013594

RECONNAISSANCE GEOLOGICAL & GEOCHEMICAL MAPS

HESS RIVER REGION

By:

M. E. COATES

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ATLAS EXPLORATIONS LIMITED

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

INTRODUCTION

This folio contains finished maps displaying the results of field work done in the 1969 season. No further work is recommended in most of these areas. The only exceptions are the Sun Group and Owl Group Areas. A small amount of further prospecting work might be done in the vicinity of the Sun Group in 1970. Recommendations for further work in the Owl Group area are given in the report on the Stokes Lake Program, 1969, by M. E. Coates.

Maps which have appeared in previous reports and have not been altered as a result of work in the 1969 season have not been included. A list of Atlas' reports available in the Hess Project Area is appended.

Respectfully submitted,

M. E. (Tim) Coates

Dec. 1969

LIST OF ILLUSTRATIONS

re		N.T.S.	Scale
	Geological Maps		
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3	Fig 3 Geological Map of Hess Region	105-J,K,L,M,N,O	1" - 4 mile:
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5	Fig 5 Geological Map: Stokes Lake Sheet	105-K-11,12,13,14	1" - 1 mile
6	Fig 6 Geological Map: Mount Selous Sheet	105-K-16	1" - ½ mile
7	Fig 7 Geological Map: Dromedary Mountain Sheet	105-L-15,16	1" - 1 mile
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11	Fig 11 Geological Map: Edwards Lake Sheet	105-M-9,10,15,16	1" - 1 mile
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13	Fig 13 Geological Map: Plateau Mountain Sheet	105-N-3,4	1" - 1 mile
14	Fig 14 Geological Map: Swan Lake Sheet	105-N-7,8,9,10,15	1" - 1 mile
15	Fig 15 Geological Map: Vole Creek Sheet	105-N-5,6,11,12,14	1" - 1 mile
16	Fig 16 Geological Map: Lansing River Sheet	105-N-16	1" - 1 mile
17	Fig 17 Geological Map: Mount Pratico Sheet	105-0-3	1" - 1 mile
18	Fig 18 Geological Map: Mount Adamson Sheet	105-0-6	1" - 1 mile
19	Fig 19 Geological Map: Emerald Lake Sheet	105-0-11	1" - 1 mile
20	Fig 20 Geological Map: Rogue River Sheet	105-0-12	1" - 1 mile
	Fig 236 Geological Map: Spearhead Sheet	105-J-13	1" - ½ mile
246	Fig 246 Geological Map: Ivor Sheet	105-J-15	1" - ½ mile

re		N.T.S.	Scale
	Geochemical Maps		
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23	Fig. 23 Geochemical Map: Spearhead Sheet	105-J-13	1" - ½ mile
24	Fig. 24 Geochemical Map: Ivor Sheet	105-J-15	1" - ½ mile
25	Fig. 25 Geochemical Map: Laforce Lake Sheet	105-K-9	1" - ½ mile
26	Fig. 26 Geochemical Map: Stokes Lake Sheet	105-K-11,12,13,14	1" - 1 mile
27	Fig. 27 Geochemical Map: South Fork Sheet	105-K-15	1" - ½ mile
28	Fig. 28 Geochemical Map: Mount Selous Sheet	105-K-16 (silts)	1" - ½ mile
29	Fig. 29 Geochemical Map: Mount Selous Sheet	105-K-16 (soils)	1" - ½ mile
30	Fig. 30 Geochemical Map: Dromedary Mountain Sheet	105-L-16,15	1" - 1 mile
31	Fig. 31 Geochemical Map: Kalzas Lake Sheet	105-M-1,2,7,8	1" - 1 mile
32	Fig. 32 Geochemical Map: McArthur Sheet	105-M-3,4,5,6	1" - 1 mile
33	Fig. 33 Geochemical Map: Mayo Landing Sheet	105-M-11,12,13,14	1" - 1 mile
34	Fig. 34 Geochemical Map: Edwards Lake Sheet	105-M-9,10,15,16	1" - 1 mile
35	Fig. 35 Geochemical Map: Fairweather Lake Sheet	105-N-1,2	1" - 1 mile
36	Fig. 36 Geochemcial Map: Plateau Mountain Sheet	105-N-3,4	1" - 1 mile
37	Fig. 37 Geochemical Map: Swan Lake Sheet	105-N-7 8,9,10	1" - 1 mile
38	Fig. 38 Geochemical Map: Vole Creek Sheet	105-N-5,6,11,12,14	1" - 1 mile
39	Fig. 39 Geochemical Map: Lansing River Sheet	105-N-16	1" - 1 mile
40	Fig. 40 Geochemical Map: Mount Pratico Sheet	105-O-3	1" - 1 mile
41	Fig. 41 Geochemical Map: Mount Adamson Sheet	105-O-6	1" - 1 mile
	Fig. 42 Geochemical Map: North Fork Hess Sheet	105-O-7	1" - 1 mile
43	Fig. 43 Geochemical Map: Emerald Lake Sheet	105-O-11	1" - 1 mile
44	Fig. 44 Geochemcial Map: Rogue River Sheet	105-O-12	1" - 1 mile

Report No.	Title	N.T.S.	Maps & Figures
	1969 REPORTS		
69-1	Report on Aeromagnetic Anomaly - Spearhead Mnt.	105-J-13	Geology and Geochemistry 1" = ½mi.
69-2	Report on Anomaly #166 Spearhead Mnt.	105-J-13	Geology) Geochemistry) 1" = ½mi.
69-3	Report on Anomalies #3 & 4	105-N-2	Geology) Geochemistry) 1" = ½mi.
69-4	Report on Anomalies #34 & 36	105-N-6	Geology) Geochemistry) 1" = ½mi.
69-5	Report on Anomaly #90 Pleasant Ck. Gossan	105-N-10	Grid and Geology Geochemistry) Copper Contours) Lead ") Zinc) 1"=200'
69-6	Report on Anomalies #94, #95, #96	105-N-10	Geology) Geochemistry) 1" = ½mi.
69-7	Report on Anomaly #102	105-N-10 & -11	Geology) Geochemistry) 1" = ½mi.
69-8	Report on Anomaly #114	105-N-11	Geology) Geochemistry) 1" = ½mi.
69-9	Report on Anomaly #107 Vole Creek Gossan	105-N-11	Geochemistry and Geology 1" = ½mi.
69-10	Report on Stokes Lake Program	105-K	33 maps
69-11	Greg Group Reports		Geology 1"= ¼ mi.
69-12	Greg Group Reports		Geochem Survey 1"=¼ mi.
69-13	Preliminary Assessment Report Box and May Claims		
69-14	Report on Mt. Aho Area		Geology - 1"= ¼ mi Geochem - 1"= ¼ mi. Geochem profile -1"=¼ mi.

Report No.	Title	N.T.S.	Maps & Figures
69-15	Reconnaissance Geol. & Geochem Map Folio Hess River Region		46 maps
69-16	Lad Mineral Claims Group Report on 1969 Field Work		
69-17	Scot Mineral Claim Group Geochemical Report, 1969		

1968 REPORTS

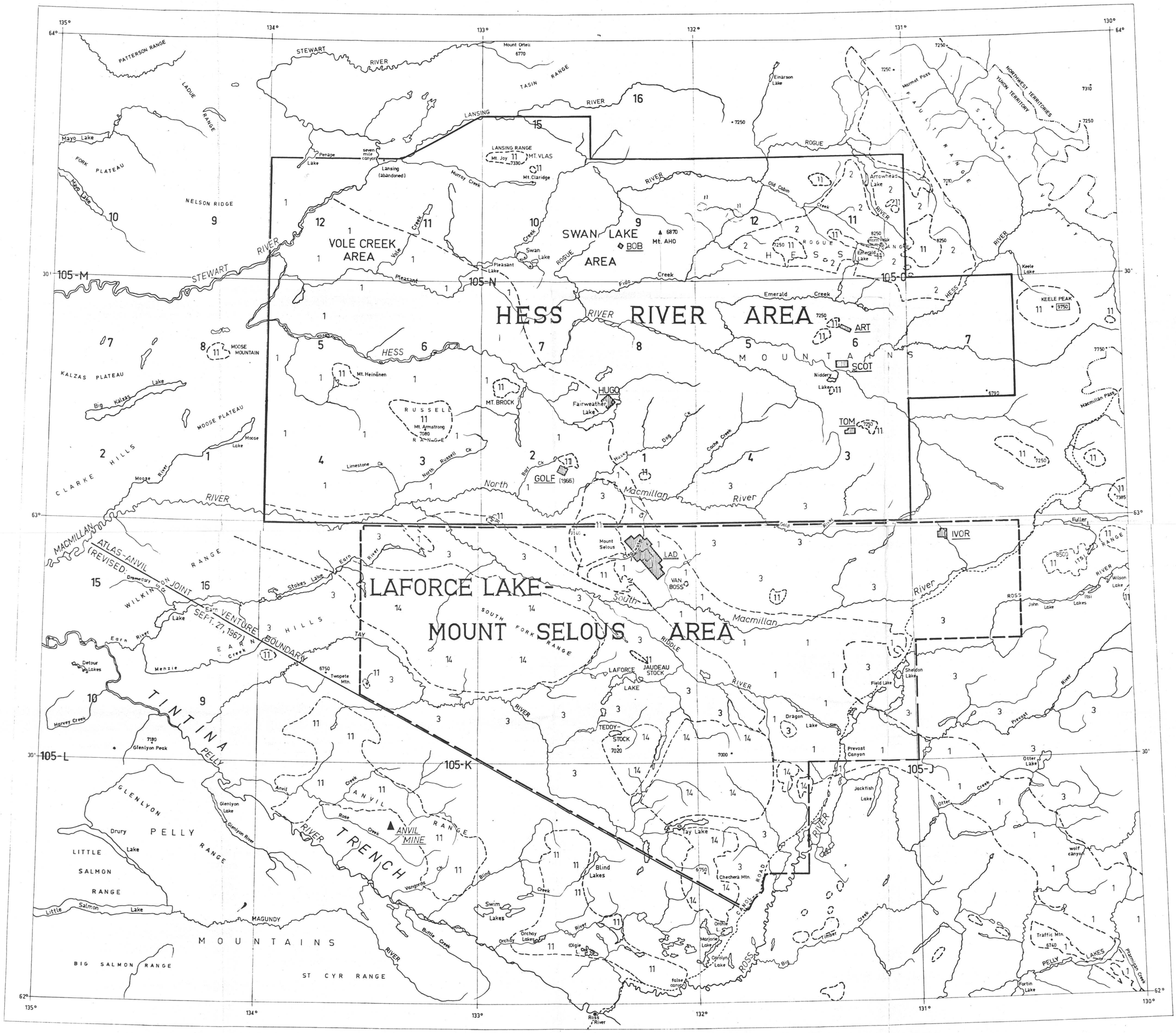
68-1	Lad Mineral Claim Group Report on 1968 Field Work		
68-2	Scot Mineral Claim Group Geological Report, 1968		
68-3	Scot Mineral Claim Group Geochemical Report, 1968		
68-4	Scot Mineral Claim Group Geophysical Report, 1968		
68-5	Art Mineral Claim Group Geological Report, 1968		
68-6	Art Mineral Claim Group Geochemical Report, 1968		
68-7	Art Mineral Claim Group Geophysical Report, 1968		
68-8	Tom Mineral Claim Group Geological Report, 1968		
68-9	Ivor Mineral Claim Group Geological & Geochemical Report, 1968		
68-10	Report on Hess River Area Geological & Geochemical Report, 1968		(13 Figures)
68-11	Report on Laforce Lake-Mt. Selous Area Geological & Geochemical Report, 1968		(12 Figures)

1967 REPORTS

67-1	Hess River Project Report Geological & Geochemical, 1967 C. L. Smith		

FIG. 1

—HESS PROJECT—



LEGEND

14	Volcanic rocks; Porphyry (Tertiary)
11	Intrusive rocks; Granodiorite, Quartz-monzonite. (Cretaceous)
3	Graphitic Argillites, Chert, Greywacke (Devonian-Mississippian)
2	Varicolored Slates, Chert, Siltstone (Ordovician Silurian)
1	Yukon Group; Quatzite, Phyllite, Conglomerate, Limestone, Slate. (Proterozoic)
▨	Claim group
— — —	Geologic boundary (Approximate)

inches 0 1
centimetres 0 1 2
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.
YUKON GEOLOGICAL SURVEY

ATLAS EXPLORATIONS LIMITED

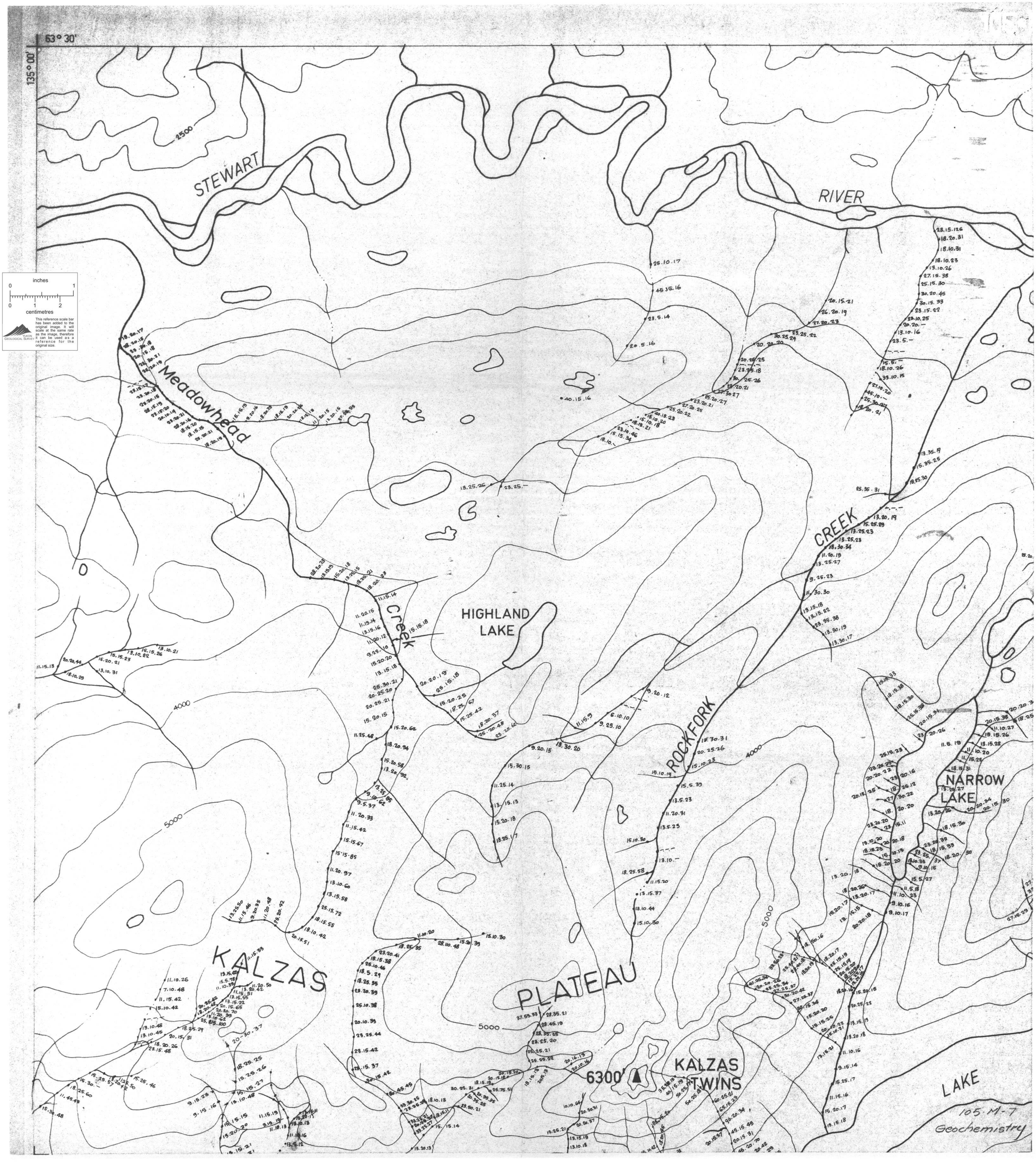
ROSS RIVER (Y.T.)

MAP SHOWING LOCATION AND GENERAL GEOLOGY OF HESS RIVER AND LAFORCE LAKE-MOUNT SELOUS AREAS

8 0 8 16
SCALE IN MILES.

1968

P.V


63° 30'
135° 00'
STEWART
RIVER
Meadowhead
creek
HIGHLAND
LAKE
ROCKFORK
CREEK
NARROW
LAKE
KALZAS
PLATEAU
KALZAS
TWINS
6300'
LAKE
2500
4000
5000
105-M-7
Geochemistry
inches
0
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2
centimetres
YUKON
GEOLOGICAL SURVEY
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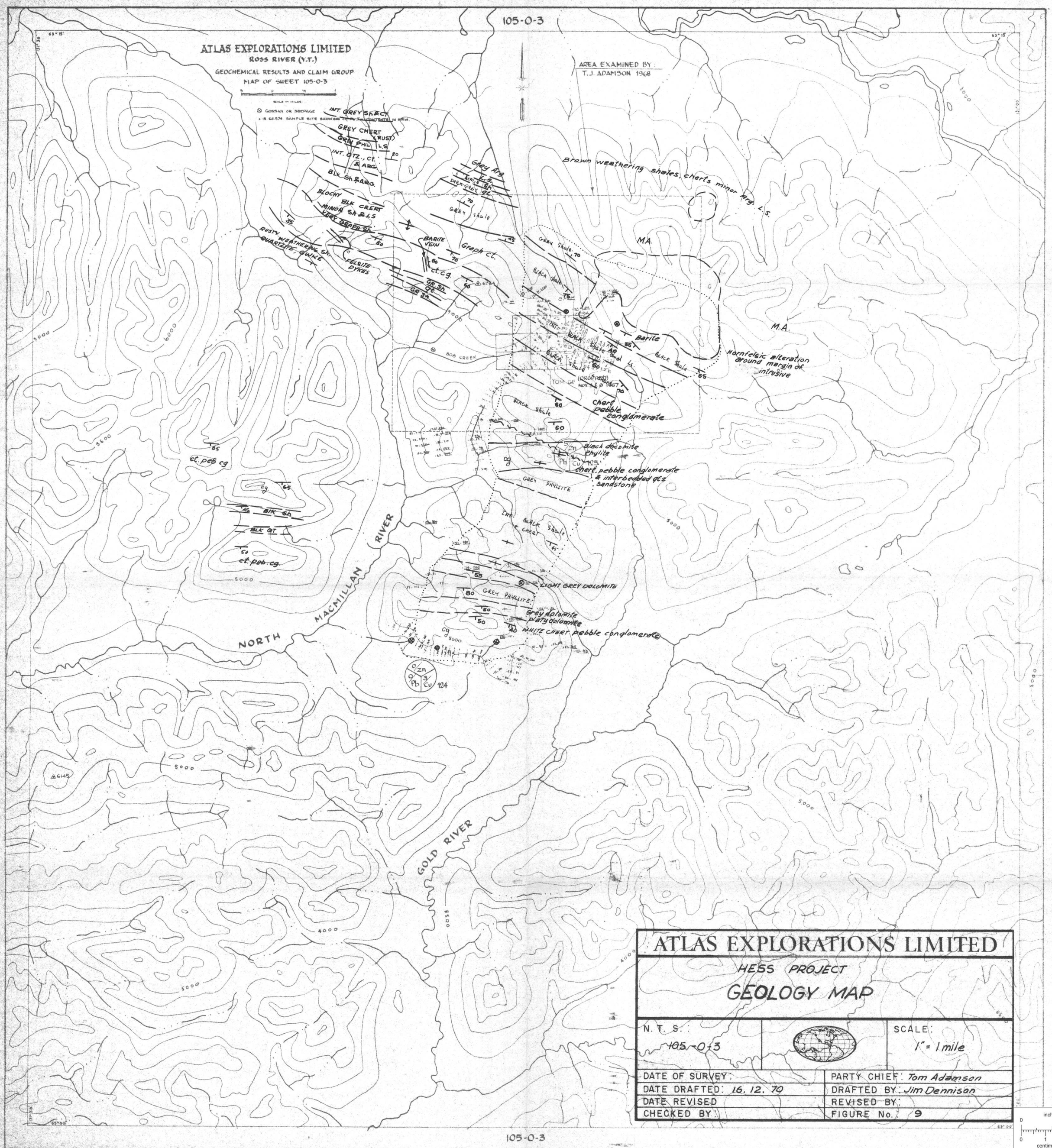
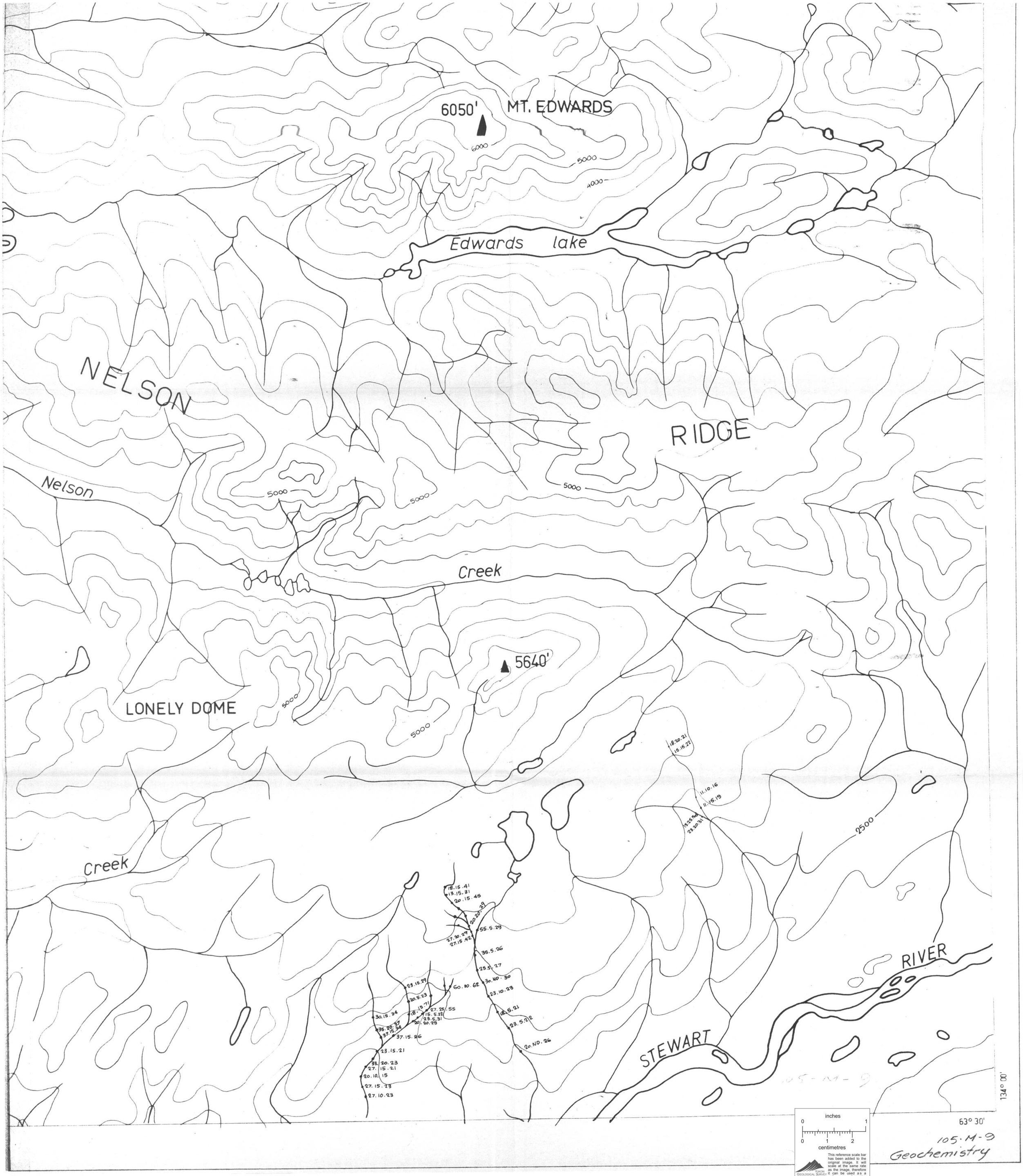
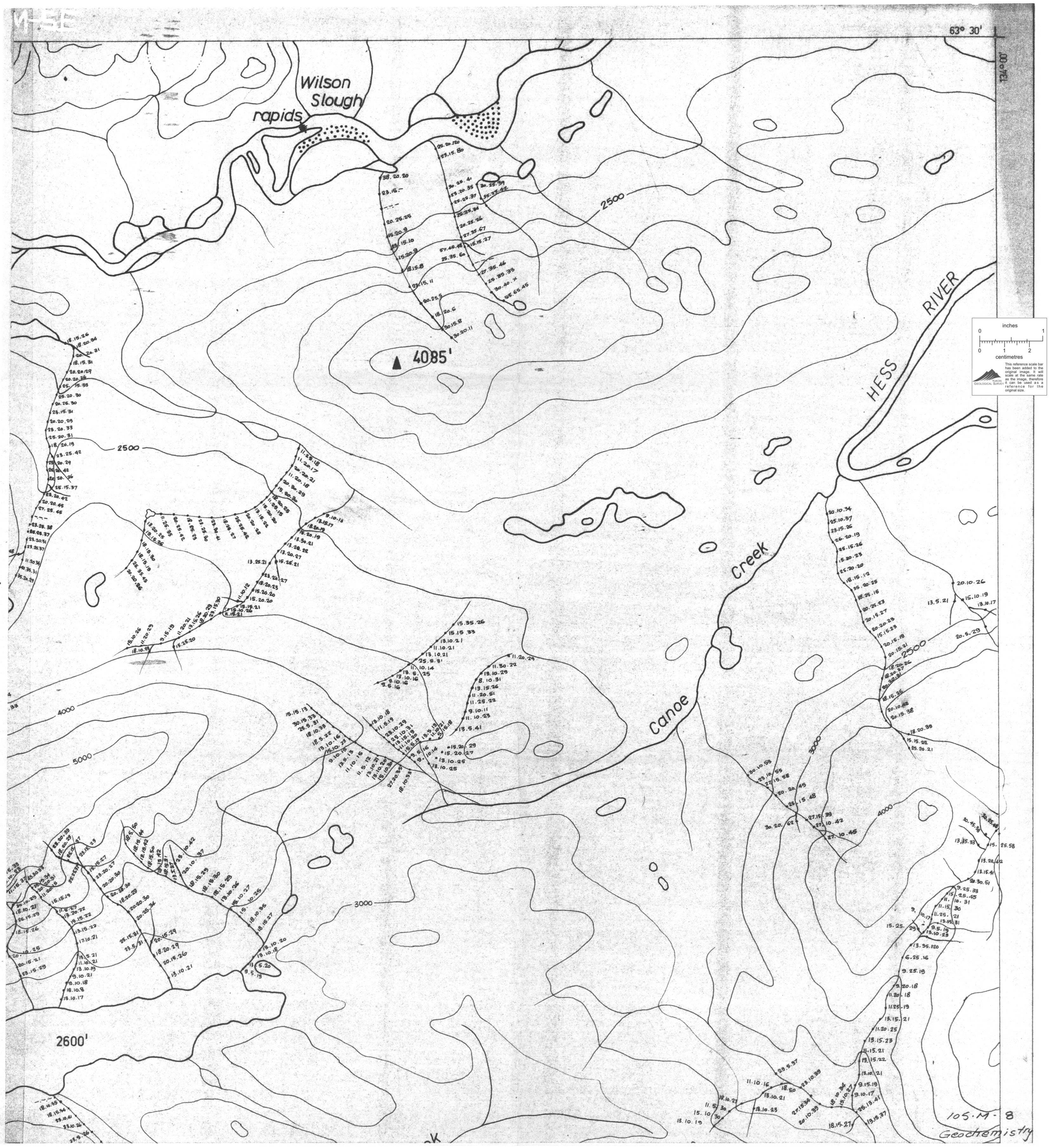

105-0-3
ATLAS EXPLORATIONS LIMITED
ROSS RIVER (Y.T.)
GEOCHEMICAL RESULTS AND CLAIM GROUP
MAP OF SHEET 105-0-3
SCALE IN MILES
GOSSAN OR SEEPAGE
+15 68.574 SAMPLE SITE SHOWING Cu, Pb, Zn CONTENTS IN PPM.
AREA EXAMINED BY:
T.J. ADAMSON 1968
INT. GREY SH & CT
GREY CHERT (RUST)
GRN PHIL L.S.
INT. QTZ., CT. & ARG.
BLK SH & ARG.
BLOCHY BLK CHERT
MINOR SH & LS
VERY GRAPH SH.
RUSTY WEATHERING SH.
QUARTZITE, QWKE
FELSITE DYKES
BARITE VEIN
Graph ct.
ct. cg.
GR. SH.
GR. SH.
Grey Arg.
DARK GREY qt.
GREY shale
Brown weathering shales, cherts minor Arg. L.S.
M.A.
GREY Shale
BLACK Shale
Barite
BLACK Shale and L.S.
Hornfelsic alteration around margin of intrusive
TOM GF (PROPERTY)
Chert pebble conglomerate
Black dolomite Phylite
chert pebble conglomerate & interbedded qtz sandstone
GREY PHYLLITE
INT. BLACK & CHERT
LIGHT GREY DOLOMITE
Grey dolomite platydolomite
WHITE CHERT pebble conglomerate
ct. peb cg
BLK SH
BLK QT
ct. peb. cg.
BOB CREEK
MACMILLAN RIVER
NORTH
GOLD RIVER
Zn
Pb
Cu
124
ATLAS EXPLORATIONS LIMITED
HESS PROJECT
GEOLOGY MAP
N. T. S.: 105-0-3
SCALE: 1" = 1 mile
DATE OF SURVEY:
DATE DRAFTED: 16. 12. 70
DATE REVISED
CHECKED BY:
PARTY CHIEF: Tom Adamson
DRAFTED BY: Jim Dennison
REVISED BY:
FIGURE No. 9
105-0-3
inches
centimetres
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.
YUKON GEOLOGICAL SURVEY

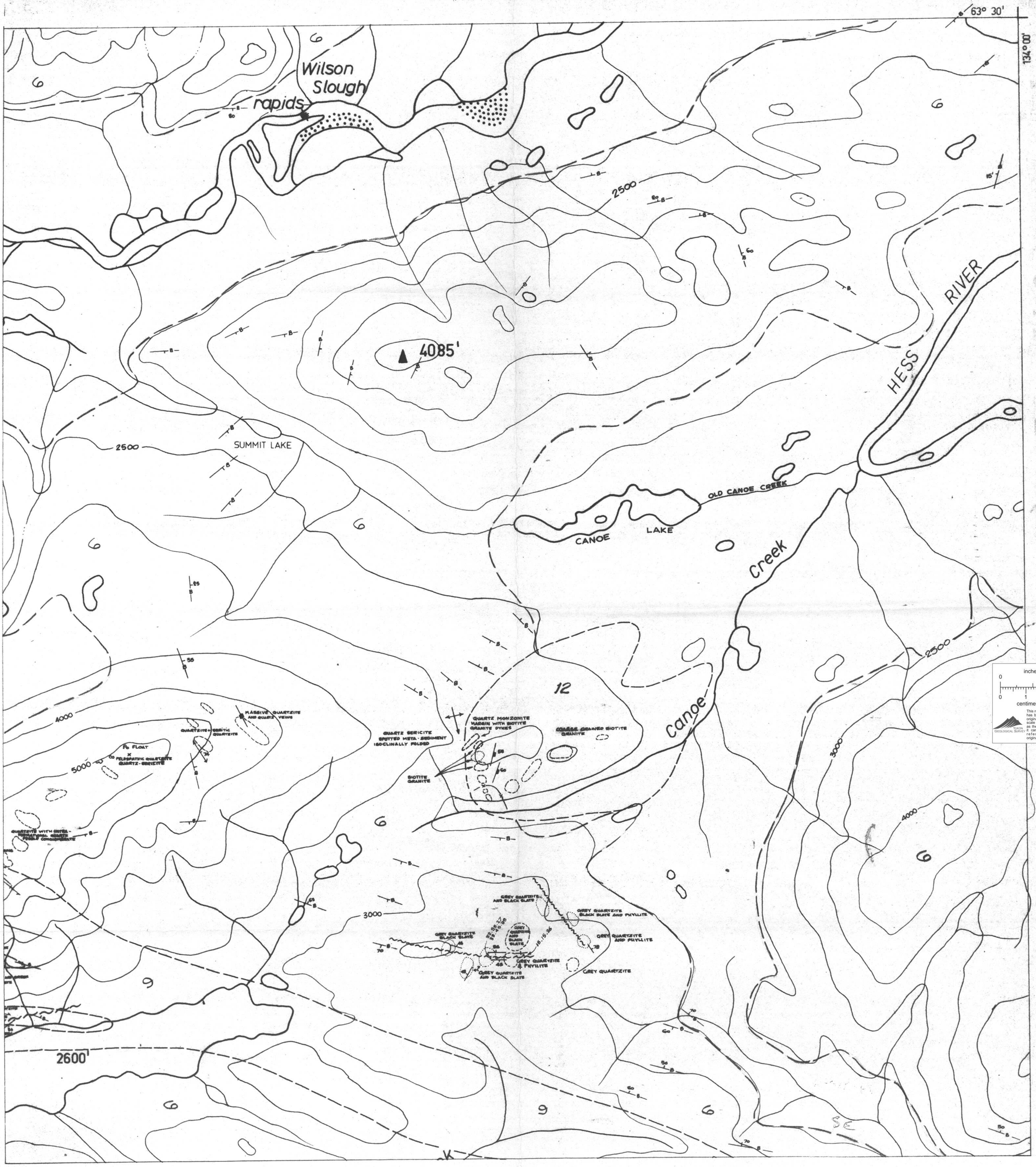

6050'
MT. EDWARDS
6000
5000
4000
Edwards lake
NELSON
RIDGE
Nelson
5000
Creek
5640'
LONELY DOME
2500
Creek
RIVER
STEWART
134° 00'
63° 30'
105-M-9
inches
0
1
0
1
2
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY
105·M-9
Geochemistry

FORK
PLATEAU
6000
5000
2500
Callaghan
Creek
Creek
MAYO
LAKE
LEDGE
CR
CASCADE
CR
South
Nelson
5000
2500
135° 00'
63° 30'
inches
0
1
0
1
2
centimetres
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.
YUKON GEOLOGICAL SURVEY
105-M-10
Geochemistry

1-NW

105-M-11
Geochemistry


63° 30'
134° 00'
Wilson Slough
rapids
2500
4085'
HESS RIVER
Canoe Creek
2500
4000
5000
3000
2600'
inches
0
1
0
1
2
centimetres
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.
YUKON GEOLOGICAL SURVEY
105-M-8
Geochemistry


63° 30'
134° 00'
Wilson Slough
rapids
2500
4085'
SUMMIT LAKE
HESS RIVER
OLD CANOE CREEK
CANOE LAKE
Canoe creek
12
MASSIVE QUARTZITE AND QUARTZ VEINS
QUARTZITE + SERITIC QUARTZITE
Pb FLOAT
FELDSPATHIC QUARTZITE QUARTZ-SERICITE
4000
5000
QUARTZITE WITH INTERMITTENT QUARTZ PEBBLY CONGLOMERATE
QUARTZ SERICITE SPOTTED META-SEDIMENT ISOCLINALLY FOLDED
BIOTITE GRANITE
QUARTZ MONZONITE MARGIN WITH BIOTITE GRANITE DYKES
COARSE GRAINED BIOTITE GRANITE
3000
GREY QUARTZITE BLACK SLATE
GREY QUARTZITE AND BLACK SLATE
GREY QUARTZITE BLACK SLATE AND PHYLLITE
GREY QUARTZITE AND PHYLLITE
GREY QUARTZITE & PHYLLITE
GREY QUARTZITE
2600
inches
0 1
0 1 2
centimetres
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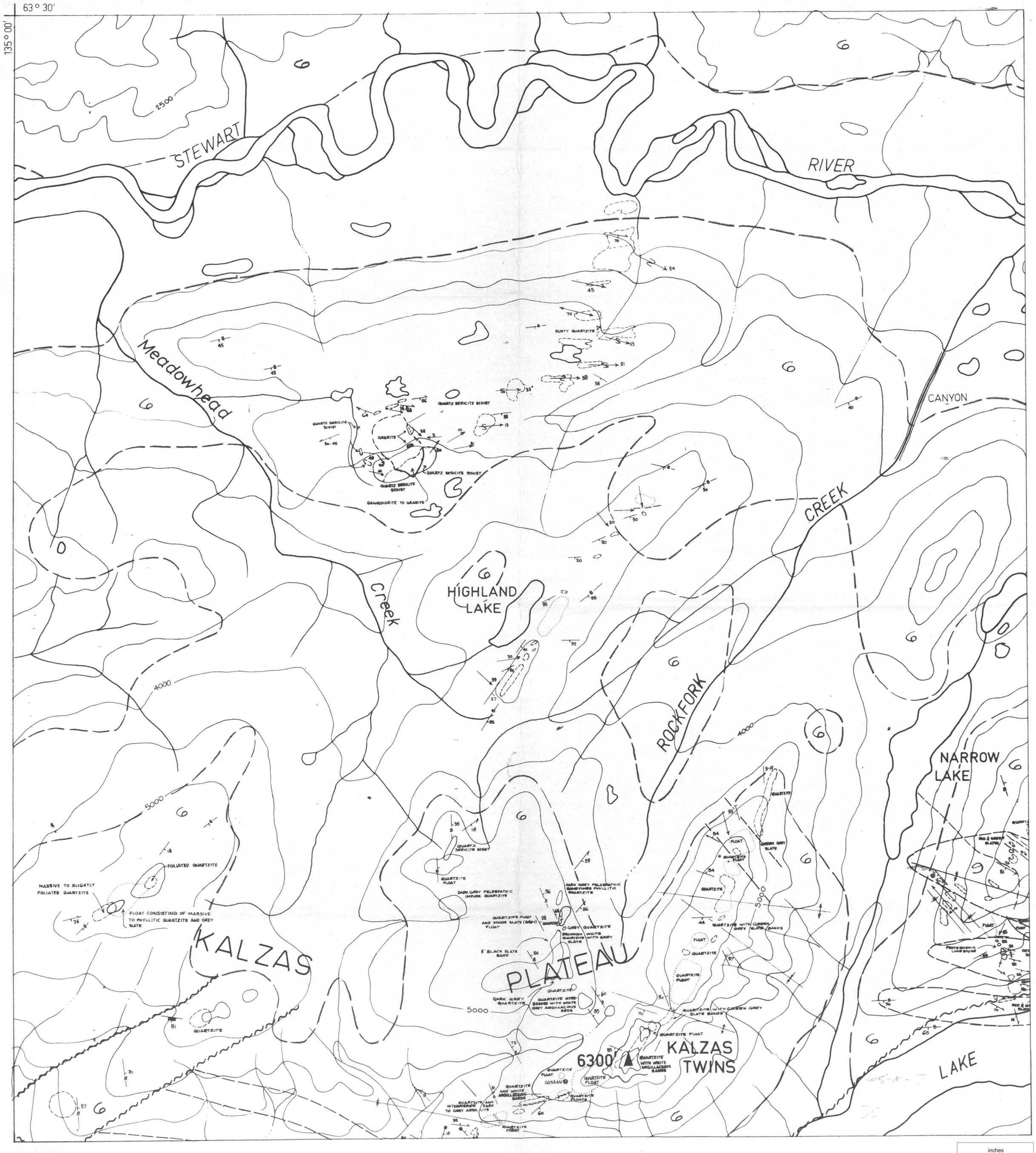
YUKON GEOLOGICAL SURVEY

SHEET 105·M/8



SHEET 105 · M/7

inches
0 1
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centimetres

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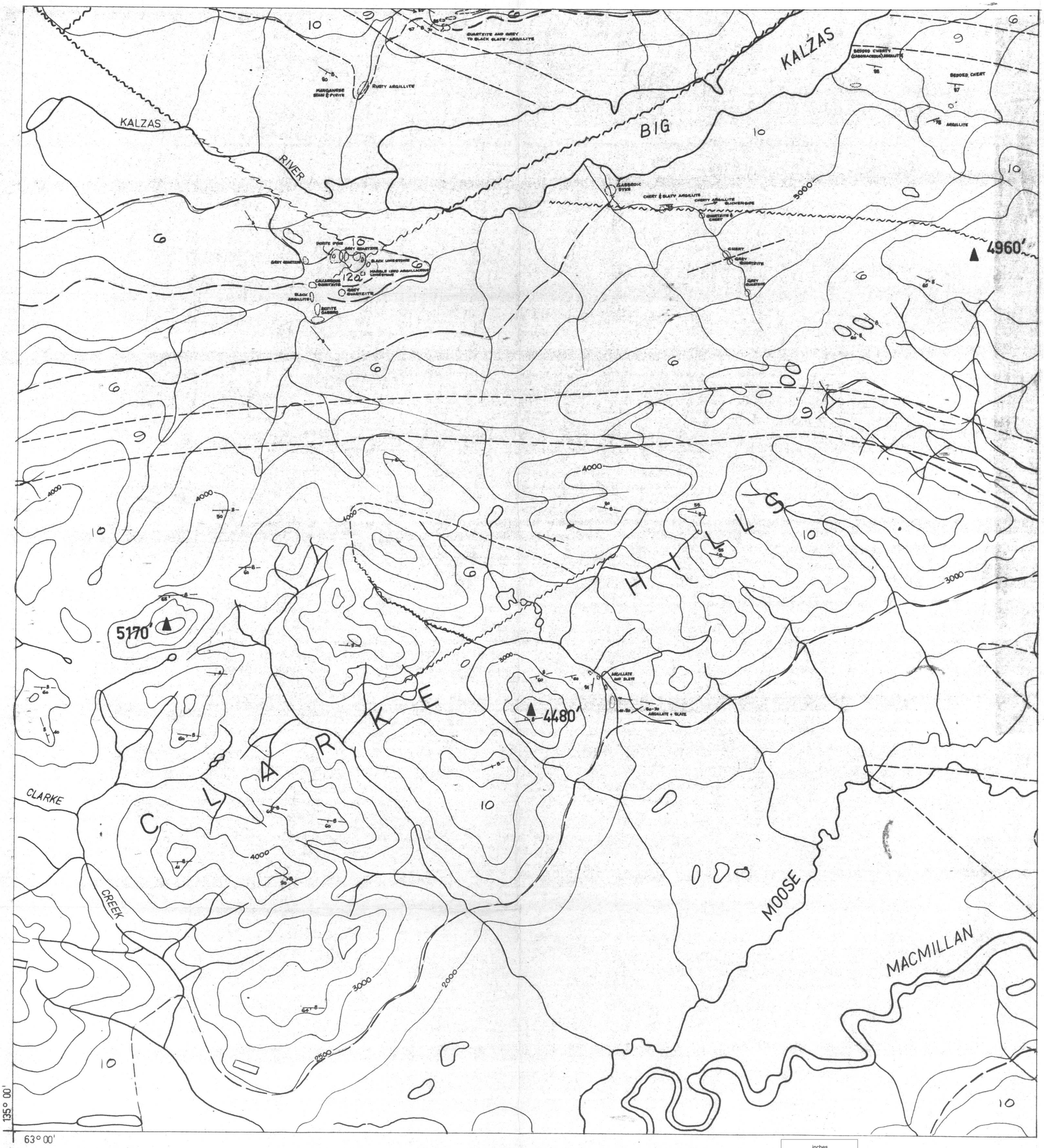
YUKON GEOLOGICAL SURVEY



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centimetres

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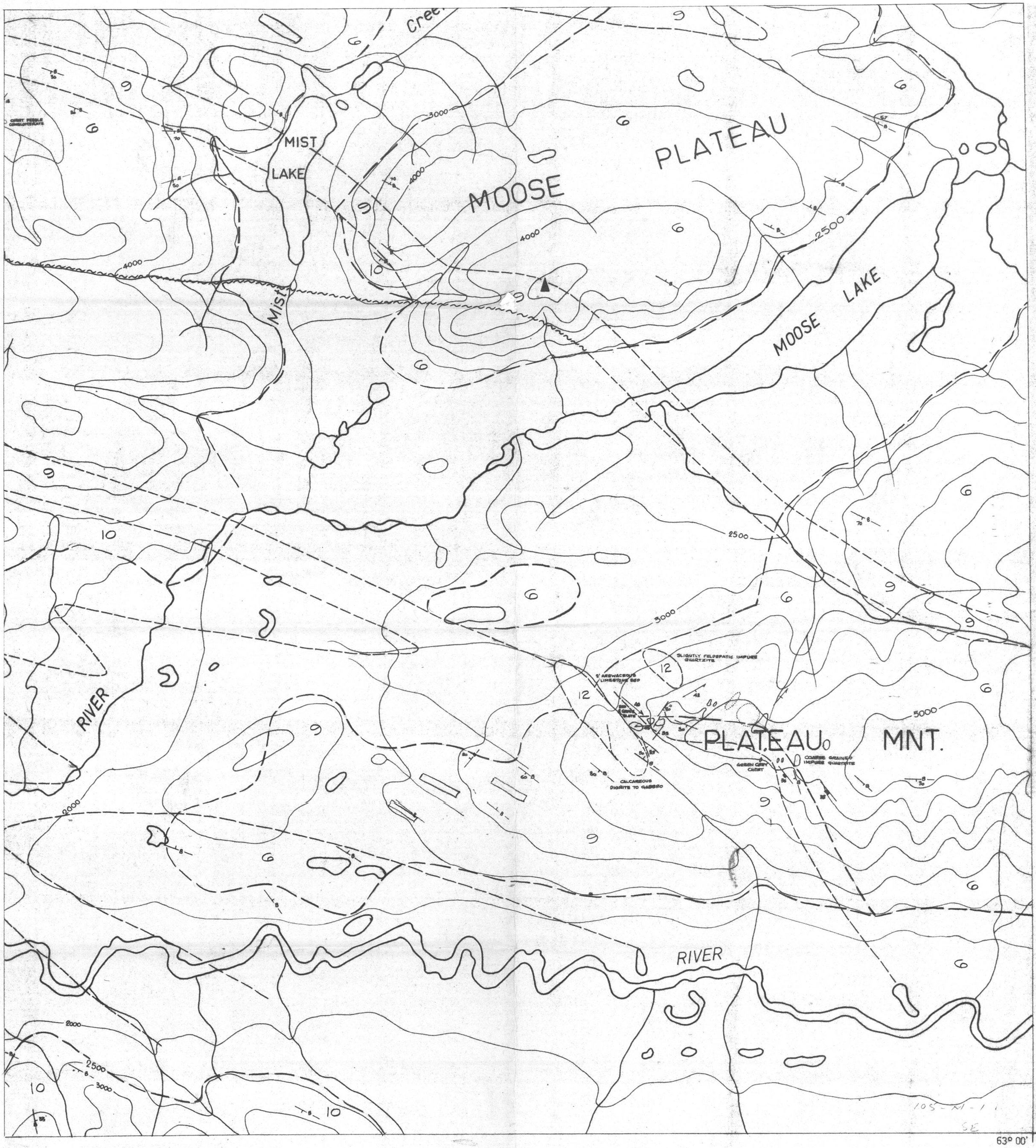
YUKON GEOLOGICAL SURVEY

Geology 105-M-2

HEET 105 · M/2



HEET 105 · M/1

inches
0 1
0 1 2
centimetres

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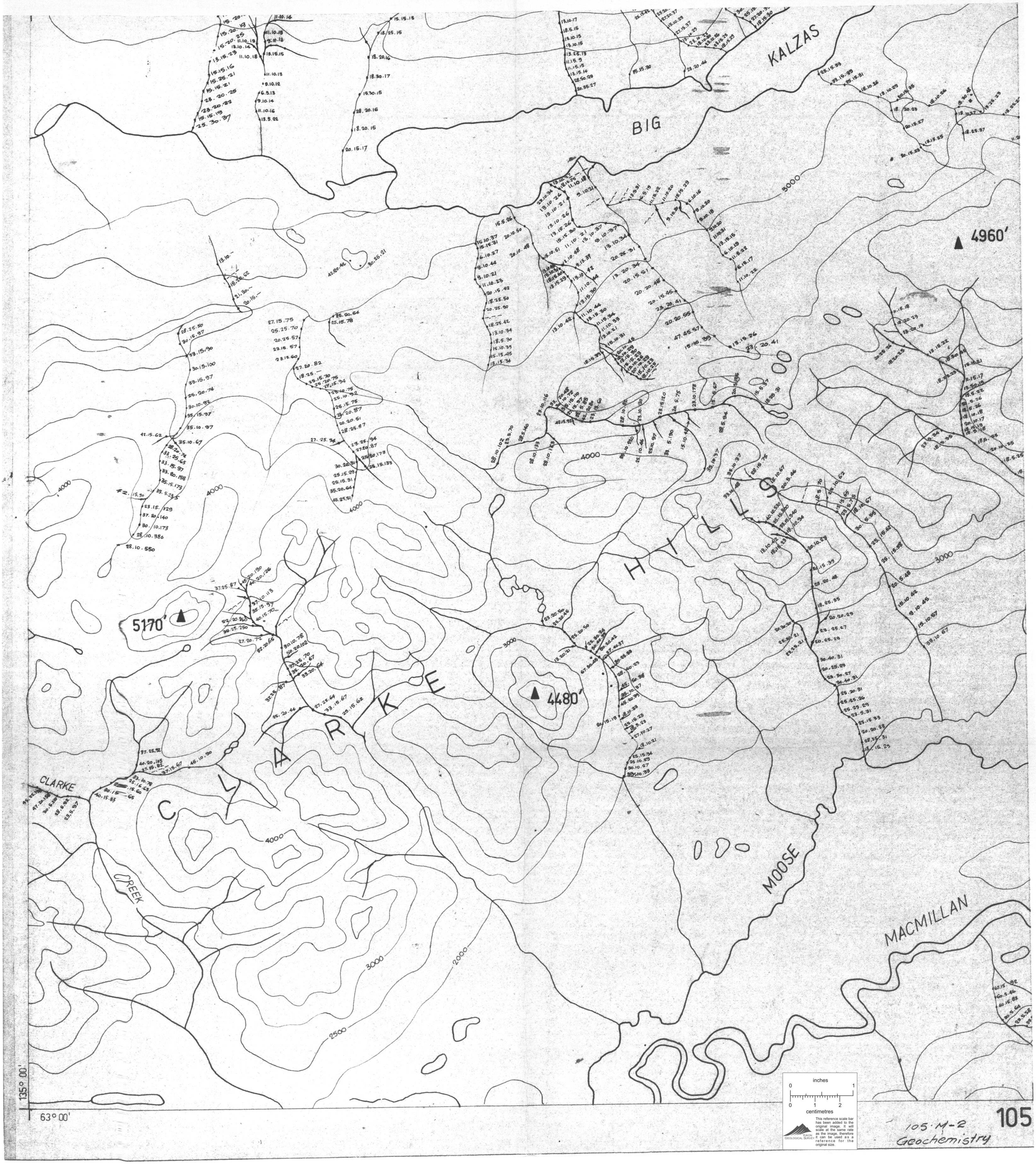
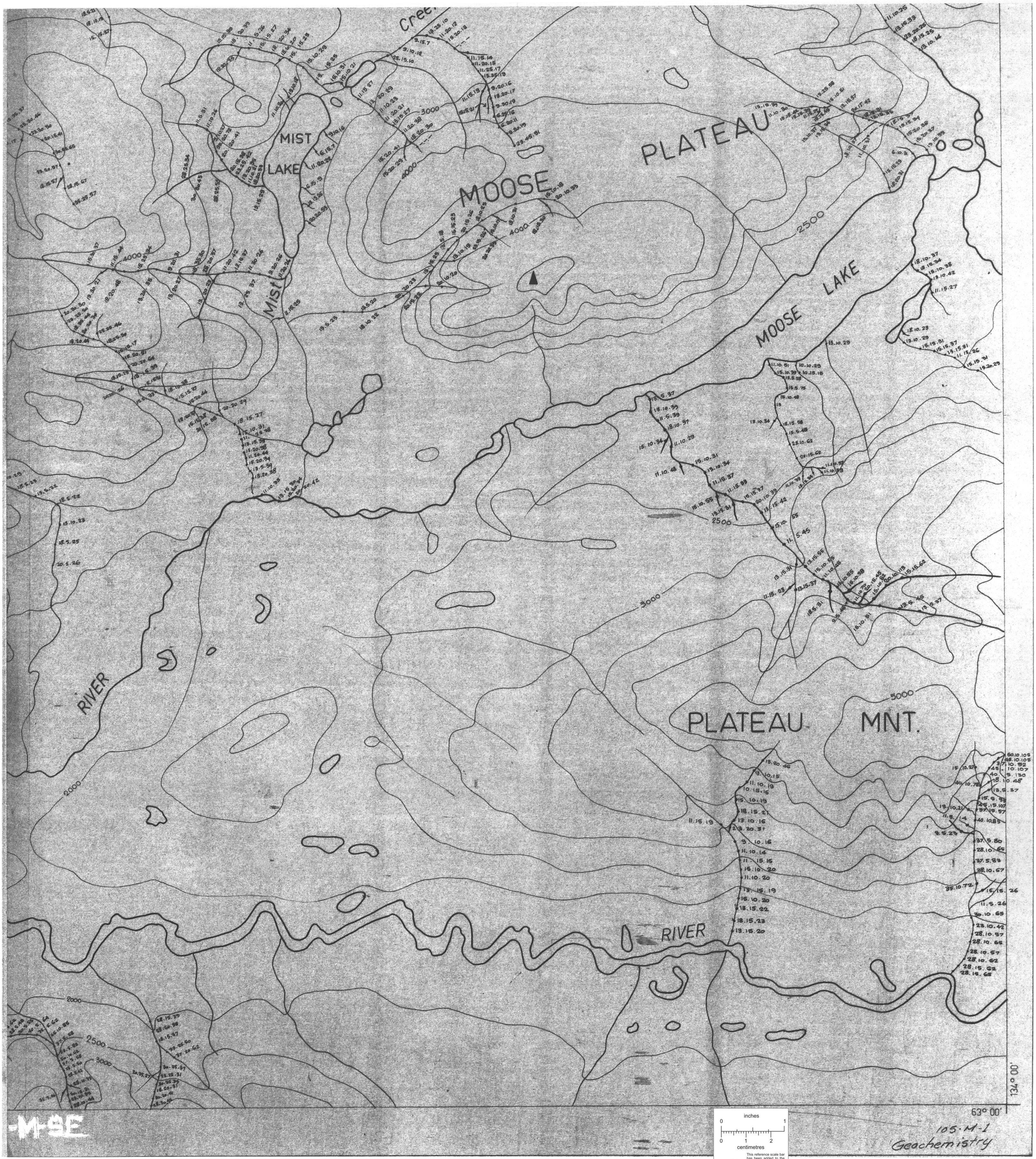
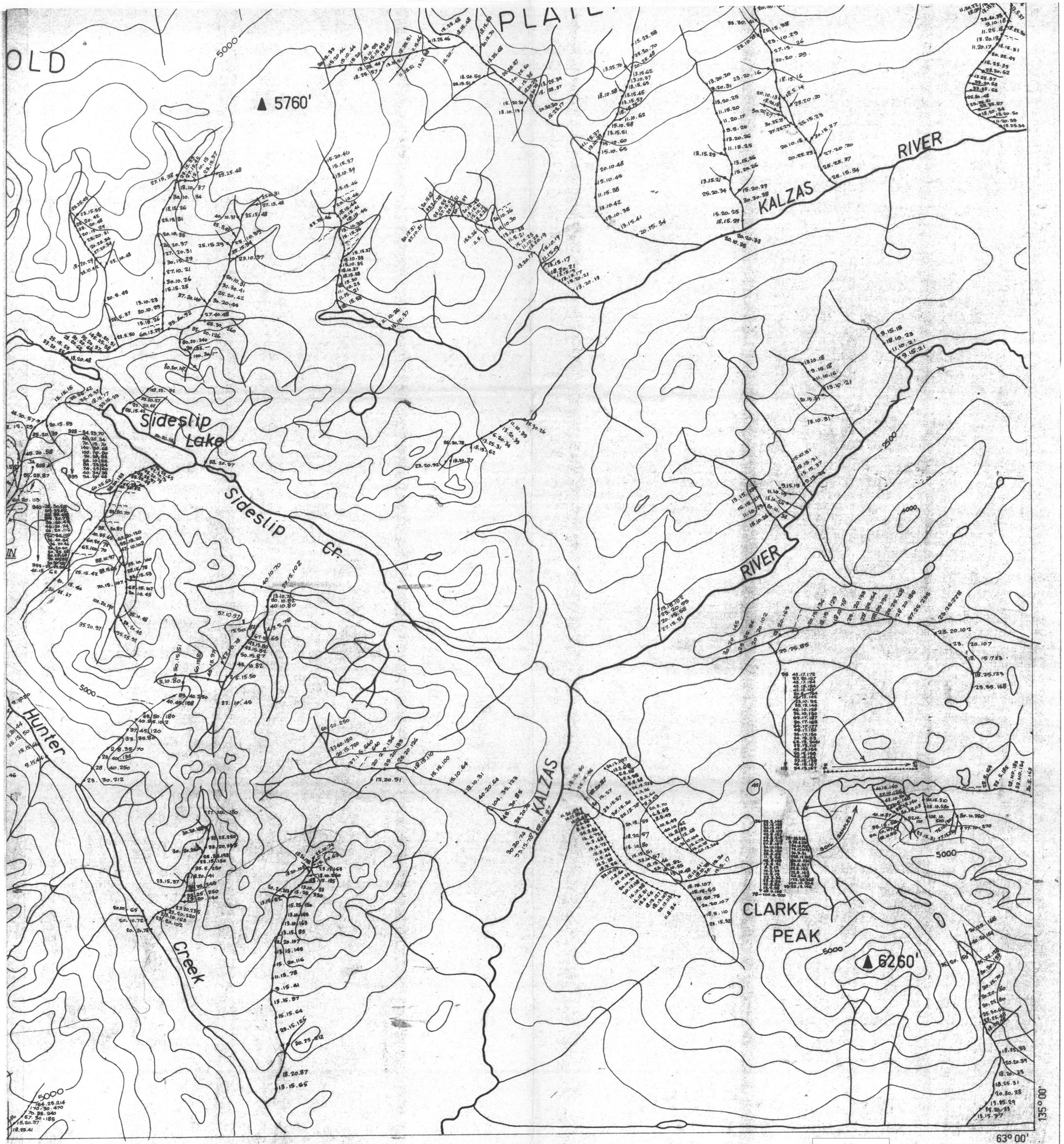
YUKON GEOLOGICAL SURVEY


BIG
KALZAS
CLARKE
HILLS
MOOSE
MACMILLAN
CLARKE
CREEK
4960'
5170'
4480'
4000
3000
2500
2000
135° 00'
63° 00'
inches
0
1
0
1
2
centimetres
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.
YUKON GEOLOGICAL SURVEY
105
105·M-2
Geochemistry


MIST LAKE
MOOSE PLATEAU
MOOSE LAKE
MIST
RIVER
PLATEAU MNT.
RIVER
3000
4000
2500
5000
2000
134° 00'
63° 00'
inches
0 1
0 1 2
centimetres
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.
YUKON GEOLOGICAL SURVEY
105·M-1
Geochemistry



inches
0 1
0 1 2
centimetres

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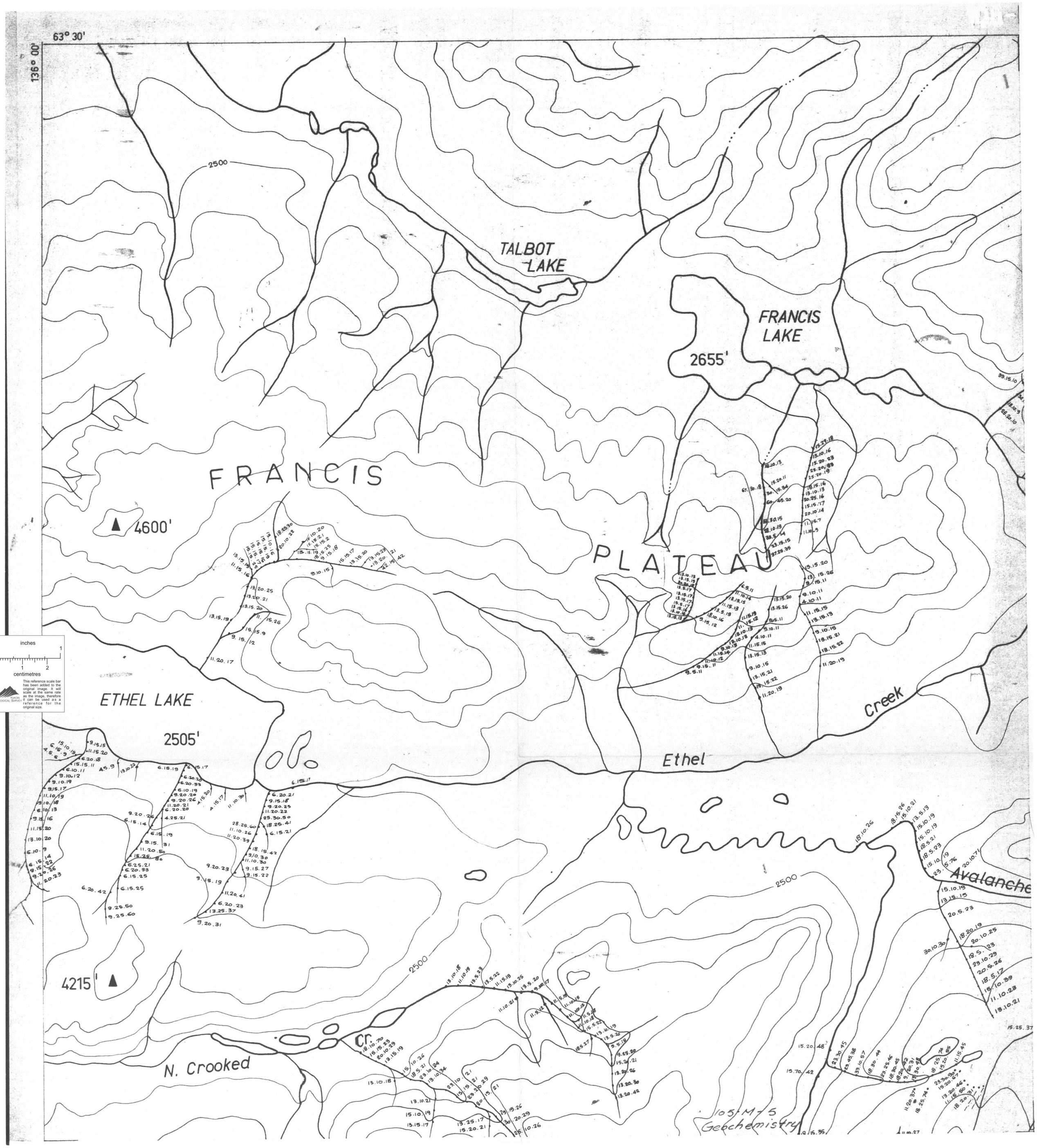
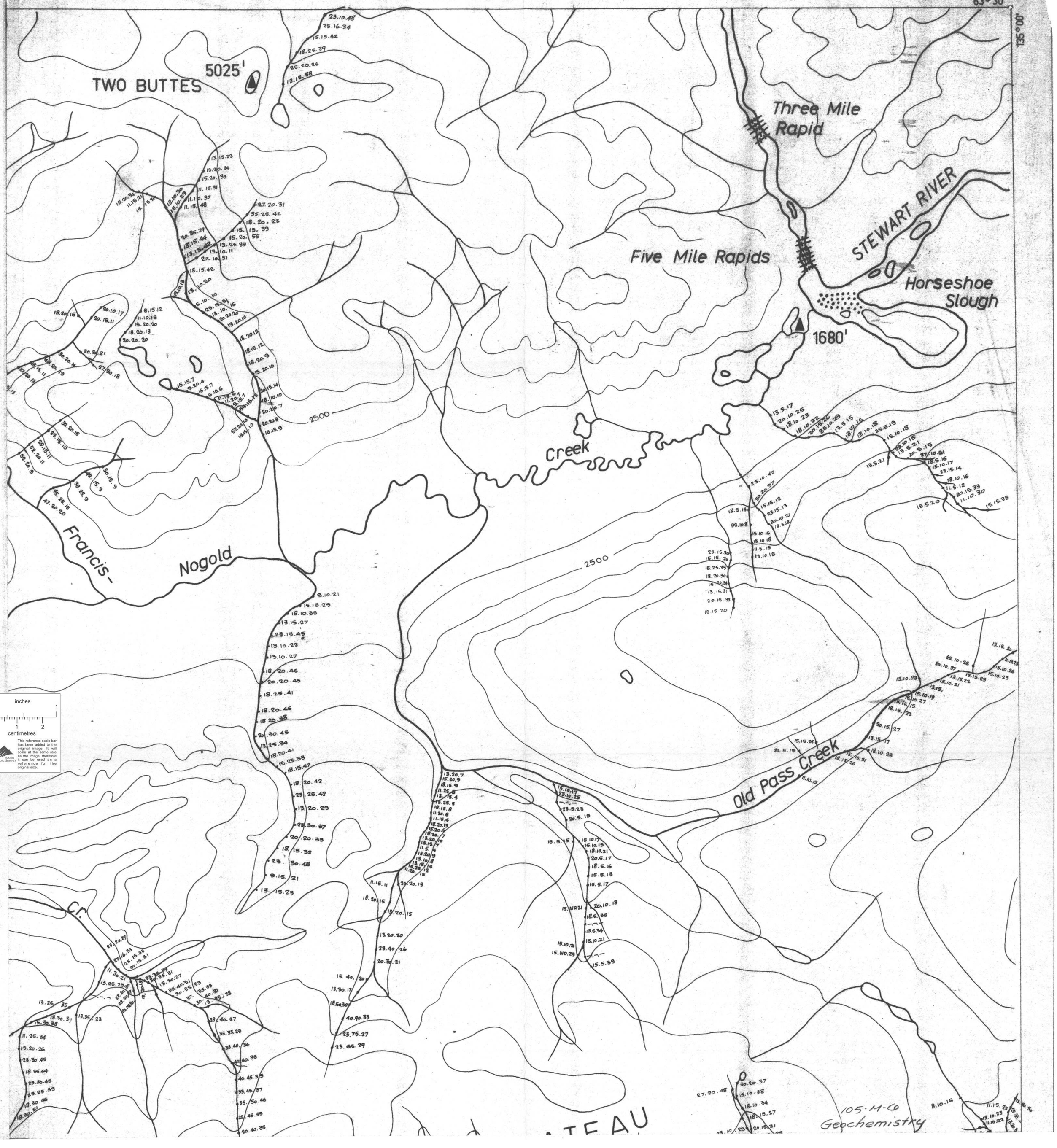
YUKON GEOLOGICAL SURVEY

105 M-3
Geochemistry

NOG
Crooked Cr.
Nogold Cr.
McARTHUR GROUP
6225'
6750'
7265'
GREY HUNTER PEAK
6950'
BLACK RAM PEAK
Hot Springs
WOODBURN LAKE
Woodburn Cr.
TINTINA
Hotspring Cr
VALLEY
6450'
5000
2500
136° 00'
63° 00'
105-M-4
Geochemistry
inches
0 1
0 1 2
centimetres
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.
YUKON GEOLOGICAL SURVEY


63° 30'
136° 00'
2500
TALBOT LAKE
FRANCIS LAKE
2655'
FRANCIS
PLATEAU
4600'
ETHEL LAKE
2505'
Ethel
Creek
Avalanche
2500
4215'
N. Crooked
Cr.
105 M-5
Geochemistry
inches
0
1
0
1
2
centimetres
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.
YUKON GEOLOGICAL SURVEY


63° 30'
135° 00'
TWO BUTTES
5025'
Three Mile Rapid
Five Mile Rapids
STEWART RIVER
Horseshoe Slough
1680'
2500
Francis-Nogold Creek
Old Pass Creek
105-M-6
Geochemistry
inches
0 1
0 1 2
centimetres
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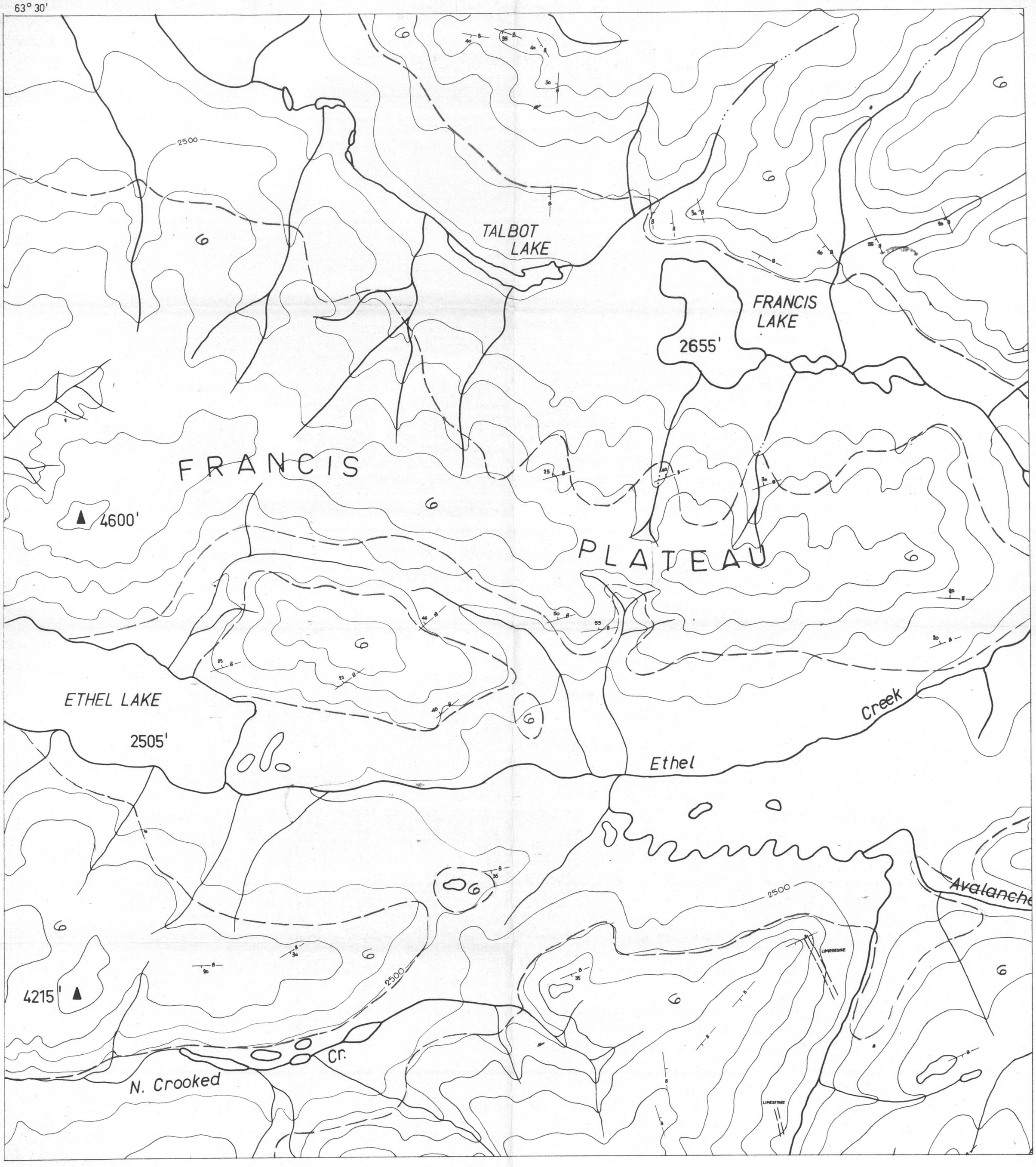
YUKON GEOLOGICAL SURVEY



SHEET 105 · M/5

inches
0 1
0 1 2
centimetres

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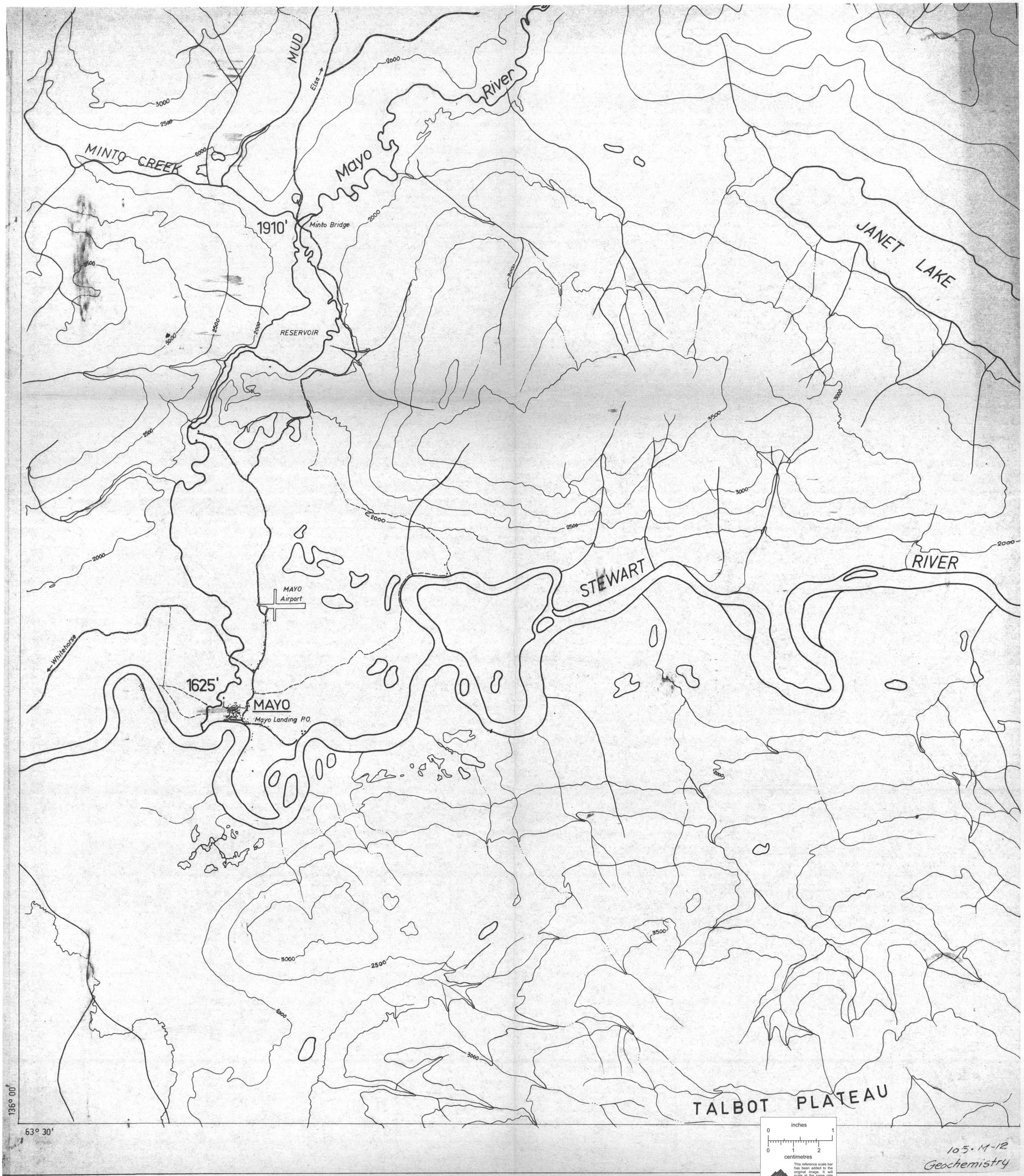
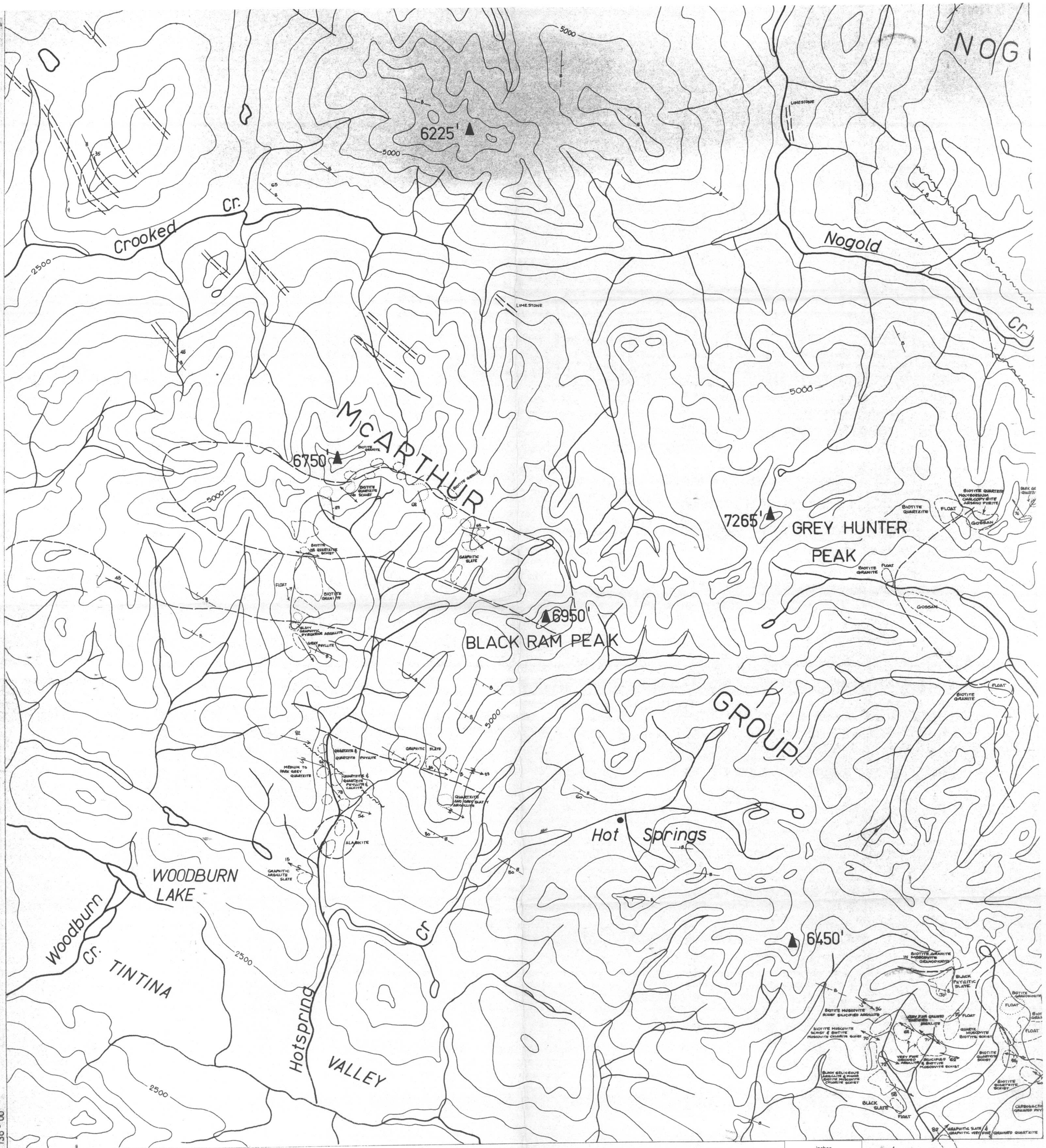
YUKON GEOLOGICAL SURVEY


MUD
Elsa
River
Mayo
MINTO CREEK
1910'
Minto Bridge
RESERVOIR
JANET LAKE
STEWART
RIVER
MAYO
Airport
Whitehorse
1625'
MAYO
Mayo Landing P.O.
TALBOT PLATEAU
136° 00'
63° 30'
inches
0
1
0
1
2
centimetres
YUKON GEOLOGICAL SURVEY
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.
105·M-12
Geochemistry



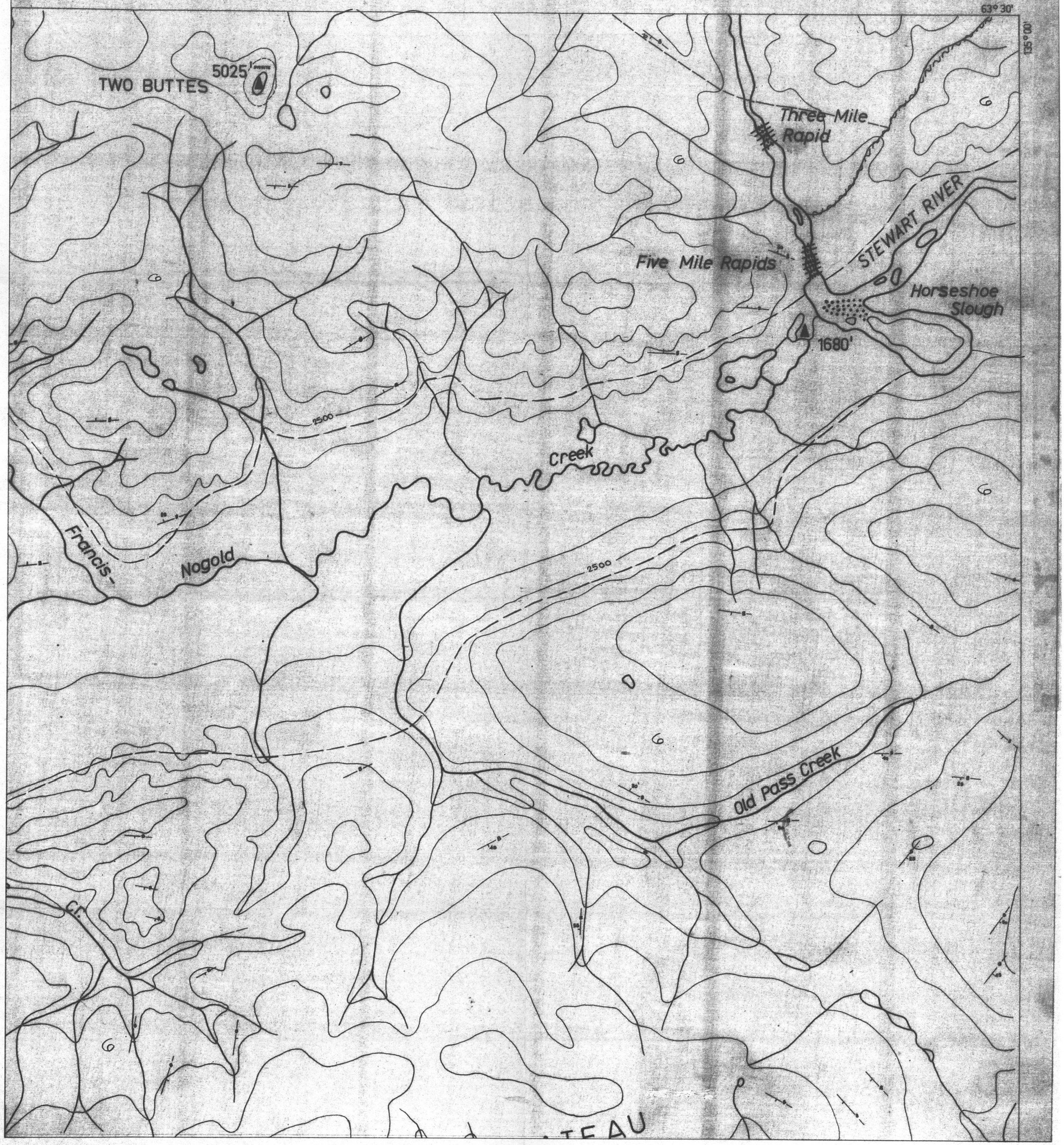
136° 00'

63° 00'

SHEET 105 · M/4

Topographic 105 · M/4

M-5W



EET 105 · M/6

inches
0 1
0 1 2
centimetres

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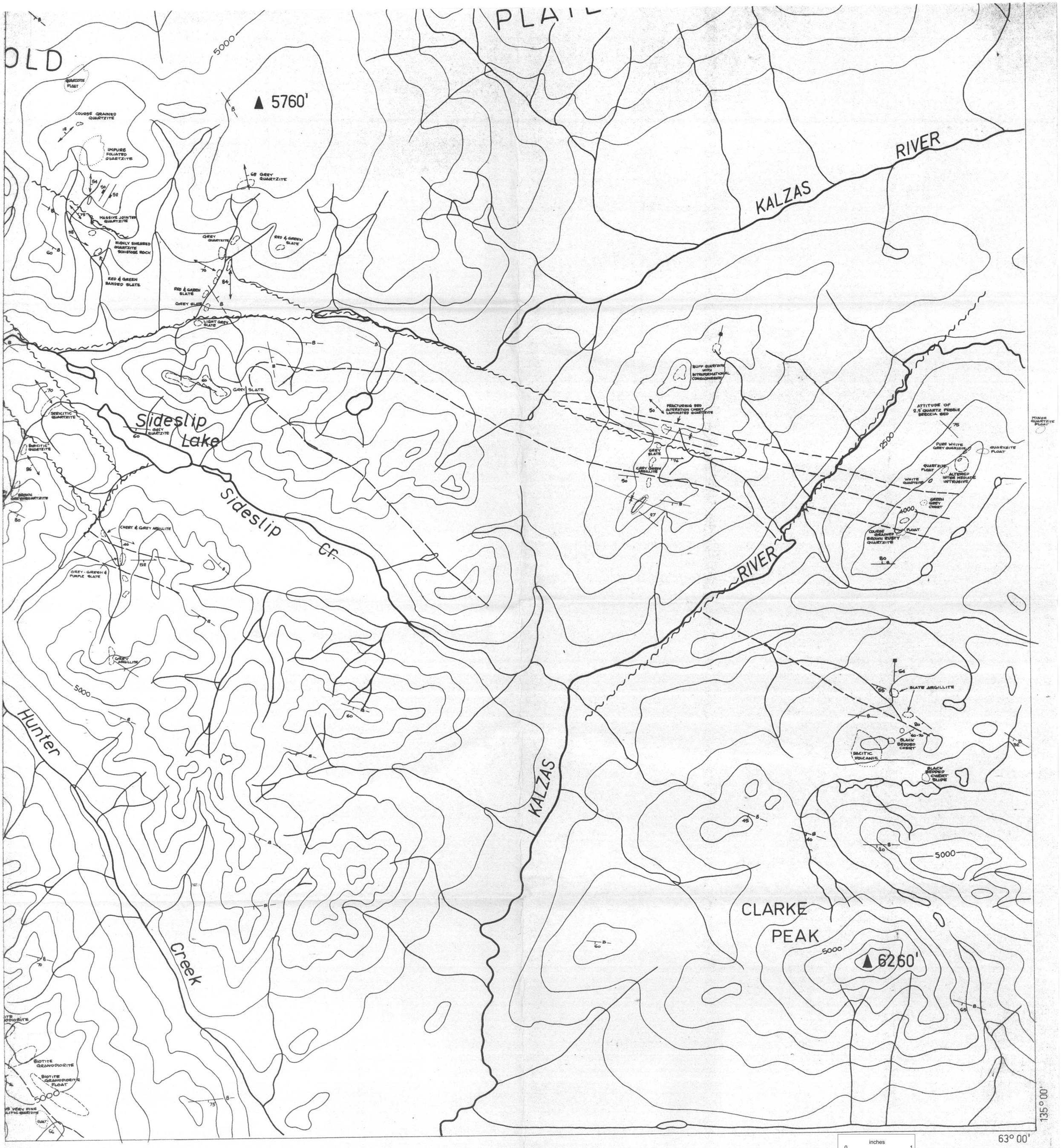
YUKON GEOLOGICAL SURVEY



SHEET 105·M/3

inches 0 1
0 1 2 centimetres
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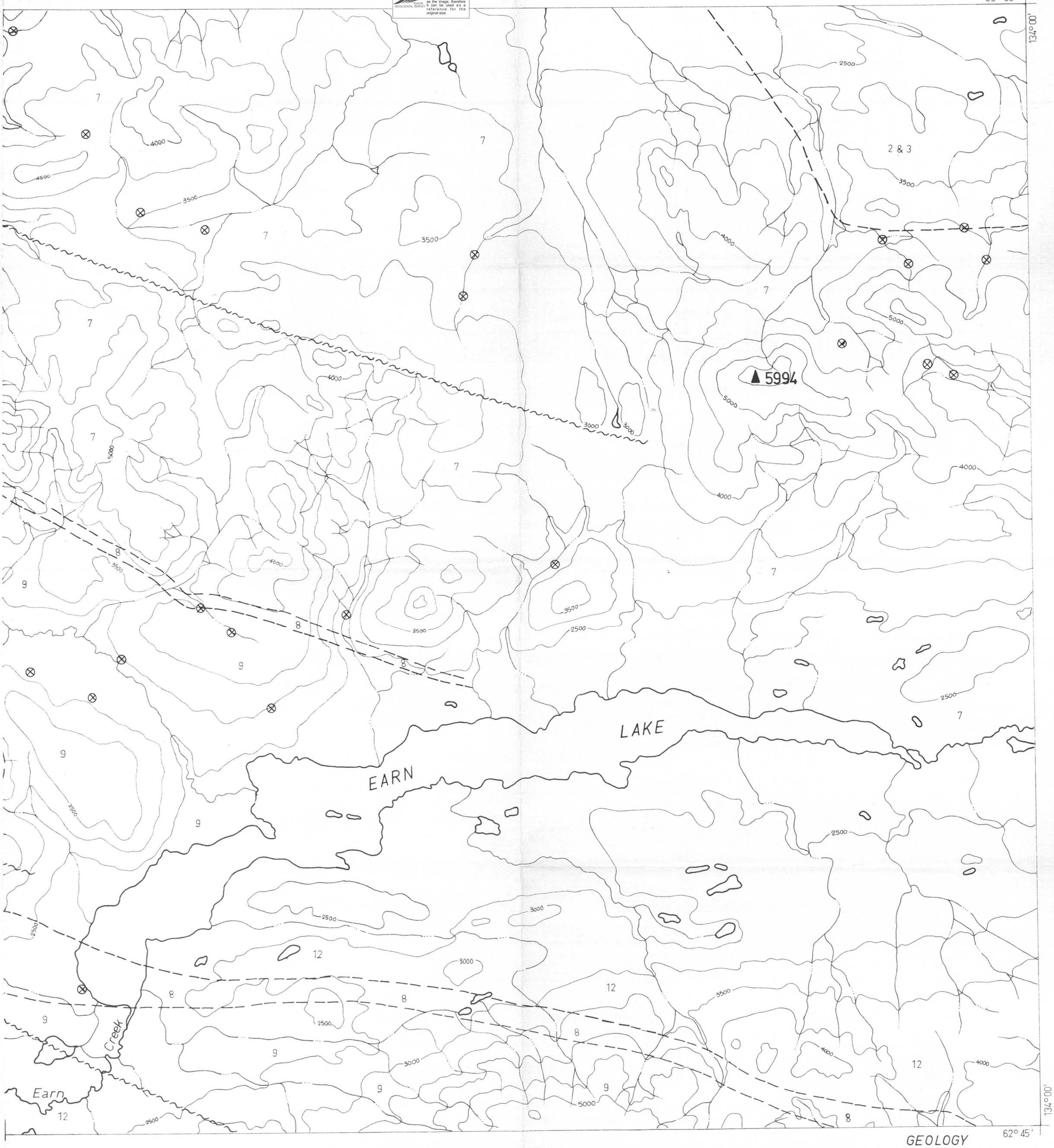
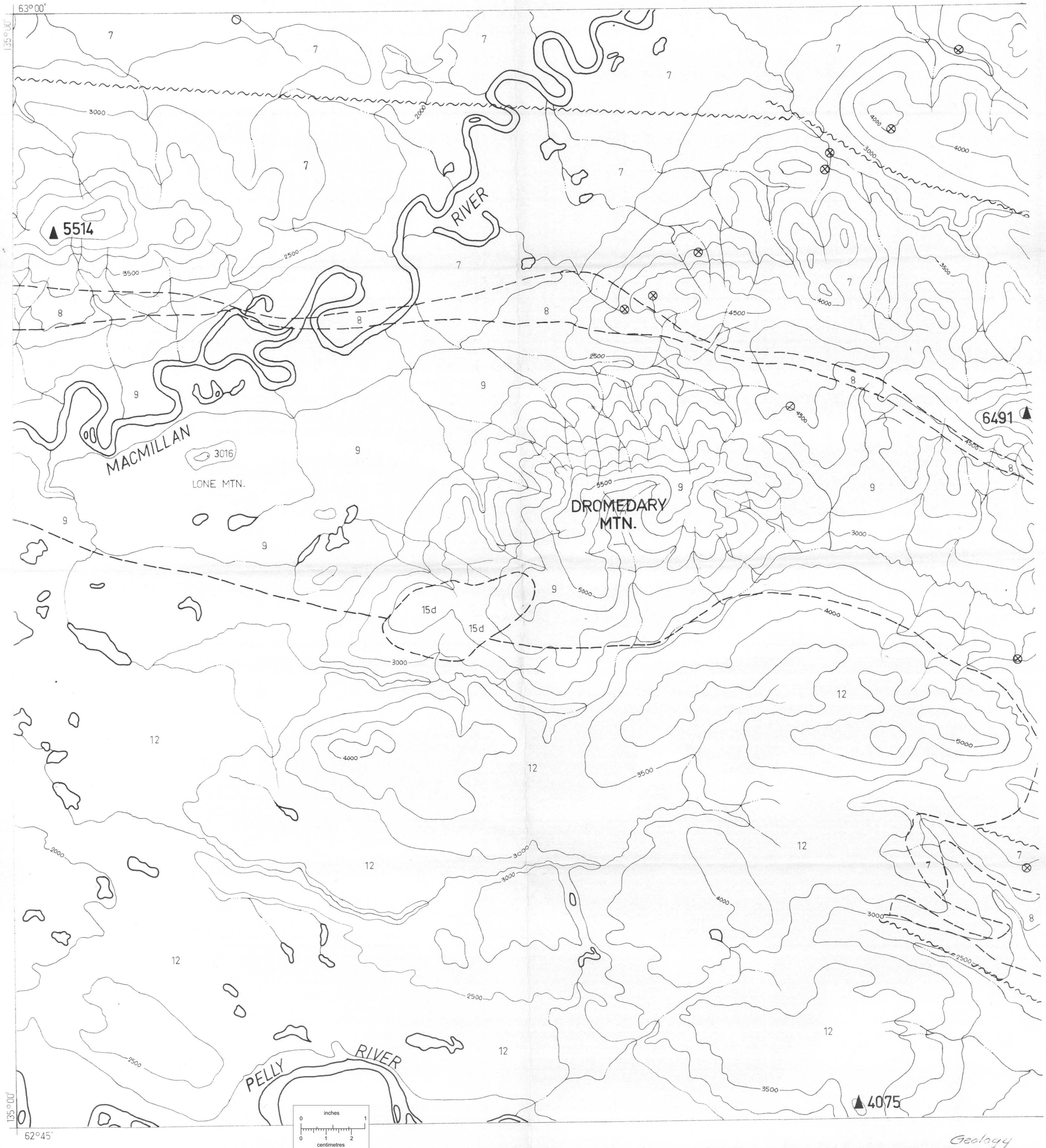
YUKON GEOLOGICAL SURVEY

Topographic 105·M/3

63° 45'
132° 00'
131° 30'
63° 30'
ROGUE
RIVER
OLD
CABIN
CREEK
MT. SKONSENG
MT. BRODELL
ROGUE
RANGE
7103
6500
5500
5000
4500
4000
3500
3000
inches
0
1
2
centimetres
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.
YUKON GEOLOGICAL SURVEY



GEOLOGY
105·L/16

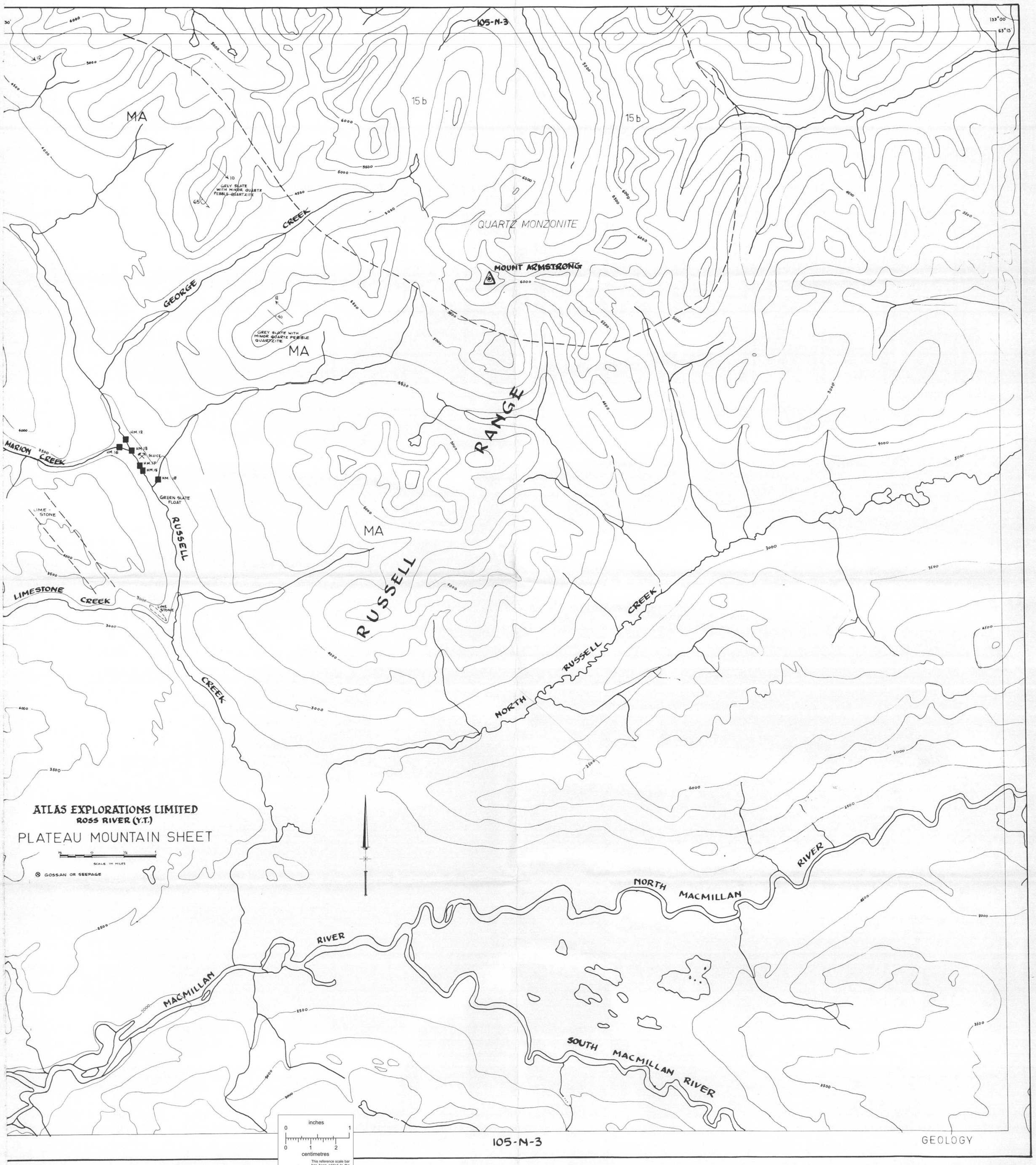


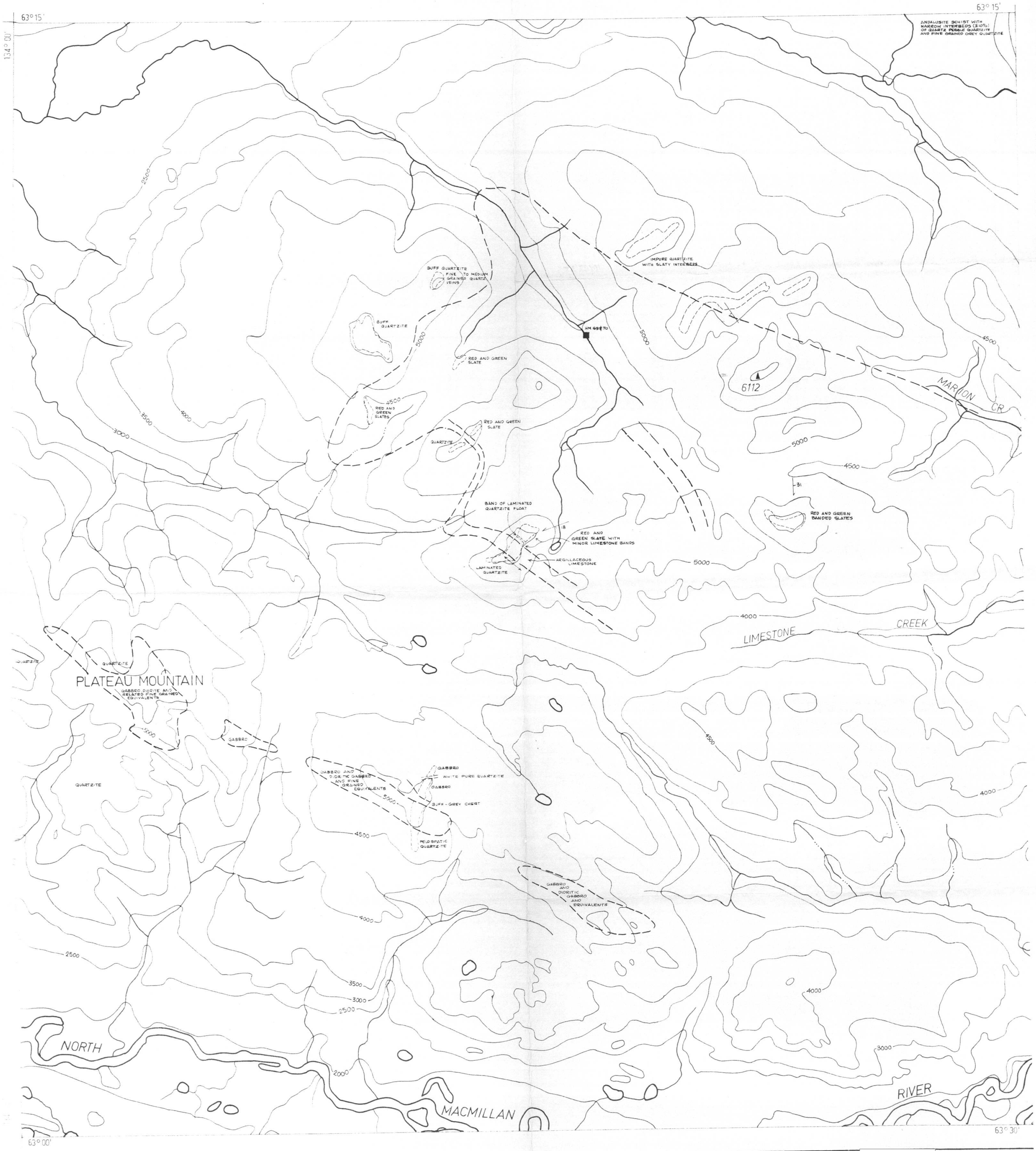
Geology
105·L/15

105-L-15 & 16.

105-L-N.E.

FIG. 13


105-N-3
133°00'
63°15'
MA
15 b
15 b
GREY SLATE WITH MINOR QUARTZ PEBBLE QUARTZITE
QUARTZ MONZONITE
MOUNT ARMSTRONG
GEORGE CREEK
GREY SLATE WITH MINOR QUARTZ PEBBLE QUARTZITE
MA
RANGE
MARION CREEK
H.M. 12
H.M. 13
H.M. 16
SLUICE
H.M. 17
H.M. 15
H.M. 18
GREEN SLATE FLOAT
LIME-STONE
RUSSELL
MA
RUSSELL
LIMESTONE CREEK
LIME STONE
CREEK
NORTH RUSSELL CREEK
ATLAS EXPLORATIONS LIMITED
ROSS RIVER (Y.T.)
PLATEAU MOUNTAIN SHEET
SCALE IN MILES
GOSSAN OR SEEPAGE
NORTH MACMILLAN RIVER
RIVER
MACMILLAN
SOUTH MACMILLAN RIVER
inches
centimetres
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.
YUKON GEOLOGICAL SURVEY
105-N-3
GEOLOGY



inches
0 1
0 1 2
centimetres

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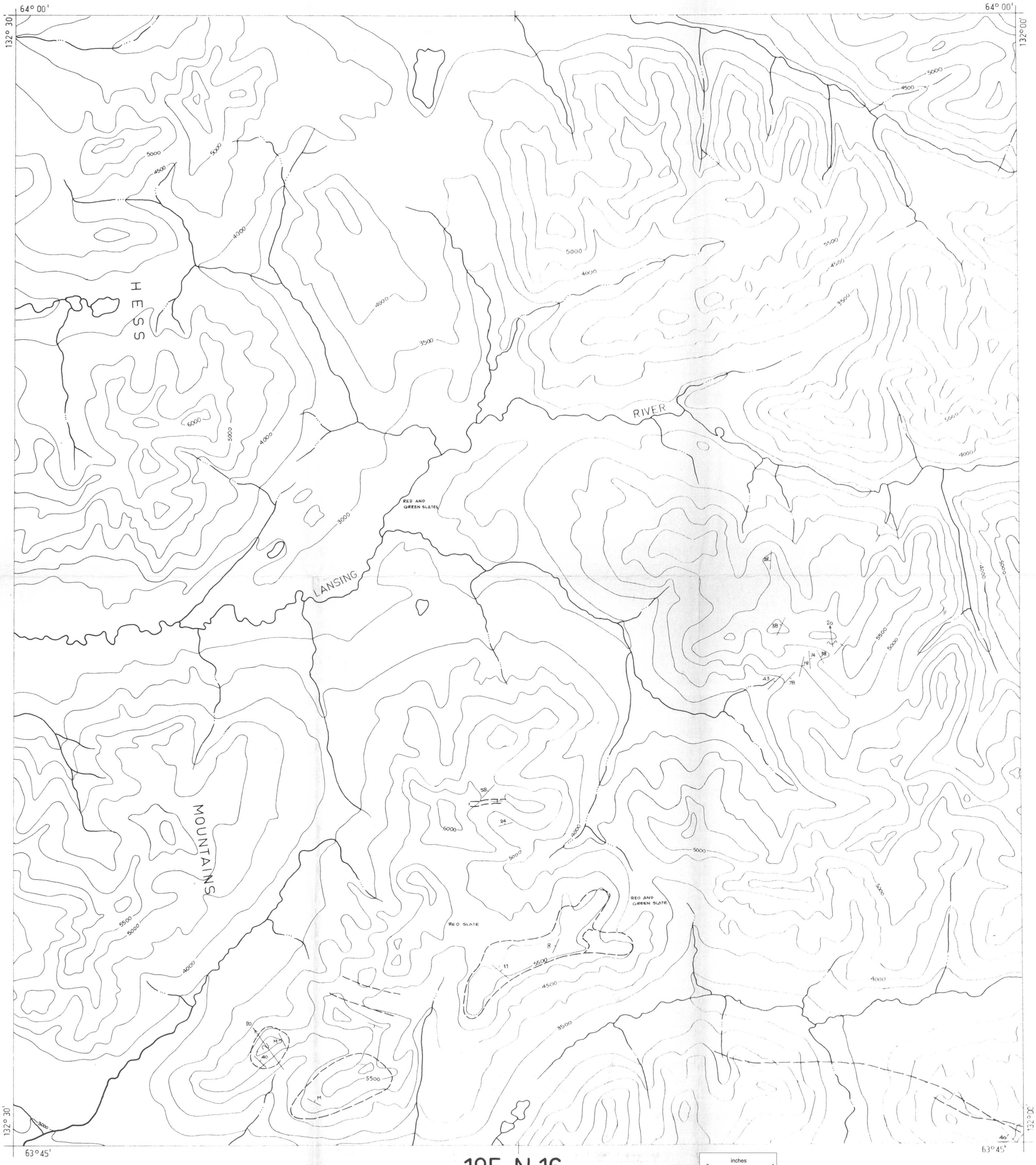
YUKON GEOLOGICAL SURVEY

105-N/4

105-N-16



105-N-16

inches
0 1
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centimetres

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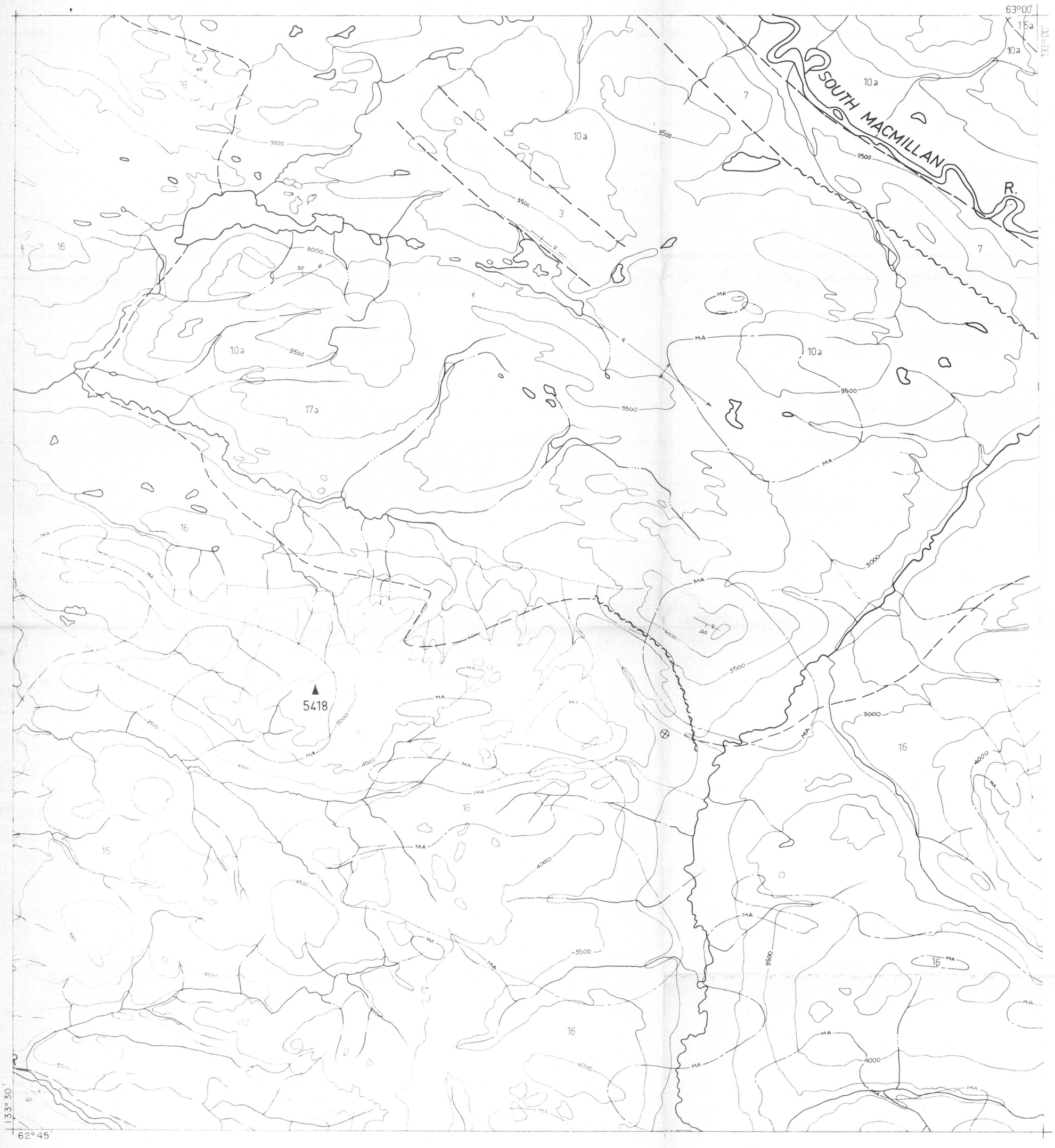
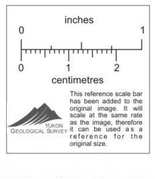
YUKON GEOLOGICAL SURVEY

105-N-16 GEOLOGY

105 K/14





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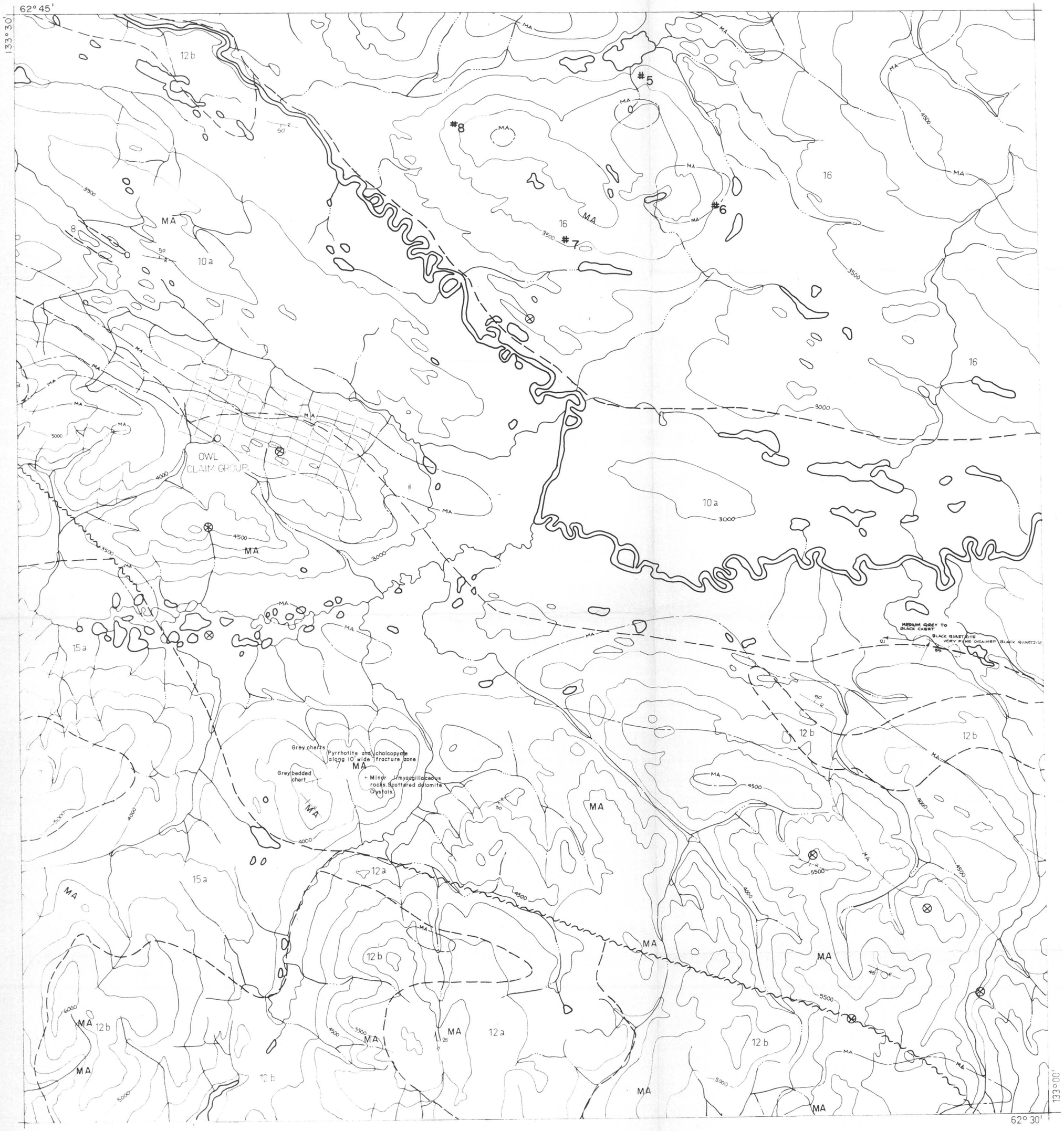
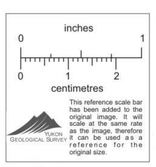
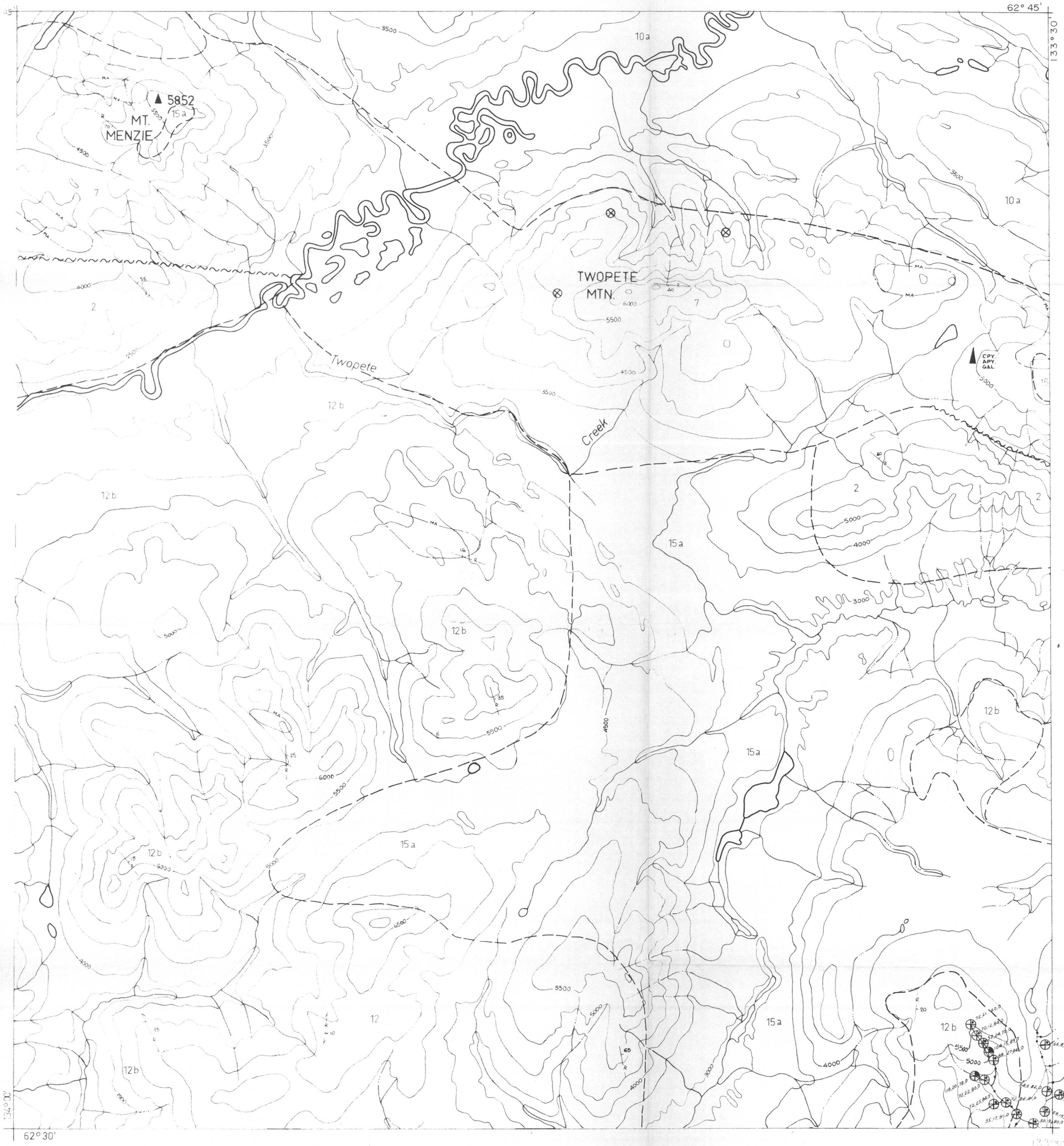
Geology
105-K-14





ATLAS EXPLORATIONS LTD.

Geology
105-K-11



TWOPETE MOUNTAIN

inches
0 1
0 1 2
centimetres

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YUKON GEOLOGICAL SURVEY

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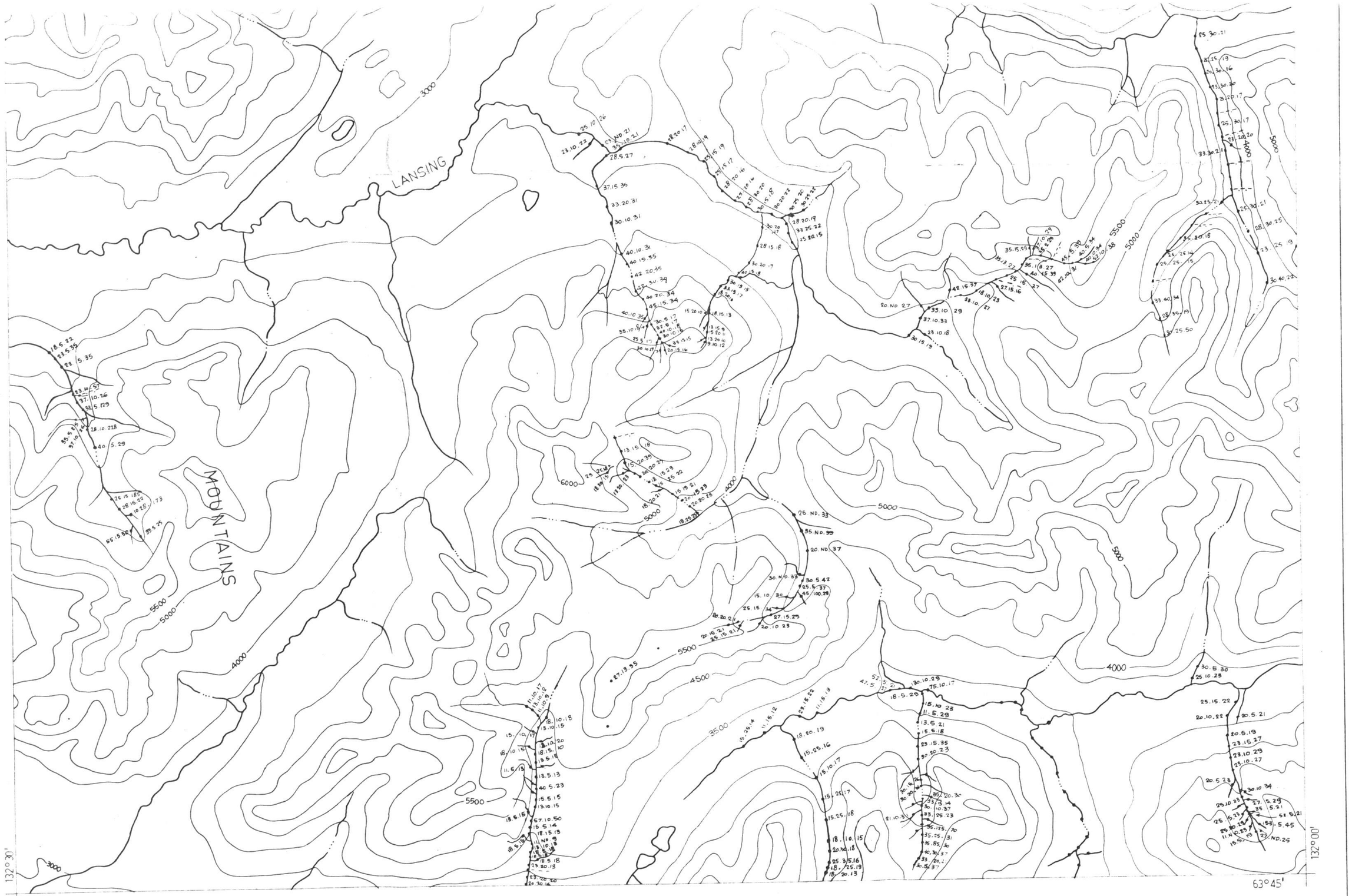
Geology
105-K-12



105-N-16

inches

0 1

0 1 2

centimetres

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.

YUKON GEOLOGICAL SURVEY

105-N-16

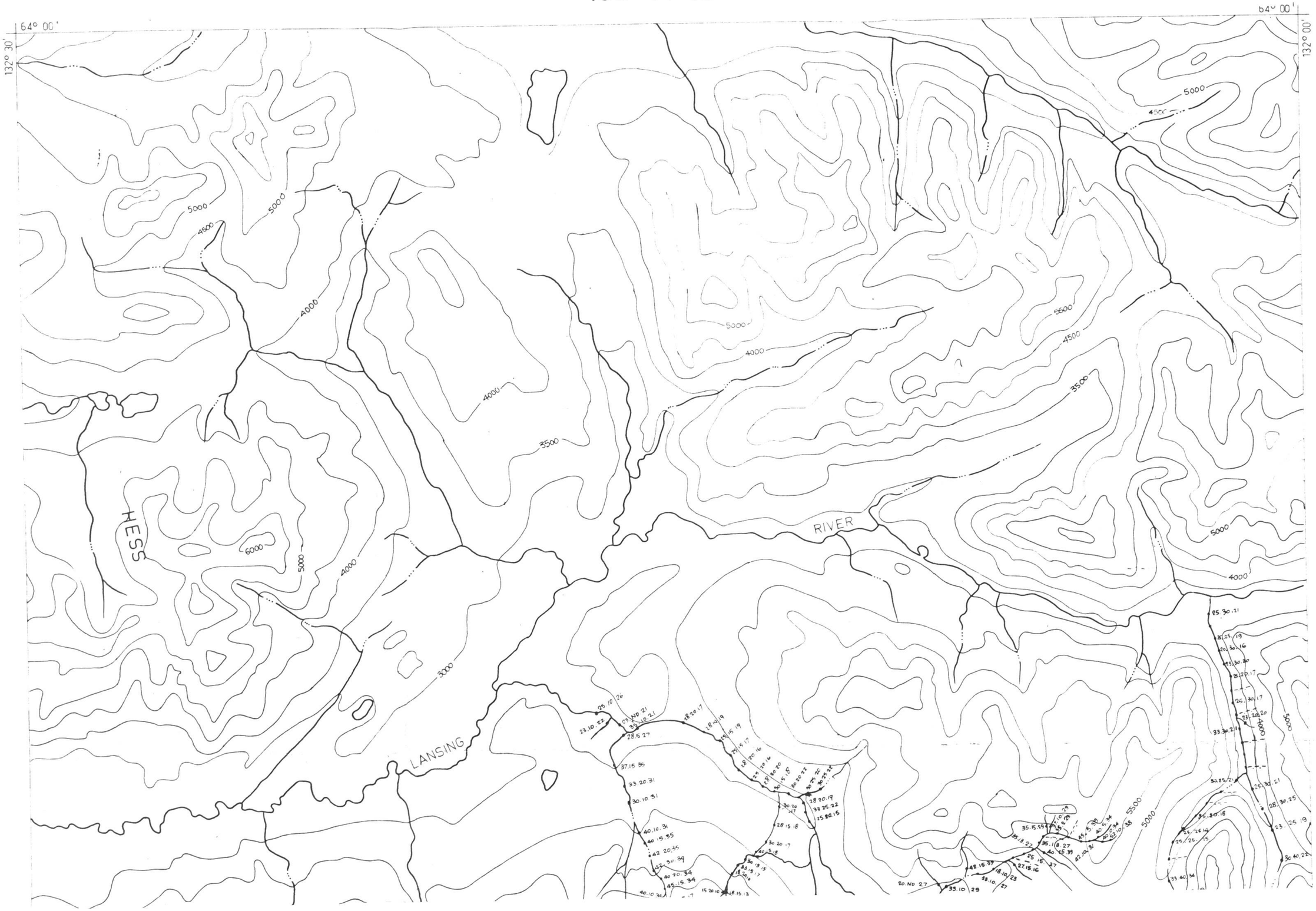
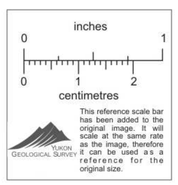



Fig.39-Geochem.Map Lansing River
105-N-16 1"-1 mile