

LOG NO: 0818	RD.
ACTION:	
FILE NO:	

1987
 RECONNAISSANCE GEOCHEMICAL
 REPORT
 on the
 AM 3, 4 & 5 CLAIMS

SKEENA MINING DIVISION
 Lat. 56° 17'
 Long. 129° 53'
 NTS 104A/5W

SUB-RECORDER
 RECEIVED
 AUG 16 1988
 M.R. # \$.....
 VANCOUVER, B.C.

for

FILMED

GLACIER RESOURCES INC.
 1108-409 Granville St.
 Vancouver, B.C.
 V6C 1T2

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

by

J.W. MURTON & ASSOCIATES
 J.W. Murton P. Eng

17,665

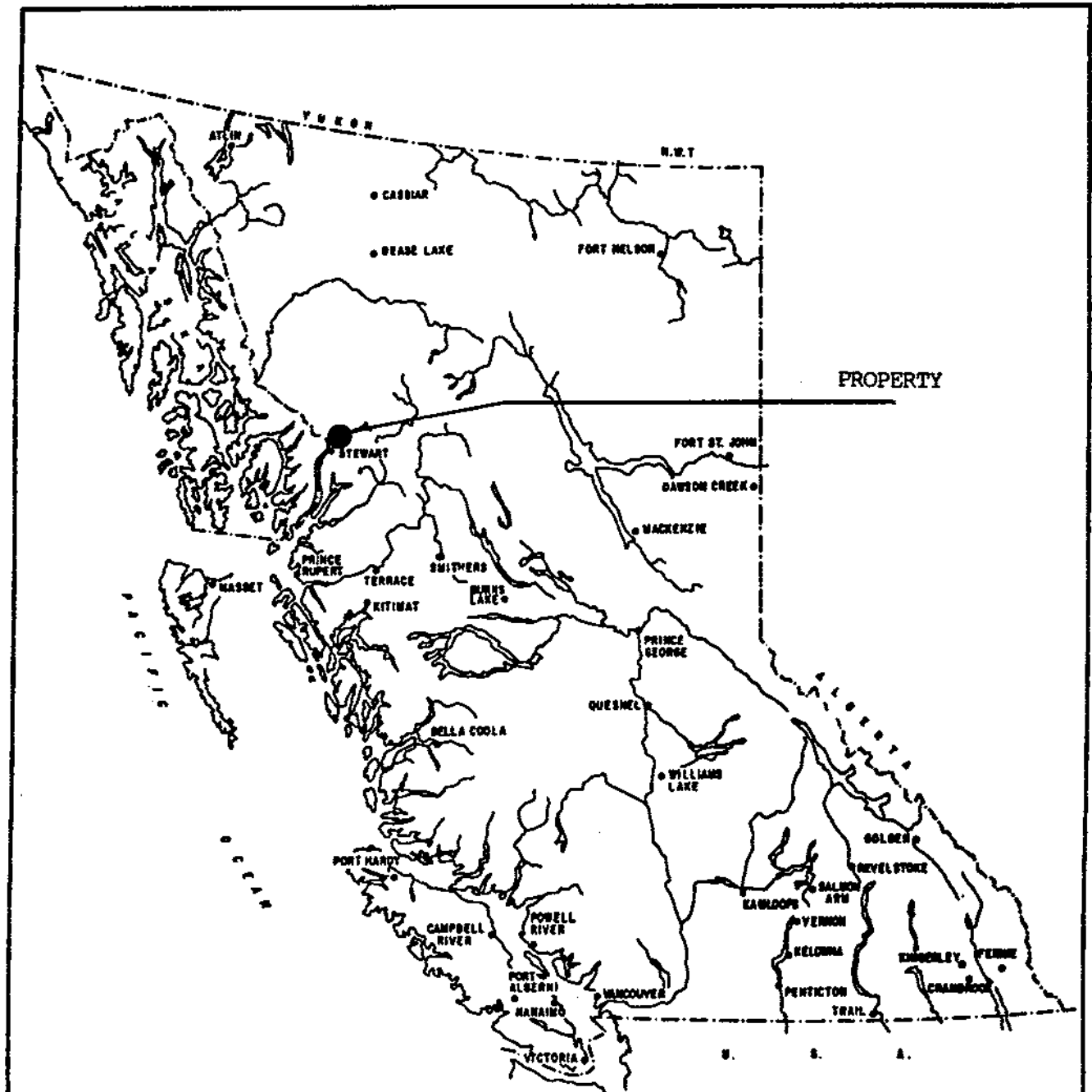
APRIL 5, 1988

TABLE OF CONTENTS

	Page
1) SUMMARY & CONCLUSIONS	1
2) INTRODUCTION	1
3) LOCATION ACCESS & PHYSIOGRAPHY	2
4) CLAIMS	2
5) HISTORY & ECONOMIC ASSESSMENT	3
6) GEOLOGY	3
7) MINERALIZATION	4
8) 1987 WORK PROGRAM & DISCUSSION OF RESULTS	6
9) COST STATEMENT	7
10) CERTIFICATION	8
11) ANALYTICAL DATA SHEETS - ACME LABS	9-11

MAPS

87-1) LOCATION MAP . . . 1:10,000,000	Following this page
87-2) CLAIM MAP 1:50,000	Following page 2
87-3) RECON GEOCHEMISTRY - SAMPLE NUMBERS 1:5000	Back of Report
87-4) " " COPPER " "	"
87-5) " " LEAD " "	"
87-6) " " ZINC " "	"
87-7) " " SILVER " "	"
87-8) " " MANGANESE " "	"
87-9) " " GOLD " "	"



MAP 87-1
 GLACIER RESOURCES INC.
 LOCATION MAP
 AM 3, 4 & 5 CLAIMS
 April 5, 1988 J.W. Murton P. Eng.

1) SUMMARY & CONCLUSIONS

During 1987, a reconnaissance soil & talus sampling program was conducted by J.W. Murton & Associates near the western boundary of the AM 3 claim near an area on the adjacent AM 1 claim where gold/silver mineralization has been reported.

A total of \$4,766 were expended during the 1987 program, and 69 samples were collected.

The sampling program, while of a preliminary nature, indicated two areas of anomalous soils with accessory anomalous talus samples that require further work.

Sampling and prospecting is definitely warranted over the remainder of the claims.

A well mineralized east/west trending quartz vein on the boundary near claim post 4N assays 0.702 oz/ton Au, 10.12 oz/ton Ag, 3.4% Cu, 0.2% Pb, 0.05% Zn, 5% Mn and should be traced eastward onto AM 3.

2) INTRODUCTION

The geochemical soil and talus sampling program completed in 1987 on the AM 3 claim was a continuation of investigations undertaken in 1986 by T.E. Lisle & Associates Ltd.

The west boundary area of AM 3 claim was sampled due to its proximity to mineralization on adjacent claims.

3) LOCATION, ACCESS & PHYSIOGRAPHY

The AM 3, 4 & 5 claims (44 units in total) are located near the headwaters of American Creek, 42 air kilometers north of Stewart, B.C. at Lat 56° 17', Long 129° 53', in map sheet NTS 104A-5W.

Elevations on the property range from 914 m (3000') at Kimball Lake, to more than 1980 m (6500') near the higher eastern areas of the claims.

Access is by helicopter from Stewart (a 206B is readily available from Vancouver Island Helicopters) and future ground access could be achieved by a cat trail in the valley of American Creek.

Peak snow free time is in the period of September 1-15 and snowfall may be expected anytime in early October. Any lasting snowfall makes side hill foot travel dangerous.

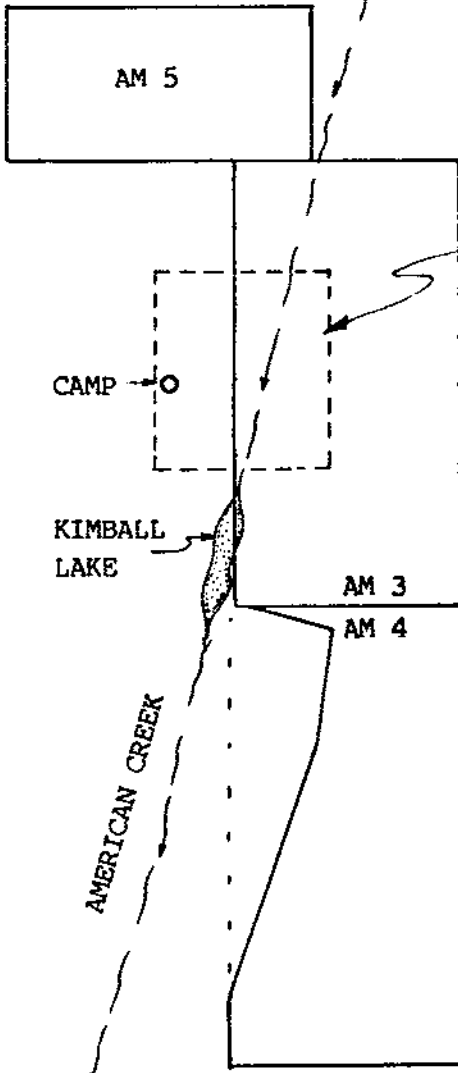
4) CLAIMS

The American Creek property consists of the following located claims.

<u>Claim</u>	<u>Record</u>	<u>Expiry</u>
AM 3	5528 (9) MG. 18 units	Sept. 26, 1988
AM 4	5529 (9) MG. 18 units	Sept. 26, 1988
AM 5	5530 (9) MG. 8 units	Sept. 26, 1988

Owner: Glacier Resources Inc.
1108-409 Granville St.
Vancouver, B.C.
V6C 1T2

129° 54'



AREA COVERED BY
MAPS 87-3 to 9

CAMP

KIMBALL
LAKE

AM 3

AM 4

AMERICAN CREEK

104A/5W

104A/4W

56° 15'

129 54

MAP 2

GLACIER RESOURCES INC.

CLAIM MAP

AM 3,4 & 5 CLAIMS

SKEENA M.D.

SCALE 0 1 km 2 km

DATE : APRIL 5, 1988

BY : J.W.MURTON P. ENG.

5) HISTORY & ECONOMIC ASSESSMENT

There is some evidence of earlier prospecting in the area, especially to the west and south of the AM 3, 4 & 5 claims. Reverted Crown Granted claims on the east side of American Creek are partially surrounded by the AM 4 claim and Ag, Pb, Zn mineralization is reported on those claims.

Gold and silver mineralization is reported on the west side of American Creek immediately to the west of AM 3 & 4 claims.

The area is well mineralized and worthy of further exploration for gold/silver mineralization.

6) GEOLOGY

T.E. Lisle & Associates Ltd. in a 1986 report describe the geology of the claims and area as being underlain by a north - northwest trending assemblage of Hazelton Group volcanic and sedimentary rocks deformed along major northerly trending fold axes and intruded by stocks and tabular masses of granitic rocks.

The AM 3, 4 & 5 mineral claims cover the northern section of American Creek which follows the course of a major fault trending about 014° . Several kilometers to the south towards the Bear River, the creek is near the axial plane of the American Creek anticline that trends west of north.

The claims are underlain by a lower dark argillite unit that outcrops on both sides of the valley. To the east it is associated with limestone around the old Virginia K workings. To the west it is exposed up to elevation 1160 meters. The argillite is succeeded upward on the west slope of the valley by a well-bedded blue-grey silty tuff that is interbedded with about 5% dark gray siltstone or argillite.

The tuff-siltstone assemblage is succeeded upwards and to the north and west by a green, maroon and reddish fragmental assemblage that includes tuff, breccia, conglomerate, agglomerate and buff weathering areas of rhyolite.

A series of faults varying from N 45° W to N 65° E with a strong N-S grouping is evident from a study of air photos. This faulting has likely had a controlling influence on the emplacement of the intrusive dykes evident on the west side of the American Creek valley as well as large areas of silicification and carbonate alteration.

Intrusive dykes vary from green felsic dacite to dark green augite porphyry to medium grained augite diorite to medium grained granodiorite porphyry.

7) MINERALIZATION

Quartz, quartz-siderite and quartz calcite veins are known to be present on the northwest flank of American Creek as near as 300 m to the west of AM 3 & 4, and on the west boundary of AM 3 at Post 4N. Much, but apparently not all of the quartz is present in late-stage epithermal veins. The veins are commonly crystalline and vuggy, and textures, directions and sulphide content indicate more than a single generation of emplacement. Breccias with either rock or quartz fragments are locally developed in the more highly silicified areas. Common directions of veins is northerly, north 10°-20° West, north 10°-20° east and within a few degrees of east-west.

The extent of the veining to the west of AM 3 is widespread and not fully defined. They are commonly manganese stained, and may occur in areas of buff carbonate alteration in which rocks are

locally well altered (bleached) and pyritic. The veins are usually less than a meter in width but may pinch and swell to over a meter. In places they are discontinuous, but they also occur in clusters more than two meters wide, and locally form stockworks. The veins are variably mineralized with pyrite, chalcopyrite, and lesser amounts of galena, tetrahedrite and sphalerite. Better gold values appear to be associated with the presence of chalcopyrite with or without pyrite and high silver values usually have corresponding high levels of galena and/or sphalerite.

Manganese staining is common in all areas of mineralization, but is itself not an indication of gold/silver values. Some quartz veins with intense manganese/siderite development have negative gold/silver values.

It is possible that areas of high silver values are related to the argillite assemblage while high gold values are more closely related to the volcanic rock package.

Pyrite is widespread as (1) disseminations in altered volcanic rocks, (2) as part of the sulphide assemblage in polymetallic mineralized quartz veins and (3) as stringers and quartz pyrite veins. Unless other sulphides are present, pyrite alone contains no economic mineralization.

An east-west trending quartz vein or swarm of quartz veinlets is poorly exposed in a creek cut near the west boundary of AM 3 at post 4N. A rock chip sample taken over an area of 0.4m (1.3'), returned geochemical values of:

Width	0.4m (1.3')
Au	0.702 oz/ton
Ag	10.12 oz/ton
Cu	3.4 %
Pb	0.2 %
Zn	0.05%
Mn	5 %

The quartz veining appears to be partly coincident with bedding, strikes east-west, and dips approximately 25° north.

8) 1987 WORK PROGRAM AND DISCUSSION OF RESULTS

During the period Sept. 27-30, 1987, a reconnaissance soil and talus sampling program was conducted on the AM 3 claim by a crew of 3 men. A total of 46 soil samples, 22 talus samples and 1 rock chip sample were collected.

Soil samples were collected along the western claim boundary of AM 3 on a chain and compass grid at 50m to 100m intervals. See maps 87-3 to 87-9 for sample locations and results. The samples were taken from a poorly developed 'B' horizon and in 11 out of 46 samples, the -20 mesh fraction was pulverized to obtain sufficient sample for analysis.

Talus samples identified by sample numbers AC3-1 to AC3-22 were collected along the western edge of American Creek valley at 100m intervals from approximately post 2N to post 4N. See map 87-3 for sample locations.

Sample preparation and treatment is described on the analytical data sheets at the back of the report. All values are plotted on maps 87-4 to 87-9 at a scale of 1:5000 .

A statistical analysis was done on the 46 soil samples, and while the number of samples is less than ideal, the resulting information is of some value in data analysis. The chart on the following page indicates threshold and anomalous values for all elements that were tested for.

<u>ELEMENT</u>	<u>MEAN</u>	<u>S.D.</u>	<u>THRESHOLD MEAN + 1SD</u>	<u>ANOMALOUS MEAN + 2 SD</u>
Cu ppm	47.5	35.7	33	119
Pb ppm	45.8	48.3	94	142
Zn ppm	148.3	88.9	237	326
Ag ppm	0.77	0.48	1.2	1.7
Mn ppm	1147	734	1881	2616
Au ppb	13.9	18.3	32	50

Two areas exhibit anomalous values in both soil and talus samples. 1) The area at the north end of the grid around 3+75 N to 4+00 N and 3+50 E to 5+00E contains several samples with anomalous Cu, Zn, Ag, & Au. This location is both down slope and on strike from the known gold-silver bearing quartz vein in the creek at 4+40 N, 3+50 E .

2) An area extending from 1+50 S to 5+50 S near the valley bottom contains the most anomalous soil sample taken. This broad area warrants further investigation as does the earlier described location near the known creek showing.

9) COST STATEMENT

LABOUR - Geochemical sampling, line chaining, reconnaissance mapping. Sept. 27-30, 1987 . Project Supervisor and 2 assistants.
9 man days at \$150.00 / manday \$1350.00

CONSUMABLES

Helicopter charter	\$ 857.25	
Truck rental	350.00	
Food and travel	500.00	
Assaying	708.75	
Report preparation	<u>1000.00</u>	
	3416.00	3416.00

TOTAL

\$4766.00



J.W. Murton
J.W. Murton P. Eng.

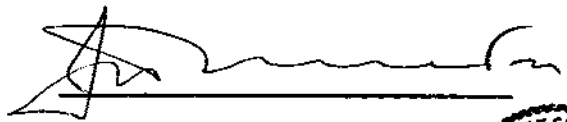
C E R T I F I C A T I O N

I, J.W. Murton, of Beaverdell, B.C. , do hereby certify that:

- 1) I am a member of the Association of Professional Engineers of the Province of British Columbia, registered in 1972, No. 8324 .
- 2) I am a graduate of the University of Manitoba with a B.Sc. in Geology.
- 3) I have been a practising Engineer and Geologist since 1960 in Manitoba, Saskatchewan, British Columbia, Yukon, Western U.S.A., and Alaska.
- 4) This assessment report dated April 5, 1988 is based on information derived from work completed by myself and under my supervision on the AM 3, 4 & 5 claims during the period Sept. 27-30, 1987 .

J. W. MURTON & ASSOCIATES

Beaverdell, B.C.
April 5, 1988



J.W. Murton P. Eng.



GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEC. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: P1-2 SOIL P3-ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE:
P-20 MESH, PULVERIZED

ASSAYER: *J. W. Murton* DEAN TOYE, CERTIFIED B.C. ASSAYER

J.W. MURTON & ASSOCIATION PROJECT-AC 3 & 4 File # 87-4856

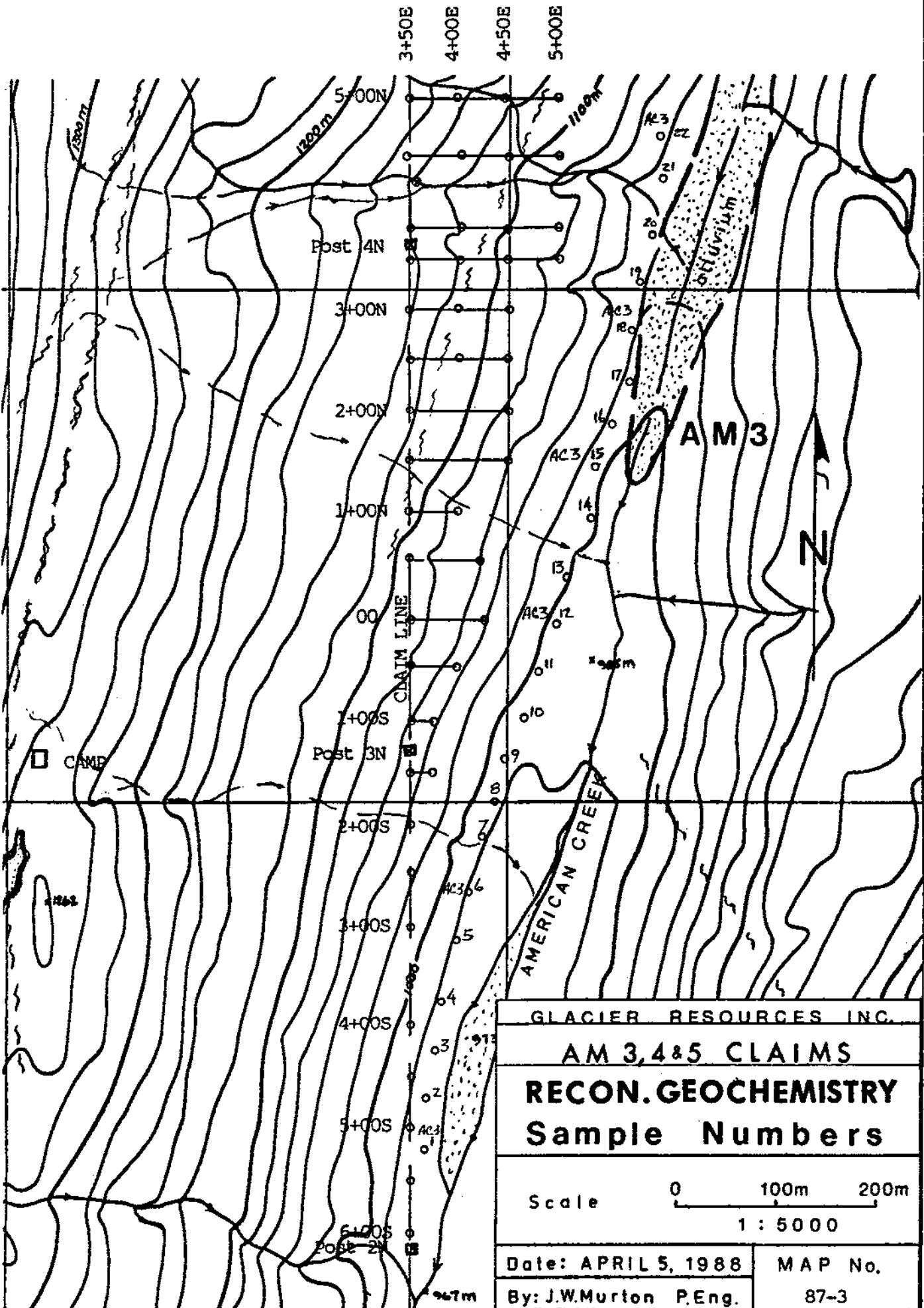
SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	MN PPM	AU* PPB
AC L5+00N 3+50E P	29	37	195	.4	1294	8
AC L5+00N 4+00E	15	18	67	.7	444	1
AC L5+00N 4+50E	24	13	93	.3	1176	<u>37</u>
AC L5+00N 5+00E	22	23	117	1.1	399	5
AC L4+50N 3+50E	90	79	180	<u>1.2</u>	1183	9
AC L4+50N 4+00E	83	46	162	.8	1944	<u>16</u>
AC L4+50N 4+50E	43	121	374	1.9	1554	7
AC L4+50N 5+00E	61	39	221	1.1	902	4
AC L3+75N 3+50E	28	28	97	.6	635	9
AC L3+75N 4+00E	54	63	169	.8	1391	48
AC L3+75N 4+50E	91	48	<u>315</u>	.4	1451	56
AC L3+75N 5+00E	36	38	93	<u>1.5</u>	433	<u>87</u>
AC L3+50N 3+50E	76	27	162	.9	847	6
AC L3+50N 4+00E	13	30	52	.5	250	<u>11</u>
AC L3+50N 4+50E	63	24	99	.4	1038	6
AC L3+50N 5+00E	<u>117</u>	35	192	1.0	1476	10
AC L3+00N 3+50E	30	43	88	1.1	609	6
AC L3+00N 4+00E P	17	20	57	.4	479	5
AC L3+00N 4+50E	94	36	143	1.0	1170	<u>13</u>
AC L2+50N 4+00E	6	16	31	.4	209	1
AC L2+50N 4+50E P	10	20	60	.1	335	1
AC L2+00N 3+50E P	18	23	84	.4	652	8
AC L2+00N 4+50E	11	19	54	.4	706	4
AC L1+50N 3+50E	24	30	53	.2	1365	1
AC L1+50N 4+50E	80	53	<u>260</u>	.9	1769	30
AC L1+00N 3+50E	29	37	103	<u>1.6</u>	441	<u>33</u>
AC L1+00N 4+00E	44	56	183	.9	655	<u>42</u>
AC L0+50N 3+50E P	17	31	83	.6	718	<u>15</u>
AC L0+50N 4+25E	42	71	173	.6	1371	<u>21</u>
AC L0+00N 3+50E	29	28	129	.8	1042	1
AC 0+00 4+25E	13	13	59	.3	230	<u>14</u>
AC L0+50S 3+50E	58	49	195	1.0	1573	<u>58</u>
AC L0+50S 4+00E P	12	20	64	.9	352	6
AC L1+00S 3+50E P	10	54	113	1.1	<u>2126</u>	2
AC L1+00S 3+75E P	19	37	130	.1	998	1
AC L1+50S 3+50E	76	<u>322</u>	<u>424</u>	.9	<u>2781</u>	7
STD C/AU-S	57	40	132	7.1	1016	49

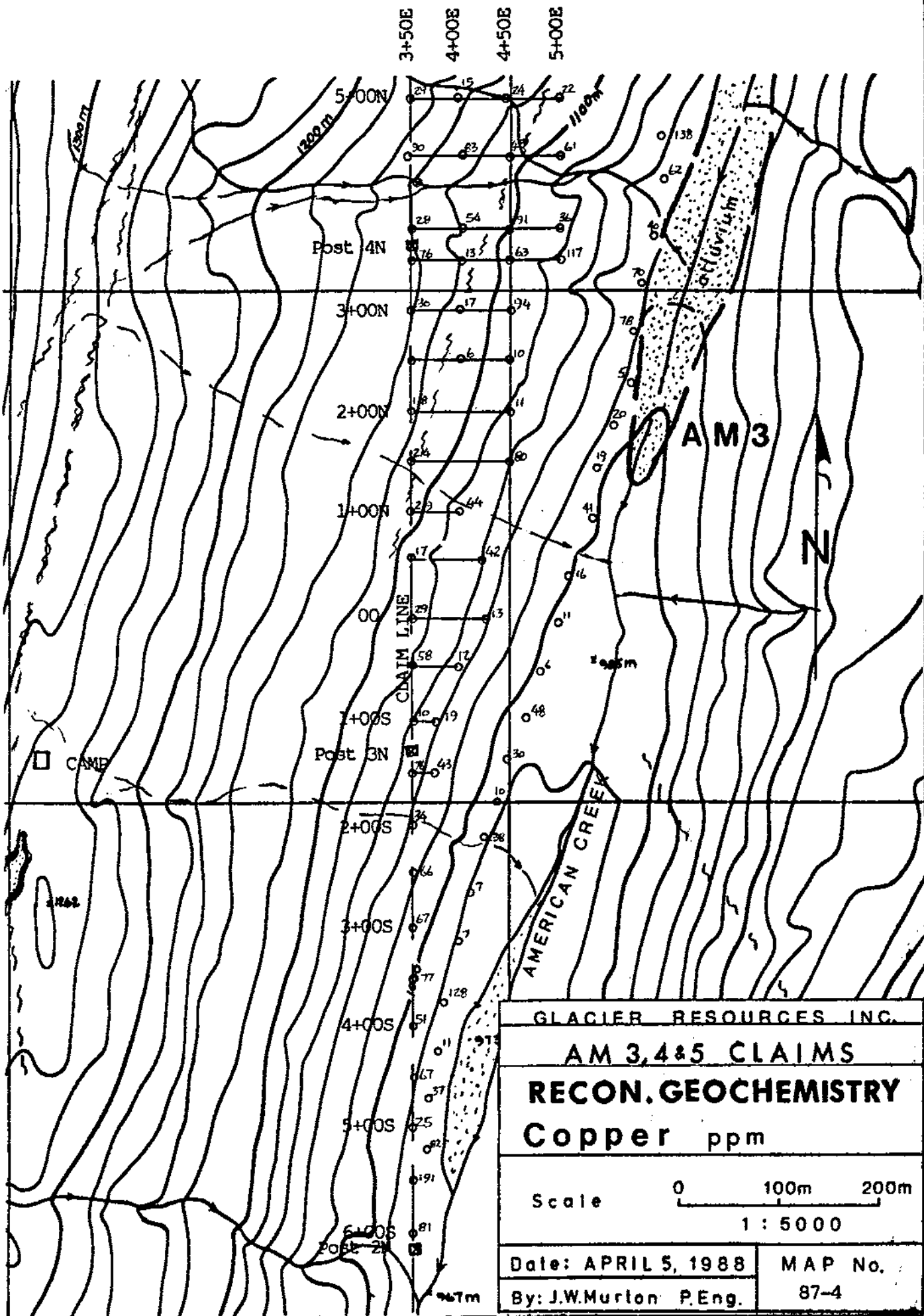
SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	MN PPM	AU* PPB
AC 1+50S 3+75E	43	67	169	.6	(2374)	4
AC 2+00S 3+50E ^p	34	36	139	.4	870	5
AC 2+50S 3+50E	66	30	140	.4	(2683)	1
AC 3+00S 3+50E	67	24	156	1.3	702	1
AC 3+50S 3+50E	77	38	222	1.4	(2646)	5
AC 4+00S 3+50E ^p	51	22	170	.6	883	3
AC 5+00S 3+50E ^p	25	22	77	.5	658	8
AC 5+50S 3+50E	191	132	379	2.5	(2947)	6
AC 6+00S 3+50E	81	45	174	.7	(2117)	11
STD C/AU-S	57	38	129	7.0	1018	51

# samples	46	46	46	46	46	46
Mean	47.5	45.8	148.3	.77	1147	13.9
SD	35.7	48.3	88.9	.48	734	18.3
Mean + 1 SD	83	94	237	1.2	1081	32
+ 2 SD	119	142	326	1.7	2616	50
+ 3 SD	155	191	415	2.2	3349	69

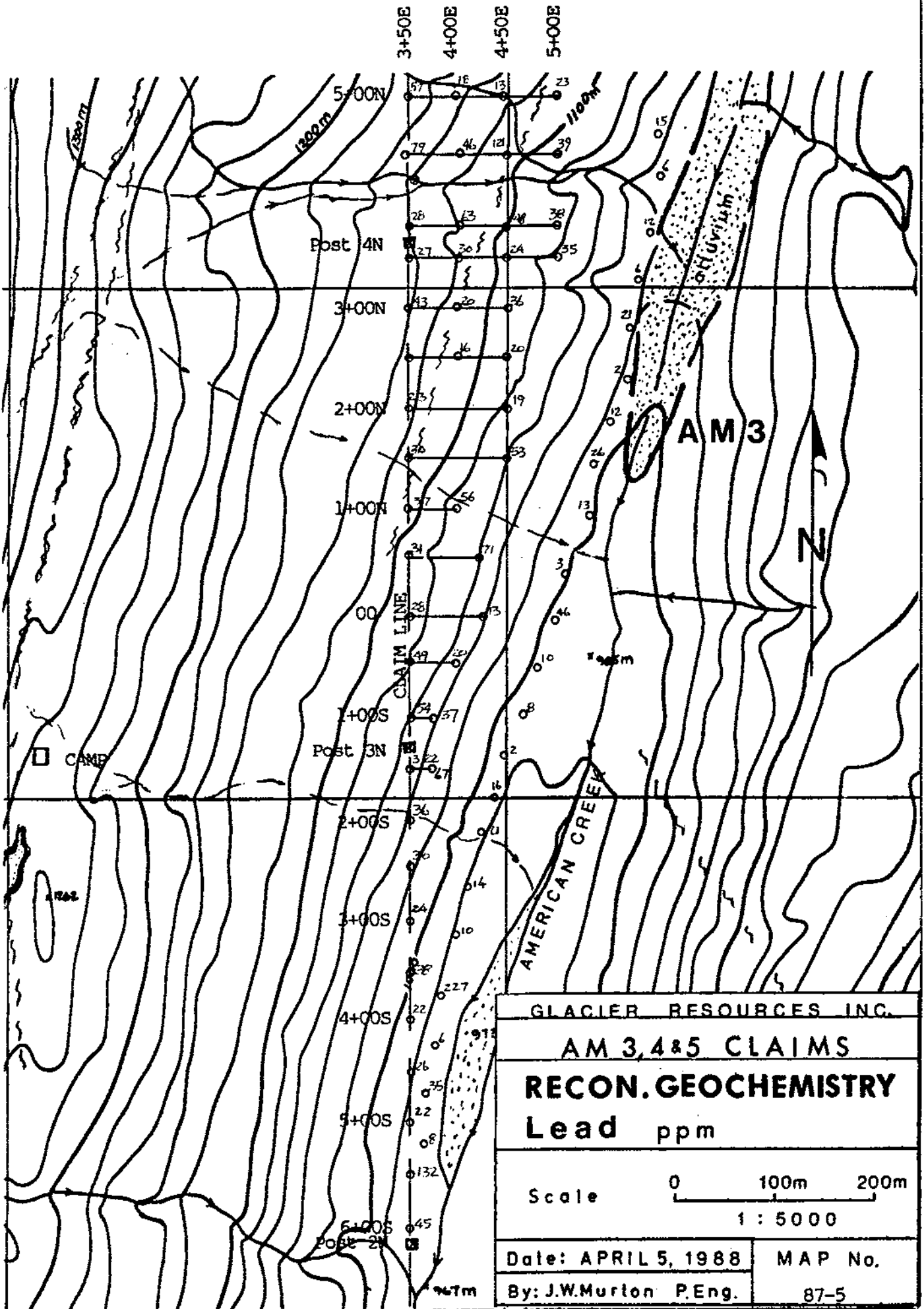
SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	MN PPM	AU* PPB
AC #3 1	82	8	53	.9	595	2
AC #3 2	37	35	64	.7	692	110
AC #3 3	11	6	56	.4	300	1
AC #3 4	128	227	195	1.3	476	2
AC #3 5	7	10	70	.7	1137	1
AC #3 6	7	14	43	.6	1678	1
AC #3 7	38	61	112	.9	399	2
AC #3 8	10	16	121	.6	974	1
AC #3 9	30	2	193	.6	1456	1
AC #3 10	48	8	184	.6	1466	1
AC #3 11	6	10	140	.6	405	8
AC #3 12	11	46	149	.7	282	1
AC #3 13	16	3	101	.5	1116	1
AC #3 14	41	13	83	.6	816	1
AC #3 15	19	26	284	.7	518	6
AC #3 16	20	12	31	.9	893	2
AC #3 17	5	2	28	.6	4093	1
AC #3 18	78	21	85	4.6	2312	1
AC #3 19	70	6	102	.5	1352	1
AC #3 20	40	12	97	1.4	583	3
AC #3 21	62	6	55	.6	646	1
AC #3 22	138	15	73	4.2	915	37
NO # <i>CREEK SHOWING</i>	33952	2079	497	347.0	50328	24100
AC 4+50S 3+50E	67	26	120	.5	891	9
STD C/AU-R	57	38	131	7.3	1029	510

✓ ASSAY REQUIRED FOR CORRECT RESULT -

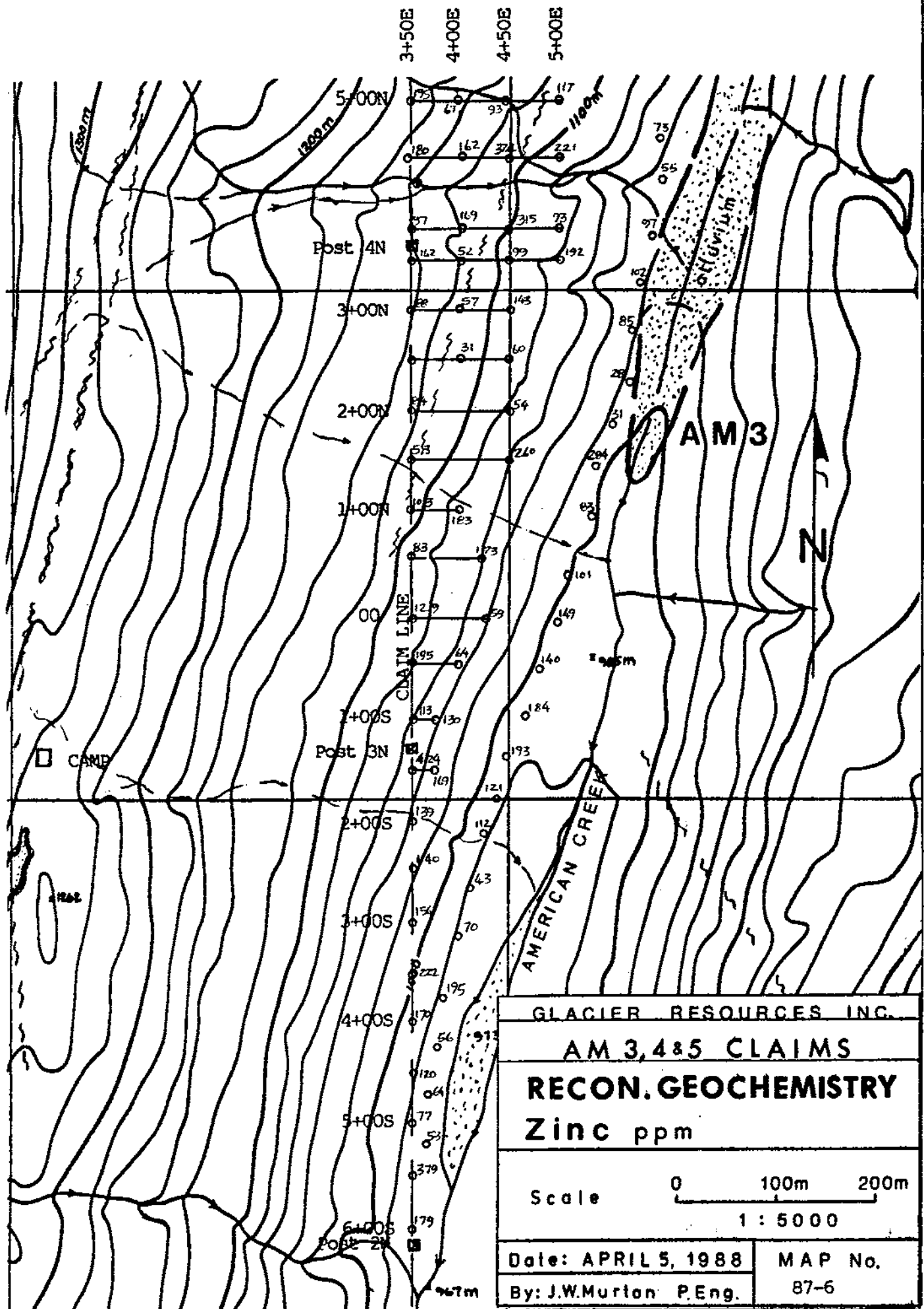




GLACIER RESOURCES INC.	
AM 3,4&5 CLAIMS	
RECON. GEOCHEMISTRY	
Copper ppm	
Scale	0 100m 200m
1 : 5000	
Date: APRIL 5, 1988	MAP No.
By: J.W.Murton P.Eng.	87-4



GLACIER RESOURCES INC.	
AM 3, 4 & 5 CLAIMS	
RECON. GEOCHEMISTRY	
Lead ppm	
Scale	0 100m 200m
1 : 5000	
Date: APRIL 5, 1988	MAP No.
By: J.W. Murton P. Eng.	87-5



3+50E 4+00E 4+50E 5+00E

5+00N
1200m
1100m
Post 4N
3+00N
2+00N
1+00N
00
1+00S
Post 3N
2+00S
3+00S
4+00S
5+00S
6+00S
Post 2N
967m

AM 3

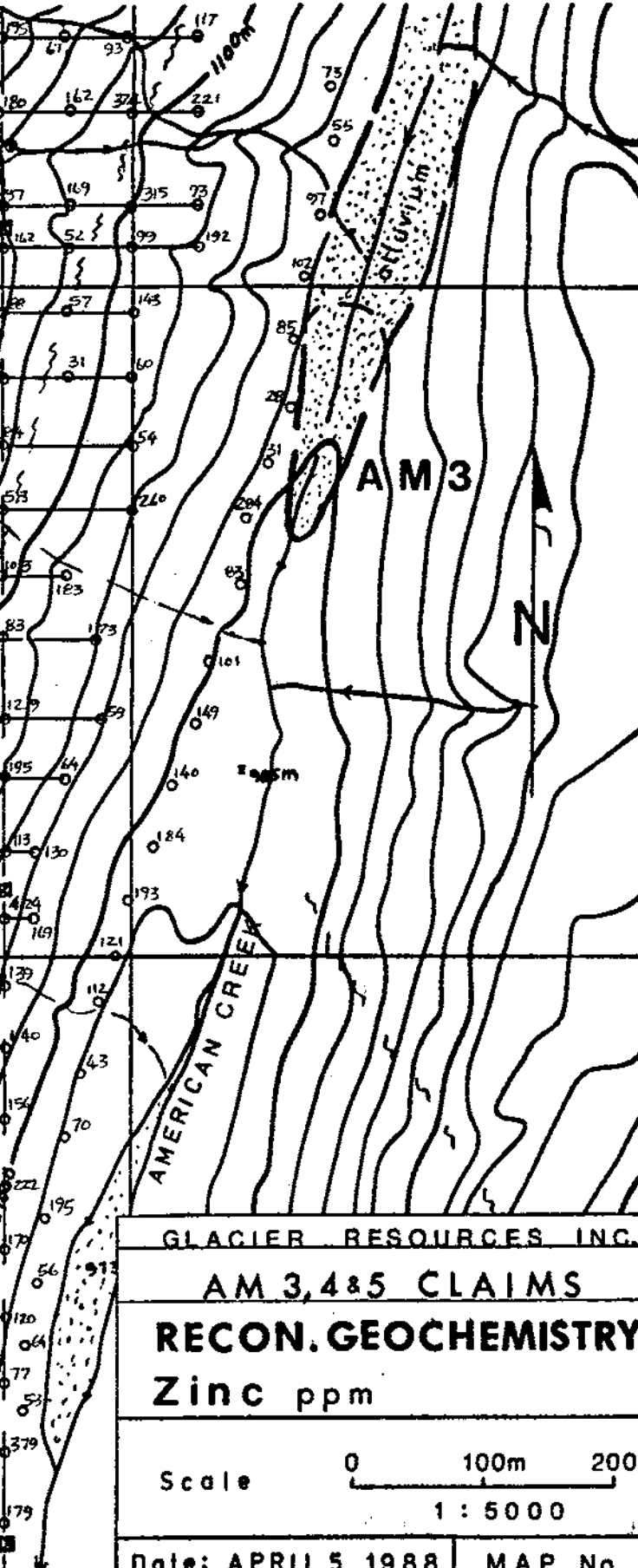
N

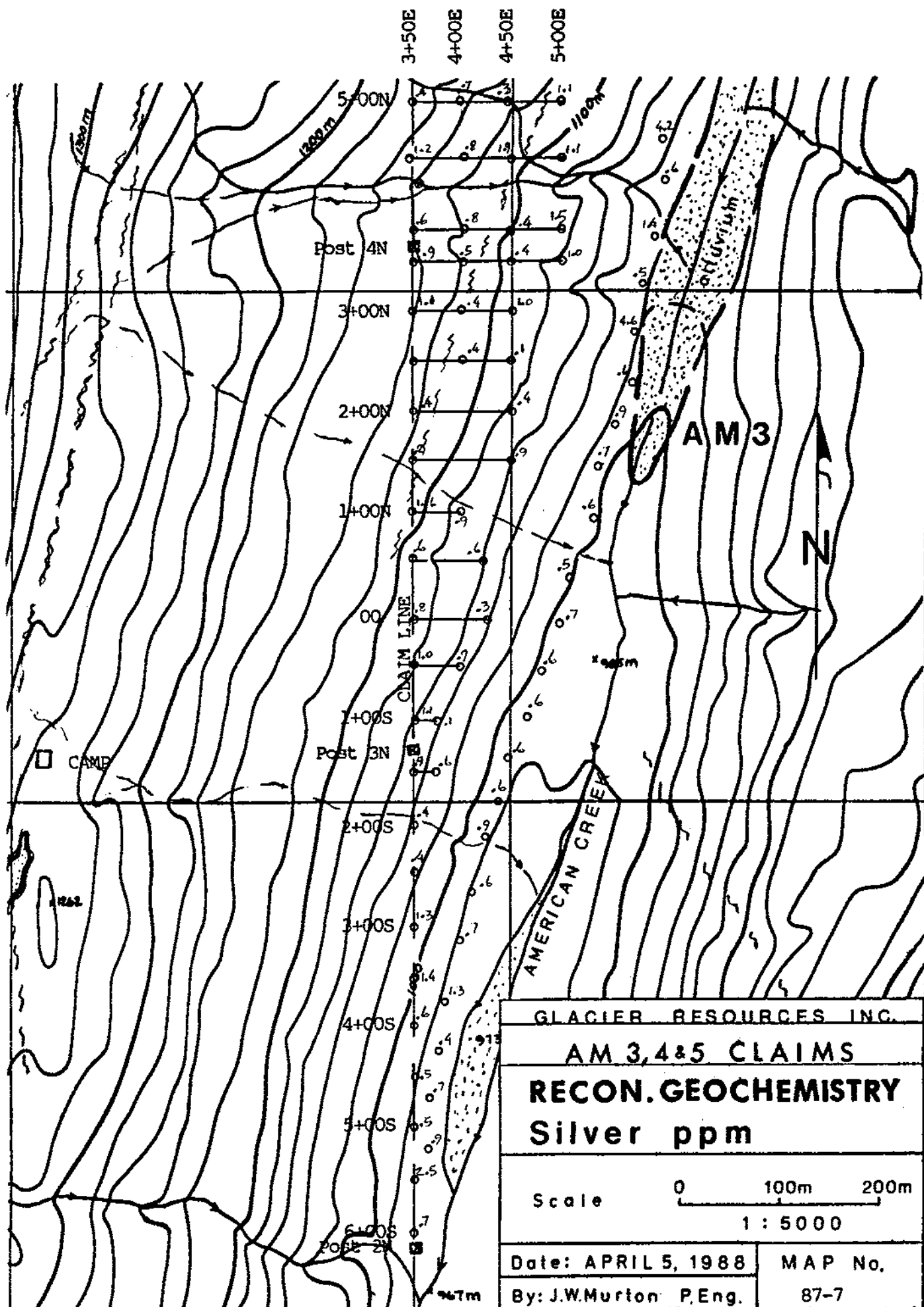
AMERICAN CREEK

CLAIM LINE

CAMP

1262





3+50E 4+00E 4+50E 5+00E

5+00N 1200m 1100m

Post 4N

3+00N

2+00N

1+00N

CLAIM LINE

1+00S

Post 3N

2+00S

3+00S

4+00S

5+00S

6+00S

Post 2N

AM 3

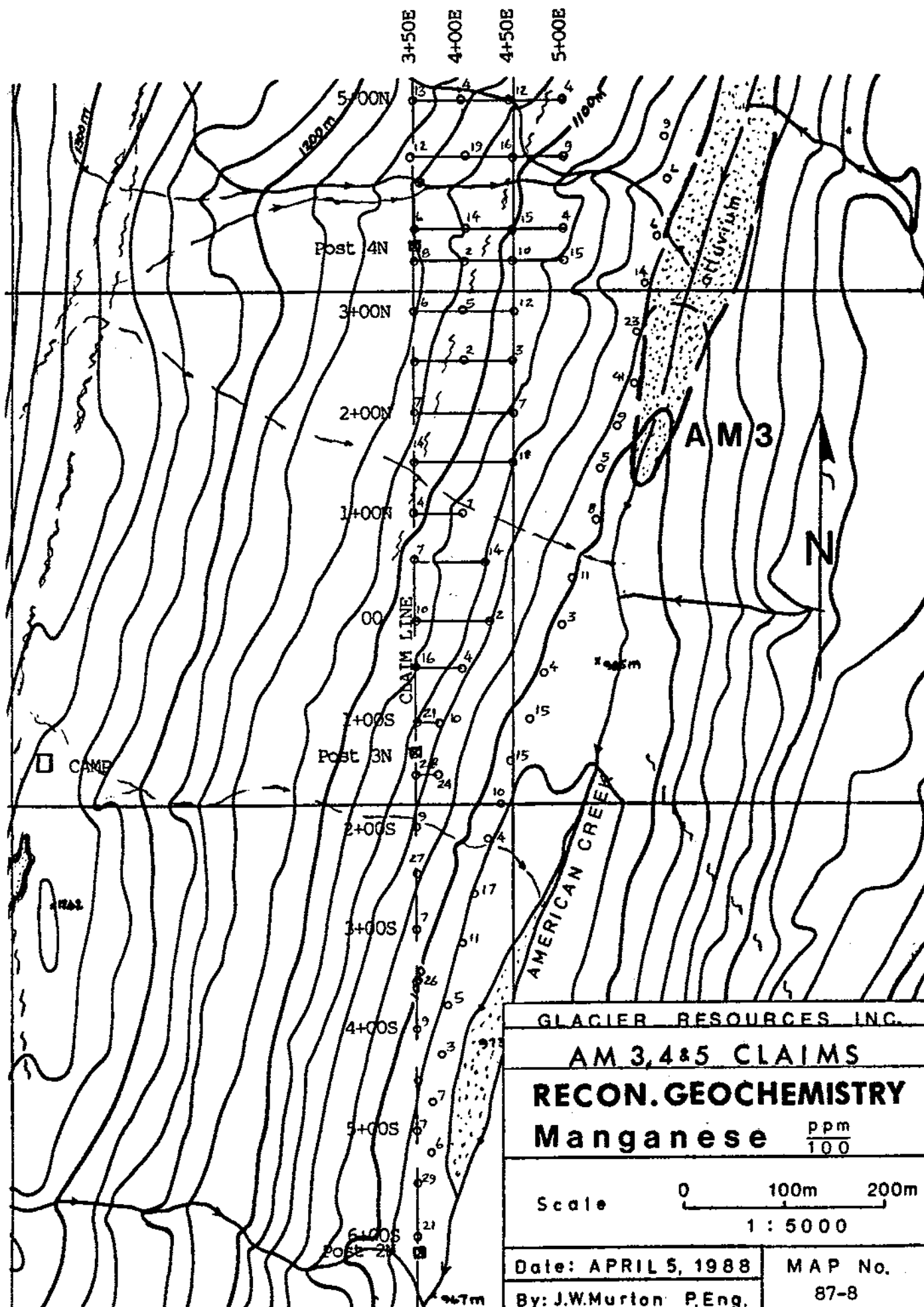
N

AMERICAN CREEK

CAMP

1262

767m



GLACIER RESOURCES INC.	
AM 3,4&5 CLAIMS	
RECON. GEOCHEMISTRY	
Manganese	$\frac{\text{ppm}}{100}$
Scale	0 100m 200m 1 : 5000
Date: APRIL 5, 1988	MAP No.
By: J.W.Murton P.Eng.	87-8

