



ANACONDA CANADA EXPLORATION LTD.

REPORT FOR ASSESSMENT

GEOLOGICAL AND GEOCHEMICAL EVALUATION

OF THE KAL 81-192 CLAIMS

SELWYN PROJECT, KALZAS MOUNTAIN AREA, MAYO MINING
DISTRICT, YUKON TERRITORY

Lat: $62^{\circ} 55'N$ Long: $135^{\circ} 17'W$ NTS: 105-L/14

Field Work performed within the period
June 8, 1982 to July 9, 1982.

Claims: KAL 81-192

July 12, 1982

Richard D. Hall

091065



It has been examined by
 the Geological Evaluation Unit
 under section 53 (4) Yukon Quartz
 Mining Act and is allowed as
 representative work in the amount
 of \$ 11,200

A. Watson

for Regional Manager, Exploration and
 Geological Services for Commissioner
 of Yukon Territory.

001000

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INTRODUCTION

During the period June 8 to July 8, 1982, geological mapping at a scale of 1:50,000 and a supplementary program of stream silt sampling was carried out on and adjacent to the KAL 1-192 claims. Claims are part of the KAL 1-292 group in the Selwyn Project area (NTS 105-L/N) of Anaconda Canada Explorations, Ltd. (Figure 1).

The purpose of field work was as follows:

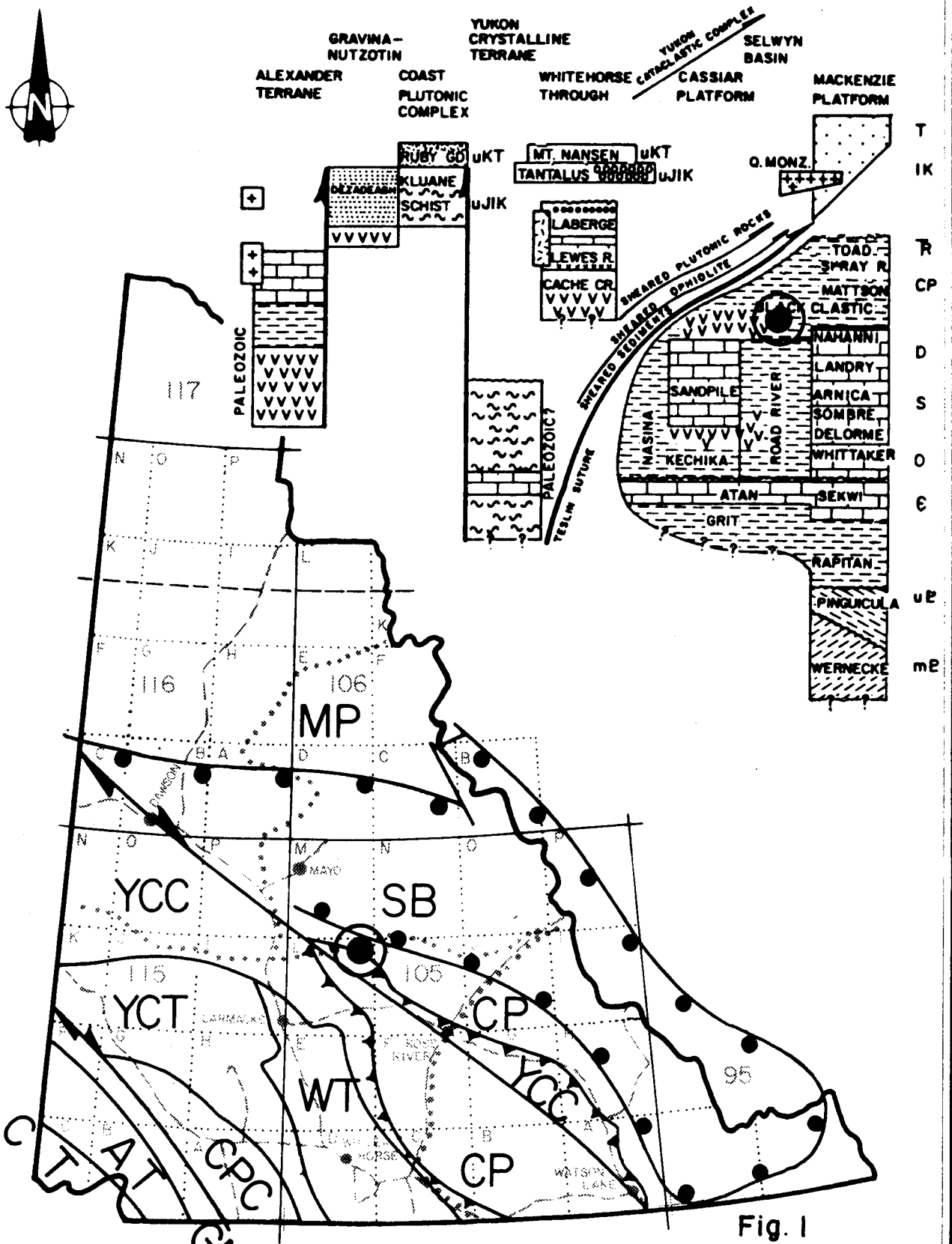
1. To review the stratigraphy of the Kalzas Range as mapped by Campbell (1967).
2. To follow up interesting areas outlined during the course of geological, geochemical and geophysical surveys run in 1981 (see Summary of Previous Work).

Activities reported here represent part of a preliminary phase of a base metal exploration program in the Kalzas Range.

LOCATION AND ACCESS

The Selwyn Project area (NTS-105L/14, 15 and 16) is located 75 km due east of the confluence of the Pelly River and the MacMillan River, Yukon Territory (Figure 2). The area is approximately equidistant from the towns of Mayo, Carmacks and Faro. Exploration in the project area is conducted out of a central base camp located on the north shore of Earn Lake. Access to Earn Base is by fixed wing aircraft from Whitehorse. Local access to properties is by helicopter from Earn Base.

Work reported here was conducted out of Earn Base, and out of fly camps located in the Kalzas Range.



ANACONDA CANADA EXPLORATION LTD.

SELWYN PROJECT AREA

Work by:	Drawn by	N.T.S
Scale: 1:50,000,000	Date:	Map ___ of ___

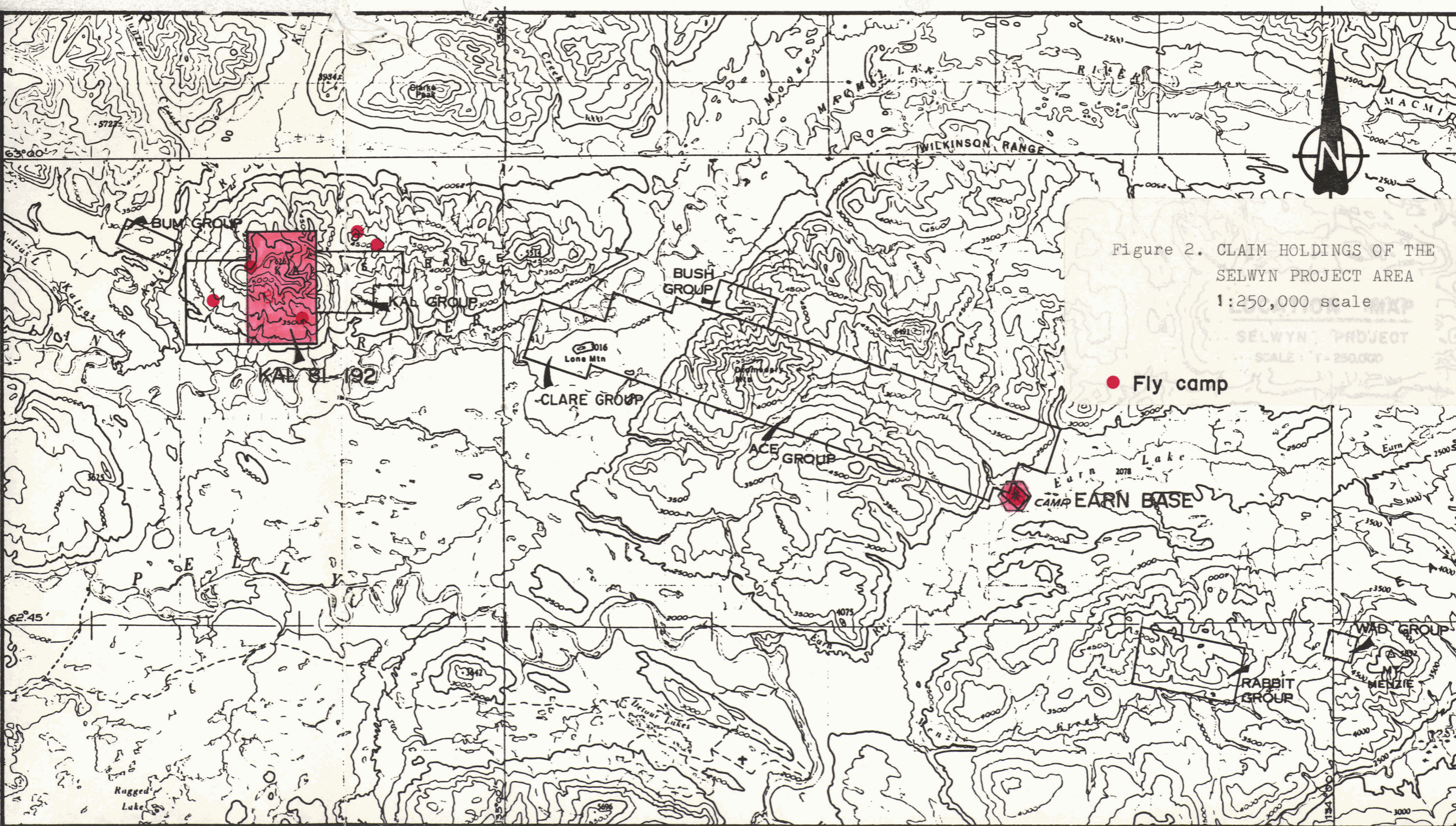


Figure 2. CLAIM HOLDINGS OF THE SELWYN PROJECT AREA
1:250,000 scale

● Fly camp

◆ CAMP EARN BASE

CLAIMS

The KAL 1-192 Quartz claims are located on Kalzas Mountain (NTS 105-L/14) at approximately 62° 55' north latitude and 135° 17' west longitude (figure 3). Grant numbers and names of claims are as follows:

Claim Numbers	Grant Numbers
KAL 81-115	YA63123-YA63157
KAL 116	YA76084
KAL 117-192	YA63158-YA63233

Except for KAL 116, all of the above were staked during the early summer of 1981 and recorded July 17, 1981. The KAL #116 claim was recorded September 21, 1981. All of the above claims are presently held in the name of Anaconda Canada Exploration Ltd.

SUMMARY OF PREVIOUS WORK

The Selwyn Project area of Anaconda presently includes five non-contiguous blocks of claims staked over selected parts of an 80 km long belt of rocks mapped as Earn Group by Campbell (1967). Staking was initiated in the Drom-edary Mountain area in the fall of 1980.

The KAL 1-192 claim group was staked in 1981 on the basis of geophysical anomalies detected during an airborne survey carried out in the spring of 1981 and on the basis of encouraging base metal concentrations in stream silts collected during the summer of 1981.

During the spring of 1982 a ground electromagnetic survey and magnetometer survey was conducted over a grid located on the KAL 1-80 claims. The geophysical surveys were described by Scott (1982).

RECENT WORK

INTRODUCTION

During the period June 8 to July 9, 1982, geological mapping and some sampling of stream silts for geochemistry were carried out from a total of five two person fly camps located on and adjacent to the KAL 81-192 claims. Fly camps were of four days duration and were helicopter supported on move days. Some helicopter supported traverses were run directly from Earn base. A summary of fly camps is presented in Table 1. Further work on the KAL 81-192 claim group is scheduled for the summer of 1982.

GEOCHEMISTRY

A total of samples including rock chip samples, 26 minus twenty mesh stream silt samples, and normal stream silt samples were collected. Sampling was supplementary to a more extensive program carried out in 1981.

The minus eighty mesh fraction of silt samples was usually run for Cu, Pb, Zn and Ag. Minus twenty mesh silt samples were treated as rocks and usually run for Ba, Sn and W. All analyses were carried out by Bondar Clegg in Whitehorse.

Samples for geochemistry are shown on Figure 5, and results of analyses, available at the time of writing, are tabulated in Appendix I.

GEOLOGY

Regional

The project area is mainly underlain by the upper Devonian to lower Mississippian Earn Group that represents part of a middle to late Paleozoic sedimentary succession overlapping the transition between Cassiar Platform and Selwyn Basin tectonic elements in the Yukon Territory. The Earn Group is aerially extensive, particularly northeast of the Tintina Fault, along the western margin of the Selwyn Fold Belt. However, some of the Earn Group in this region may be allochthonous. The Earn Group is cut by discordant plutons of the 120-90 m.y. Biotite Quartz Monzonite Suite. Due to contact metamorphism regional correlation of some map units is difficult.

Campbell (1976) mapped four formations within the Earn Group in the Kalzas Range. The internal stratigraphy of the Earn Group is currently under revision by agencies of the federal government. However, most work to date is based on documentation in the eastern Selwyn Fold Belt and not the type locality of the Earn Group

KAL Claims

The geology of the KAL 82-192 claims is presented in Figure 5 at a scale of 1:25,000. The principal geological feature is a southeasterly plunging anticline, terminated to the west by a stock of biotite quartz monzonite. Calc-silicate hornfels derived from calcareous sediments of the Kechika Group occupy the core of the structure.

Table 1 Summary of Fly Camps (NTS 105-L/14)

Camp	Northing	Easting	Elevation	Date, 1982
C82-2	76.4	87.5	3560'	June 8-12
Z82-2	82.1	77.3	3350'	June 8-12
Z82-3	90.6	81.3	4550'	June 13-17
CM82-1	79.3	83.9	5000'	July 2-5
CM82-2	80.8	91.7	4750'	July 6-9

Table 2 Table of Formations

System	Series	Formation	Lithology
Mesozoic	Upper Cretaceous 120 to 90 m.y. Suite		Porphyritic (K-feldspar) biotite quartz monzonite
Intrusive Contact			
	Permian		Interbedded siltstones and black silty shales, locally fossiliferous, calcareous and/or graphitic
Paleozoic	Upper Mississippian	Upper Earn Group	Brown to orange weathering medium bedded chert, siltstone and silty shale
	Lower Mississippian	Lower Earn Group Kalzas Formation	Medium grey weathering thick bedded, fetid, fossiliferous limestone
	Lower Mississippian to Middle Devonian	Crystal Peak Formation	Grey weathering chert pebble conglomerate, lithic (chert) sand- stone, interbedded siltstones and silty shales toward base
Unconformity			
	Upper to Middle Ordovician	Road River Group	Black graphitic graptolitic shale, may include minor thin bedded limestone and sandstone
	Ordovician to Cambrian	Kechika Group (Rabbit Kettle Formation)	Wavy banded thinly interbedded silty limestone and silty shale, calcareous quartz sandstone, calc-silicate hornfels

These rocks are overlain, to the northeast and the southwest, by the upper Ordovician to middle Devonian Road River Group and the upper Devonian to lower Mississippian Crystal Peak Formation of the Earn Group.

Along the southern limit of the anticline, lower Mississippian Kalzas Formation and younger interbedded siltstones and shales are observed to overlie the Crystal Peak Formation.

The above sequence appears to be thrust in a northeast direction over younger, thinly interbedded siltstone and shale and lesser chert. The succession was uplifted and tilted to the east during the upper Cretaceous intrusive event. Rock descriptions are included in a table of formations (Table 3).

A bedded barite unit about 15 m thick was discovered in the lower Earn Group, stratigraphically above graptolitic shales of the Road River Group. Most of the Road River Group is missing in the area studied.

SUMMARY AND CONCLUSIONS

Results for minus 20 mesh pan silt samples indicate the occurrence of minor tungsten mineralization in association with calc-silicates of the Kechika Group.

The bedded barite occurrence in the Lower Earn Group is a target for sedimentary exhalative base metal deposit.

REFERENCES

- Campbell, R.B., 1967. Geology of the Glenlyon map area; Geol. Surv. Can., Mem. 352 (Includes Maps 1221-A and 1222-A).
- Scott, A., May, 1982. Assessment Reports, Winter 1982 Geophysical Surveys (Magnetics, electromagnetics, gravity), Selwyn Project, Earn Lake Area, Y.T. Field Work: March 1-April 4, 1982., BUM, KAL, CLARE, BUSH, RABBIT, WAD Claims.

CERTIFICATION

I, Richard D. Hall of 4969 Quebec Street, Vancouver, B.C. am employed as a professional geologist by Anaconda Canada Exploration Ltd. and have knowledge of the work performed and costs incurred per this report.

I further attest that:

1. I graduated with a BSc. Geological Engineering from Queen's University in 1972.
2. I graduated with a PhD (geology) from the University of Western Ontario in 1980.
3. I have been practicing my profession for the past ten years.

Respectfully submitted,



Richard D. Hall

Geologist

Distribution:

- (2) Mining Recorder
- (1) I.M.E., Vancouver B.C.

NAMES AND ADDRESSES OF PERSONNEL

The following personnel employed on either a temporary or permanent basis by Anaconda Canada Exploration Ltd. took part in work described in this report.

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Ottawa, Ontario K1H 6Z7

G. Crowe - geologist
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R. Hall - project geologist
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D. Marshall - junior geological assistant
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Metcalf, Ontario

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30 Charles St. W.,
Toronto, Ontario

R. Zuran - senior geological assistant
3905 W. 30 Ave.,
Vancouver, B.C.

Table 3 Summary of Expenditures

Salaries	64 person days at average salary of \$1.800./25 days	\$4,600.
Helicopter Support	14 hours @ \$525./hr	\$7,350.
Food & Equipment	50 person days @ \$20./day	\$1,000.
Geochemistry	20 minus 20 mesh stream silt samples @ \$11./sample	\$ 220.
Total		<hr/> \$13,170.

Records and receipts are on file at Anaconda Canada
Exploration Ltd., Suite 1600, 1500 W. Georgia Street,
Vancouver, B.C. V6G 2Z6.

APPENDIX I

GEOCHEMICAL RESULTS

CLIENT: ANACONDA
 GEOLOGIST: ,
 NUMBER OF SAMPLES: 21

AGEOLOGIST: ,
 PRIORITY: P

REPORT NUMBER: G42-144
 PROJECT: YUKON RECCE 51961
 DATE: JULY 01, 1982

SEE APPENDIX FOR EXPLANATION OF DIGESTION, ANALYSIS, SAMPLE TYPE, AND SIEVE SIZE CODES.

REC# /	SAMPLE NUMBER / T / S	SN/I1 PPM	W/T2 PPM	BA/ 6 PPM
0001	17226 C A	L 5	6	Z
0002	17227 C A	L 5	7	Z
0003	17229 C A	L 5	5	Z
0004	17235 C A	L 5	8	Z
0005	17255 C A	L 5	4	Z
0006	17256 C A	L 5	9	Z
0007	17258 C A	L 5	10	Z
0008	17259 C A	L 5	5	Z
0009	17260 C A	L 5	11	Z
0010	17261 C A	L 5	15	Z
0011	17262 C A	L 5	30	Z
0012	17263 C A	L 5	11	Z
0013	17265 C A	L 5	14	Z
0014	17266 C A	L 5	10	Z
0015	17267 C A	L 5	9	Z
0016	17268 C A	L 5	6	Z
0017	17269 C A	L 5	13	Z
0018	17270 C A	L 5	11	Z
0019	17271 C A	L 5	10	Z
0020	17237 C A	L 5	10	Z

---END---

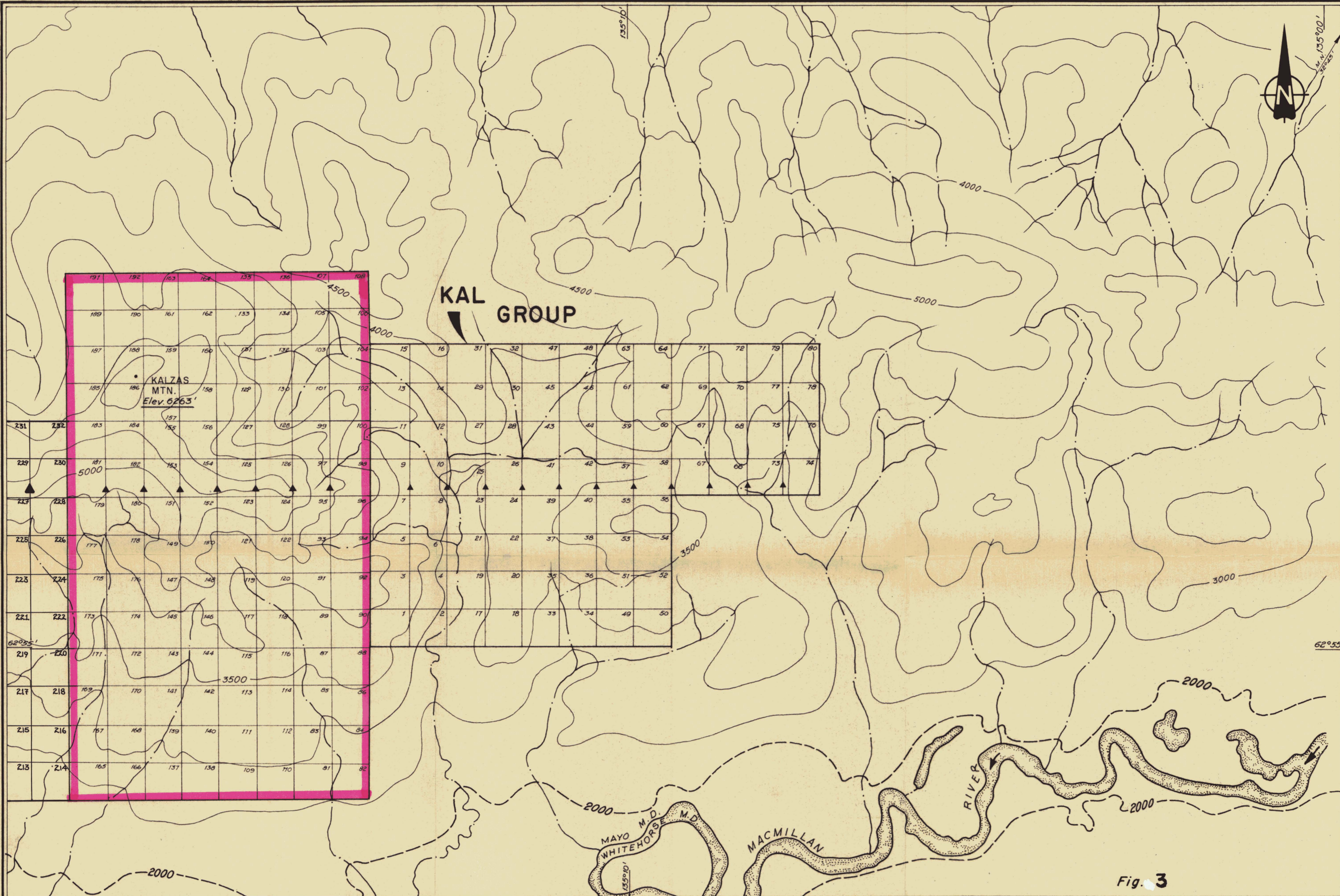


Fig. 3

LEGEND:

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KAL GROUP
CLAIM LOCATION GROUP

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Work by: H. Wasteneys	Drawn by: C. Donders	Date: Nov. 1981
Scale: 1/2 Mile = 1 Inch	N.T.S. ref. 105 L-14	Drawing No. ____ of ____

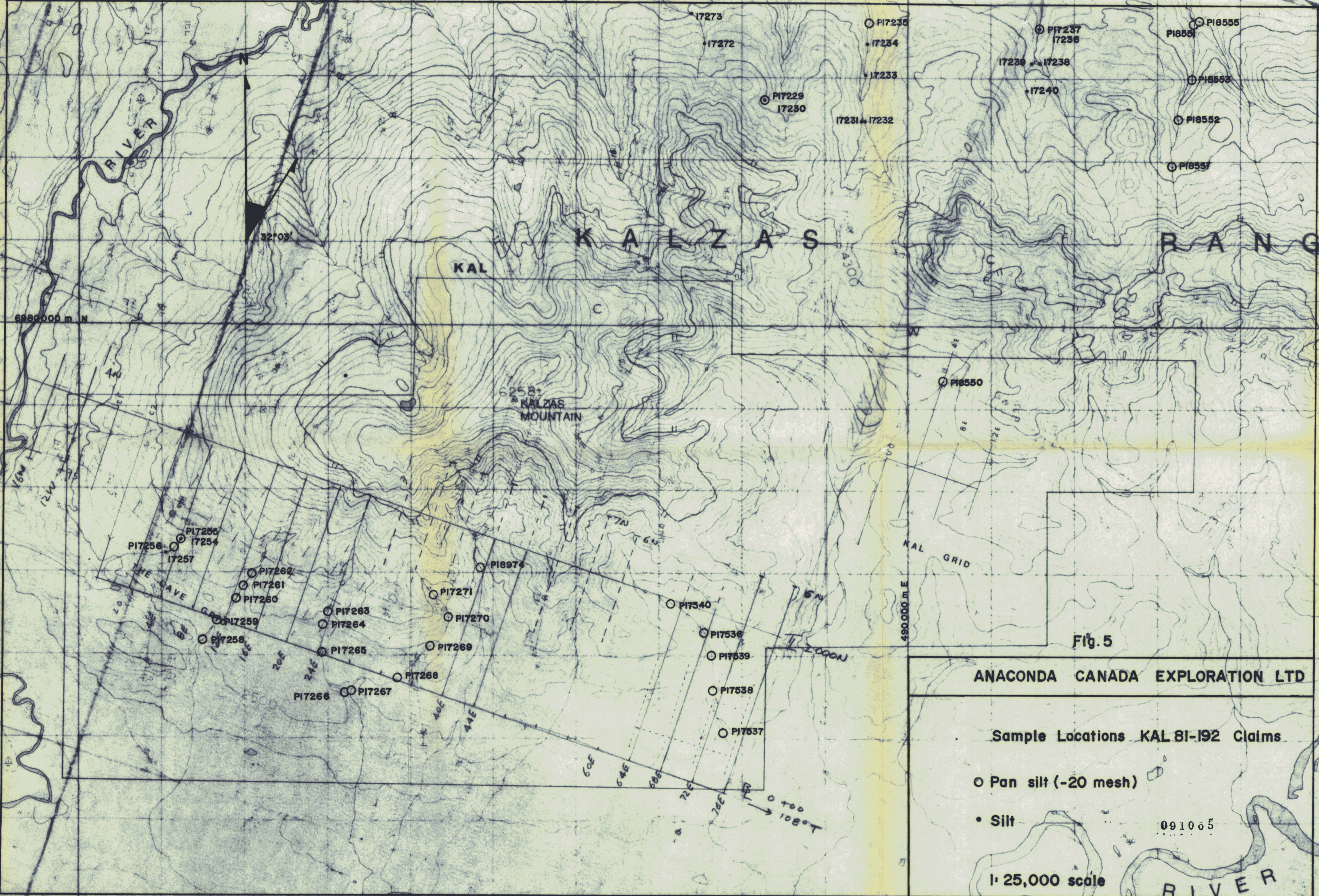


Fig. 5

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Sample Locations KAL 81-192 Claims

○ Pan silt (-20 mesh)

● Silt

091065

1:25,000 scale

RIVER