

EXAMINATION OF LIBRA CLAIMS AND ADJACENT

WHITE RIVER AREA

N.T.S. 115-N-1

By:

Kenneth M. Dawson

ATLAS EXPLORATIONS LIMITED

February 11, 1970

TABLE OF CONTENTS

	<u>page</u>
RECOMMENDATIONS	1
SUMMARY	1
INTRODUCTION	2
GEOLOGY	3
CONCLUSIONS	4
APPENDIX	

ATLAS EXPLORATIONS LIMITED

330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B.C.

EXAMINATION OF LIBRA CLAIMS AND ADJACENT WHITE RIVER AREA - 115-N-1

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RECOMMENDATIONS

1. None of the three claim groups owned by Carlos and McKamey in this northwestern part of Dawson Range appears worthy of further examination, option or purchase.
2. The existence of geologic conditions favourable to copper-molybdenum mineralization in this area indicates that regional mapping and geochemical sampling should be undertaken by Victor OEX crew as early in the 1970 season as possible.

SUMMARY

1. The only sulfide occurrence observed on LIBRA claims is disseminated pyrrhotite in hornfels on northern part of claims. Molybdenite is reported by Carlos, but was not located.

2. Sulfides occur in a contact zone on ARIES claims (Quintana), 1000 feet east of LIBRA claims. Pyrite, pyrrhotite, chalcopyrite and magnetite are disseminated throughout hornfels for about 2000 feet along strike of a granite-schist contact. Pyrite and molybdenite veinlets occur in the granite stock.
3. Aeromagnetic highs on ARIES claims and south of Los Angeles Creek (115-0-4) are due to disseminated magnetite. Aeromagnetic highs on VENUS (Carlos) and ORION claims (Quintana) 115-N-2, are underlain by schist and gneiss of Yukon Group.

INTRODUCTION

Atlas geologists were shown a suite of specimens, some containing chalcopyrite and molybdenite, by Angus MacDonald on February 2, 1970. The specimens were reportedly from LIBRA claims recently staked by Al Carlos and Ray McKamey. The writer, accompanied by Atlas geologists Gary Pearse and Wayne Roberts and owner Al Carlos, examined LIBRA claims and adjacent ground on February 8, 1970. All mineralized specimens examined in Vancouver proved to be from ARIES claims adjacent to LIBRA group, and no significant mineralization was detected on LIBRA group. Atlas geologists visited four other claim groups in area by TNTA B-2, pilot Roger Tessier and returned to Carmacks in Globe Cessna 185, pilot Rene Leduc.

GEOLOGY

1. LIBRA claims (115-N-1, Map 1) are underlain principally by medium-to coarse-grained Casino hornblende granodiorite. Thermally metamorphosed Yukon Group quartzite in northeast corner of claims contains disseminated pyrrhotite near the intrusive contact. Stocks of fine-grained (Home) granite and biotite quartz monzonite intrude older plutonic and metamorphic rocks along eastern margin of claims. Plates 1,2 and 3 were taken from hill underlain by quartz monzonite stock. An elongate, weak aeromagnetic high in central LIBRA group is underlain by slightly rusty, medium-grained granodiorite that is weakly to moderately magnetic. The closest outcropping to a prominent aeromagnetic low in northwest corner of claims, LIBRA #17, is a weakly magnetic, sheared and slightly brecciated hornblende granodiorite.
2. Strong aeromagnetic highs in western ARIES claims (115-N-1, Map 1) are underlain by magnetic Yukon Group hornfels containing sulfides along its contact with a fine-grained granite stock. A hornfels outlier is in contact with the porphyritic granite, and contains metasomatic K-feldspar and tourmaline. Veinlets of pyrite and molybdenite occur within the granite, and disseminations of pyrite, pyrrhotite, chalcopyrite and magnetite occur within hornfels. Visual estimation indicates less than 0.1% Cu over the 2000' mineralized zone.

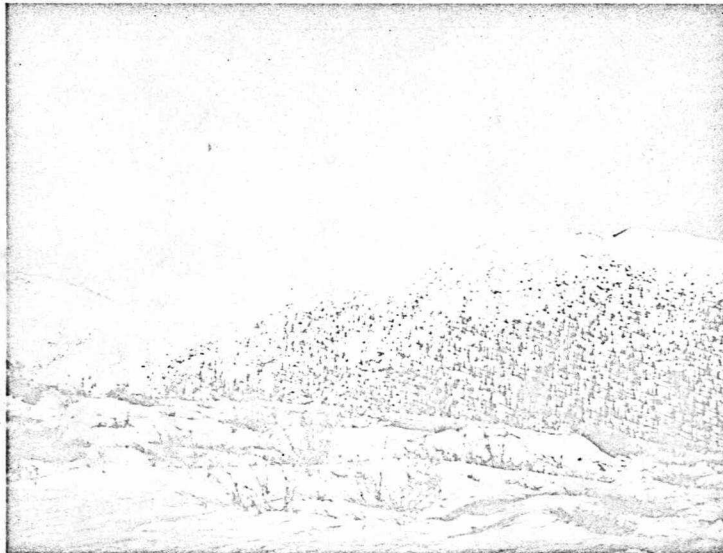


Plate 1

Looking east from LIBRA claims to ARIES
claims. Copper-Molybdenum mineralization
located other side of pass in background.



Plate 2

Looking west to White River from eastern end of LIBRA claims. Aeromagnetic high, that is centered over ridge in center of photo, is underlain by Casino granodiorite.



Plate 3

Yukon Group hornfels with disseminated
pyrrhotite underlies ridge in background.
View looking north.

3. A strong aeromagnetic high in eastern part of ARIES claims is underlain by a sheared and brecciated granodiorite-schist contact zone containing abundant magnetite (Map 1).
4. A thumbprint aeromagnetic high south of Los Angeles Creek (115-0-4) is reported to be covered by 16 claims owned by Al Carlos (Map 2). The anomaly is underlain by fine-grained granite, feldspar-biotite porphyry and latite - all of which contain disseminated magnetite.
5. A local low between two aeromagnetic highs on VENUS claims (Carlos and McKamey, 115-N-2, Map 3) is underlain by K-feldspar sericite-gneiss of the Yukon Group. The rock, which crops out along Laduc River, is non-magnetic and contains no sulfides. Similar Yukon Group gneiss underlies a magnetic high northwest of VINA group to south on Snag sheet.
6. An aeromagnetic high southwest of ORION claims (Quintana, 115-N-2, Map 3) is underlain by a foliated biotite-K-feldspar quartz monzonite, with Yukon Group schist adjacent on the north. The rocks are weakly magnetic and no sulfides were detected.

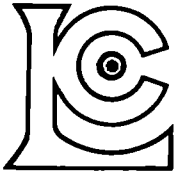
CONCLUSIONS

In the vicinity of LIBRA and ARIES claims, and to the east, favourable geologic conditions exist, similar to mineralized

environments in Dawson Range to the southeast:

- i) a thermally-metamorphosed contact between Yukon Group quartzite and Casino granodiorite;
- ii) an intrusive contact between young acidic bodies including fine-grained Home granite and porphyry dykes, and older granodiorite and schist;
- iii) structural discontinuity in northwesterly trend of Dawson Range rocks in this area, as evidenced by aeromagnetic trends, topographic lineaments, and young intrusions.

Although the claims examined did not appear to be of economic interest, the geology of the area warrants thorough regional exploration in 1970.



*Carlos - de Kamey claims
White River.*

CHEMEX LABS LTD.

1416 CROWN STREET
NORTH VANCOUVER, B. C.
CANADA
TELEPHONE: 988-6955

- CHEMISTS
- GEOCHEMISTS
- ANALYSTS
- ASSAYERS

CERTIFICATE OF ANALYSIS

NO. 7696

TO: Atlas Explorations Ltd.,
330 - 355 Burrard St.,
Vancouver, B. C.

INVOICE NO. 2615

DATE RECEIVED Feb. 11/70

DATE ANALYSED Feb. 11.70

ATTN: Mr. J. Brock

SAMPLE NO.:	PPM Copper	PPM Lead	PPM Zinc	PPM Molybdenum
Venus 7	23	19	68	0
70P-1	26	46	76	0
70P-2	28	34	94	0
70P-3	24	29	100	0
70P-4	28	39	137	0

"0" Molybdenum = <1 PPM

Certified by

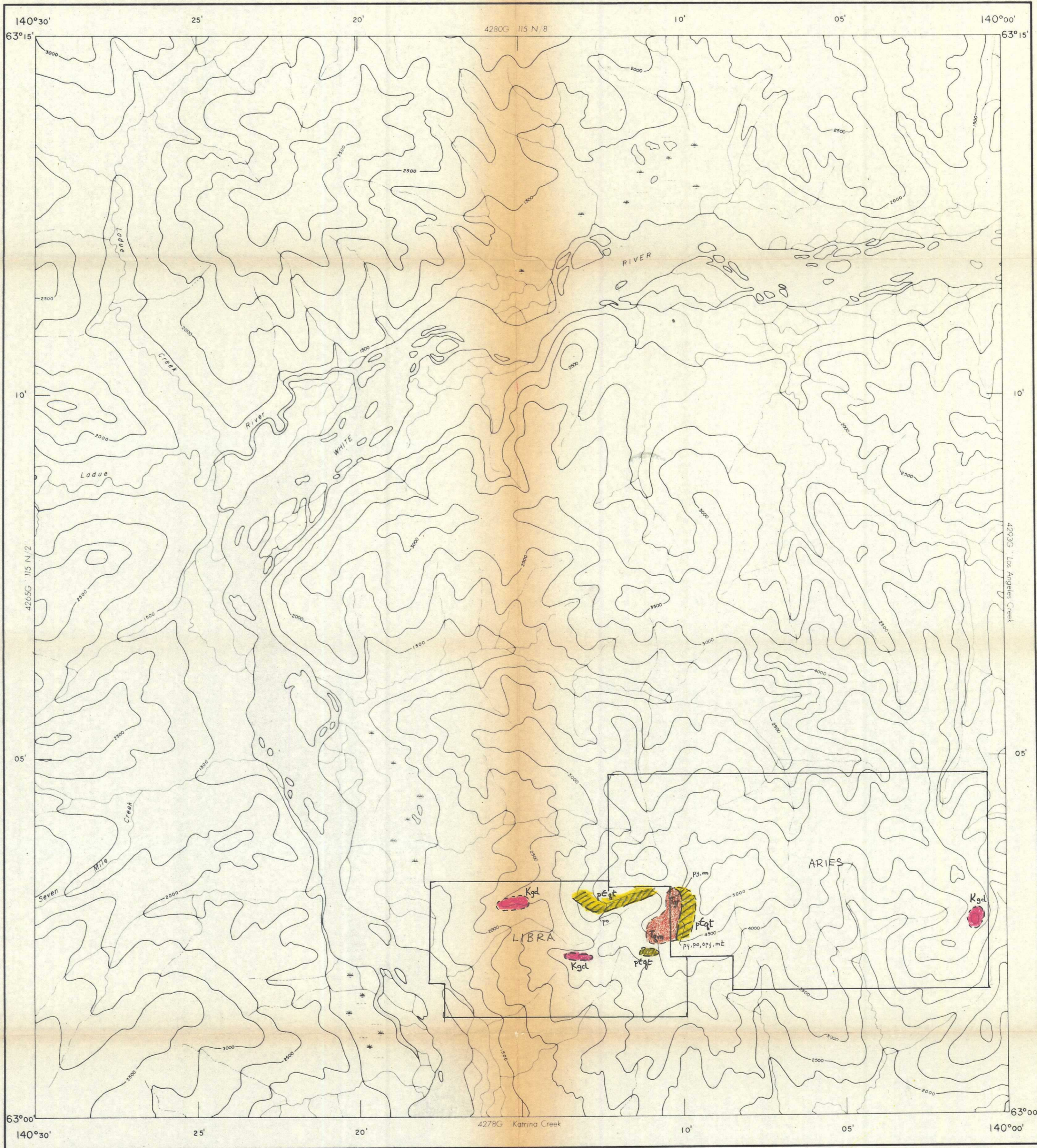
42 M D 104







GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

AEROMAGNETIC SERIES

SHEET 115 N



-  Tertiary? fine-grained granite
-  Tertiary? med-grained biotite qtz monzonite
-  Cretaceous? Casino granodiorite, in part sheared & brecciated
-  Yukon Group quartzite hornfels, contains py, ps, cpj, mag.

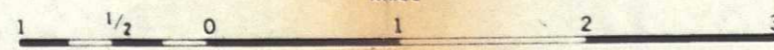
MAP 4279 G

LADUE CREEK YUKON TERRITORY

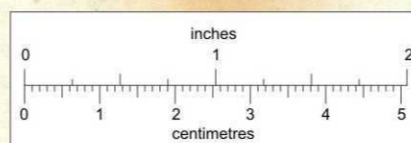
Magnetic survey, July to October 1965 by Aero. Photo. Inc.
No correction has been made for regional variation.

The planimetry for this map was obtained from topographical map sheets, published by the Department of Mines and Technical Surveys.

Scale: One Inch to One Mile = $\frac{1}{63,360}$
Miles



COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

The magnetic data on this map were compiled from information recorded along the flight lines shown. The anomalies expressed by the magnetic contours are dependent on the variable magnetic intensities of the underlying rocks and may be due to conditions near, or at unknown depths below, the surface. High magnetic anomalies normally indicate the presence of basic rocks such as diabase, gabbro, or serpentine which have a relatively high iron content, but in special instances may be due, or partly due, to concentrations of magnetic ore minerals. By means of the magnetic anomalies, various rock bodies or structural features, such as faults or folds, may be traced into or across areas of low or no outcrops. In many instances, however, no interpretation of particular anomalies may be possible without further geological information.

GEOPHYSICS PAPER 4279

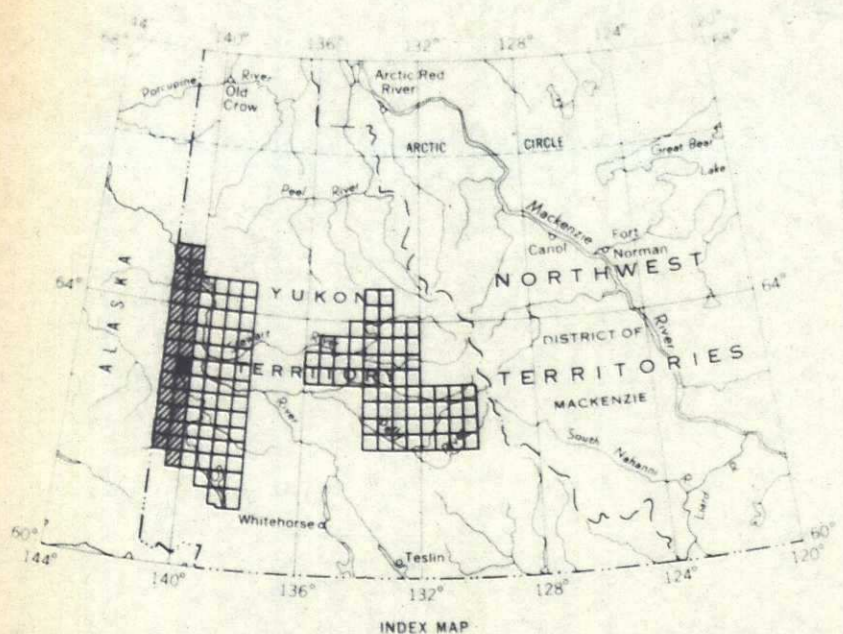
LADUE CREEK
YUKON TERRITORY
SHEET 115 N

Map 1

ISOMAGNETIC LINES (absolute total field)

- 500 gammas
- 100 gammas
- 20 gammas
- 10 gammas
- Magnetic depression

Flight lines
Flight altitude nominally 1000 feet above ground level where terrain permitted



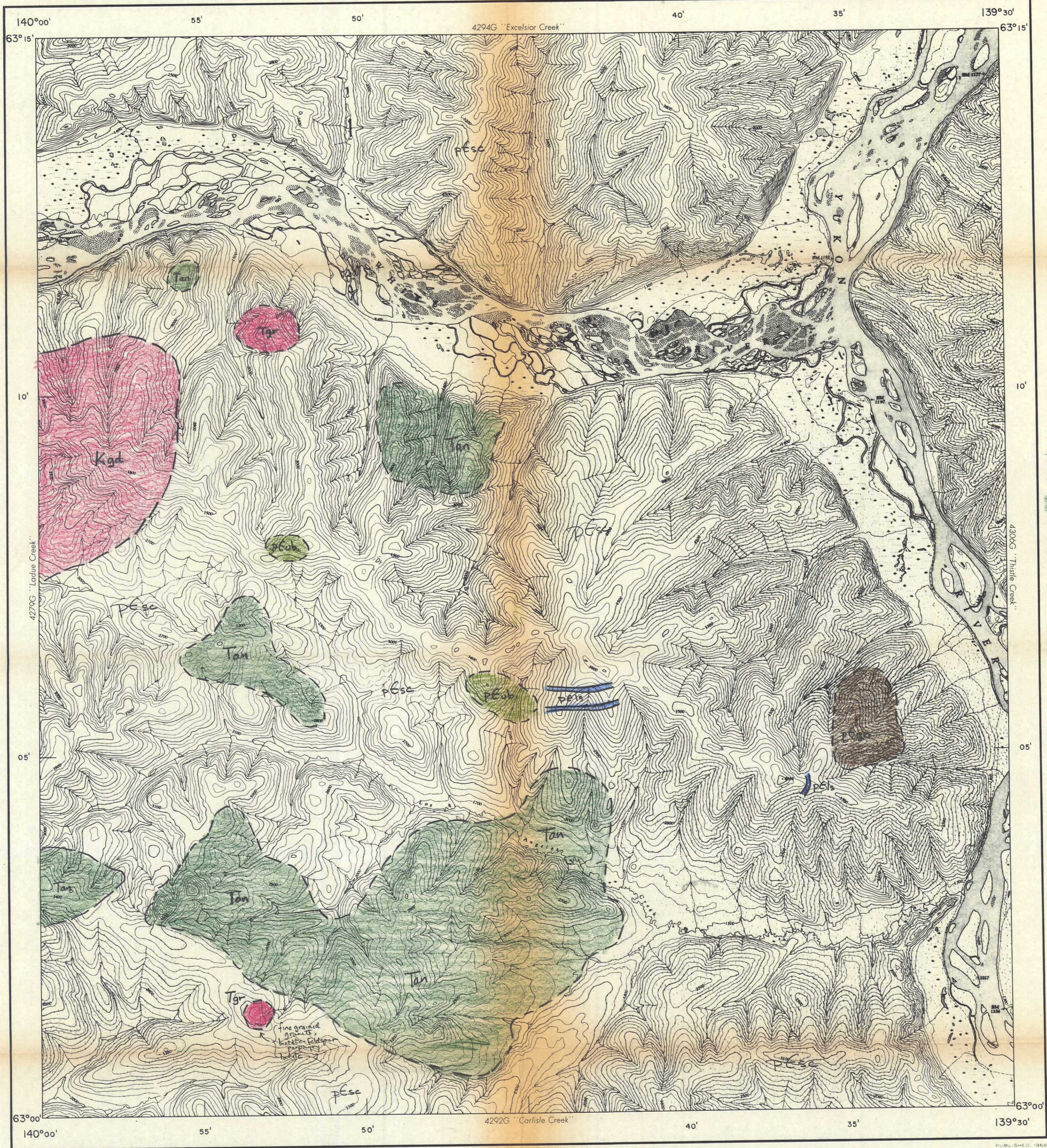
4293 BASE



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

SHEET 115 $\frac{0}{4}$

AEROMAGNETIC SERIES

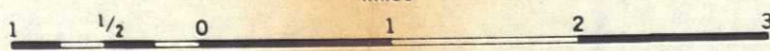


- Tertiary granite, granite porphyry
- Tertiary - Gornacks Gp - andesite + basalt
- Cretaceous (Cosmo?) granodiorite
- gabbro, pyroxenite peridotite, etc
- Yukon Gp granite gneiss
- Yukon Gp schist, quartzite, gneiss
- Yukon Gp limestone + marble beds.

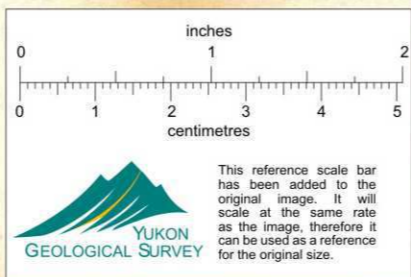
MAP 4293 G

LOS ANGELES CREEK YUKON TERRITORY

Scale: One Inch to One Mile = $\frac{1}{63,360}$ Miles



COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA



This reference scale bar has been added to the original image. It will be used as a reference for the original size.

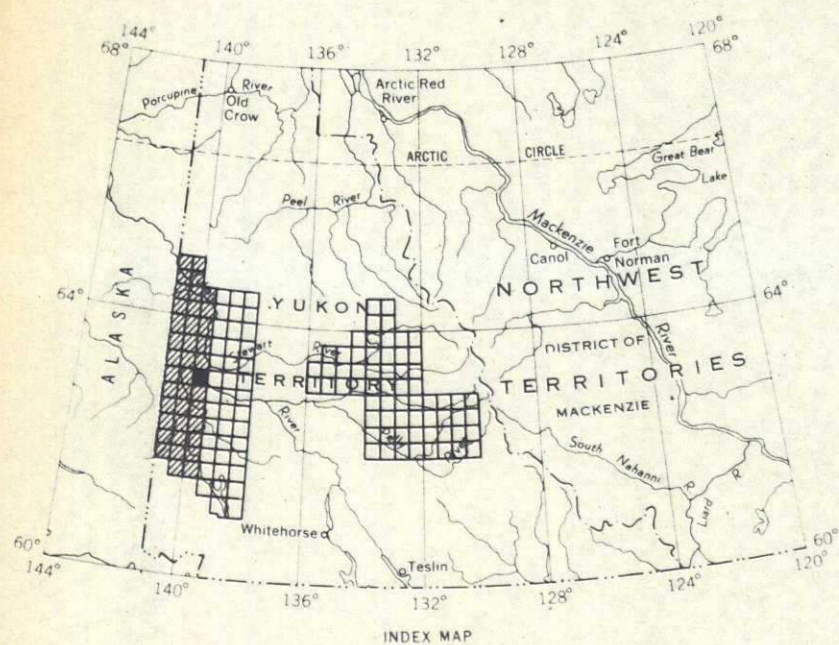
Magnetic survey, July to October 1945 by Aero Photo Inc.
No correction has been made for regional variation

The planimetry for this map was obtained from topographical map sheets, published by the Department of Mines and Technical Surveys.

The magnetic data on this map were compiled from information recorded along the flight lines shown. The anomalies expressed by the magnetic contours are dependent on the variable magnetic intensities of the underlying rocks, and may be due to conditions near, or at unknown depths below the surface. High magnetic anomalies normally indicate the presence of basic rocks, such as diabase, gabbro, or serpentine, which have a relatively high iron content, but in special instances may be due, or partly due, to concentrations of magnetic ore minerals. By means of the magnetic anomalies, various rock bodies or structural features, such as faults or folds, may be traced into, or across, areas of low or no outcrops. In many instances, however, no interpretation of particular anomalies may be possible without further geological information.

GEOPHYSICS PAPER 4293
LOS ANGELES CREEK
YUKON TERRITORY
SHEET 115 $\frac{0}{4}$

Map 2



ISOMAGNETIC LINES (absolute total field)

- 500 gammas
- 100 gammas
- 20 gammas
- 10 gammas
- Magnetic depression

Flight lines
Flight altitude, nominally 1000 feet above ground level where terrain permitted

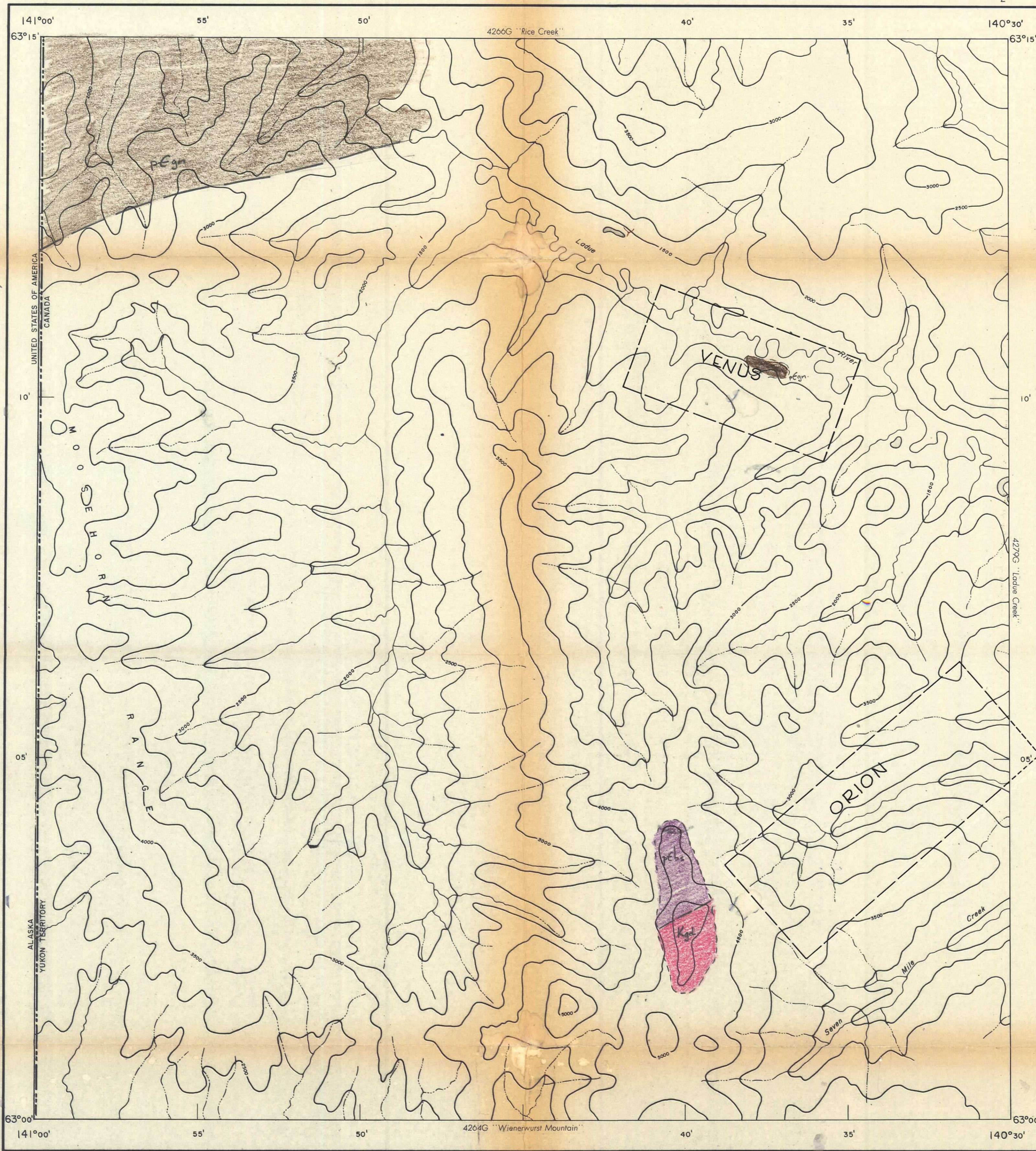
4265 BASE



AEROMAGNETIC SERIES

GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

SHEET 115 ^N/₂



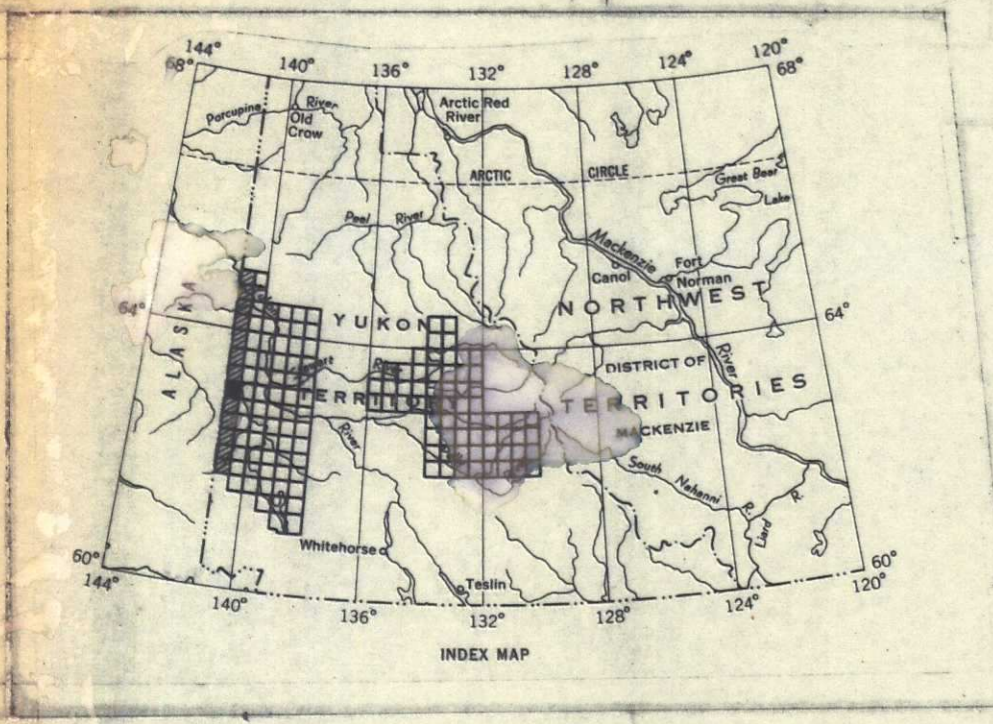
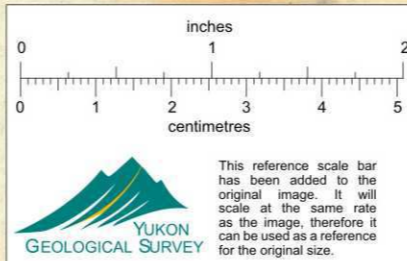
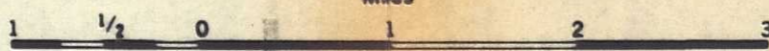
-  Cretaceous foliated biotite granodiorite
-  Yukon Gp biotite-feldspar schist
-  Yukon Gp Kspar-sericite gneiss, granite bands.

MAP 4265 G

115 ^N/₂

YUKON TERRITORY

Scale: One Inch to One Mile = $\frac{1}{63,360}$ Miles



ISOMAGNETIC LINES (absolute total field)

500 gammas
 100 gammas
 20 gammas
 10 gammas
 Magnetic depression

Flight lines
 Flight altitude: nominally 1000 feet above ground level where terrain permitted

Magnetic survey, July to October, 1960, by *[Name]*, Inc.
 No correction has been made for regional variation

The planimetry for this map was obtained from topographical map sheets, published by the Department of Mines and Technical Surveys.

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GEOPHYSICS PAPER 4265

YUKON TERRITORY
SHEET 115 ^N/₂
Map 3