ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL SURVEY

MISTY GROUP CLAIMS

Atlin Mining Division

Tatsamenie Lake Area, B. C.

N.T.S. 104K/Tulsequah Sheet

58° 17' N
132° 18' W

OWNER: CHEVRON CANADA LIMITED

OPERATOR: CHEVRON STANDARD LIMITED

Authors: Mike Thicke
Ken Shannon

November, 1982

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LOCATION AND ACCESS

NIE #1 & #2 and MISTY 1 & 2 claims (MISTY Group) are located at 132°18'W and 58°17'N about 5 km south of Tatsamenie Lake. Atlin, B. C. is approximately 160 km northwest of the MISTY Group (Figure 1). A helicopter provided access to the property from Trapper Lake, B. C., 26 km to the northeast.

CLAIMS

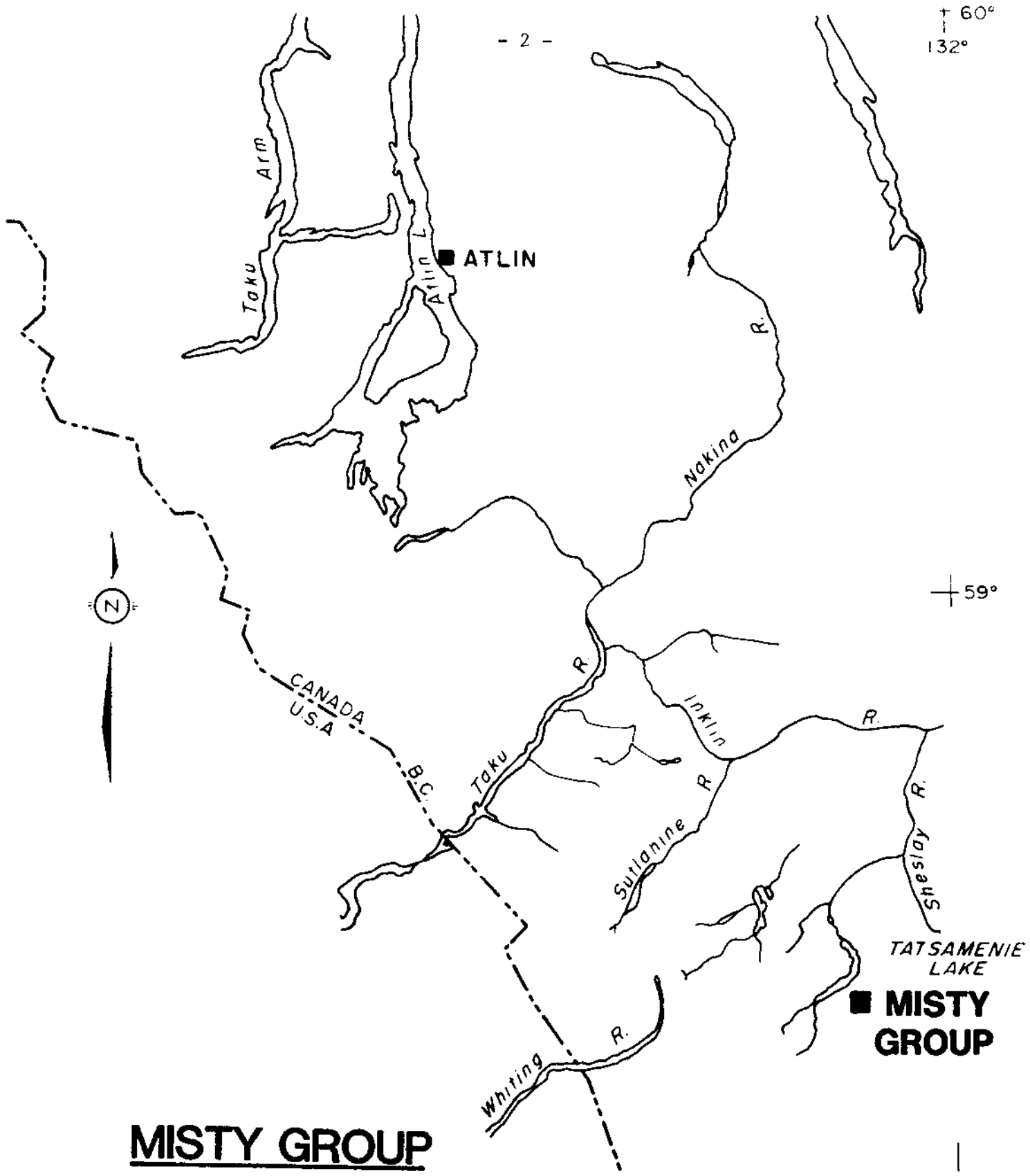
MISTY 1 and 2 were staked during August, 1981. NIE #1 and #2 were staked during September, 1981.

Claim	Record No.	Record Date	No. of Units
MISTY 1	1484	August 12, 1981	20
MISTY 2	1485	August 12, 1981	20
NIE #1	1539	September 18, 1981	20
NIE #2	1540	September 18, 1981	20

These claims cover previously unstaked ground. The claims are owned by Chevron Canada Limited with Chevron Standard Limited as operator.

REGIONAL GEOLOGY

The MISTY Group is located south of Tatsamenie Lake within Permian(?) ultramafic rocks, Pre-Upper Triassic fine-grained clastic sedimentary rocks and intercalated volcanic rocks and Lower or Middle Triassic(?) intermediate intrusive rocks. South and east of the claims lie Permian limestone and Lower or Middle Triassic(?) intermediate intrusive rocks. West of the claim group lie Permian limestone and Pre-Upper Triassic clastic sediments.



MISTY GROUP

LOCATION MAP

M504

0 30
Km

FIGURE 1

Intruding these sediments west of the claim group is a Post Middle Jurassic diorite stock. Pre-Upper Triassic clastic sediments and intercalated volcanic rocks and Lower or Middle Triassic(?) intermediate intrusive rocks are situated north of the MISTY Group.

MINERALIZATION AND ALTERATION

Mineralization and alteration are limited to small areas of outcrop throughout the claims. Sediments in the west-central area of the claims are intensely Fe-carbonate-hematite altered and contain up to 2% pyrrhotite. In the north area of the claims quartz-Fe-carbonate altered greenstone and phyllite contain up to 2% pyrite with trace magnetite and chalcopyrite. In this same area intrusive rocks are altered to limonite containing up to 5% pyrite with traces of malachite and azurite. Brecciated quartz-carbonate veins up to 1 m wide contain 0.5% pyrite and trace fuchsite. Located in cirques in the north part of the claim are sulphide veins containing pyrite, chalcopyrite, pyrrhotite and magnetite.

GEOCHEMICAL ANALYSES OF CLAIMS

Thirty-seven rock and seventy-six soil samples were collected throughout the MISTY Group. Most rock samples were collected in the northern part of the claims. Soil samples were collected to aid prospecting in areas covered by overburden. B-horizon soil was used when possible, otherwise C-horizon soil was collected.

Soil samples were placed in kraft wet strength soil bags, air dried and shipped to Chemex Labs, North Vancouver, B. C. The samples were further dried and then sieved, with the -80 mesh portion being retained for analysis.

Rock samples were crushed and then pulverized in a ring grinder to -100 mesh. For Au determination, a fire assay - atomic absorption technique is used with the fire assay bead being dissolved in HCl and HNO_3 then analyzed by conventional atomic absorption techniques. For Ag, a mixture of $HClO_4$ and HNO_3 is used to digest the sample, which is followed by atomic absorption spectrophotometry. The As analyses are done by standard colorometric techniques following an $HClO_4$ plus HNO_3 digestion. Antimony analyses are done by digesting the sample in HCl, then adding potassium iodide, extracting with TOPO - MIBK and then analyzing by atomic absorption spectrophotometry.

GEOCHEMICAL RESULTS

Significant values of gold and silver in rocks are found to be associated with quartz-pyrite-chalcopyrite-magnetite vein mineralization over widths less than 1 m. Soil samples containing significant gold values usually have only background silver, arsenic and antimony values. Figures 2 to 6 illustrate the geochemistry of the MISTY Group.

CONCLUSIONS

Ten man days were spent prospecting and geochemically sampling the MISTY Group. The claims consist of Permian(?) ultramafic rocks, Pre-Upper Triassic fine-grained clastic sediments and intercalated volcanic rocks and Lower or Middle Triassic(?) intermediate intrusive rocks. Quartz-chalcopyrite-pyrite-magnetite veins contain minor gold and silver mineralization.

RECOMMENDATIONS

Follow-up work, consisting of prospecting and sampling, of higher gold and silver values obtained from soil sampling is recommended for the following field season.

REFERENCE

Souther, J.G. (1971). Geology and mineral deposits of Tulsequah map-area, British Columbia. Geological Survey of Canada, Memoir 362, 84 p.

1982 EXPLORATION PROGRAM

MISTY 1 and 2; NIE #1 and #2 CLAIMS

COST STATEMENT

PERIOD: August 18 to 20, 1982

1. LABOUR:

Name	Position	Field Days	Office Days
M. Thicke	Geologist	0.5	2
D. Brown	"	1.5	-
K. Niggemann	"	1	-
T. Zanger	Sampler	1	-
J. Armstrong	"	1	-
D. Madsen	"	1	-
M. Gray	"	1	-
J. Hawthorne	"	1	-
F. Wohlgemuth	"	2	-
	Total man days	10	2

Average cost per field man day - $100.00		$ 1,000.00
Average cost per office man day - $175.00		350.00

2. ANALYSES:

Rock: 36 samples @ $17.40 each	$ 626.40	
Soils: 75 samples @ $15.50 each	1,162.50	1,788.90

3. CAMP COSTS:

Total man days 10@$79.50 per day	795.00

4. HELICOPTER:

4 hrs. @$510/hr. including fuel	2,040.00

5. DRAFTING:

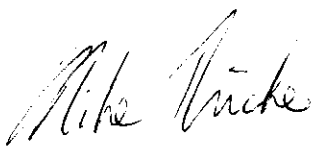
2 man days at $100.00 per day	200.00

6. SAMPLE SHIPMENT:

113 samples at 60¢ each	67.80
TOTAL	$ 6,241.70

STATEMENT OF QUALIFICATIONS

I, Mike Thicke, graduated from the University of British Columbia in May, 1980 with a B.Sc. degree. Five seasons have been spent working in exploration geology in B.C., including three since graduation. I am presently employed as a geologist by Chevron Standard Limited of Vancouver, B. C.



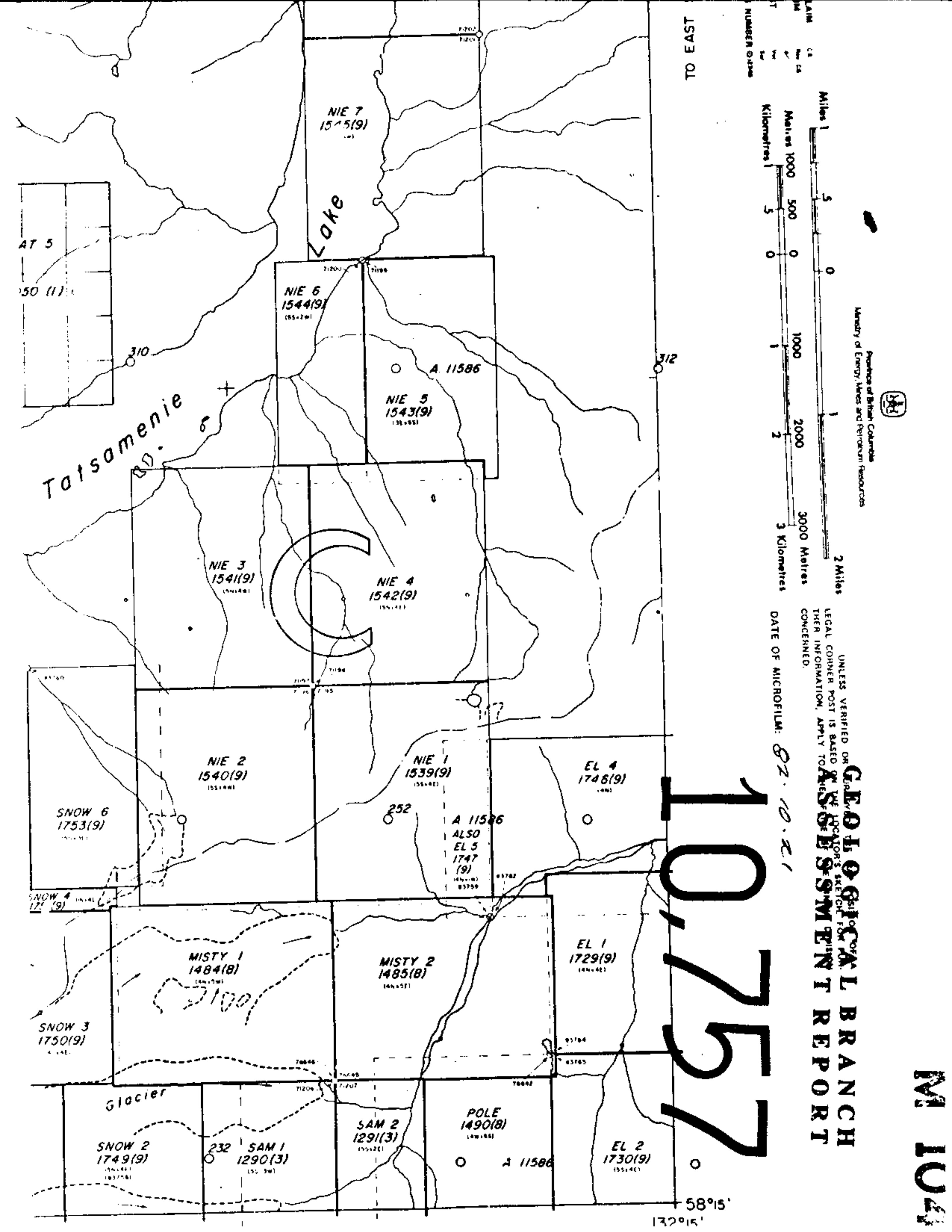
MIKE THICKE

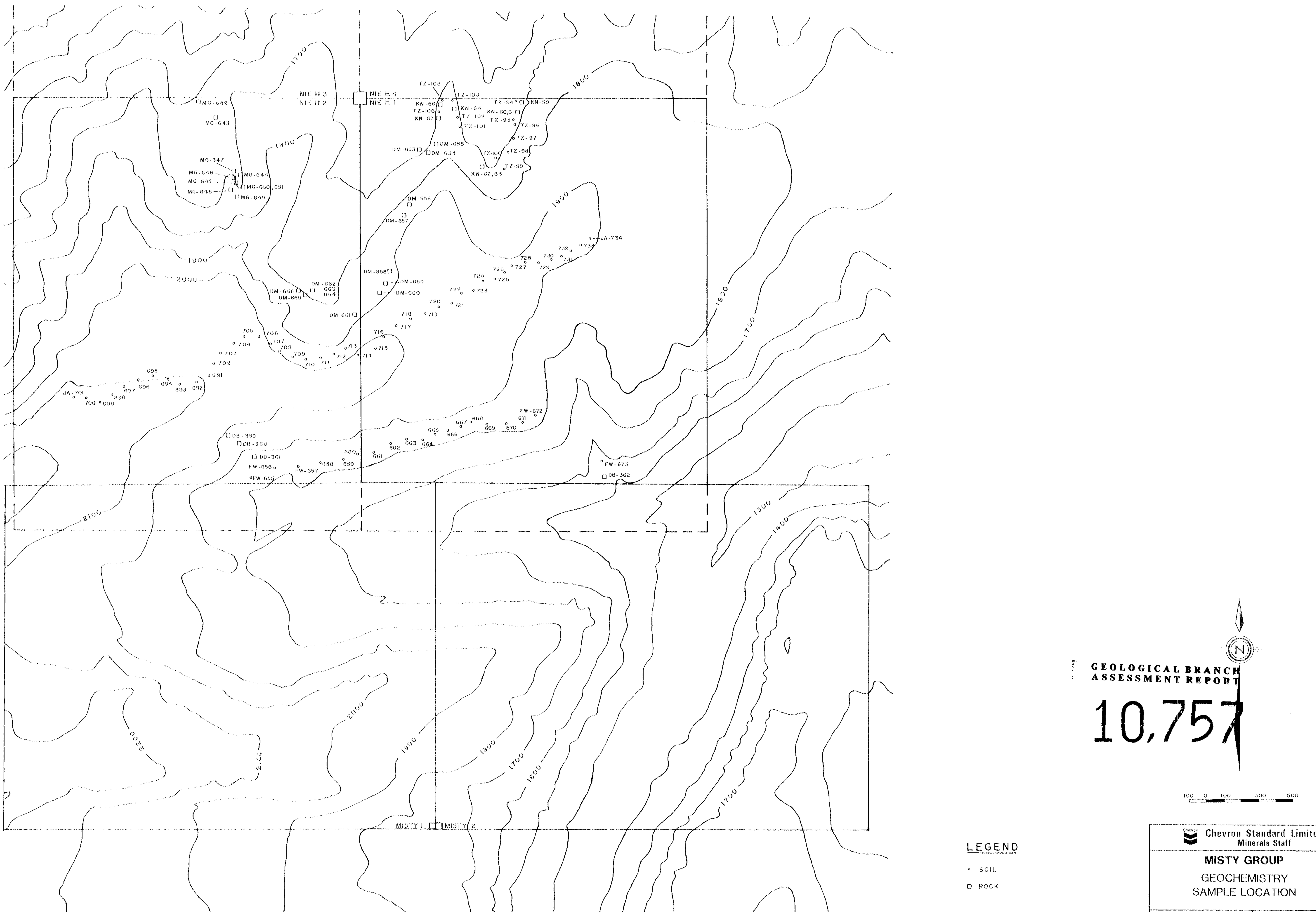
STATEMENT OF QUALIFICATIONS

I, Ken Shannon, have worked as a geologist in B. C. on a seasonal basis since graduation from the University of British Columbia with a B.Sc. (Hons. Geology) in 1975. A M.Sc. degree was awarded from the Department of Geology at U.B.C. in May, 1982. I am employed as a geologist by Chevron Standard Limited of Vancouver, B. C. Work on the MISTY Group was done under my supervision.

Ken Shannon

KEN SHANNON


GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,757
DATE OF MICROFILM:
Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
Miles
2 Miles
Metres
3000 Metres
Kilometres
3 Kilometres
TO EAST
Tatsamenie
Lake
Glacier
NIE 7
NIE 6
1544(9)
NIE 5
1543(9)
NIE 3
1541(9)
NIE 4
1542(9)
NIE 2
1540(9)
NIE 1
1539(9)
A 11586
ALSO
EL 5
1747
(9)
EL 4
1748(9)
EL 1
1729(9)
EL 2
1730(9)
SNOW 6
1753(9)
SNOW 3
1750(9)
SNOW 2
1749(9)
MISTY 1
1484(8)
MISTY 2
1485(8)
POLE
1490(8)
SAM 1
1290(3)
SAM 2
1291(3)
AT 5
310
312
252
232
58°15'
132°15'



Chevron Standard Limited
Minerals Staff

MISTY GROUP

GEOCHEMISTRY
SAMPLE LOCATION

FIGURE No 2		PROJECT No 504	
DATE NOV 82	REVISIONS		SCALE 1:10,000
NTS No			FILE No
COMPILED BY			

NIE #3 NIE #2 NIE #4 NIE #1

MISTY 1 MISTY 2

LEGEND

- ∘ SOIL - Au ppb
- □ ROCK - Au ppb

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100 0 100 300 500

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MISTY GROUP
GEOCHEMISTRY
Au-ppb

FIG. REV. 3		PROJECT NO. 504	
NOV 82			1:10,000

NIE #3 NIE #2 NIE #4 NIE #1

MISTY 1 MISTY 2

LEGEND

- ° SOIL - Ag ppm
- □ ROCK - Ag ppm

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100 0 100 300 500

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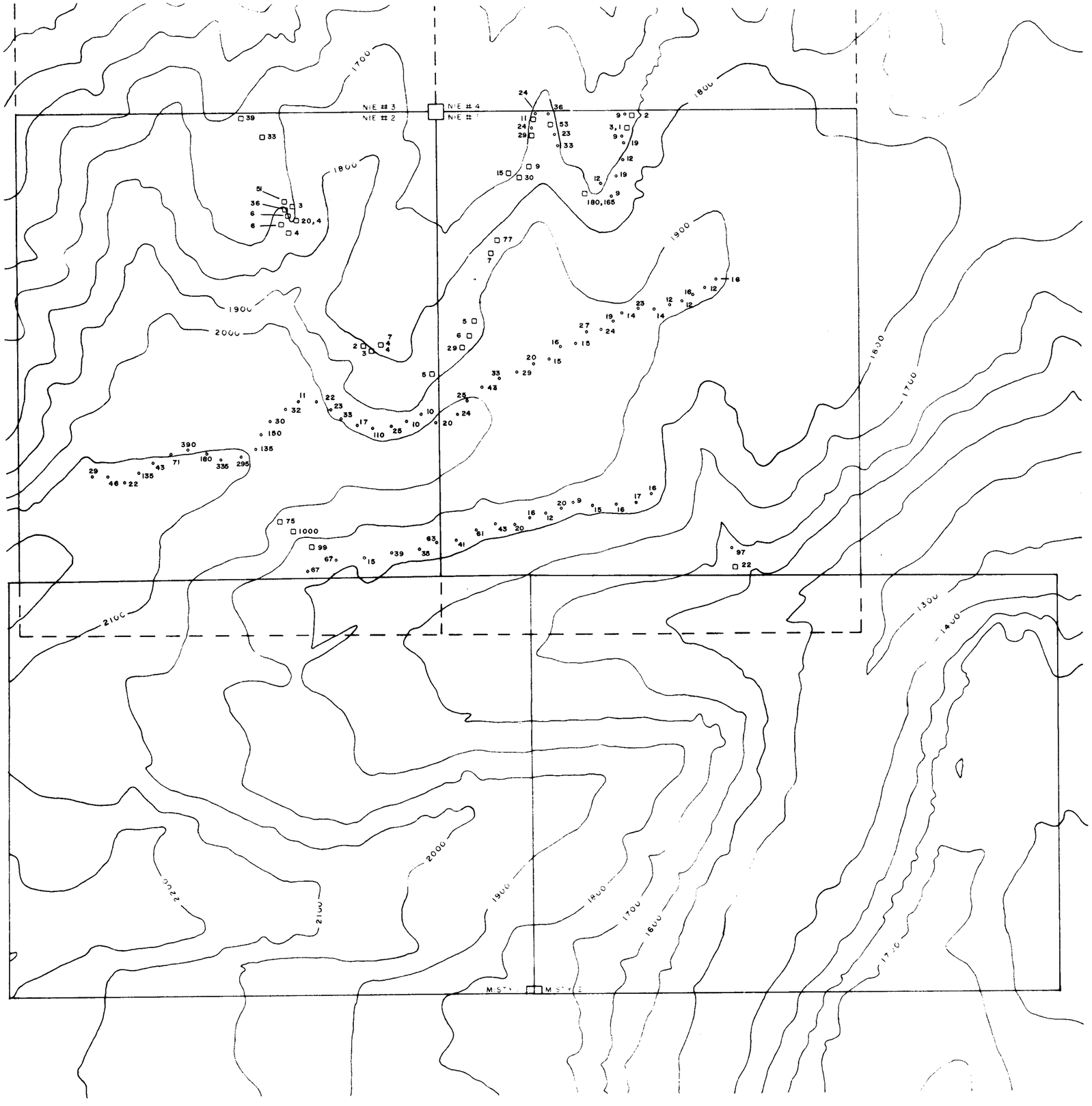
MISTY GROUP
GEOCHEMISTRY
Ag-ppm

FIGURE No. 4		PROJECT No. 504	
DATE NOV 82			1:10,000
DRAWN			
CHKD			



LEGEND

- ∘ SOIL - As ppm
- □ ROCK - As ppm

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ASSESSMENT REPORT

10,757

100 0 100 300 500

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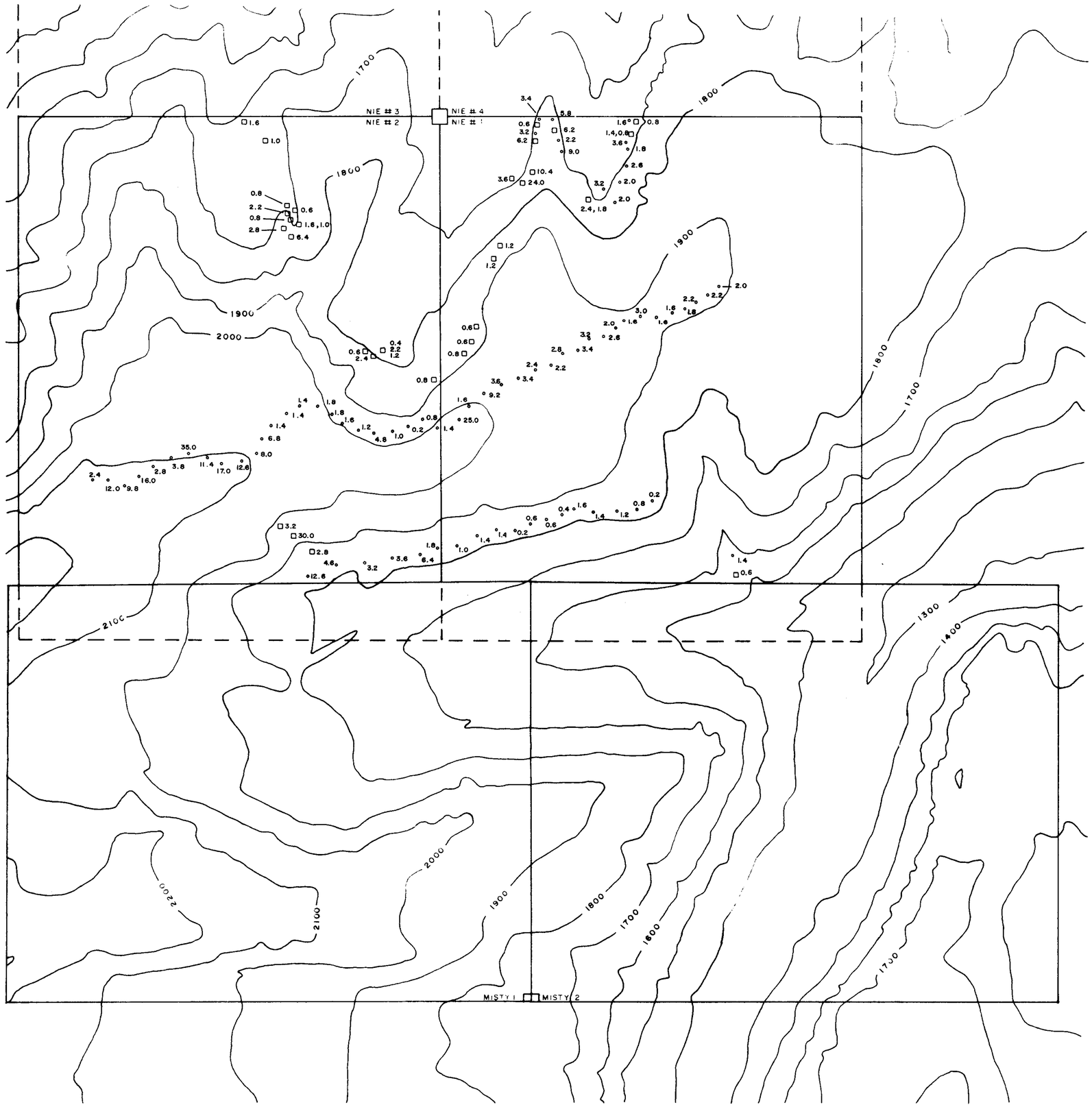
MISTY GROUP

GEOCHEMISTRY
As–ppm

FIGURE 5			504
NOV 82			1:10,000



LEGEND

- ° SOIL - Sb ppm
- □ ROCK - Sb ppm

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,757

100 0 100 300 500

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MISTY GROUP

GEOCHEMISTRY
Sb–ppm

FIGURE No. 6		PROJECT No. 504	
DATE NOV 82			1:10,000