

4877 82F/14W

ELC GEOPHYSICS report no. 73-305
Republic Property
Slocan, B.C. 49-48 N - 117-26W
for Tandem Resources Ltd.
June 9, 1973 to August 9, 1973.

82F NW 168

TABLE OF CONTENTS	<u>PAGE</u>
Purpose	1
Location	1
Presentation	2
Personnel	2
Instrumentation	3
Geological reference	3
Magnetometer Results	4
Electromagnetic Results	4
Geo-Chemical Results	5
Summation of Results	7
Conclusions	8

PLANS

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|-------------------------------|-------------|
| #1 Mag Profiles & Anomalies | 73-305-M |
| #2 EM profiles & Anomalies | 73-305-EM |
| #3 Geochemical Determinations | 73-305-GC |
| #4 Geochem Anomalies & Claims | 73-305-A-GC |
| #5 Location Plan | 73-305-L |

ELC GEOPHYSICS LTD.
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Burnaby 2, B.C.

298-9619

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4877	MAP

Magnetometer Results:

Refer to plan ELC 73-305-M. Magnetometer values throughout the survey are relatively constant, with most variations related to surface contour values. The linear anomalies interpreted are relatively weak and consist of three types. The "C" anomalies appear to be related to formation changes. The "L" anomalies, terminating with an M, appear to be related to fracturing and faulting.

The anomalies starting with an "L" and ending with "EM" are derived from combined EM and magnetic relations and suggest linear fracturing with increased conductivity. The magnetometer survey on its own merits must be considered inconclusive.

Electromagnetic Results:

Four types of the anomalies are indicated on plan 73-305-EM. Anomalies commencing with the letters EM, cover areas of increased conductivity. And linear anomalies commencing with the letters CL indicate narrow strikes of inter-facial conductivity. The contoured anomalies commencing with CZ, appear to be changes in formation with the boundaries forming the contacts. The linear anomalies beginning with the

letter L, appear to follow along structural changes such as faults, shears and fractures. The larger anomalies to the west appear to be created principally by the slope topography beyond the linear anomalies L1 and L2. The general alignment of the contour anomalies EM1, EM2 and EM4 with the linear anomalies L1 and L2 conform closely with the known faults extending through this area.

The conductive linear anomalies indicated by the letters CL have a general east, northeast strike and are frequently associated with conductive interface changes near the surface and within the rock formation. (e.i. - quartz veins)

The CZ zones within the dashed lines represent areas of formation change and possibly envelop most of the more interesting areas, especially in combination with the CL linear anomalies and their correlation with the geo-chemical analysis.

Geo-Chemical Results:

For geo-chemical values refer plan 73-305-GC, and for reference to claims and anomalies refer to plan 73-305-GC-A.

The anomalous plan indicates in contour form, enrichment of the zinc and silver where in the zinc values are in excess of 300 parts per million.

The silver determinations are in excess of .8 parts per million, each having separate contours. These values were chosen to better indicate the geological trends in the covered area. Linear anomalies in both zinc and lead are shown with the apparent strike.

The zinc contour anomaly GC-1z, on the southern end of the survey appears to be associated with the linear silver enrichment L1-GC striking to the east. Three additional silver linear anomalies L2, L3 and L4, are all of the same strike pattern in the southern half of the survey. The contour anomaly GC-2z shows persistent enrichment of zinc, located east of the fault L1-EM having a width of several hundred feet between grid lines eight south and twenty south. The linear anomalies L7-GC indicates a strike of lead enrichment within the zinc anomaly.

The small anomaly GC-4s on line 4+00S shows an unusual high enrichment of lead, zinc and silver over an approximate width of 400 feet.

The anomalous area over GC-1s, GC-2s, GC-4z and GC-8z covers an area of old workings on the Republic number two claim. The GC-4z zinc anomaly also includes GC-6z and appears to be associated with GC-7z to the north.

Within this GC-4z anomaly we have two lead enrichments GC-11 and GC-2L, both with a general northwest - southeast strike following closely to the

anomaly GC-6z.

The Y shaped zinc anomaly GC-5z conforms closely with the silver GC-3s and includes the lead anomaly GC-3l. There appears a possibility that the GC-9z anomaly to the south may also be associated with the GC-5z anomaly, hereby forming an extensive linear to the northwest and parallel to the GC-1s anomaly.

On the west side of the linear fault Ll-EM the zinc anomaly GC-3z appears to have some association with the GC-8z to the northwest and includes the GC-5s silver anomaly and the GC-4L lead anomaly.

Summation of Results:

It becomes apparent when comparing the electromagnetic and the geo-chemical results, the best correlation occurs within the EM-CZ anomalies along the conductive linear CL anomalies. For example geo-chemical enrichment follows closely to the CL-2 linear anomaly within the CZ-2 contour anomaly and includes the geo-chem GC-2z anomaly.

The conductive linear anomalies CL-7 extending to the north aligns with the geo-chem anomaly GC-4z and may well continue to the south within the geo-chem anomaly. The same conditions prevail within the CZ-2-B EM anomaly with the linear anomalies CL-3 to the southwest and CL-6 to the northeast. There is correlation

with the geo-chemical anomaly GC-3s and EM-CZ2-A.

The L1-M magnetic anomaly is not strong, but is consistent with the known fault location. However, the L1-EM anomaly shows more conductivity influence from the drainage, and therefore follows more closely to the drainage pattern.

Correlation may be seen between the magnetometer L4A-M linear anomaly and the geo-chem GC-5z anomaly group.

In the west there seems to be correlation between the magnetometer contact anomaly C4-M, the EM anomaly CZ-3 and the geo-chem anomaly GC-3z.

Conclusions:

The larger geo-chem zinc anomalies indicate geological trends but the anomalies of silver enrichment appear to be more pertinent toward future development.


The linear silver anomaly L2-GC is joined to the old workings (22+00W and 14+00S) by the EM conductive linear CL1. This plus the enriched GC-4s anomaly on the Ross 6 claim, and the GC-2z anomaly on the Ross 3 claim are of the principal interest in this undeveloped area.

The silver anomaly extension to the south within the GC4z anomaly on the Republic #2 claim suggests this area (24+00 - 16+00W) of old workings may be further developed in this direction.

The silver contour anomaly GC-3s is a new area of interest covering portions of the Ross #7 and Ross #9 claims and correlates with the mag linear L4A-M and EM linear CL-3 within the formation anomaly CZ2-A-B. Some caution on drainage influence is necessary on the Ross #9 claim. The D.W. Tully geological report on July 73 indicates contact locations wherever observable between the quartz-feldspar porphyry and the syenite.

Geo-chem enrichment suggests the occurrence is most frequently near these contacts or the interpreted anomalous contacts.

The geo-chem and geo-physical results have supported old workings generally and provide at least four new locations for further development.


D.L. Hings, P. Eng.
Geophysicist

AH

A statement of Costs for ELC GEOPHYSICS LTD. Report
No. ELC-73-305
Republic Property, Slocan, B.C.
For Tandem Resources Ltd.
June 9, 1973 to August 9, 1973

Field Crew

W. Mather	29 days @ 50.00	\$1450.00	
E. Wiggins	27 days @ 40.00	1080.00	
K. Pettersen	8 days @ 50.00	400.00	
J. Krygsveld	21 days @ 40.00	<u>840.00</u>	
			\$ 3770.00

Transportation

4 x 4 truck	29 days @ 12.00	348.00	
1/2 ton truck	27 days @ 10.00	270.00	
4 x 4 mileage	1200 miles @ 12¢	144.00	
1/2 ton mileage	1600 miles @ 10¢	<u>160.00</u>	
			922.00

Living Costs

85 mandays @ 6.00			510.00
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Instrument & Equipment

EM16	27 days @ 10.00	270.00	
Magnetometer	27 days @ 10.00	270.00	
Misc. Supplies	27 days @ 5.00	<u>135.00</u>	
			675.00

Plotting & Drafting

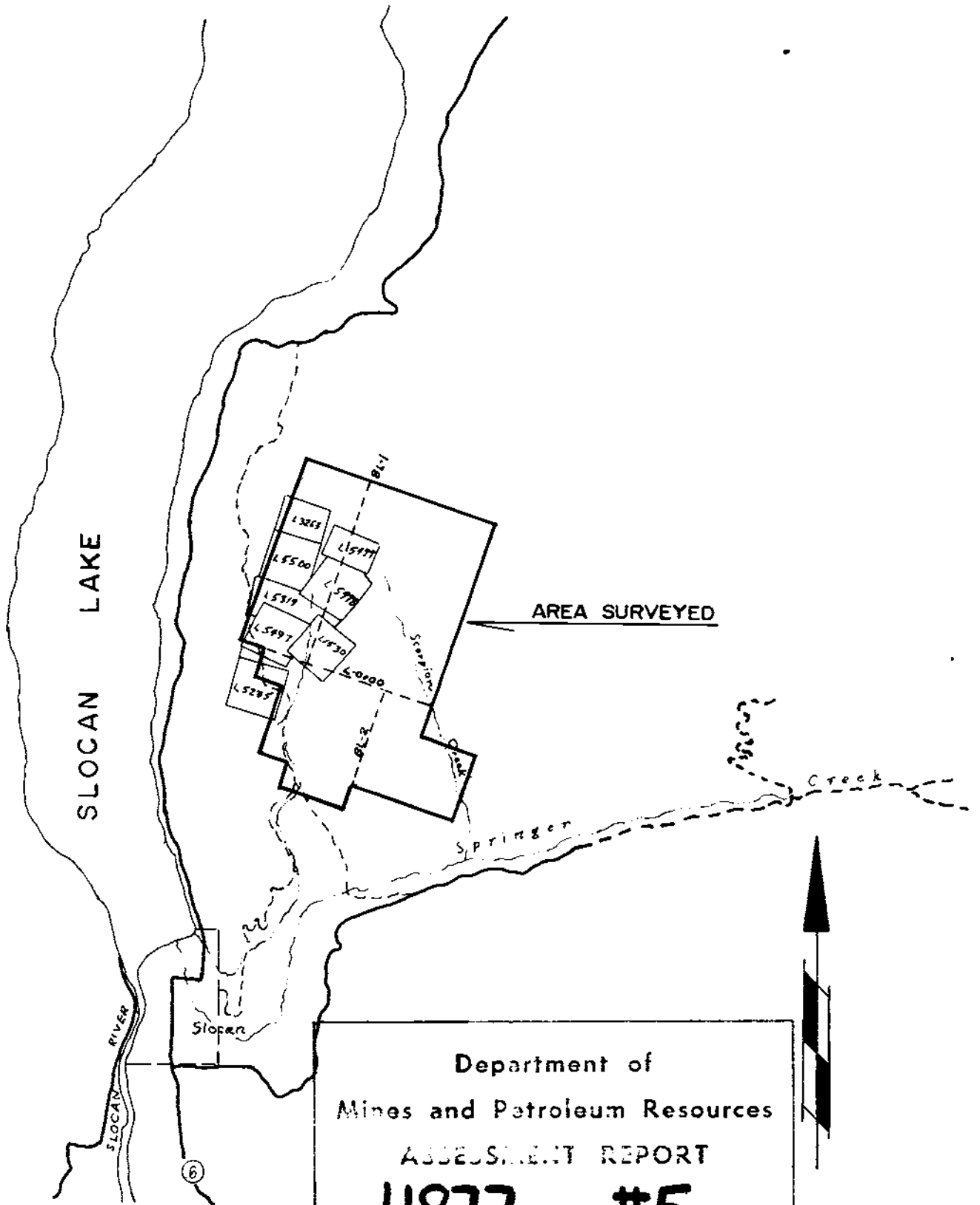
D.A. Cramer	4 days @ 60.00	240.00	
R.R. Reece	10 days @ 60.00	<u>600.00</u>	
			840.00

Interpretation & Report

D.L. Hings, P.Eng.			
4 days @ 125.00			<u>500.00</u>

Soil Determinations

850 samples @ 1.50			<u>1275.00</u>
TOTAL COSTS			<u>\$ 8992.00</u>



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **4877** MAP **#5**

LOCATION MAP

REPUBLIC PROPERTY

TANDEM RESOURCES LTD.

SCALE: 1.25" = 1 MI.

DWG. NO.-ELC-73-305-L

J. C. Kemp

elc geophysics ltd.

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

ELC GEOPHYSICS LTD. REPORT NO. ELC-73-305 OF THE
REPUBLIC PROPERTY FOR TANDEM RESOURCES LTD. LOCATED
TWO MILES NORTHEAST OF SLOCAN, B.C. 117° W - 49° N
JUNE 9 to JULY 25, 1973.

Purpose:

Combined geochemical and geophysical surveys involving electromagnetic and magnetometer methods were conducted over the Republic Property, consisting of the C.G. Bonanza #3, Erin, Erin Fr., Sunlight Fr., Republic #2, Bell #2, Black Bess, VE Fr., American Eagle and Ross 1 to 19. This claims group has old workings, dating back to the beginning of the century, with records of shipments of lead, zinc and silver. The survey was made to determine the possible whereabouts of additional ore and extended mineralized formations for the purpose of further development of the property.

Location:

The Republic Property covers the Climax and Scorpion Creeks, approximately two miles north of Slocan City and one mile east of Slocan Lake and is principally confined to the highlands. See plan No. ELC-73-305-L.

...2

Instrumentation:

The electromagnetic survey was conducted with a type EM16 Ronka instrument operating on 18.6 KHZ from the US navy station NPG located in Arlington, Washington, USA.

The Magnetometer survey was conducted using a vertical field fluxgate self-levelling instrument Model M-110 manufactured by Sabre Electronics of Vancouver, B.C.

The soil samples 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. The determinations were made by Acme Analytical Laboratories Ltd. Burnaby, B.C.

Geological Reference:

Geological report on the Republic Property Slocan Mining Division, Slocan, B.C. By Donald W. Tully, P. Eng. for Tandem Resources Ltd., July 30, 1973.

73-305

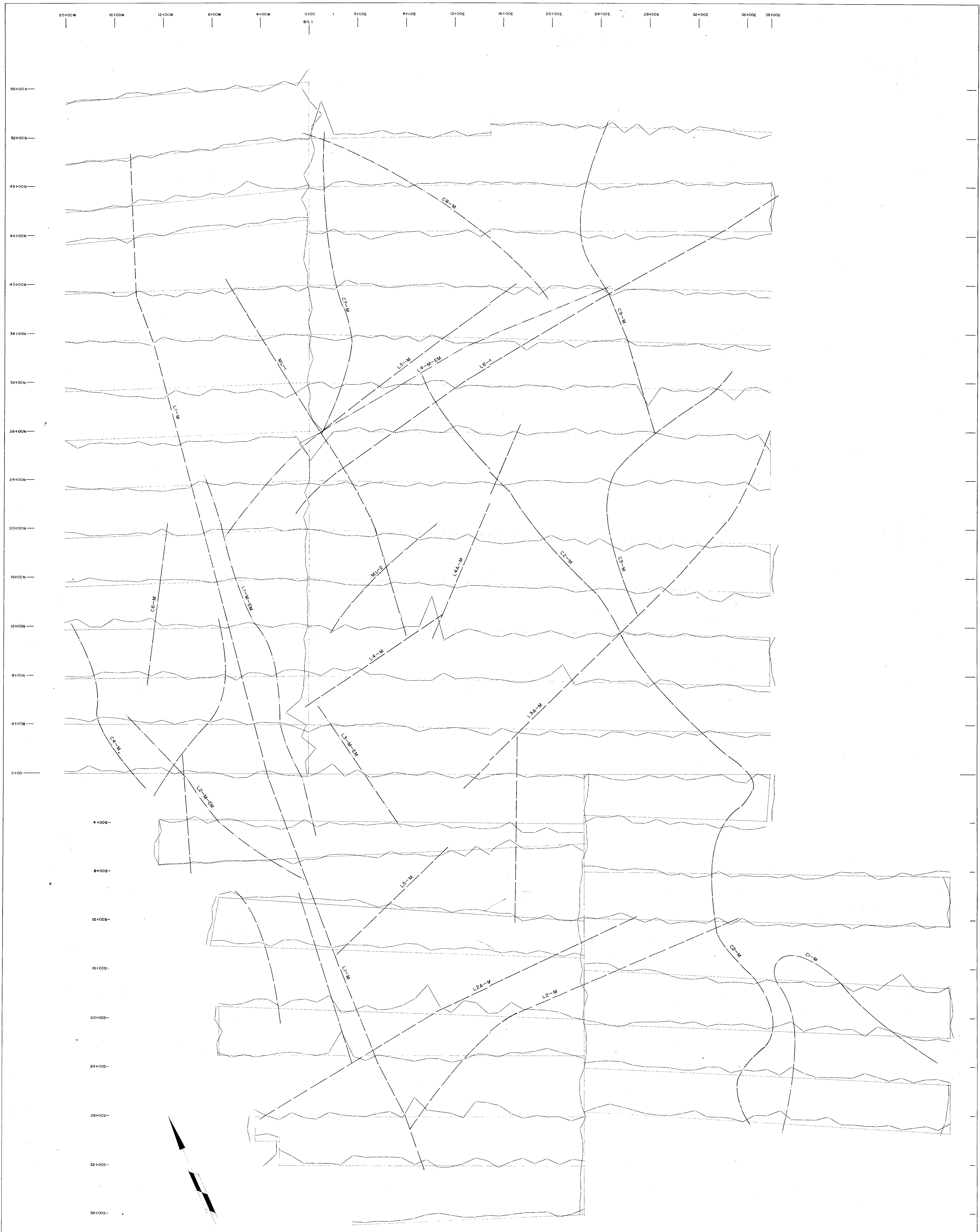
Presentation:

The survey is presented in five plans showing the grid layout on the EM, Mag and geo-chemical plans, and indicating their respective values. Plan 73-305-M shows the magnetometer profile values and related linear anomalies. Plan 73-305-EM shows the two component profile values with related contour and linear anomalies. Plan 73-305-GC shows the geo-chemical determination values of lead, zinc and silver in parts per million and their respective location. Plan 73-305-GC-A shows geo-chemical contour anomalies and includes the claims, surface roads, drainage and old workings.. Plan 73-305-L shows the geographic location of the claims group.

A total of 27.6 miles of line was surveyed with the station spacing at 100 foot intervals and the line spacing approximately 400 feet.

Personnel:

EM operator, W. Mather, magnetometer operator E. Wiggins, soil by J. Krygsveld and K. Pettersen.



35+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0+00 4+00E 8+00E 12+00E 16+00E 20+00E 24+00E 28+00E 32+00E 36+00E 38+00E

ELC GEOPHYSICS LTD
 REPUBLIC PROPERTY SLOCAN, B.C.
 TANDEM RESOURCES LTD
 JULY 1973 SCALE-1:200 DWG NO-73-305-M
 MAG. PROFILES

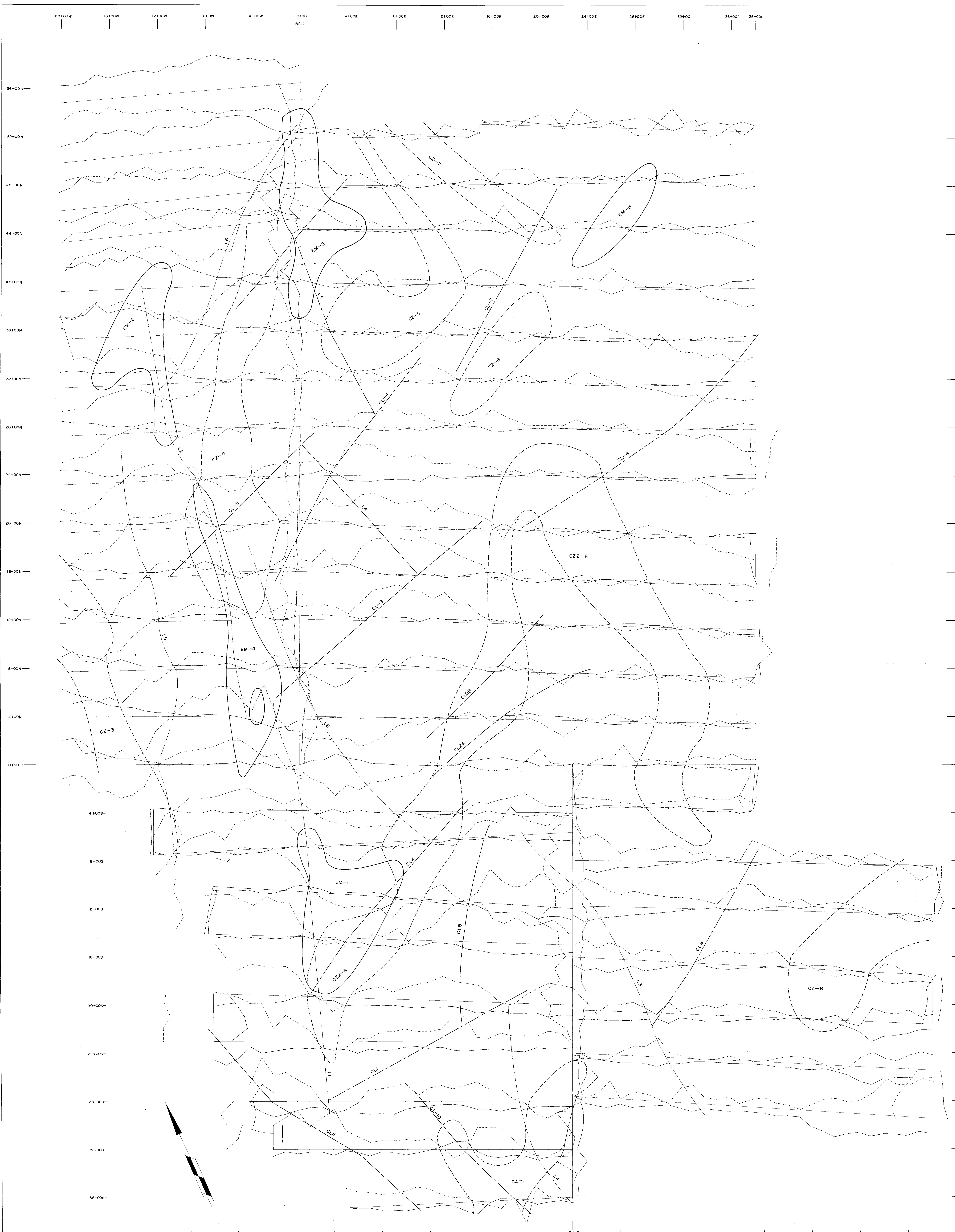
4877 #1

NOTE:
 SURVEY LINES & STATIONS
 ZERO LINE=55,500 GAMMAS
 1"=500 GAMMAS

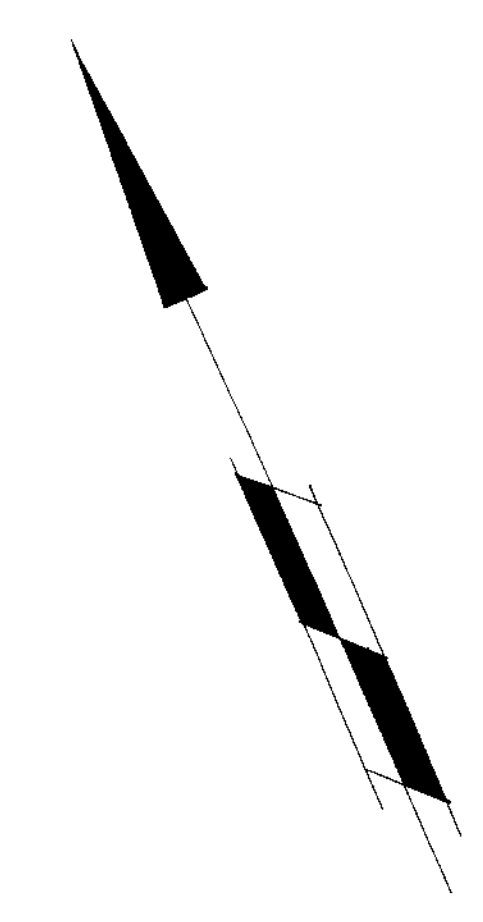
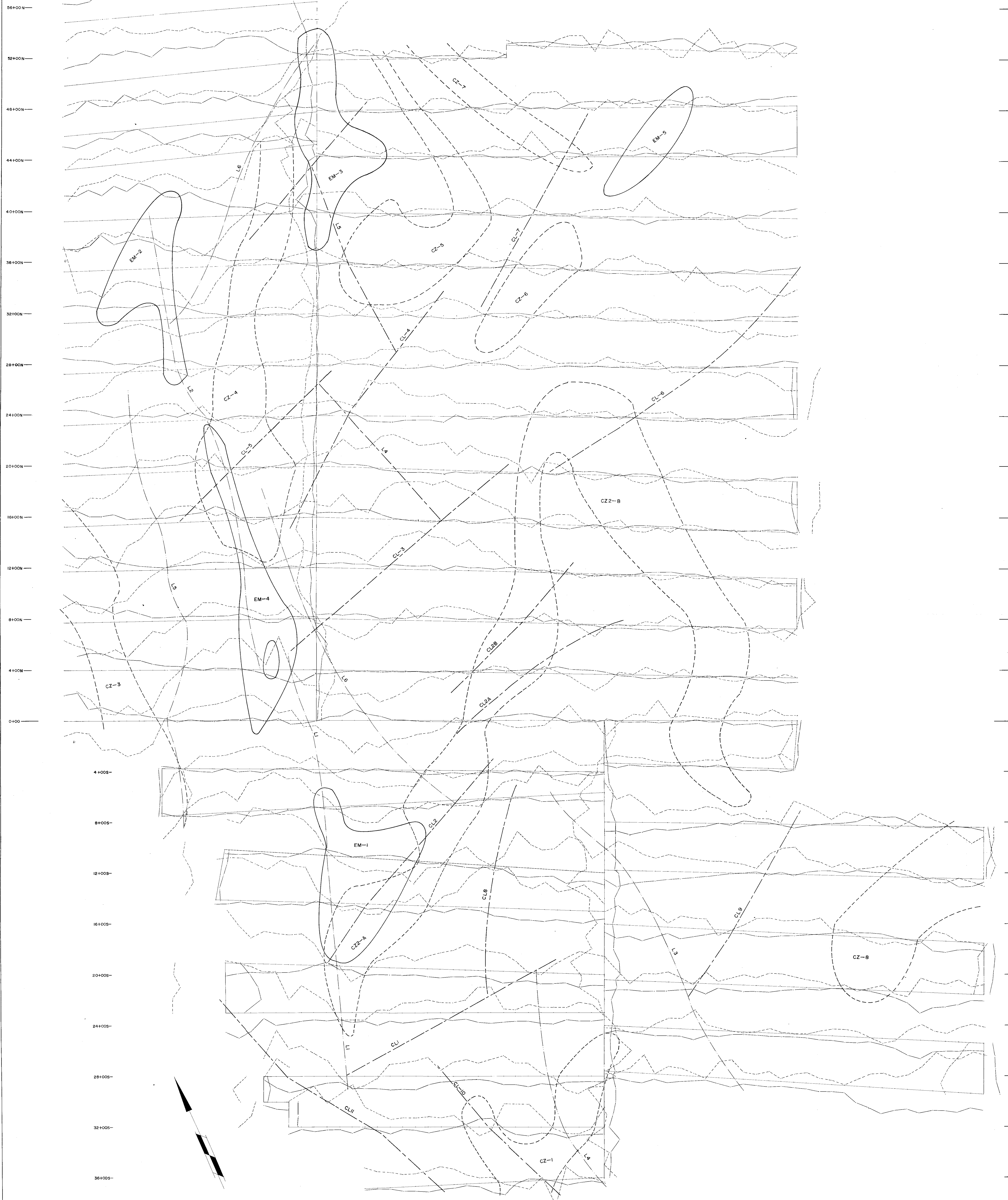
- FORMATION CHANGES
- FRACTURING & FAULTING
- EM & MAG LINEAR ANOMALIES
- MAG LINEAR ANOMALIES

4877 M1

APPROVED *[Signature]*



20+00W 16+00W 12+00W 8+00W 4+00W 0+00 B/L1 4+00E 8+00E 12+00E 16+00E 20+00E 24+00E 28+00E 32+00E 36+00E 38+00E



4+00S
8+00S
12+00S
16+00S
20+00S
24+00S
28+00S
32+00S
36+00S

35+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0+00 B/L2 4+00E 8+00E 12+00E 16+00E 20+00E 24+00E 28+00E

ELC GEOPHYSICS LTD.
REPUBLIC PROPERTY SLOCAN, B.C.
TANDEM RESOURCES LTD.
JULY 1973 SCALE: 1"=200' DWG NO: 73-305-EM
EM PROFILES

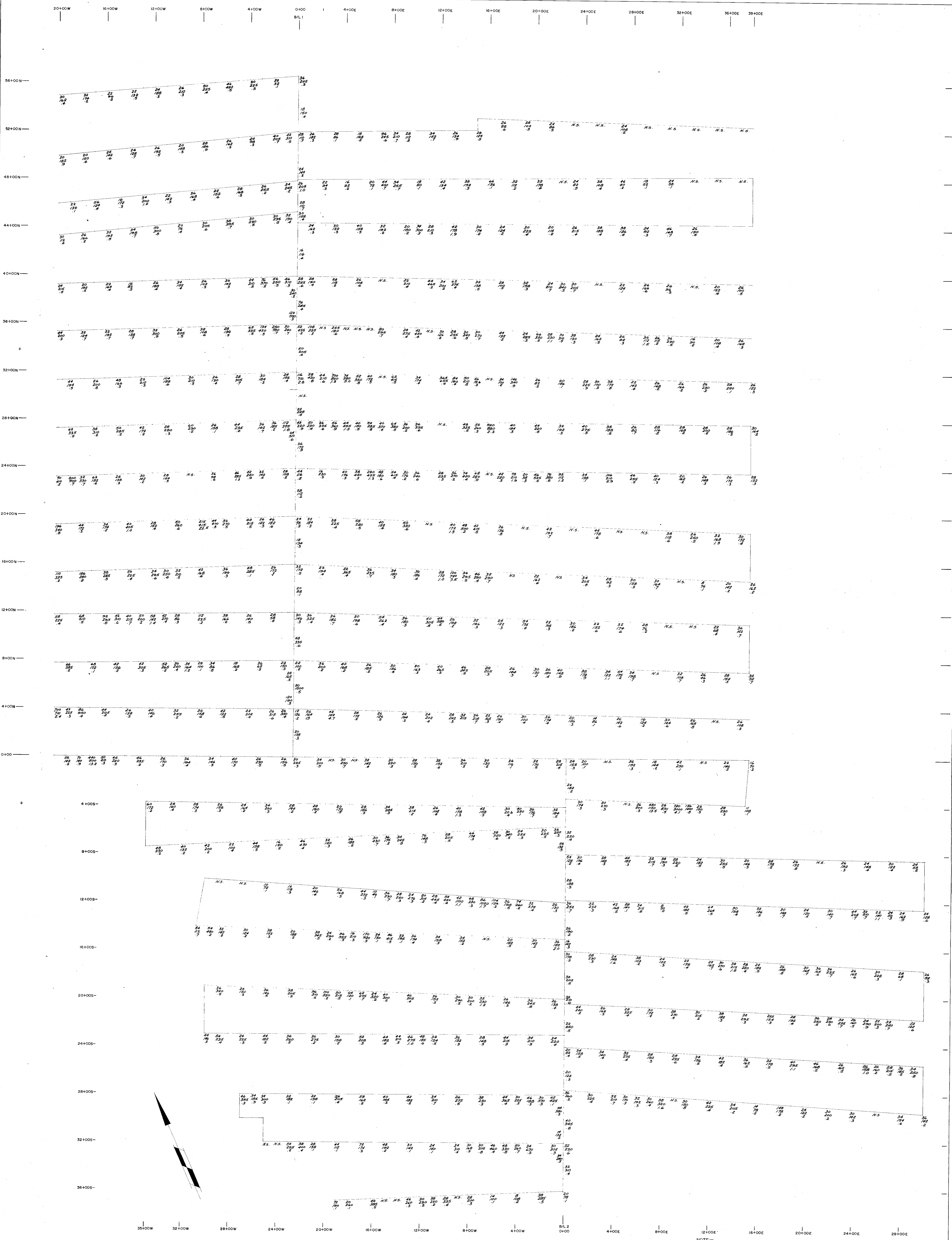
Department of
Mines and Technical Surveys
4877 #2

NOTE:
SURVEY LINES & STATIONS
ZERO LINE
IN PHASE (1"=100%)
QUADRATURE (1"=20%)

CL = CONDUCTIVE LINEAR ANOMALY
SL = STRUCTURAL LINEAR
EM = CONDUCTIVE ZONE
CZ = FORMATION CHANGE

4877M2

APPROVED *J. King*

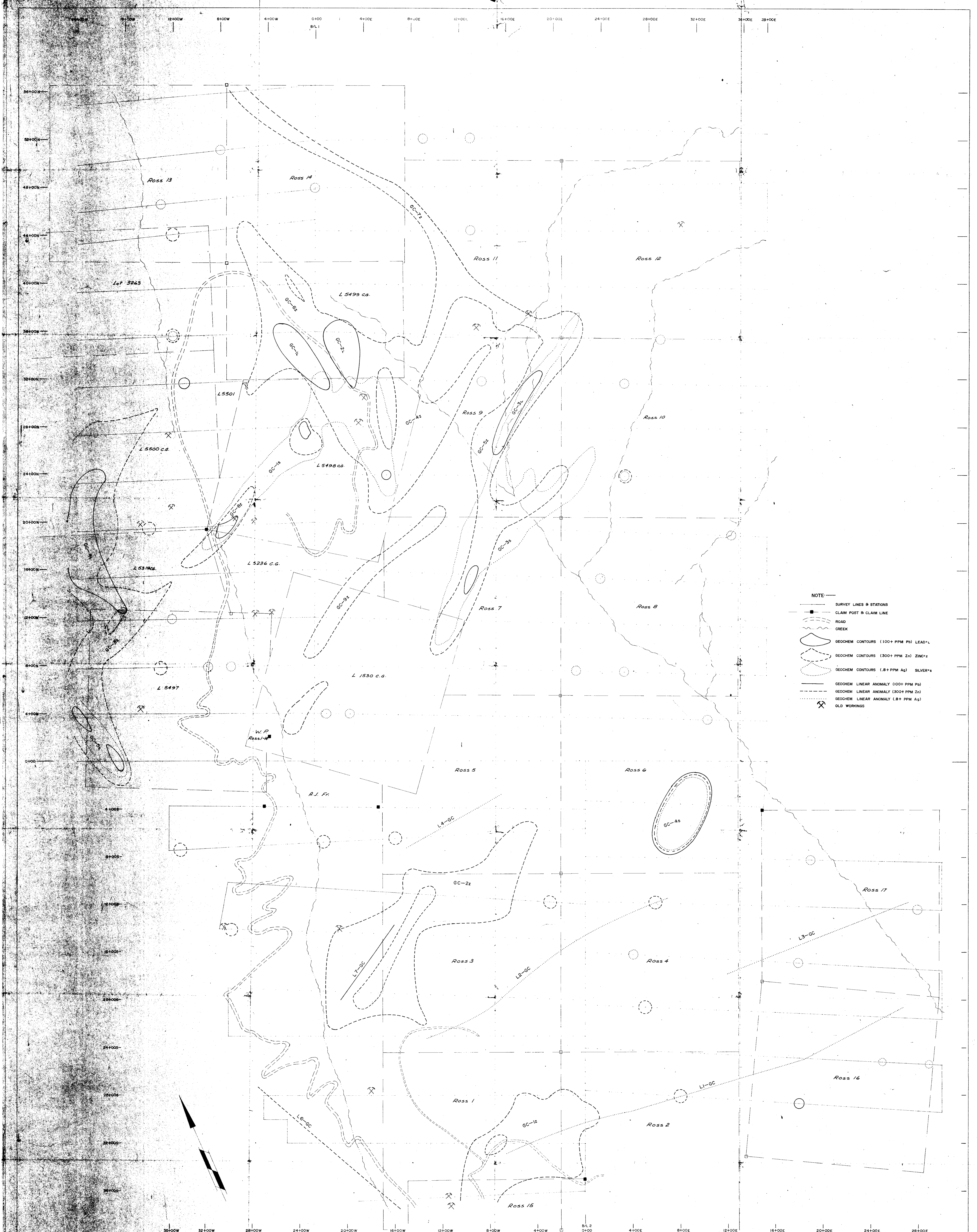


NOTE — SURVEY LINES & STATIONS
 — 20 — PPM — PB
 — 285 — PPM — 74
 — 2 — PPM — AG

ELC GEOPHYSICS LTD. Department of Mines and Technical Surveys
 REPUBLIC PROPERTY SLOCAN, B.C. TANDEM RESOURCES LTD.
 JULY 1973 SCALE: 1"=200' DWG. NO.—73—305—GC
 GEOCHEM
 APPROVED *[Signature]*

4877 #3

4877 MB



- NOTE
- SURVEY LINES & STATIONS
 - CLAIM POST & CLAIM LINE
 - ROAD
 - ~ CREEK
 - GEOCHEM CONTOURS (100+ PPM Pb) LEAD+L
 - GEOCHEM CONTOURS (300+ PPM Zn) ZINC+Z
 - GEOCHEM CONTOURS (.8+ PPM Ag) SILVER+*
 - GEOCHEM LINEAR ANOMALY (100+ PPM Pb)
 - GEOCHEM LINEAR ANOMALY (300+ PPM Zn)
 - GEOCHEM LINEAR ANOMALY (.8+ PPM Ag)
 - ✕ OLD WORKINGS

Department of
Mines and Geotechnical Services
REPUBLIC PROPERTY
NO. 4877 #4

ELC GEOPHYSICS LTD
REPUBLIC PROPERTY SLOCAN, B.C.
TANDEM RESOURCES LTD
JULY 1973 SCALE=1"=200' DWG NO-73-305-GC-A

4877 MA

APPROVED