

3373

GEOLOGICAL REPORT

SNAFU-SALLY CLAIM GROUP
SOUTH OF CRACKER CREEK

ATLIN MINING DIVISION
BRITISH COLUMBIA

N59° 42', E 133° 16' N.E.

BY

104 N/11W

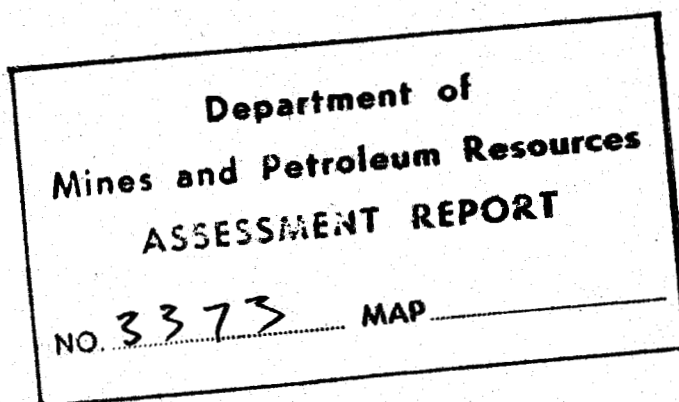
E.S. HOLT, P. Eng.

FOR

ADANAC MINING AND EXPLORATION LIMITED (N.P.L.)

Project Started: August 12, 1971

Project Completed: October 8, 1971



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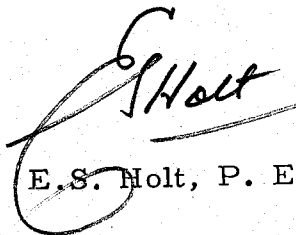
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1' Location Map	5
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CERTIFICATE

I, E.S. Holt of North Vancouver, British Columbia, do hereby certify:

1. That I am a Geologist residing at 4091 St. Alban's Avenue, North Vancouver, British Columbia.
2. That I am a Professional Engineer registered in the Province of British Columbia.
3. That I am employed by Chapman, Wood & Griswold Ltd., Consulting Mining Engineers and Geologists, 145 East 15th Street, North Vancouver, British Columbia.
4. That I have practiced my profession for 12 years.
5. That I have no direct or indirect interest in Adanac Mining and Exploration Limited (N.P.L.) nor do I expect to receive any such interest.
6. That I have personal knowledge of Snafu-Sally claim group, which are held by Adanac Mining and Exploration Ltd. (N.P.L.) in the Atlin Mining Division, British Columbia, having personally mapped the claim group. I have gained considerable knowledge of the immediate area having been Project Engineer on the neighbouring Ruby Creek property during the past two years.


E.S. Holt, P. Eng.

October 8, 1971.

INTRODUCTION

At the request of Mr. J.D. Pelletier of Adanac Mining and Exploration Ltd., a program of geological mapping and prospecting was carried out on the Snafu-Sally claim group which consists of 39 claims.

The geologic mapping was carried out during the period August 12 to 24, 1971.

The proximity of the property to the Ruby Creek Molybdenum deposit dictated that it be examined closely for molybdenite or related minerals.

This report includes our recommendations which are based on the results of all programs completed to date.

SUMMARY AND CONCLUSIONS

During August of 1971, the Snafu-Sally claim group was geologically mapped and prospected. The claims had previously been explored by collecting and analysing stream sediment.

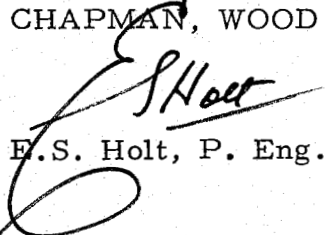
All of the claims were mapped at a scale of 1 inch to 1000 feet. They were all found to be within the alaskites of the Surprise Lake batholith. Although this rock unit is the host rock of the Ruby Creek molybdenum deposit four miles to the west, the rock exposures on the Snafu-Sally claim group were found to be completely void of any significant economic mineralization.

The area of anomalous geochem values reported in 1970 coincides with an area of extensive overburden and may warrant a limited follow up geochemical soil sampling program.

If a soil sampling program were initiated, it would require approximately 5 field days to complete and would cost in the order of \$2,800.

All assessment credits from the current program should be applied to a block of 8 claims consisting of Snafu 17, 18, 19, 20, 61, 62, 63 and 64. The remainder of the group should be allowed to lapse.

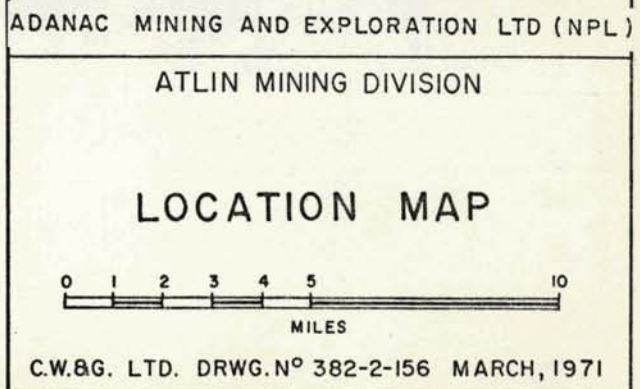
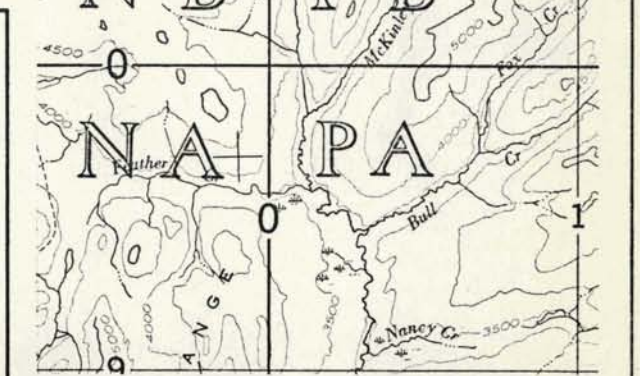
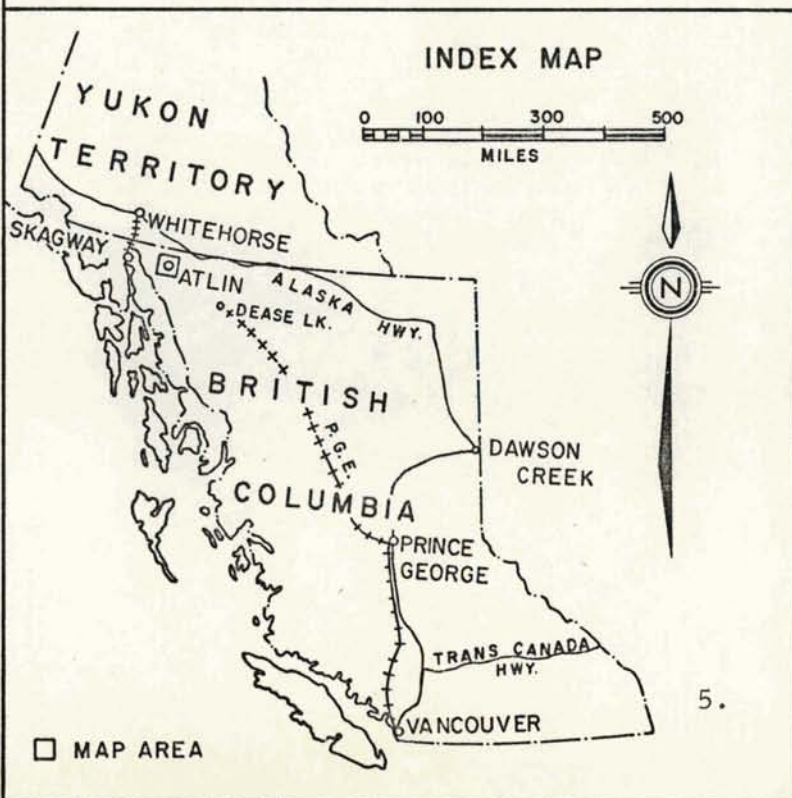
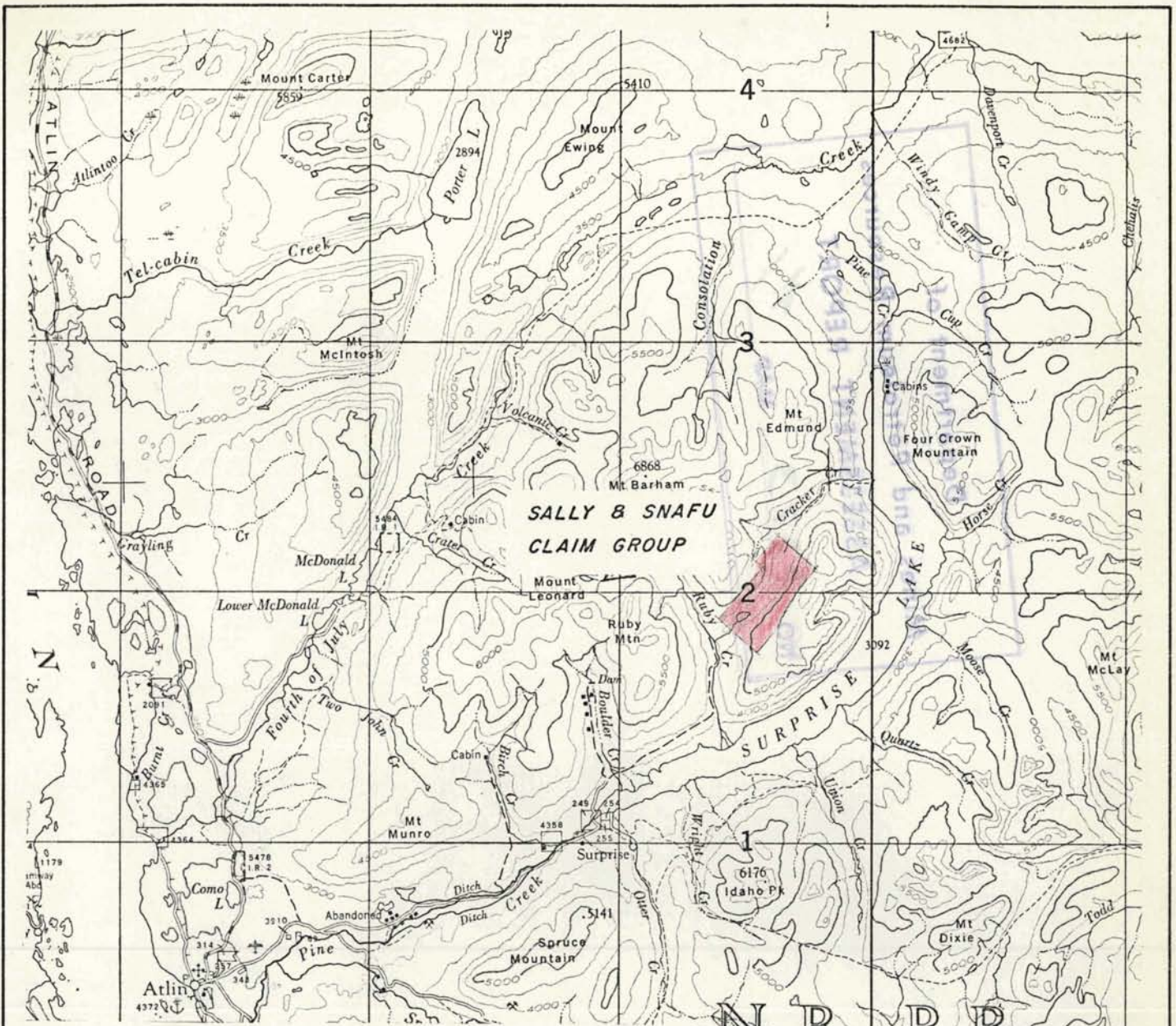
Respectfully submitted,
CHAPMAN, WOOD & GRISWOLD LTD.


E.S. Holt, P. Eng.

LOCATION AND ACCESS

The Snafu-Sally claim group is located within the Atlin Mining Division of British Columbia. It lies approximately 2 miles north-east of Surprise Lake, 5 miles east of Adanac's Ruby Creek molybdenum deposit, 18 miles north-east of Atlin and 90 air miles south of Whitehorse. More specifically, the property is located on the south-east side of a broad open valley which connects Cracker Creek and Ruby Creek. The geodetic co-ordinates are $59^{\circ} 42' N$, $133^{\circ} 16' E$.

The property is not presently accessible by motor vehicle. The road from Atlin to Ruby Creek, which is an improved dirt road, passes within 2 miles of the western end of the property. A rough tote road does connect the Snafu-Sally claims with the Ruby Creek road, but was impassable during the period in which the field work was performed.



PHYSIOGRAPHY

The topography of the area is moderately rugged, consisting of sub-rounded mountains cut by broad drainage patterns. The property lies mainly above timberline with elevations ranging from 4000 to 6000 feet above sea level.

Much of the ground is steeply sloping, forming the north-west side of a fairly precipitous mountain. These slopes are generally talus covered with intermittent rock exposures along the steeper portions. The valley bottom consists of glacial till and talus.

Vegetation on the property is sparse, with trees being confined to the valley bottom and the moderate slopes that retain overburden. The elevated plateau areas, although in part overburden covered, support only willow scrub. The trees in the valleys are mostly stunted spruce and pine.

CLAIM STATUS

The 39 claims comprising the Snafu-Sally group consist of the following:

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiratory Date</u>
Snafu #3	10113	November 17, 1971
Snafu #4	10114	November 17, 1971
Snafu #5	10115	November 17, 1971
Snafu #6	10116	November 17, 1971
Snafu #7	10117	November 17, 1971
Snafu #8	10118	November 17, 1971
Snafu #9	10119	November 17, 1971
Snafu #10	10120	November 17, 1971
Snafu #11	10121	November 17, 1971
Snafu #12	10122	November 17, 1971
Snafu #13	10123	November 12, 1972
Snafu #14	10124	November 12, 1972
Snafu #15	10125	November 12, 1972
Snafu #16	10126	November 12, 1972
Snafu #17	10127	November 12, 1971
Snafu #18	10128	November 12, 1971
Snafu #19	10129	November 12, 1971
Snafu #20	10130	November 12, 1971
Snafu #39	10149	November 12, 1971
Snafu #41	10151	November 12, 1971
Snafu #43	10153	November 12, 1971
Snafu #45	10155	November 12, 1971
Snafu #47	10157	November 12, 1971
Snafu #49	10159	November 12, 1972
Snafu #51	10161	November 12, 1972
Snafu #53	10163	November 12, 1972
Snafu #55	10165	November 12, 1972
Snafu #57	10167	November 12, 1972
Snafu #58	10168	November 12, 1972
Snafu #59	10169	November 12, 1972
Snafu #60	10170	November 12, 1972
Snafu #61	10171	November 12, 1972
Snafu #62	10172	November 12, 1972
Snafu #63	10173	November 12, 1971
Snafu #64	10174	November 12, 1971
Sally #1	10195	November 12, 1971
Sally #2	10196	November 12, 1971
Sally #3	10197	November 12, 1971
Sally #4	10198	November 12, 1971

During the course of the field work, most of claim posts were located and their locations plotted on air photographs. The locations have subsequently been transferred to a base map and are shown on C.W. & G. drawing number 1382-16-1. It will be noted that numerous fractions exist, and that several of the claims are oversize.

HISTORY

The Snafu-Sally claims were originally staked for Adanac Mining and Exploration Ltd. in November of 1968. At that time, they formed part of a large block totalling 108 claims which had been staked as locational bets covering similar hoste rocks to those of the Ruby Creek property.

During 1969, a tote road was built and a large trench dug. The road is several miles in length commencing near the old Eastman shaft where it connects with the Ruby Creek road. It terminates as two separate branches going east and west along Cracker Creek.

During 1970, a stream sediment geochemical survey was carried out along with a photo fracture analysis and limited reconnaissance geological mapping. Subsequently, 67 of the claims which yielded no evidence of economic potential were allowed to lapse. The remaining 39 claims were regrouped to form the Snafu-Sally group and are still the property of Adanac Mining and Exploration Ltd.

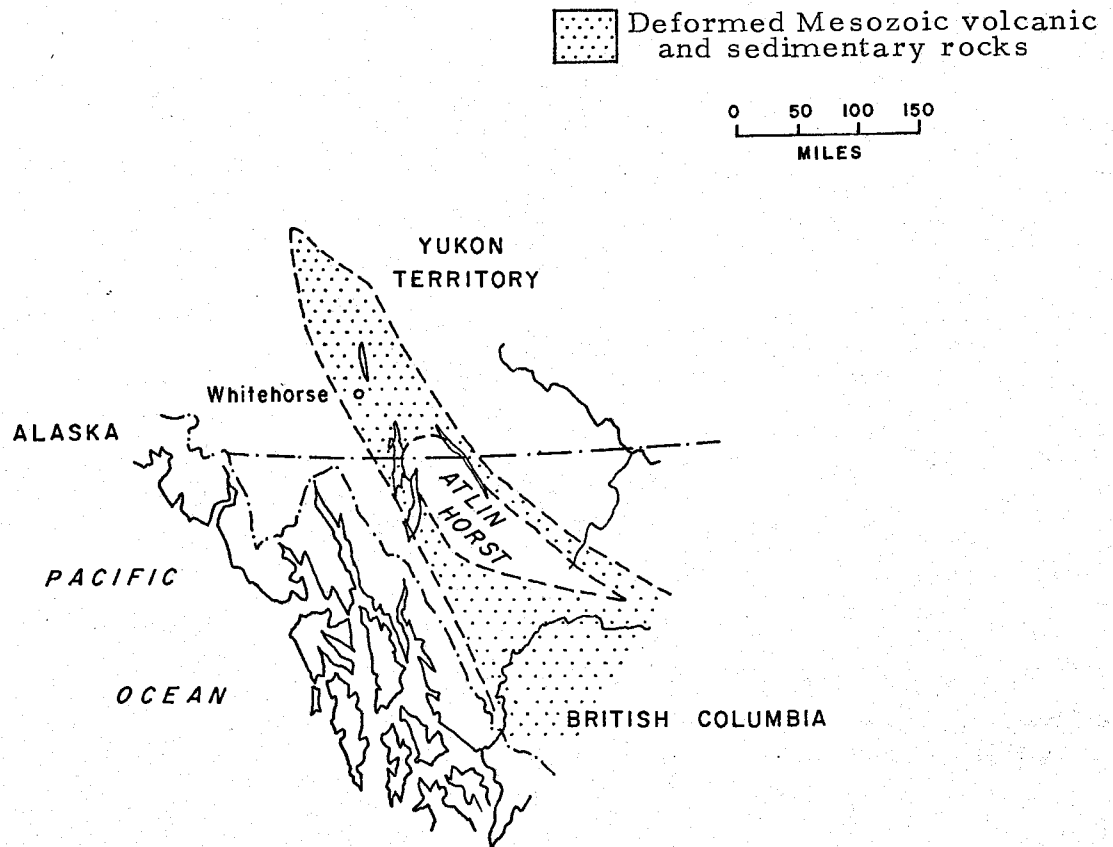
The current program consisted of geological mapping and prospecting of the 39 claim group.

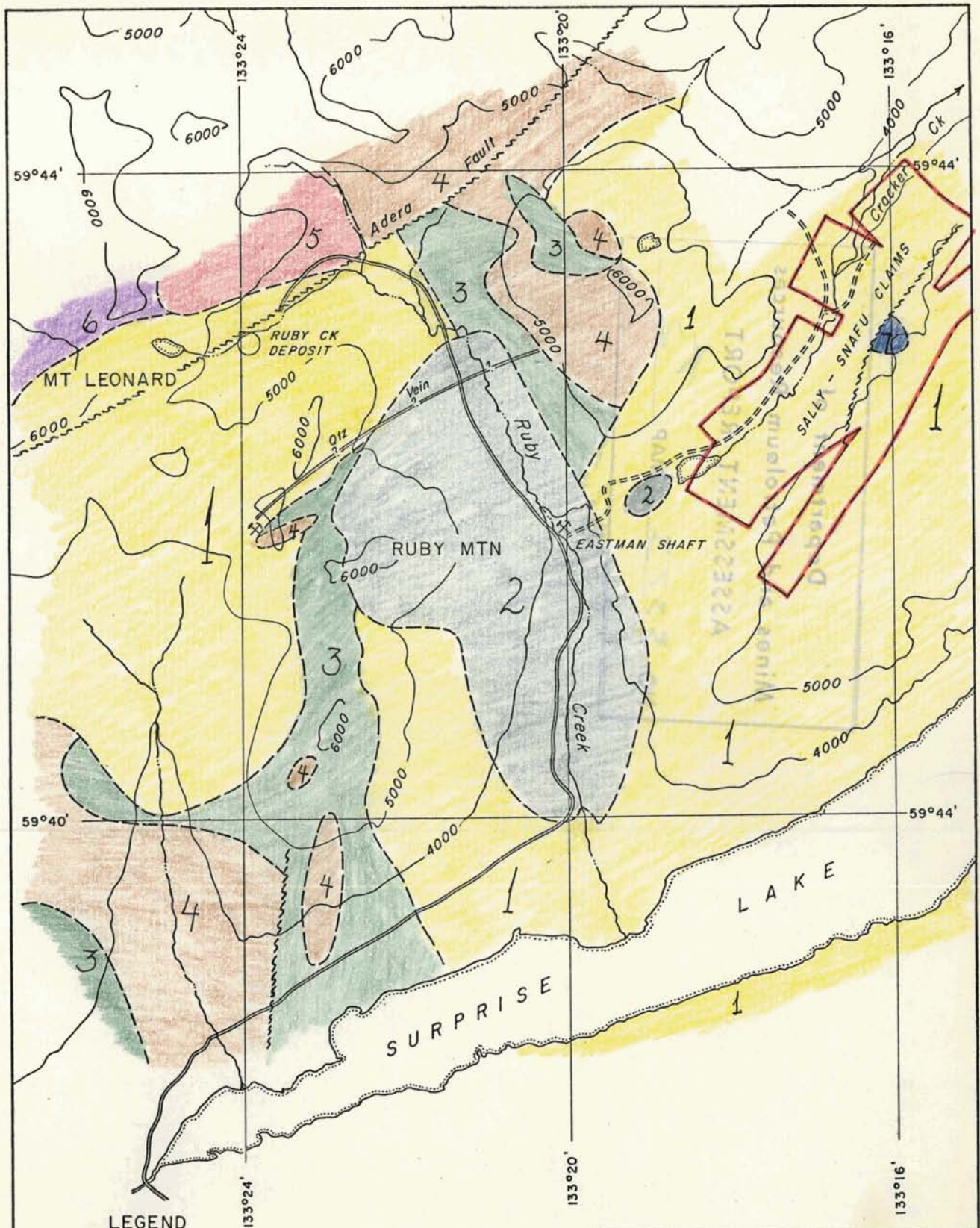
GEOLOGY

GEOLOGIC SETTING

The Snafu-Sally claim group lies within a regional tectonic unit known as the Atlin horst, which in turn lies within the Whitehorse Trough. The Coast Range Mountains are located 40 miles to the west.

The Atlin horst is composed mainly of Paleozoic rocks which have been intruded by large granitic batholiths during Cretaceous and Jurassic periods.



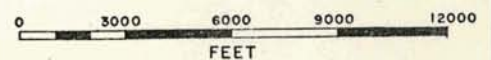


LEGEND

- 1 ALASKITE
- 2 OLIVINE BASALT & SCORIA
- 3 ARGILITE
- 4 PERIDOTITE
- 5 AMPHIBOLIZED VOLCANICS
- 6 GRANODIORITE
- 7 BASIC INTRUSIVES

ADANAC MINING AND EXPLORATION LTD (NPL)

REGIONAL GEOLOGIC
PLAN



The area was glaciated during the Pleistocene, effects of the glaciation being readily apparent as widespread and locally thick morainic deposits.

Regional geology of the Atlin area was mapped by Dr. J. D. Aitken during the period 1951 to 1955, and is described in Geological Survey of Canada Memoir 307.

On a more local basis, the Snafu-Sally group cover a portion of the Surprise Lake batholith which is a late Cretaceous alaskite pluton extending several miles in diameter. The presently outlined Ruby Creek deposit approximately four miles to the west, also lies within the same rock unit. The general geologic setting is shown on the preceding page.

The topography of the area consists of subrounded mountains, cut by broad drainage patterns. Rock exposures are limited to the steep slopes along the sides of mountains or rarely in creek gorges. Talus and coarse felsenmeer cover a large percentage of the broad U-shaped valleys.

The rocks of the Surprise Lake batholith are classed as alaskite, a leucocratic variety of granite. They intrude the Cash Creek Group and contained ultrabasic Atlin Intrusives. Extensive roof pendants of this group remain capping large portions of the batholith. Immediately to the north of the Ruby Creek deposit, the alaskites intrude a granodionte which is part of the Fourth of July Creek batholith.

Olovine basalts and scoria cover a large portion of the Ruby Creek valley, and below the old Eastmen Property, Ruby Creek has cut through the basalt cover forming an impressive canyon and exposing underlying auriferous gravels. The principal source of the basalt flows and scoria was from the volcano forming Ruby Mountain which is within two miles of the western edge of the property. These volcanic rocks are dated as being Late Tertiary in age.

The exposed alaskite of the Surprise Lake batholith, although mainly coarse grained, are known to display a wide assortment of textures in some places. A notable example is the immediate area of the Ruby Creek molybdenum deposit which exhibits a highly variable texture ranging from fine to very coarse grained.

GEOLOGY OF THE SNAFU-SALLY CLAIMS

The Snafu-Sally claim group lies entirely within a Late Cretaceous alaskite pluton known as the Surprise Lake batholith. A detailed geologic map of the property has been prepared and is enclosed in the pocket.

Within the area mapped, the alaskite batholith is composed of three rather distinct lithologic units. Through this report, the units are referred to as:

1. Coarse Alaskite
2. Alaskite Porphyry
3. Fine Alaskite

The alaskite porphyry is essentially a transitional phase between the coarse and fine alaskites. Defining parameters for the different units are not precise and boundaries are arbitrarily open to personal bias. Contacts are generally gradational and often very irregular.

The classification is based almost entirely on textural variations of chemically similar rock units. Each of the four phases can correctly be called Alaskite, that is, a leucocratic variety of granite. It is characterized by its abundant smoky quartz (approx. 35%), low mafic mineral content (1 to 5%), and lack of color-contrast between the two feldspars. It is heterogeneous in texture ranging from fine to very coarse grained and in part porphyritic. In surface exposures, it has a characteristic light brown color while fresh specimens are a mottled light grey. Biotite is the only mafic mineral to occur in greater than trace amounts.

The only trace elements noted were calcite, pyrite and magnetite.

As mentioned above, the alaskite has been subdivided into different rock units mainly on the basis of textural variations. A detailed description of these units is as follows:

1) COARSE ALASKITE

A leucocratic coarse grained rock composed mainly of coarse aggregates of quartz and feldspar crystals which are commonly 1 cm. in size and may range up to several centimeters across. The rare scattered mafic mineral is biotite which is generally 1 to 2 mm. in diameter and constitutes less than 2% of the total volume. The rock is hard, fresh and massive. Its color is a mottled chalk white and grey. This unit may contain minor amounts of fine grained matrix as it grades into the porphyritic variety of alaskite.

2) ALASKITE PORPHYRY

A leucocratic porphyritic rock with variable proportions of matrix and phenocrysts. The phenocrysts range from medium to coarse grained and include all of the common mineral constituents of the alaskite. Texture of the matrix is often rather fine grained. However, varieties grading to a nearly homogeneous medium crystalline rock are not uncommon. The rock has essentially an identical composition to the coarse alaskite. It also is hard, fresh and massive with dull grey appearance. This rock is essentially an intermediate unit covering the total textural variations which occur in the transition from fine to coarse grained alaskite.

3) FINE ALASKITE

The fine alaskite has a similar chemical composition to the units described above, but with a granular groundmass and only sparse phenocrysts. Coarse grains of quartz, feldspar and biotite are set in a groundmass of the same minerals, which is generally sugary textured. This rock is also fresh and massive and has a pale tan to light grey appearance.

Felsite also occurs sporadically. It is found mainly as narrow irregular dykes.

The age relationship between the various phases of alaskite is not clear, and in fact is often ambiguous. Contacts between the different phases, although generally gradational, are sometimes remarkably sharp and may, or may not, show chilling effects.

All the rock units described above are considered to be various textural facies of a common plutonic source.

The only rocks within the area mapped which are not a variety of alaskite was the small area of basic intrusives found near the center of the property. Where exposed, this rock was a medium grained diorite which in several places, approached gabbroic composition. Float in the vicinity indicated that quartz diorite phases were also present. The more mafic exposures were found near the central portion and consisted mainly of amphiboles and plagioclase.

The structural relationship between the basic intrusives and the alaskites is not known. No fine grained material displaying a chill contact was seen.

The only quartz veining noted on the property were three widely scattered areas where considerable barren bull quartz was found. The vein material was visibly barren in all cases.

During the entire mapping and prospecting program, no encouraging geologic aspect were seen. Economic minerals were entirely absent and evidence of hydrothermal alteration was noticeably lacking.

The rocks were characteristically fresh in appearance. The only alteration products to be noted were minor amounts of chlorite, sericite and muscovite.

Several of the claims are located below timberline in the Cracker Creek valley. Rock exposures do not exist on these claims and thus they have not as yet been thoroughly prospected. The claims which fall into this category are:

Sally	1 to 4 inclusive
Snafu	3, 5, 7, 9, 11 and 13
Snafu	17 to 20 inclusive
Snafu	61 to 64 inclusive

RECOMMENDATIONS

The work completed on the Snafu-Sally claim group to date indicates that the major portion of this ground has very little potential for the existence of an economic mineral deposit. Some of the overburden covered claims coincide with the areas of anomalous geochem values and thus may warrant additional investigation.

It is recommended that the claims having coincident anomalous stream sediment, geochem values and unknown geological characteristics, be held, and that consideration be given to a limited grid pattern soil sampling program. In that regard, it is recommended that all of the assessment work accumulated during 1971, be applied to claims:

Snafu	17 to 20 inclusive
Snafu	61 to 64 inclusive

The other 31 claims did not produce favourable geological or geochemical results and should be allowed to lapse.

If a grid pattern soil sampling program were undertaken, it would cost in the order of:

Geochemist	10 days @ \$150/day	\$ 1,500.00
Field Assistant	5 days @ \$60/day	300.00
Field Subsistence	5 days @ \$15/man day	150.00
Field Transportation		100.00
Air Travel		150.00
Assaying		400.00
Misc. Costs		<u>200.00</u>
	Total	\$ 2,800.00

COST OF THE PROGRAM

SUMMARY OF COSTS

Personnel	\$ 3,224.00
Expenses (50% of total)	<u>84.00</u>
	\$ 3,308.00

DETAIL OF COSTS

PERSONNEL COSTS

<u>Category and Name</u>	<u>Dates of Employment</u>	<u>Rate</u>	<u>Period of Employment</u>	<u>Cost</u>
Geologist				
E.S. Holt	12-21 Aug. 71	\$175/day	10 days	\$ 1,750.00
	29 & 30 Sept. 71	\$175/day	2 days	350.00
	4-7 Oct. 71	\$175/day	4 days	<u>700.00</u>
				\$ 2,800.00
Draughtsman				
R. Powell	1, 2, 3, 8, 15, 28, 29, 30 Sept. 71	\$9/hr.	35½ hrs.	\$ 329.50
R. Powell	1, 5 Oct. 71	\$9/hr.	10½ hrs.	<u>94.50</u>
				\$ 424.00
Total Personnel Costs				<u>\$ 3,224.00</u>

EXPENSES

Lodging	Nil
Field Transportation	
Vehicle @ \$15/day for 10 days	\$ 150.00
Communication	Nil
Printing Charges	1.50
Xerox Charges	<u>17.50</u>
	168.00

Allow 50% of total \$168/2

84.00

\$ 3,308.00

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 3
day of Nov. 1971, A.D.

E. S. Holt



THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF MINES
AND PETROLEUM RESOURCES

MINERAL ACT
FORM B

Affidavit on Application for Certificate of Work

I, E. S. Holt Agent for Adanac Mining & Exploration Ltd.
(Name.) (Name.)
4091 St. Albans Ave. 908 - 1111 West Hastings St.
(Address.) (Address.)
North Vancouver, B. C. Vancouver, B. C.

Free Miner's Certificate No. 108207 Free Miner's Certificate No. 101775
Date issued October 6, 1971 Date issued April 26, 1971

make oath and say:—

I have done, or caused to be done, work on the SNAFU GROUP

Snafu #17, 18, 19, 20, 61, 62, 63 and 64 Mineral Claim(s)

Record No.(s) 10127 - 10130 and 10171 - 10174

situate at Southeast of Cracker Creek

in the Atlin Mining Division, to the value of at least

33 hundred dollars, since the 12th day of August, 1971

The following is a detailed statement of such work:—

(Set out full particulars of the work done in the twelve months in which such work is required to be done.)

GEOLOGICAL

Geological mapping of all outcrop areas at a scale of 1000 feet to 1 inch,
on the group and the surrounding area.

Cost: \$3,308.00

Application is hereby made to have four years "Surveys" work applied
to SNAFU #17-20 and 61-64.

That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the *Taxation Act*.

SWORN and subscribed to at _____
this _____ day of _____
19____, before me—
* _____

* This affidavit may be taken by a person empowered to take affidavits by the *Evidence Act* of British Columbia.



CHAPMAN, WOOD & GRISWOLD LTD.

MINING ENGINEERS AND GEOLOGISTS
145 EAST 15TH STREET
NORTH VANCOUVER, BRITISH COLUMBIA

TELEX: 04-54607
TELEPHONE: 985-9191
CABLE ADDRESS: CHAPWOLD

November 30, 1971

Mr. R. H. McCrimmon
Chief Gold Commissioner
Department of Mines and Petroleum Resources
Victoria, B.C.

Dear Sir:

Re: Your File 166-Atlin
SNAFU, SALLY Mineral Claims
Geological Report

We hereby authorize the release of our Drawing No. 1382-16-1 for all official use by the Department in connection with reproduction of the above report in compliance with the Mineral Act of B.C.

We trust you will advise our Client, Adanac Mining and Exploration Ltd., as to any further information prerequisite to acceptance of this report by the Department.

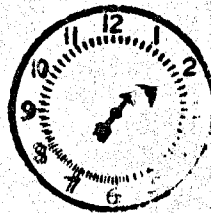
Yours very truly,

CHAPMAN, WOOD & GRISWOLD LTD.

13394

DEC 1 '71 PM

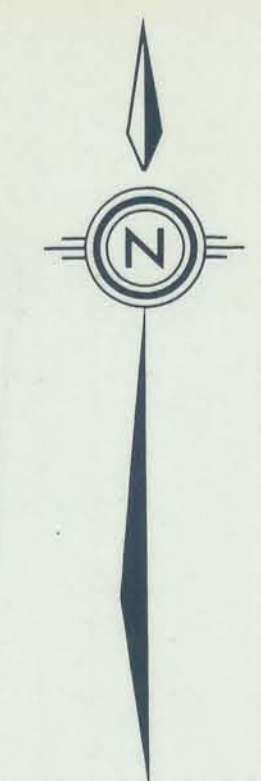
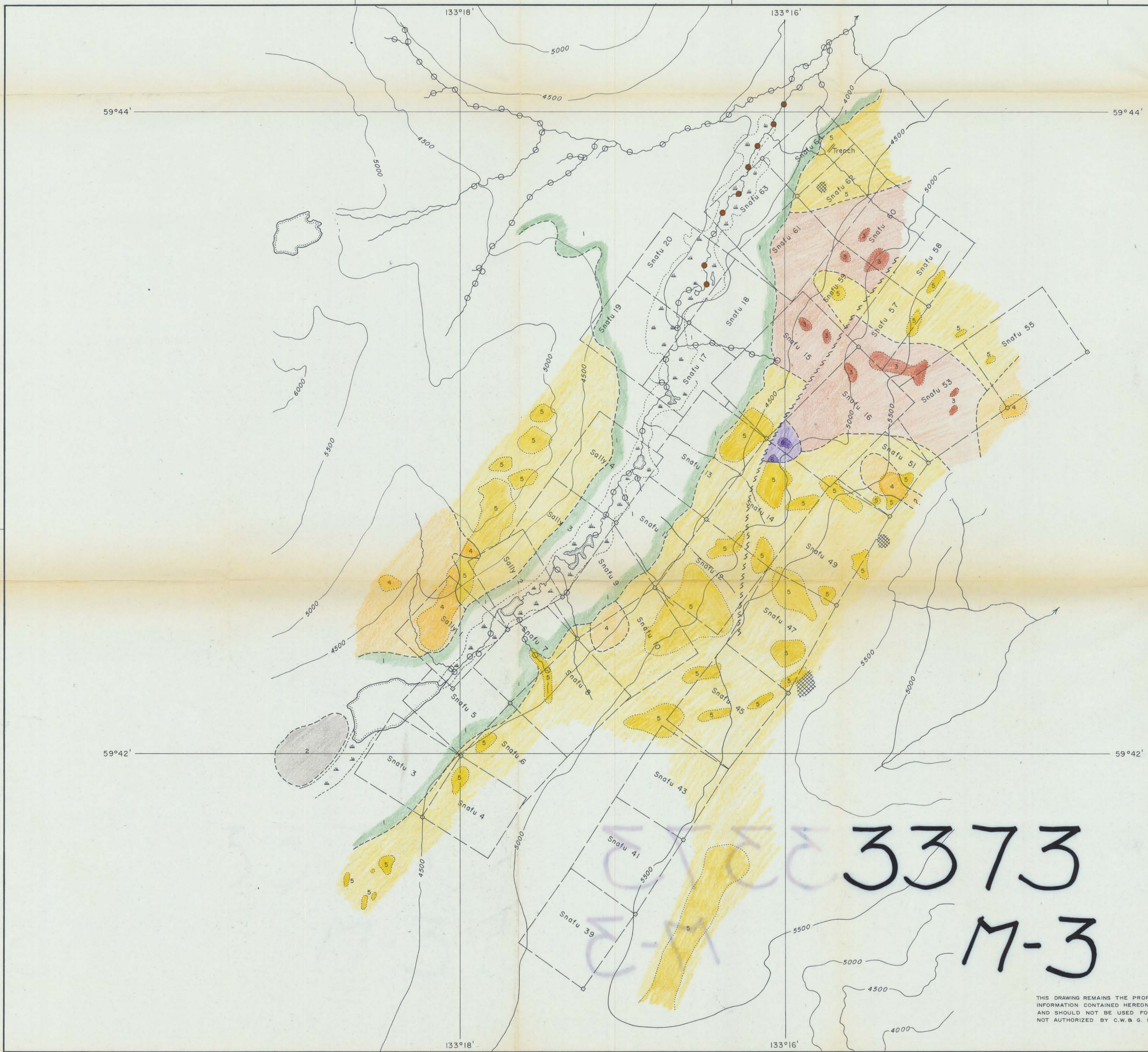
Carl R. D. Miller
C. R. D. Miller, P. Eng.
Assistant to the President



cc: Mr. J. Pelletier, Adanac Mining and Exploration Ltd.
The Mining Recorder, Atlin, B.C.

CRDM:mh

REFERRED TO	DATE	INITIAL
D. M.		
C.G.C.	✓	<i>[Signature]</i>
C.C.		
D.C.G.C.		
D.C.C.		
ACCTS.	✓	
C.M.B.		
C.I.		
C.A.		
R. T.		
C.P.E.		
FILING CLERK		



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 Map #3373
 NO. 3373

LEGEND

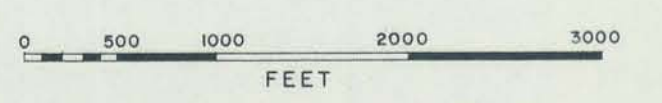
- 1 TERTIARY GRAVELS
- 2 OLIVINE BASALT AND SCORIA
- 3 FINE ALASKITE
- 4 ALASKITE PORPHYRY
- 5 COARSE ALASKITE
- 6 BASIC INTRUSIVES

- OUTCROP AREA
- OBSERVED CONTACT
- ASSUMED CONTACT
- FAULT ZONE
- LOCATED CLAIM POST
- GEOCHEM SOIL SAMPLE (MAP 416-1-2)
- ANOMALOUS SOIL SAMPLE (> 18 P.P.M. Mo)
- BARREN Qtz STOCKWORKS

3373
M-3

ADANAC MINING AND EXPLORATION LTD (NPL)

**GEOLOGIC MAPPING
SALLY - SNAFU CLAIMS**



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CHAPMAN, WOOD & GRISWOLD LTD
 MINING ENGINEERS and GEOLOGISTS
 145 EAST 15TH STREET,
 NORTH VANCOUVER, BRITISH COLUMBIA

REVISED TO:
 DATE
 SEPT., 1971
 DRAWING NUMBER
 1382-16-1

