources Inc. at Skukum Creek, 7 kilometers southeast of Mount Skukum and 10 kilometers west of the Rob claims. Reserves are reported at 745,000 tonnes (821,000 tons) grading 7.9 g/t (0.23 opt) gold and 305 g/t (8.9 opt) silver, including 166,000 tonnes (183,000 tons) averaging 19.7 g/t (0.575 opt) gold and 566 g/t (16.5 opt) silver (Omni 1988 annual report).

Walhala Exploration Ltd. acquired the Rob claims by staking in June 1984 and transferred them to Anina Resources Inc. in January 1985. Preliminary geophysics and soil geochemistry were carried out in 1984 and 1985 (Rogers, 1985 and Nelles, 1985). This work outlined three VLF-EM conductors and low-order geochemical soil anomalies. Geological mapping and prospecting were carried out in 1986 which outlined a number of geological and geochemical targets (Keyser, 1987). Surveying and fraction staking were completed by Anina Resources Inc. and JBD Management Svc., Inc. during the period 1985-1987. JBD Management Svc., Inc. acquired the Rob claims from Anina Resources Inc. in 1987, and subsequently transferred them to Adda Minerals Company Limited in 1989. Adda carried out a program of geological mapping, geochemical sampling, and trenching in 1989, which is described in this report.

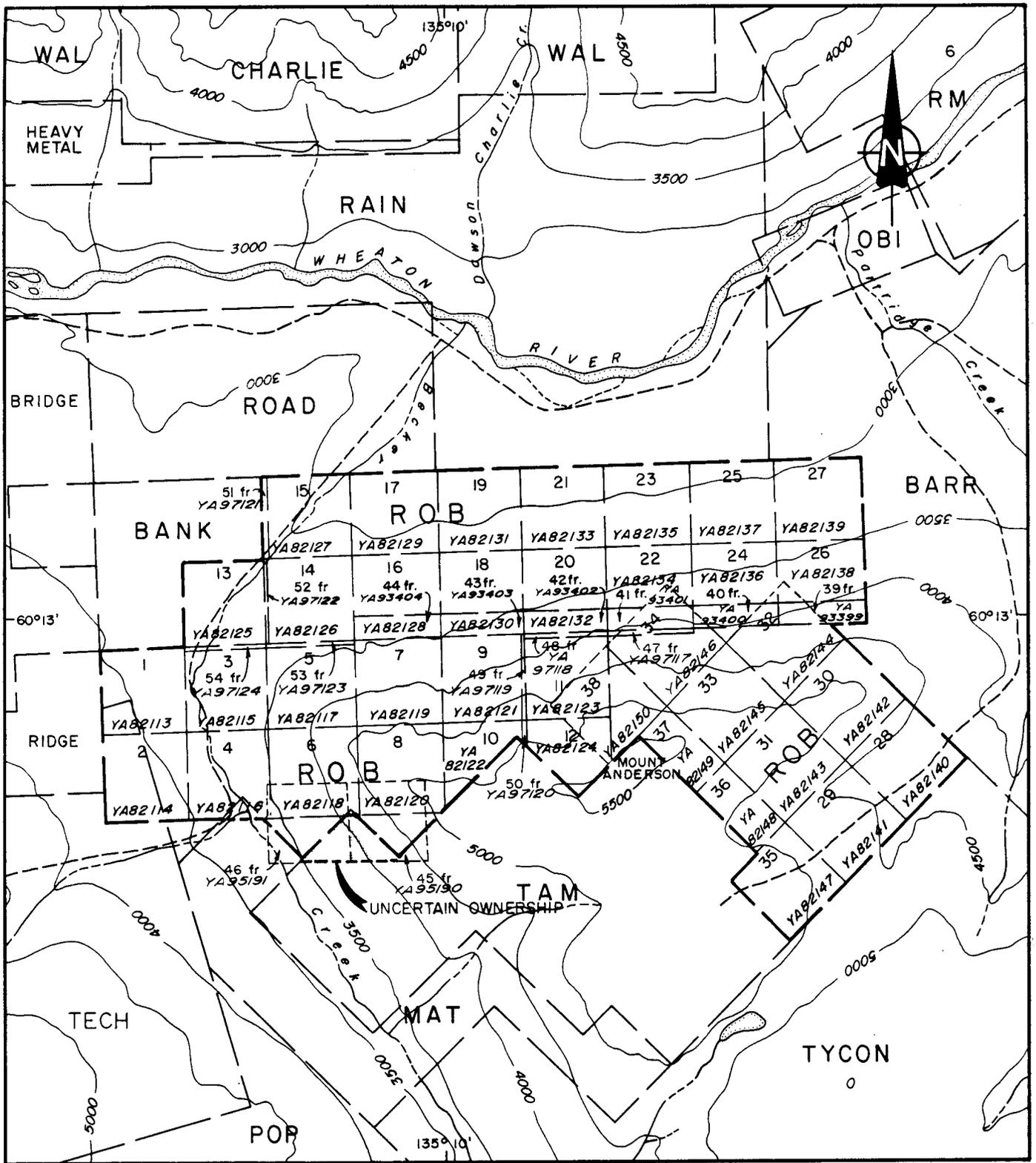
PROPERTY

The property consists of 38 two-post surveyed mineral claims and 16 surveyed fractional claims (Figure 2) staked under the Yukon Quartz Mining Act totaling approximately 1500 hectares (3700 acres). Claim data are as follows:

Claim Name	Grant No.'s	Recording Date	Expiry Date
Rob 1-38	YA 82113-150	June 7, 1984	June 7, 1991
Rob 39-44 fr	YA 93399-404	Sept. 10, 1985	Sept. 10, 1991
Rob 45-46 fr.	YA 95190-191	July 21, 1986	July 21, 1991
Rob 47-54 fr.	YA 97117-124	Apr. 14, 1987	Apr. 14, 1991

The claims are owned 100% by Adda Minerals Company Limited. They are shown on Yukon Quartz and Placer Sheet 105 D-3 and are known collectively as the Rob Claims.

A legal survey of claim boundaries was completed by Thomson and Iles (Canada Land Surveyors) of Whitehorse in 1986-1987, and is filed with the Whitehorse Mining Recorder. Due to missing claim posts on one of the adjoining claims, ownership of a small piece of ground at the southwest boundary of the claim block could not be resolved.



LEGEND

- 28 claim boundary
- YAB2140 claim number
tag number
- gravel road
- river, creek
- lake
- elevation contour ; interval 500ft.

Notes - adapted from D.I.A.N.D.
map sheet IO5 D-3

500m 0 500 1000 1500m
SCALE IN METRES

ADDA MINERALS COMPANY LIMITED	
ROB CLAIMS WHITEHORSE MINING DISTRICT	
CLAIM MAP	
Aurum Geological Consultants Inc.	JUNE, 1990
NTS IO5 D/3	Drawn by NH Scale 1:30,000
FIGURE 2	

CLIMATE, TOPOGRAPHY, AND VEGETATION

The climate in the area of the Rob claims is variable with hot summers and long cold winters. Precipitation is light, averaging about 50 cm (50") annually, with heavy snowfalls during the winter months.

The property is situated at the eastern flank of the Coast Mountains and topography is rugged. Elevations range from 915 m (3,000 ft) to 1720 m (5,650 ft) above sea level. The area has been greatly modified by Pleistocene glaciation, and such glacial features as U-shaped valleys, aretes and cirques are common.

Vegetation consists mainly of alpine shrubs and grasses with some stunted spruce and poplar in lower valleys. Ridge tops are typically covered with felsenmeer. The upper north flank of Mt. Anderson consists mainly of outcrop.

GEOLOGY

Regional Geology

The Rob claims are situated at the eastern flank of the Coast Plutonic Belt. Cairnes (1912), Wheeler (1961), and Doherty et al. (1988) have adequately described the regional geology.

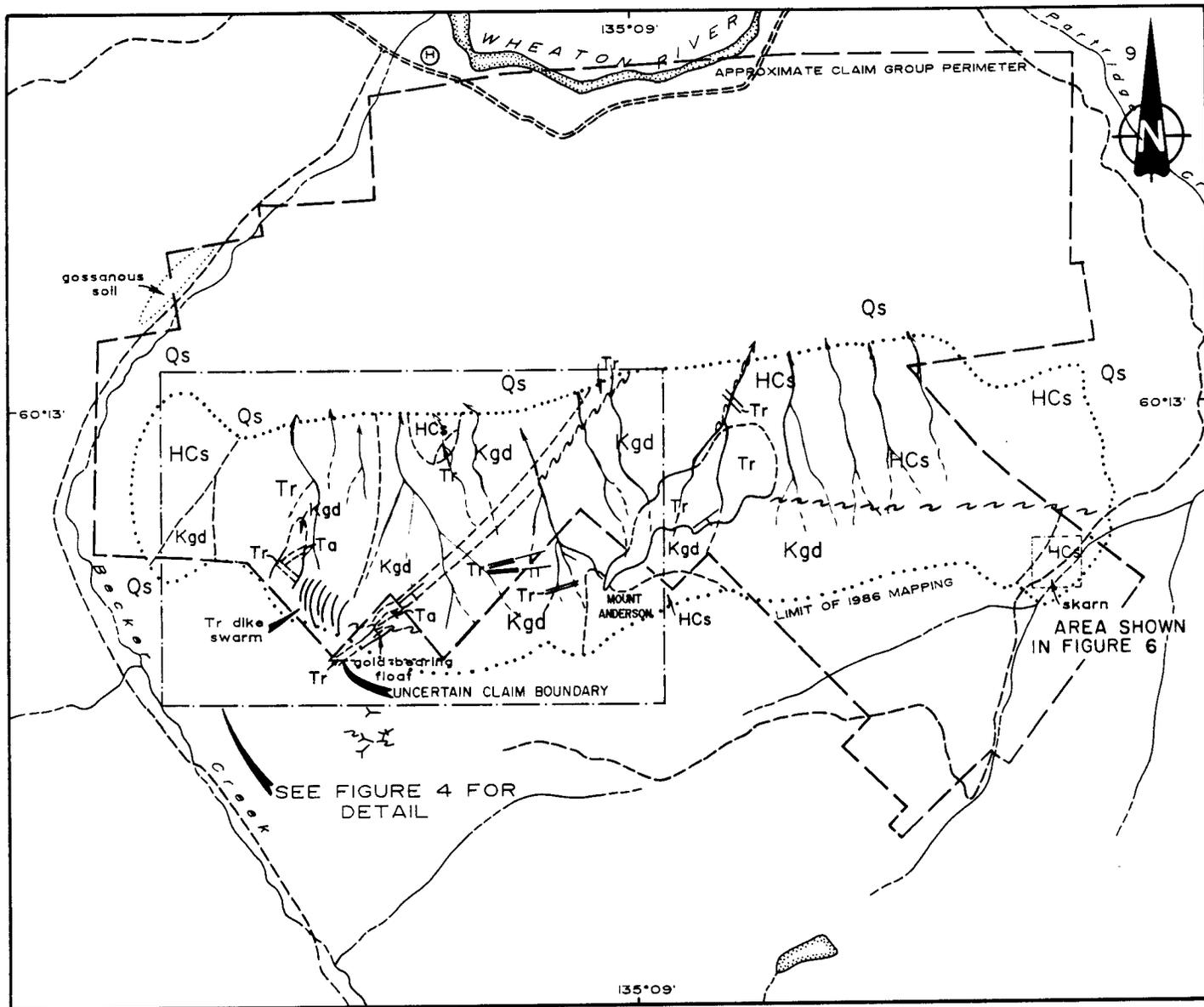
The Coast Plutonic Belt is composed of foliated and non-foliated granitoid rocks of Cretaceous (?) age flanked by older metamorphosed and unmetamorphosed sedimentary and volcanic strata. Granodiorite, granite and quartz diorite are characteristic of the composite plutons. Gabbro and syenite are rare. Irregular belts of lower Mesozoic to Paleozoic (and possibly Precambrian) metasedimentary and metavolcanic rocks form roof pendants.

Of particular interest is the location of the Rob claims on the eastern margin of the Mt. Skukum volcanic complex, in part an Eocene (Pride and Clark, 1985) cauldron. The Mt. Skukum orebody is located within the cauldron, and Skukum Creek is at its southern margin.

Faulting, lithologic attitudes, and other regional trends are generally northwest, with some younger northeast structures. Most structurally controlled mineral deposits in the area are associated with pre-existing northeast trending fault zones now occupied by intermediate to felsic dikes. There does not appear to be any relation between mineralization and wallrock lithology.

Geology of the Rob Claims

Property geology (Figure 3) is much more complex than can be shown on the previously described regional mapping. Rock outcrops are restricted to the upper north flank of Mt. Anderson, and probably constitute less than 30% of the total property area.



LEGEND

LITHOLOGIES

QUATERNARY

Qs unconsolidated surficial deposits

TERTIARY

Tr rhyolite, undifferentiated

Ta andesite, propylitized

CRETACEOUS

Kgd granodiorite porphyry

PRECAMBRIAN

YUKON GROUP

HCs gneiss, schist, quartzite, marble

SYMBOLS

lithologic boundary, defined, approximate

fault

dike swarm, showing approximate strike

attitude of structure

helicopter base

adit (X inaccessible)

roads

creek, stream, lake

Note: Locations based on 1:40,000 scale aerial photographs, and reference to surveyed claim posts

Geology by H. Keyser and D. David, July 1986



ADDA MINERALS COMPANY LIMITED			
ROB CLAIMS WHITEHORSE MINING DISTRICT			
<h1 style="font-size: 2em;">GEOLOGY</h1>			
<i>Aurum Geological Consultants Inc.</i>		JUNE, 1990	
NTS 105 D/3	DRAWN BY NH	SCALE 1:25,000	FIGURE: 3

Yukon Group foliated quartz-feldspar-biotite gneisses, biotite schists, and marbles (map unit HCs) of Hadrynian to Cambrian age are the oldest exposed lithology on the Rob claims. They are found as roof pendants in granodiorite over the entire property. Some exposures show evidence of contact metamorphism, including skarnification.

Leucocratic medium grained equigranular to porphyritic granitoid rocks (map unit Kgd) have intruded the older metamorphic rocks. Based on an overall mineralogy of feldspar (% plagioclase > % orthoclase), 60%; quartz, 25%; and mafic minerals, 15%, they can be classified as granodiorite. Hornblende usually predominates over biotite, and both are variably chloritized. This unit is the most commonly exposed lithology on the Rob claims.

Andesitic rocks (map unit Ta) have been mapped as dikes over most of the property, although many are too small to be shown at 1:25,000 scale. They are typically porphyritic with variable propylitization.

Light colored, sometimes rusty weathering, rhyolite (map unit Tr) intrudes all pre-Tertiary rocks at the western and central parts of the property. Characterized by near-vertical (?) plug-like structures, they are associated with collapse of the Mt. Skukum Caldera complex (Doherty et al., 1988). Steeply dipping dikes of a similar composition have been mapped over the entire property. Although sometimes difficult to recognize, wallrock alteration adjacent to the plugs consists of a narrow zone (up to 5 meters) of silicification.

Dikes, faults, and air photo lineaments mapped to date on the Rob claims follow a predominant northeast trend, discordant with regional structures. The northeast direction is parallel to the adjoining caldera margin.

MINERALIZATION

There is no record of mineral discoveries on the Rob claims prior to the 1986 exploration program. In 1986, prospecting and geological mapping culminated in the discovery of vein-type gold-silver mineralization at the Ridge Zone and skarn-type gold-zinc mineralization at the Skarn Zone (Keyser, 1987).

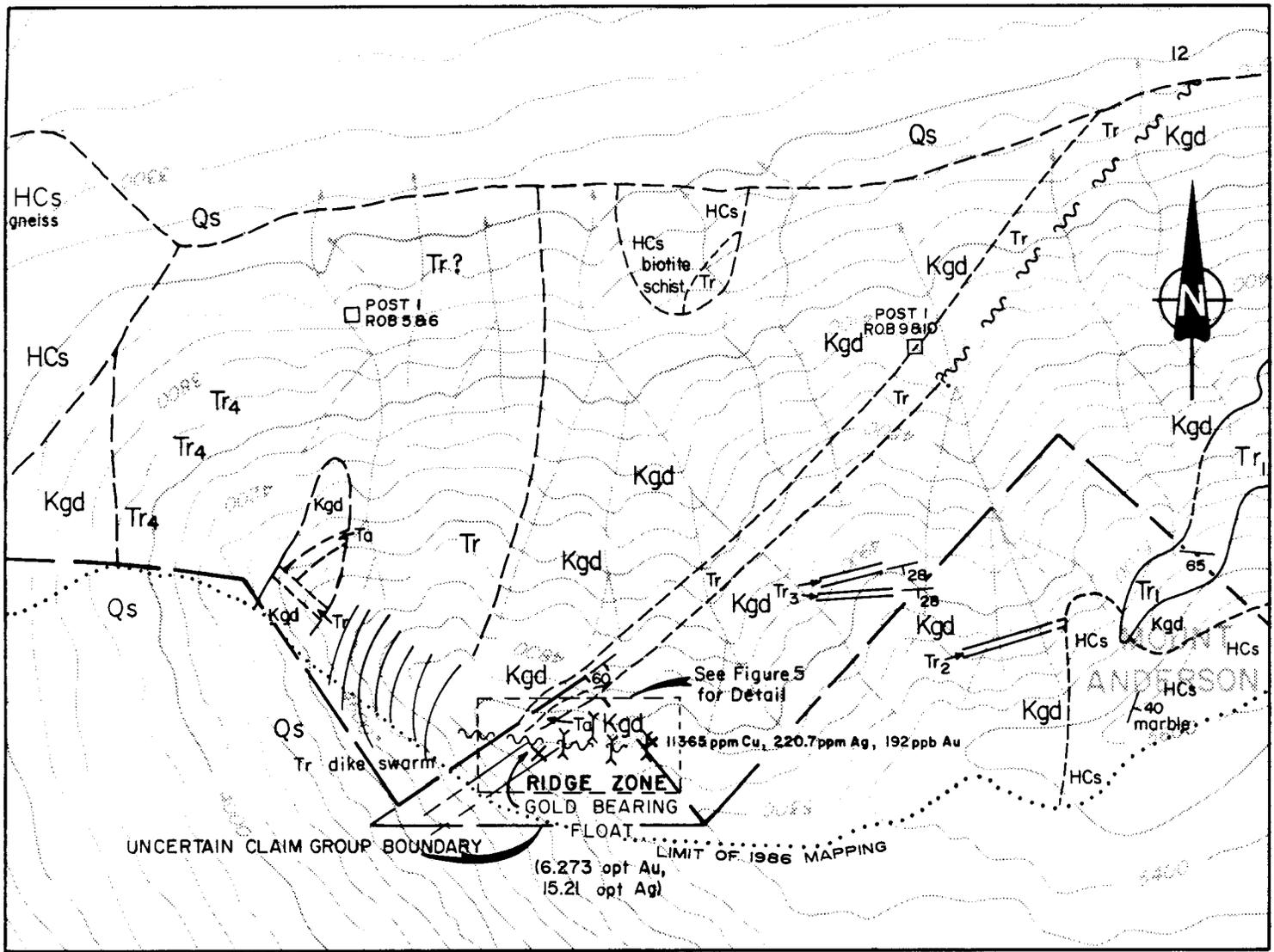
Ridge Zone

Mineralized float discovered in 1986 at or near the southwestern boundary of the Rob claims at the common boundary with the Tam claims, on the ridge-top west of Mount Anderson (Figure 4), was explored by hand trenching in 1989. It is believed to be a new discovery. Consisting of vuggy quartz vein-type material with traces of pyrite and galena, manganese and limonitic staining is evident. Selected samples of this float have returned up to 6.273 opt gold and 15.21 opt silver (Keyser, 1987).

The 1989 trenching program (Figure 5) was not able to expose bedrock in the area of the Ridge Zone due to steep scree-covered slopes. However, mineralized float and geochemically anomalous soil was found in all of the trenches. Although the mineralized float has not been found in place, it is suggested that its source is a recessive weathering gold-bearing vein parallel to a mapped northeast trending rhyolite dike, typical of other vein-type precious metal occurrences in the Wheaton River area. The mineralized float has been found on ground of which ownership is unclear at this time.

Skarn Zone

Mineralization at the Skarn Zone (Figure 5) is contained within skarnified Yukon Group limestone along an irregular intrusive contact with Cretaceous quartz monzonite. Skarn-type minerals exposed by 1989 excavator trenches include marble, garnet, actinolite, tremolite, quartz, diopside, and rhodochrosite. Sulfide mineralization is dominated by sphalerite, but pyrite, pyrrhotite, molybdenite, chalcopyrite, and bismuthinite have also been recognized. The distribution of sulfides appears to be restricted to skarnified rocks.



L E G E N D

LITHOLOGIES

QUATERNARY

Qs unconsolidated surficial deposits

TERTIARY (EOCENE ?)

Tr Tr ; rhyolite, undifferentiated
 Tr₁ ; orange to black weathering finely jointed aphanitic rhyolite, occasional quartz eyes
 Tr₂ ; grey weathering silicified rhyolite porphyry
 Tr₃ ; light green weathering spherulitic rhyolite
 Tr₄ ; white weathering, clay-altered rhyolite porphyry

Ta andesite, propylitized

CRETACEOUS

Kgd granodiorite porphyry

PRECAMBRIAN

YUKON GROUP
Hcs gneiss, schist, quartzite, marble

SYMBOLS

lithologic boundary, defined, assumed
 fault, defined, assumed
 dike swarm, showing approximate strike
 attitude of structure
 attitude of jointing
 claim post
 4000' elevation contour, Interval 500ft
 trench (1989)
 creeks, streams

Note: Locations based on 1:40,000 scale aerial photographs, and reference to surveyed claim posts

Geology by H. Keyser and D. David,
 July 1986

100m 0 100 200 300 400 500m
 SCALE IN METRES

ADDA MINERALS COMPANY LIMITED

ROB CLAIMS
 WHITEHORSE MINING DISTRICT

DETAILED GEOLOGY
 RIDGE ZONE

Aurum Geological Consultants Inc.

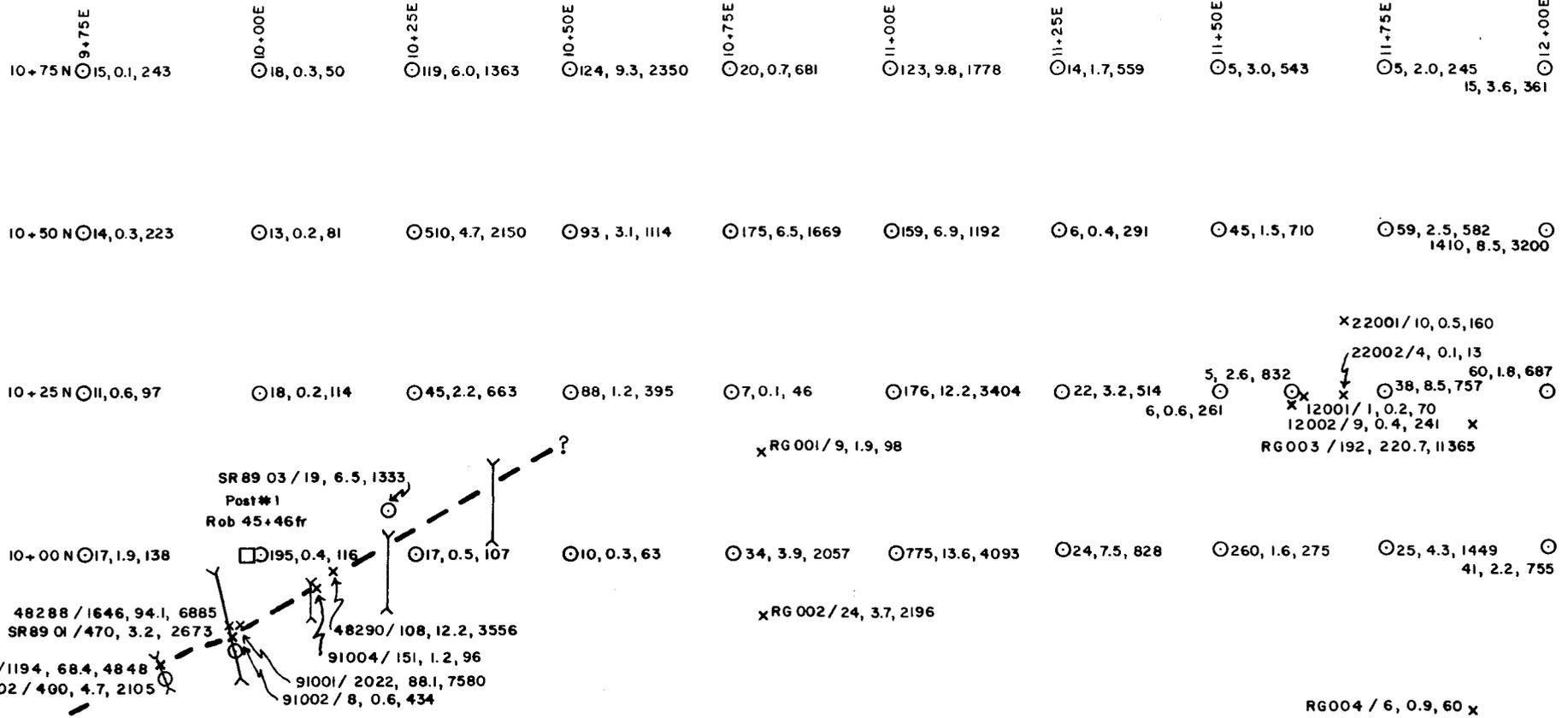
JUNE, 1990

NTS 105 D/3

DRAWN BY HK

SCALE 1:10,000

FIGURE: 4

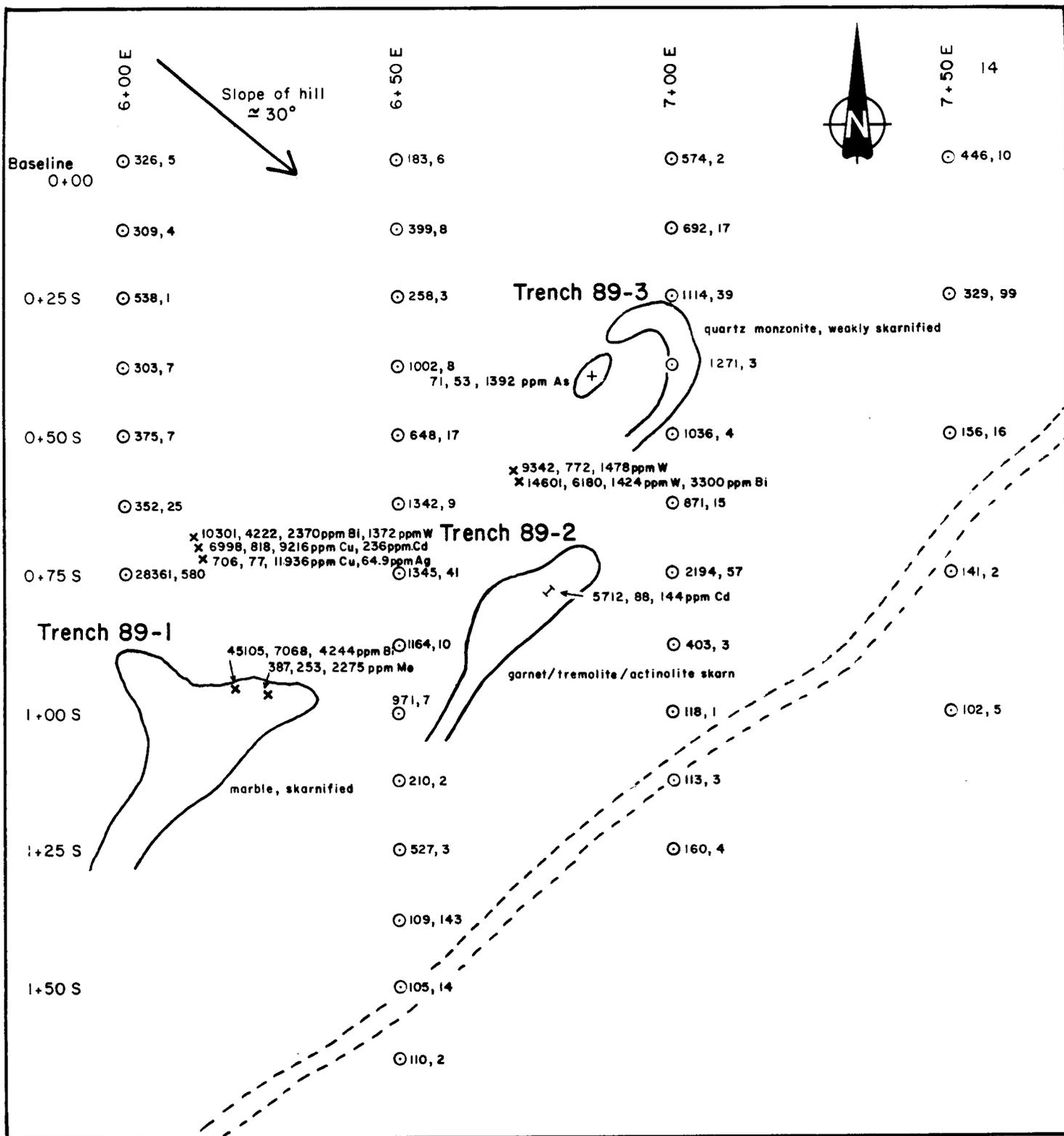


LEGEND

- Assumed trend of quartz - sulfide - clay vein
- Soil sample location
- Rock sample location
- 108, 12.2, 3556 Au ppb, Ag ppm, Pb ppm
- Claim post
- Trench



ADDA MINERALS COMPANY LIMITED	
ROB CLAIMS	
RIDGE ZONE	
Aurum Geological Consultants Inc.	August 1990
NTS 105 D/3	Drawn by GS Scale 1:1000 Figure 5

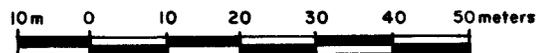


LEGEND

- limit of trench
- road
- soil sample location
- rock sample; from outcrop
- rock sample; rubble
- rock sample; one meter chip

2194, 57 Zn ppm, Au ppb

NOTE: All locations subject to survey



ADDA MINERALS COMPANY LIMITED

ROB CLAIMS

SKARN ZONE

Aurum Geological Consultants Inc. JUNE, 1990

NTS 1050/3 Drawn by LW/GS Scale 1:1000 Figure 6

Sampling of skarn-type mineralization has yielded geochemical results up to 7,068 ppb (0.206 oz/t) gold, 64.9 ppm (1.9 oz/t) silver, 4.5% zinc, 1.1% copper, 0.4% bismuth, and 0.14% tungsten. Mineralogy is complex and highly variable. Local controls of precious metal mineralization have not been recognized.

Other Mineralization

Other rock samples anomalous in gold and/or silver were taken in several locations on the north face of Mt. Anderson. One of these, collected by Doherty et al. (1988), has not been examined by the writer but returned 1300 ppb gold, 26 ppm silver, and 1028 ppm lead from a 50 cm wide quartz vein.

CONCLUSIONS AND RECOMMENDATIONS

The Rob 1-54 claims are underlain by Hadrynian to Cambrian meta-sediments which have been intruded by Cretaceous granodiorite. All of these rocks have been intruded and overlain by felsic volcanic and hypabyssal lithologies related to the Mt. Skukum caldera complex. Steeply dipping block faults cut all rock units.

Known gold-silver and base metal vein-type mineralization in the Wheaton River area is structurally controlled by faults related to collapse of the Mt. Skukum caldera complex. Significant mineral deposits are controlled by pre-existing fault zones now occupied by rhyolite and andesite dikes. Fault-controlled dikes of a similar composition on the Rob claims therefore provide a setting that is highly permissive for the development of precious metal vein-type deposits. Intrusive limestone-granodiorite contacts are present, making the development of skarn-type mineralization possible.

The property is a gold-silver prospect. Previous surface exploration has identified two new separate gold-bearing zones; (1) vein-type sulfide-bearing boulders at the Ridge Zone, and (2) skarn-type mineralization exposed in trenches at the Skarn Zone. The precise location of mineralized float at the Ridge Zone relative to the claim boundary is uncertain; however the source vein is thought to trend northeastward parallel to a major rhyolite dike and therefore the structure projects onto the Rob claims. Although this structure would normally be a high-priority exploration target, respective claim boundaries must be resolved before addressing the area whose ownership is unclear. Further work in this area is therefore not recommended until ownership is resolved.

The most significant exploration target presently identified on the Rob claims is a gold-bearing skarn located at the eastern part of the property. Gold and silver are closely associated with zinc and copper sulfides in irregular skarnified pods. Both soil and rock samples have returned variable analytical results, typical of skarn-type mineralization. The area of the skarn located within the Rob claims covers at least 200 by 250 meters, and may be as large as 500 by 1,000 meters. Soil geochemistry has outlined samples anomalous in gold and zinc west and north (both upslope) of known mineralization, indicating that additional gold-zinc mineralization remains to be found.

Results of surface exploration work carried out to date on the Rob claims warrant additional precious metal exploration. Geological mapping, geochemical sampling, geophysical surveying, trenching, and drilling are recommended. The southwestern claim boundary needs to be defined in consultation with the Mining Recorder.

Respectfully submitted;
Aurum Geological Consultants Inc.



Harmen J. Keyser, B.Sc., FGAC

June 22, 1990



REFERENCES

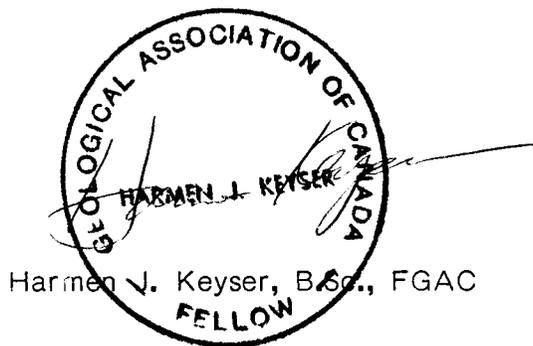
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312.

STATEMENT OF QUALIFICATIONS

I, HARMEN J. KEYSER, hereby certify that:

1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC., 412-675 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate of Saint Mary's University with a degree in geology (B.Sc., 1981), and have been involved in geology and mineral exploration continuously since 1978.
3. I am a fellow of the Geological Association of Canada (F3759) and a member of the Yukon Professional Geoscientists Society.
4. I have no direct or indirect interest in the properties or securities of Adda Minerals Company Limited.
5. I am the author of this report on the Rob claims, Whitehorse M.D., Yukon, which is based on fieldwork carried out under my supervision and involvement during the period July 1 to September 16, 1986, and August 9 to September 25, 1989; and on referenced sources.
6. This version of the 1990 report on the Rob 1-54 claims is to be used for assessment purposes only.

June 22, 1990



Harmen J. Keyser, B.Sc., FGAC

STATEMENT OF COSTS

Statement of Costs for exploration work carried out on the Rob 1-54 mineral claims for the period August 9 to September 25, 1989. Only costs of physical work (trenching) are applicable to assessment.

1. Ridge Zone

MBW Surveys Ltd.; hand trenching contract:	9,000.00
Explosives:	1,191.74
Helicopter Support:	<u>1,177.37</u>
Subtotal:	\$ 11,369.11

2. Skarn Zone

Coleton Construction; Hitachi UH-144:	3,585.00
Truck rental:	200.00
Camp costs and supplies:	<u>543.22</u>
	\$ 4,328.22

Total 1989 applicable assessment work on Rob 1-54 claims: \$ 15,697.33