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ELC GEOPHYSICS LTD.
REPORT NO 72-209

BUD CLAIMS GROUP
ASPEN GROVE, B. C.
120° W - 50° N

FOR G. S. ELDRIDGE
JUNE 18, 1972 to AUGUST 11, 1972

by D.L. Hings, P. Eng.

4076

ELC GEOPHYSICS LTD. REPORT NO. 72-209
Covering the BUD claims Group
Aspen Grove, B.C. Nicola M.D. 120° W- 50° N.
For G.S. Eldridge
June 18, 1972 to August 11, 1972

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PLANS

#1 Location Plan	72-209-L
#2 Combined Anomalous Plan	72-209-A
#3 Geochem Contour Plan	72-209-GC
#4 Electromagnetic Profile Plan	72-209-EM
#5 Magnetometer Profile Plan	72-209-M

ELC GEOPHYSICS LTD.
250 N. Grosvenor Ave.
Burnaby 2, B.C.

298-9619

elc geophysics ltd.

250 NORTH GROSVENOR, VANCOUVER, CANADA TELEPHONE: (604) 298-9619

ELC GEOPHYSICS LTD. REPORT NO. 72-209 COVERING THE BUD CLAIMS GROUP AT ASPEN GROVE, B. C. IN THE NICOLA M.D. 120° W - 50° N, FOR G.S. ELDRIDGE, JUNE 18, 1972 to AUGUST 11, 1972.

Purpose:

The survey is a continuation in detail of the reconnaissance survey ELC Geophysical Report No. EM-70-116 of October 4th, 1970, over the BUD claims group. This report refers to closely spaced stations over the two principal zones previously shown as Z1 and Z2 for magnetometer, electromagnetic and geochemical methods and analysis.

Geological Reference:

Geological survey of Canada, Department of Mines and Technical resources Memoir 249, by W.E. Cockfield.

Location:

The surveyed area is approximately 2 miles north of Courtney Lake, in the vicinity of Aspen Grove

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and Merritt, B.C. The property extends to the east and south of Mount Nicola and is indicated on the plan 72-209-L.

Presentation:

Individual plans are presented for each method of survey that include magnetometer, electromagnetic and geochemical soil determinations. The magnetometer and EM methods are plotted on a plan wherein the gridlines form the baseline for the profile from the values as indicated on the plan. The soil determinations are shown in ppm in CU at the respective sampling locations. The interpretation and combined anomalies are shown on plan 72-209-A.

The claims relative to the grid location are shown on the geochemical plan 72-209-GC.

The grid lines cover a total of 13.4 miles with an average line spacing of 200 feet. The magnetometer stations are spaced at intervals of 50 feet. The EM stations are spaced at intervals of 100 feet and the soil determinations were taken at intervals of 100 feet.

The control grid lines in both the southern Z1 zone and the northern Z2 zone are the same lines used for control of the previous survey in 1970.

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It should be noted the contours on the anomalous plan for the EM surveys are indicated as MEM which means the interpretation was derived from a combination of magnetometer and EM phase variations that supplement the depth determinations of the EM.

Personnel:

The EM survey was conducted by W. Mather, the magnetometer survey by K. Pettersen and soil sampling by E. Wiggins.

Instrumentation:

Electromagnetic - The infinite source two component electromagnetic instrument manufactured by Geonics Ltd. of Toronto, Model EM16 was used and operated on the US naval station NPG in the state of Washington, USA, on a frequency of 18.6 KHZ on an azimuth of approximately 200°.

Magnetometer - The magnetometer survey was conducted with a vertical field fluxgate self levelling magnetometer model M110, manufactured by Sabre Electronics of Vancouver, B.C.

Geochemical - A total of 650 samples were taken over the grid lines as shown on plan 72-209-GC. The samples

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were taken from the B horizon first by removal of any overlaying debris, then digging a hole using a round mouthed spade approximately 15 inches below the surface. A sample from the hole was packaged using a standard kraft soil bag obtained from Acme Analytical Laboratories. The sample determinations were made by Acme Analytical Laboratories Ltd. 6455 Laurel Street, Burnaby, B.C.

Magnetometer Results:

Referring to the anomalous plan 72-209-A the magnetometer anomalies are shown in linear form indicating the strike and location of fractures, faults and shears etc. Commencing in the south on the old Z1 zone, the prominent magnetic low ML3 extending to the north along the western edge, appears to be the old L3 anomaly shown on the previous surveys. An offset in the northern portion of this zone shows the possible continuation by the linear line ML-3A. There is evidence that this prominent linear feature extends to the northeast into the zone 2 area as indicated by L3-B. A magnetic low parallels nearly 100 feet west, the ML3 anomaly. The L2 series of linear anomalies form a generally north pattern from the anomaly L2 to L2-C. Interlaced with these linears is an apparent extension of the L1 anomaly in the north zone shown as L4A and L4B.

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The L4 series of northeast-southwest linear anomalies appear to coincide closely with the previous survey anomalous features. The ML3A and L4A are in parallel and appear to indicate a magnetic linear linkage between the north and south zones.

In the north zone the L1 and L1A north-south linears also coincide closely with the geochem and the EM anomalies, however the L1 and L1B also closely parallel the local drainage pattern. The L6 series and L7 indicate the existence of fracture zones on the eastern portion of the north zone. The L6 follows closely to a ridge which also follow L6-D.

MEM Results:

Zones of conductivity are derived from both the magnetic and electromagnetic surveys and indicated by the letters CZ in contour form. In the case of CL3 on the western portion of the southern zone there is indicated a conductive linear anomaly paralleling and overlaying the magnetic anomaly linear ML3. In the south the CZ2 and CZ2A contour areas overlay the magnetic linears L2, L2C and L8-A. The CZ-2B follows closely to the magnetic linear anomaly L2-E in the southwest. The CZ1 zone is on the eastern portion of the southern survey and is possibly a continuation of

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the CZ-4 anomaly in the northern survey that adjoins the CZ-3 large anomaly also in the northern portion. The northern half of the southern survey shows the anomalous contoured areas CZ-4B and CZ-4C that appear to be associated with the magnetic anomalies L4A, L4B, L2A and L2B.

Geochemical Contours:

The geochemical values as indicated on the plan 72-209-GC and are interpreted into contour form on the anomalous plan 72-209-A combined with the other two geophysical methods. For the purposes of deriving the general pattern, a value of 60 ppm of Cu has been shown as the first contour, with a background value of approximately 40 ppm. These have been identified by the letters GC and a number indicating the area, however due to the high background it should be stressed that the anomalies are those contoured areas within the 60 ppm contours that exceed 100 ppm that are considered geochemically anomalous.

In the south both the conductive EM contoured zones and the magnetic linear anomalies are closely associated with the contoured zones GC-2 and GC-2A indicating some geochemical enrichment. The GC-1A anomaly in the northern portion of the southern survey

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appears to be associated with the magnetic linears L2-A L4-A and L4-B, and is also within the zone of the conductive EM anomaly CZ-4B.

In the northern survey the larger anomalies are within the contours of the GC-3 anomaly, with the largest enrichment following closely to the magnetic linear L1. A more southerly anomaly of enrichment follows closely to the linear L1A and there are indications that an additional small anomaly follows L3-B, all of which are within the conductive zone CZ3. South of the GC-3 zone GC-4 includes enrichment directly north and to the northeast and follows closely to the magnetic linear L4 and is within the contour of the conductive zone CZ-4. To the east a linear form of enrichment is shown by GC-5 that coincides closely with the magnetic L6-B.

Conclusions:

The MEM interpretation of conductive zones appears to be generous but coordinates very closely with other anomalies. The general fracture patterns and structural features are well represented by the magnetic linear anomalies, pointing out the strike features, in many cases related to copper enrichment.

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The geochemical copper enrichment appears to follow drainage patterns, for example the northern finger extending from GC4 parallel to the linear anomaly L1 in the northern survey follows the drainage and the north striking enrichment to the northern edge of the survey, on line 82N continues to where a small pond exists.

In the southern survey a small drainage pattern exists nearly parallel to LC2 within the CZ-2A zone that drains from the high ground in the central portion of the survey to the south.

The magnetic low following the western edge with a general northeastern strike ML-3, ML-3A and CL3 appears to be a conductive formation with a magnetic low having no enrichment in the southern portion however there is evidence of some enrichment along ML-3A and L3-B in the northern survey.

Summary:

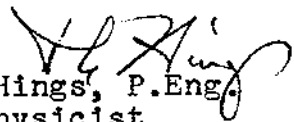
There is evidence that some of the north-south striking geochemical enrichments have been derived from surface drainage and associated slopes. The fracture zones having northeast-southwest striking linear features are generally associated with Cu en-

richment. The geochemical anomalies GC-1A and the western portion of the enrichment GC-3 in the northern survey appear to be valid and therefor the unsurveyed area existing along the strike patterns between the two surveys might also have copper enrichment.

The entire area is relatively flat sloping to the southeast with the principal drainage on the surveyed areas being north-south. Areas of geological investigation should follow closely to the linear anomalies L4 and L4-A and the paralleling linear anomalies ML-3A and L3-B. The area within the contours of CZ-3 in the northern portion is the most anomalous and the drainage within this zone probably only contributes in a small degree to the copper enrichment.

Recommendations:

Sufficient detail has been derived from these surveys to warrant a geological surface investigation of the anomalous areas including the unsurveyed ground between these areas. The survey indicates there is only light coverage generally and a trenching type examination is probably the most practical approach.


D.L. Hings, P. Eng.
Geophysicist

A statement of costs for ELC GEOPHYSICS LTD.
Report No. 72-209 for Mr. G.S. Eldridge
Bud Claims Group, Aspen Grove, B.C.
June 18, 1972 to August 11, 1972.

Field Crew

W. Mather	13 days @ 50.00	650.00
E. Wiggins	13 days @ 35.00	455.00
K. Pettersen	8 days @ 50.00	400.00

Transportation

4 x 4 Truck	1000 miles @ 12¢	120.00
	13 days @ 12.00	156.00

Living Costs

34 man days @ 12		408.00
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Instruments & Equipment

EM 16	13 days @ 10.00	130.00
Magnetometer	13 days @ 10.00	130.00
Misc. supplies	13 days @ 5.00	65.00

Plotting & Drafting

R.L. Reece	6 days @ 60.00	360.00
D.A. Cramer	4 days @ 60.00	240.00

Interpretation & Report

D.L. Hings, P.Eng.	3 days @ 120.00	360.00
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Soil Determinations

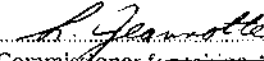
650 samples @ 1.00		650.00
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TOTAL		4,124.00
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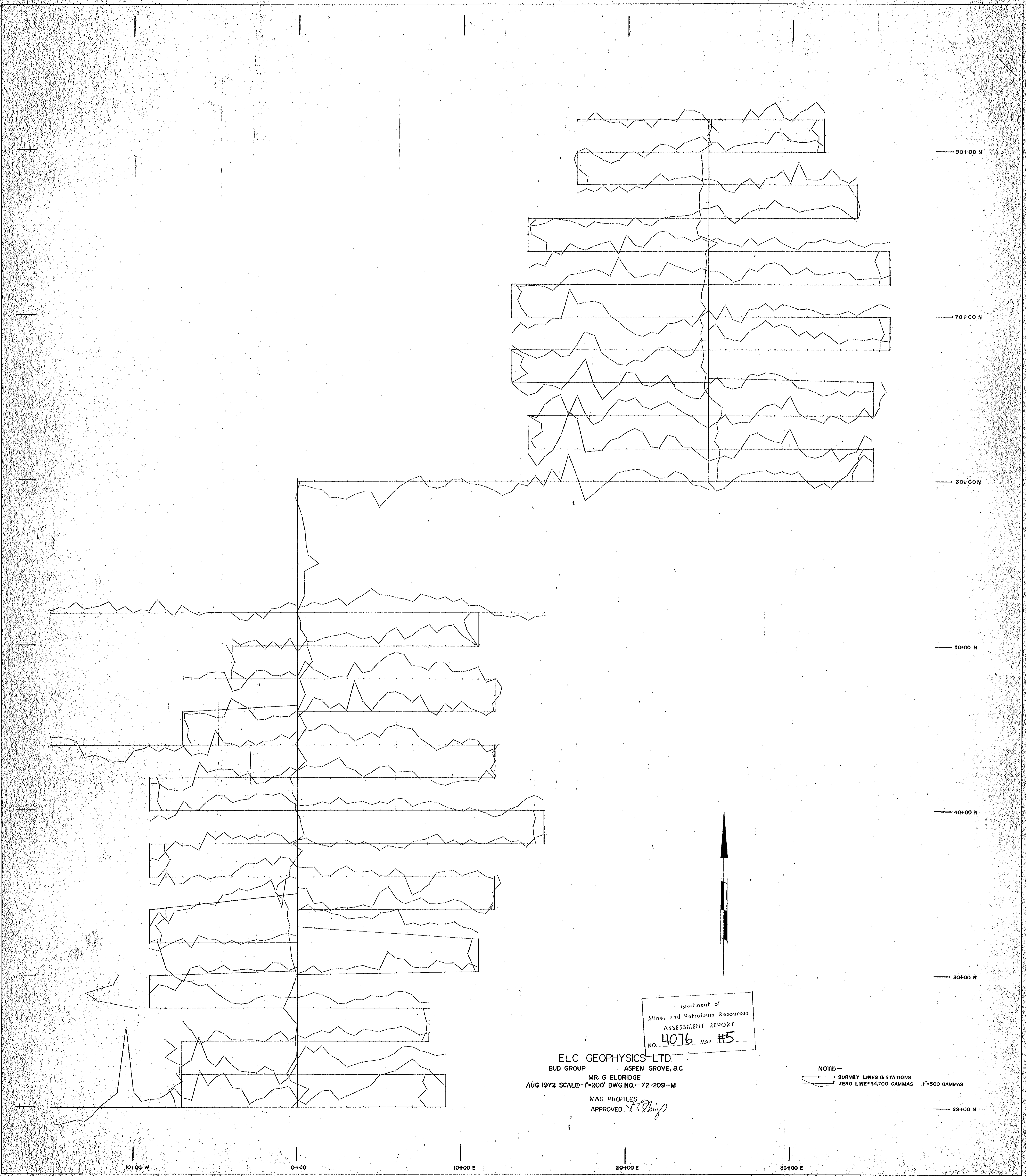
(over)

Declared before me at the City of Vancouver, in the Province of British Columbia, this 27 day of November, 1972, A.D.




~~A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.~~

SUB-MINING RECORDER



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4076 MAP #5

ELC GEOPHYSICS LTD.
BUD GROUP MR. G. ELDRIDGE ASPEN GROVE, B.C.
AUG. 1972 SCALE: 1"=200' DWG. NO.: 72-209-M

MAG. PROFILES
APPROVED *T. D. King*

NOTE:—
— SURVEY LINES & STATIONS
— ZERO LINE = 54,700 GAMMAS 1" = 500 GAMMAS

10+00 W

0+00

10+00 E

20+00 E

30+00 E

22+00 N

30+00 N

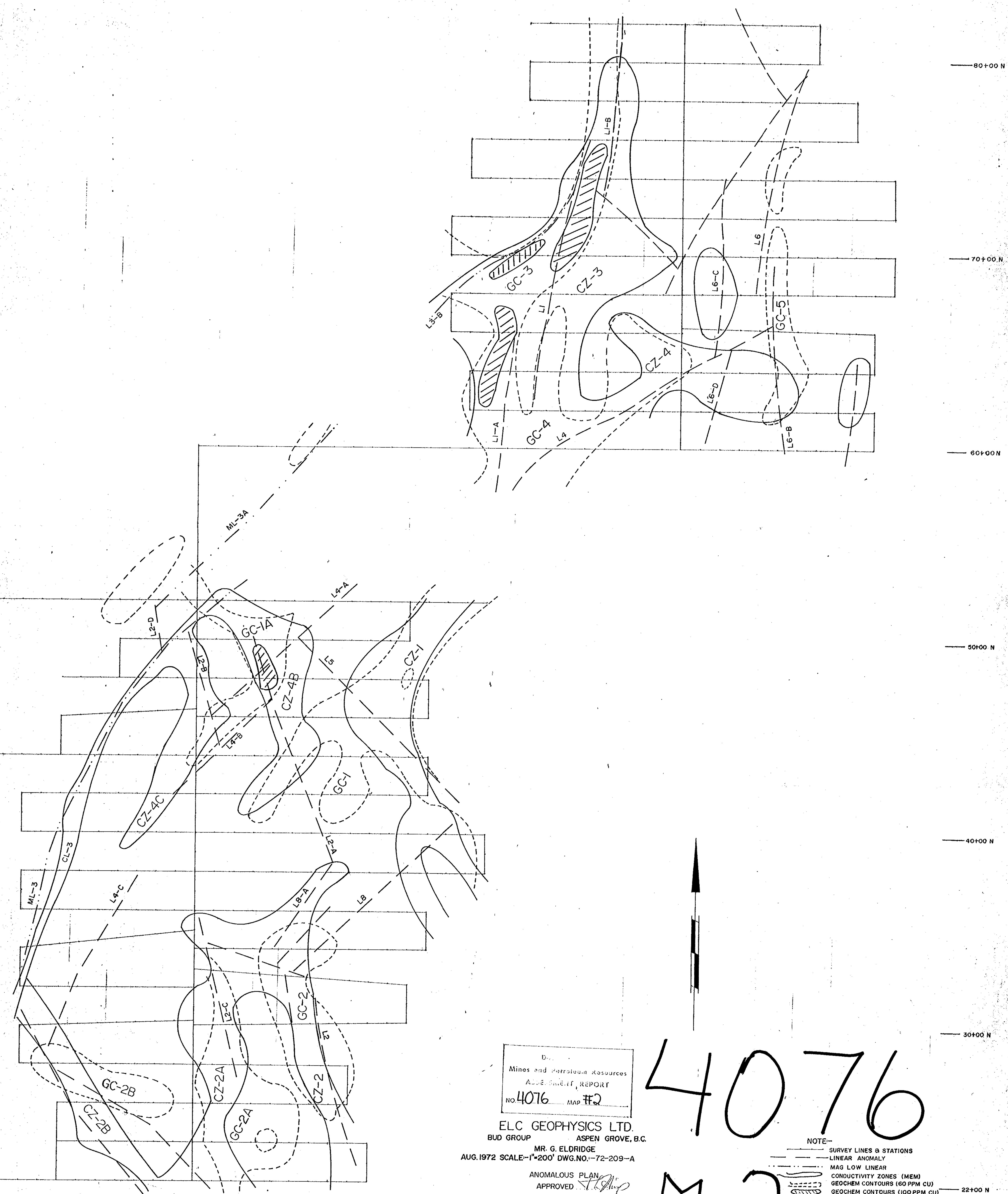
40+00 N

50+00 N

60+00 N

70+00 N

80+00 N



Mines and Petroleum Resources
 Assessment Report
 No. 4076 MAP #2

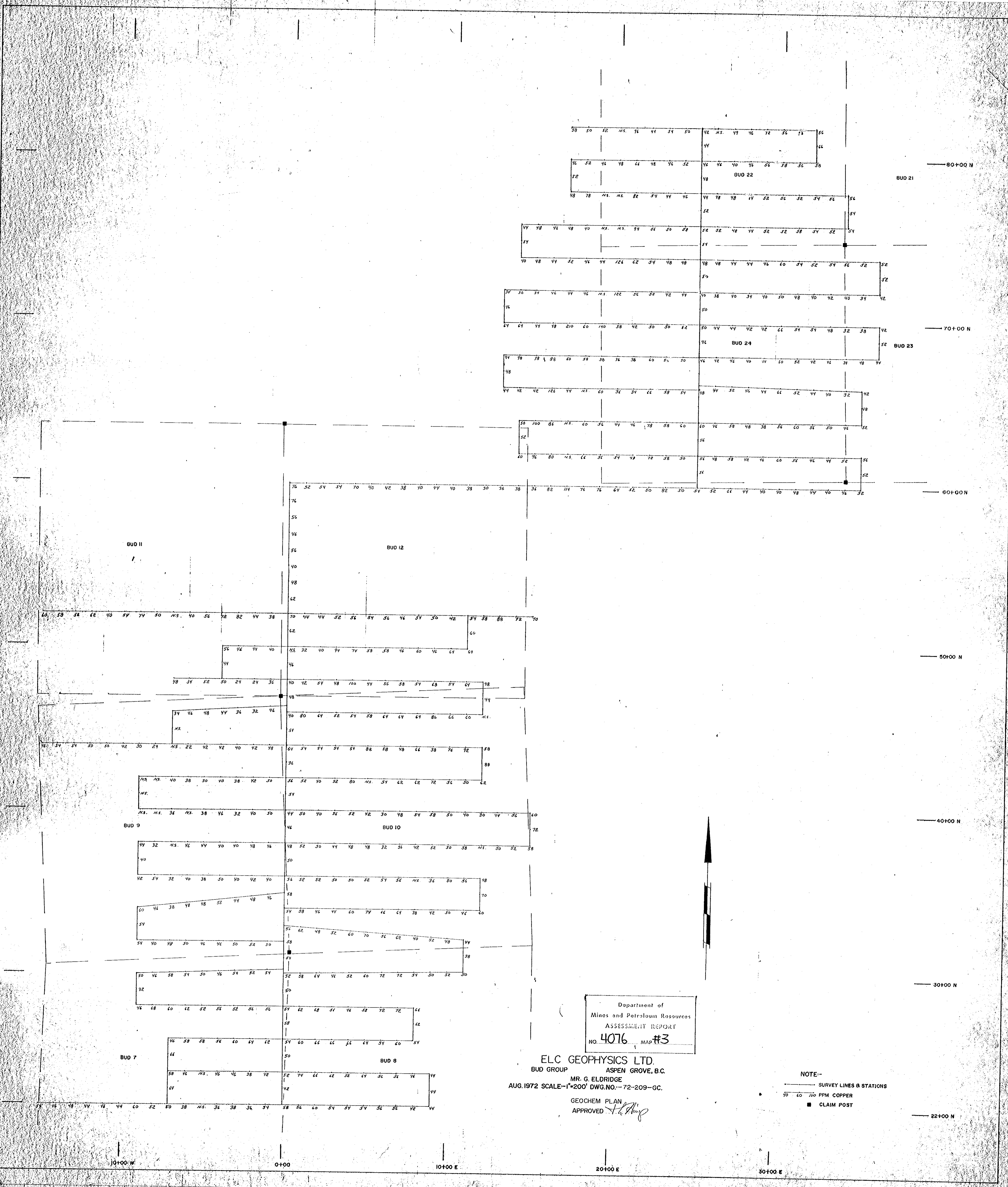
ELC GEOPHYSICS LTD.
 BUD GROUP ASPEN GROVE, B.C.
 MR. G. ELDRIDGE
 AUG. 1972 SCALE=1"=200' DWG. NO. 72-209-A

ANOMALOUS PLAN
 APPROVED *[Signature]*

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 M-2

NOTE:-
 SURVEY LINES & STATIONS
 LINEAR ANOMALY
 MAG LOW LINEAR
 CONDUCTIVITY ZONES (MEM)
 GEOCHEM CONTOURS (60 PPM CU)
 GEOCHEM CONTOURS (100 PPM CU)

10+00 W 0+00 10+00 E 20+00 E 30+00 E 22+00 N 30+00 N 40+00 N 50+00 N 60+00 N 70+00 N 80+00 N



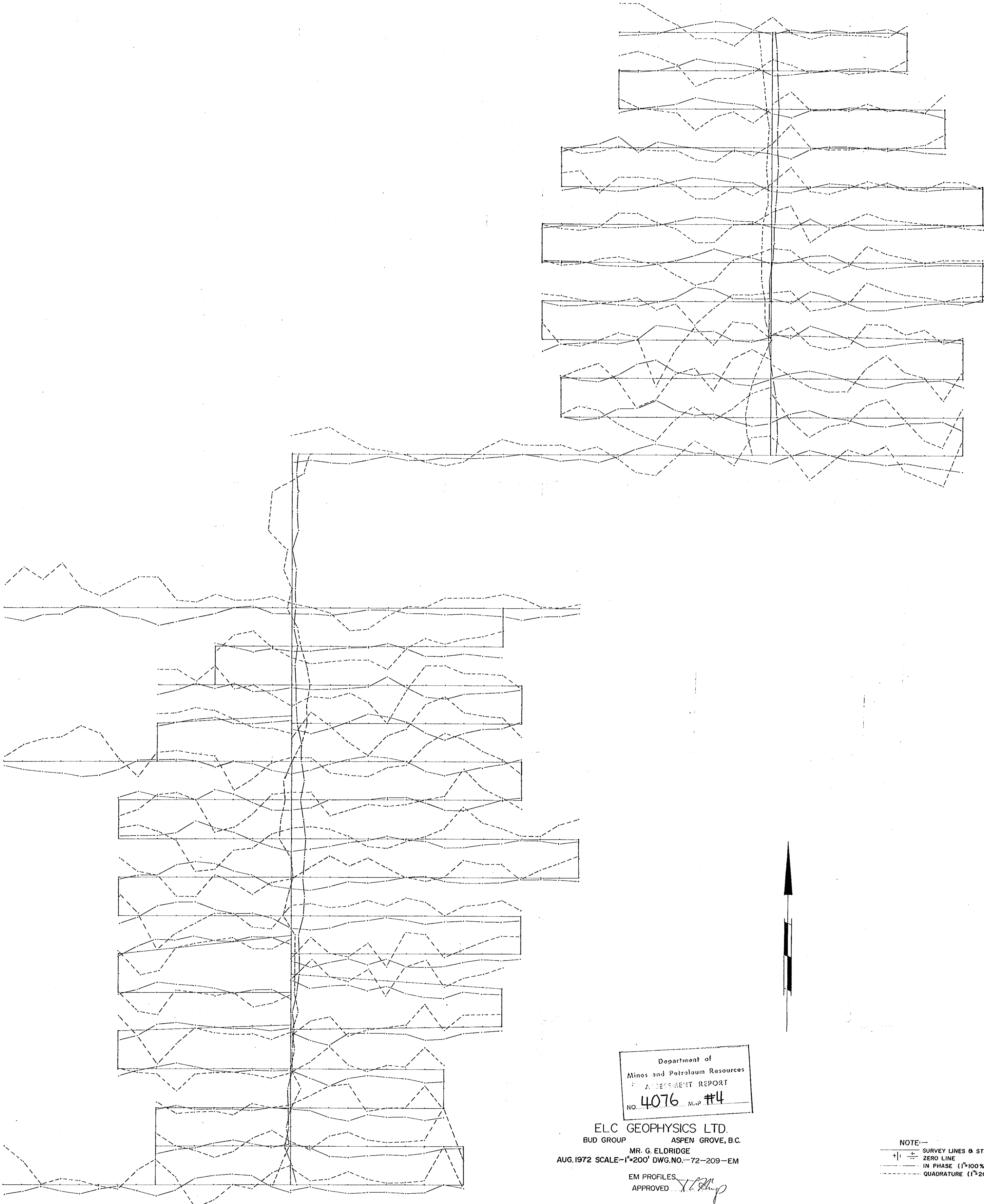
Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4076 MAP #3

ELC GEOPHYSICS LTD.
 BUD GROUP ASPEN GROVE, B.C.
 MR. G. ELDRIDGE
 AUG. 1972 SCALE - 1"=200' DWG. NO. - 72-209-GC.
 GEOCHEM PLAN
 APPROVED *[Signature]*

NOTE:-
 — SURVEY LINES & STATIONS
 70 60 100 PPM COPPER
 ■ CLAIM POST

10+00 W 0+00 10+00 E 20+00 E 30+00 E

80+00 N 70+00 N 60+00 N 50+00 N 40+00 N 30+00 N 22+00 N



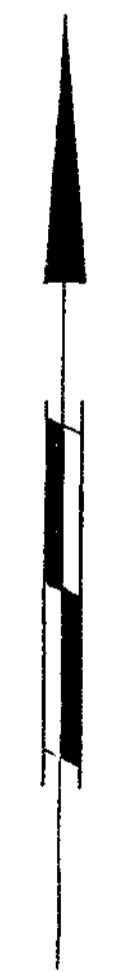
80+00 N
 70+00 N
 60+00 N
 50+00 N
 40+00 N
 30+00 N
 22+00 N

10+00 W 0+00 10+00 E 20+00 E 30+00 E

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4076 Map #4

ELC GEOPHYSICS LTD.
 BUD GROUP ASPEN GROVE, B.C.
 MR. G. ELDRIDGE
 AUG. 1972 SCALE-1"=200' DWG. NO.-72-209-EM

EM PROFILES
 APPROVED *[Signature]*



NOTE:-
 — SURVEY LINES & STATIONS
 +|- ZERO LINE
 — IN PHASE (1% 100%)
 - - - QUADRATURE (1% 20%)

LOCATION MAP
SCALE: 1:50,000
DWG. NO.: 72-209-L

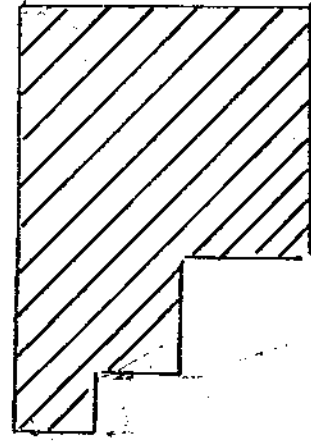
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4076 MAP #1

INDIAN
RESERVE
7

To Merritt

MOUNT
▲
NICOLA

BUD
GROUP



CORBETT LAKE

COURTNEY
LAKE



To Aspen Grove

4076 M-1

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