

2569

GEOCHEMICAL REPORT ON
C AND Z CLAIM GROUPS
CHUTANLI, BRITISH COLUMBIA

73 F/7E

M. B. Mehrtens, Ph.D. Vancouver, B.C.
Jon G. Baird, B.Sc., P.Eng. August, 1970

Surveys executed by
Rio Tinto Canadian Exploration Limited

CLAIMS:

<u>Names</u>	<u>Record Numbers</u>
C 71 to 94 incl	75761 to 75784 incl.
C 95 to 126 incl.	76223 to 76254 incl.
C 145 to 180 incl.	81706 to 81741 incl.
Z 1 to 44 incl.	82379 to 82422 incl.

LOCATION:

1½ miles to 6 miles west of the west end of
Chutanli Lake

NTS 93-F-7
124° 53° SW
Omineca Mining Division

DATES:

May 30 to June 24, 1970

GEOCHEMICAL REPORT ON THE 'C' AND 'Z'
CLAIM GROUPS, CHUTANLI
N.T.S. 93-F-7

M.B. Mehrtens, PhD.
Jon.G. Baird, BSc., P.Eng.

Vancouver, B.C.
August, 1970

Claims held by Rio Tinto Canadian
Exploration Limited.

Work carried out between
May 30 and June 24, 1970

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Soils - Chutanli Area 2

LIST OF ILLUSTRATIONS

<u>Drawing No.</u>	<u>Title</u>	<u>Scale</u>	
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GC-8087 #12	Claim Map Showing Sample Locations and Number	1" = 800ft.	In Pocket
GC-8088 #13	C and Z Claims: Distribution of Cu in Soils	1" = 800ft.	"
GC-8089 #14	C and Z Claims: Distribution of Mo in Soils	1" = 800ft.	"
GC-8091 #16	C and Z Claims: Distribution of Pb in Soils	1" = 800ft.	"
GC-8092 #17	C and Z Claims: Distribution of Zn in Soils	1" = 800ft.	"
GC-8090 #15	C and Z Claims: Distribution of Ni in Soils	1" = 800ft.	"

Department of
Mineral and Petroleum Resources
ASSESSMENT REPORT
NO. 2569 MAP

GEOCHEMICAL REPORT ON THE 'C' AND 'Z' CLAIM GROUPS

CHUTANLI, B.C.

LOCATION AND ACCESS:

The property consists of 136 claims situated within N.T.S. 93-F-6 at latitude 53°20' and longitude 124°24'.

The claims are located within the Nechacko Range, their centre being 4 miles due west of Chutanli Lake and 70 air miles south of the town of Burns Lake (see drawing No.L-6010A).

Access is by aircraft.

GEOLOGICAL SETTING:

The Nechacko Range consists essentially of sediments, lavas and pyroclastics of the Hazelton and possibly Takla Groups. The Chutanli granodiorite is intruded into these rocks and part of the northern boundary of this intrusive lies within the claimed ground. (The reader is referred to Mem. Geol. Surv. Canada, No. 324, 1963.)

Overburden of glacial moraine obscures much of the bedrock; the moraine having been deposited by sheet ice which appears to have moved towards the northeast.

SAMPLING, SAMPLE PREPARATION & ANALYTICAL PROCEDURES:

The geochemical sampling was carried out from a fly-camp located on the property. The field work being supported by helicopter from the Capoose base camp situated 28 air miles to the west.

Soil samples from the 'B' horizon were collected at 200 ft. intervals along lines approximately 700 ft. apart. In certain peripheral areas of the claim groups however, the line spacing was up to 2800 ft.

SAMPLING, SAMPLE PREPARATION & ANALYTICAL PROCEDURES: (Cont'd)

At each sample station an entrenching tool was used to obtain the sample which was then placed in a kraft paper envelope. The samples were oven dried at temperature not exceeding 60°C and sieved through 80 mesh bolting cloth; the oversize fraction being discarded.

Analysis was by atomic absorption spectrometer after digestion of the sample with hot concentrated nitric and perchloric acids in the company's Vancouver Laboratory. The results for Cu, Mo, Pb, Zn and Ni expressed in ppm were obtained by analyst Mr. E. Paski, Jr.

GEOCHEMICAL RESULTS:

1272 soil samples were collected from the claims within the 'C' and 'Z' groups. All samples came from within freely drained overburden.

The sample numbers and their location are shown in drawing No. GC-8087 and the distribution of Cu, Mo, Pb, Zn and Ni in 'B' horizon soils are illustrated in drawings GC-8088, 8089, 8091, 8092, 8090 respectively.

From inspection of the data threshold levels for each of the metals investigated were derived (Table 1) and these were used in the interpretation of the results.

TABLE 1
THRESHOLD METAL VALUES IN 'B' HORIZON SOILS,
CHUTANLI AREA

<u>Metal</u>	<u>Threshold Level (ppm)</u>
Cu	40
Mo	5
Pb	15
Zn	150
Ni	50

GEOCHEMICAL RESULTS: (Cont'd)

The major features of the metal distribution patterns are as follows:

1. Strongly anomalous Mo values (i.e. greater than 15ppm) define an area 4000 x 2000 ft. which is elongated NW-SE. Peak values up to 240 ppm are recorded. This area is surrounded by slightly less molybdeniferous soil as indicated by the 5 ppm Mo isopleth. The latter outlines a very extensive area (broadly 8000 x 8000 ft.) strongly elongated NE-SW in the direction of the latest glacial transport.
2. Anomalous Cu values have a relatively restricted occurrence, but where present coincide with the strongly anomalous Mo results.
3. Scattered higher than average Pb and Zn values are located in a zone peripheral to the Mo-Cu centre.
4. Ni is within the limits of background over the area sampled.

DISCUSSION OF RESULTS AND TENTATIVE CONCLUSIONS:

The intense Mo-Cu soil anomaly is developed over siliceous and pyritic rocks (which are possibly highly altered volcanics and tuffs) on the northern border of the Chutanli granodiorite.

The overall pattern of the Mo soil anomaly indicates a strong north-easterly component of glacial transport. The peak Mo values however, occur in a zone oriented at right angles to the glacial transport direction. The NW-SE direction approximates roughly to the presumed strike of the bedrock.

DISCUSSION OF RESULTS AND TENTATIVE CONCLUSIONS: (Cont'd)

There is a distinct possibility that the peak Mo values have been introduced into the overburden predominantly via the groundwaters, which would imply that the mineralized bedrock zone is located a short distance upslope, that is to say, northeast.

The gross geochemical patterns suggest the presence of porphyry Mo mineralization.

RIO TINTO CANADIAN EXPLORATION
LIMITED

M. B. Mehrtens,

M. B. Mehrtens, PhD.

SEIGEL ASSOCIATES LIMITED

Jon G. Baird

Jon G. Baird, B.Sc., P. Eng.

Vancouver, B.C.
August, 1970

CHUTANLI PROJECT'Z' CLAIMS

<u>Claim No.</u>	<u>Record No.</u>	<u>Date Recorded</u>
Z - 1	82379	19-11-69
Z - 2	80	"
Z - 3	81	"
Z - 4	82	"
Z - 5	83	"
Z - 6	84	"
Z - 7	85	"
Z - 8	86	"
Z - 9	87	"
Z - 10	88	"
Z - 11	89	"
Z - 12	82390	"
Z - 13	91	"
Z - 14	92	"
Z - 15	93	"
Z - 16	94	"
Z - 17	95	"
Z - 18	96	"
Z - 19	97	"
Z - 20	98	"
Z - 21	99	"
Z - 22	82400	"
Z - 23	01	"
Z - 24	02	"
Z - 25	03	"
Z - 26	04	"
Z - 27	05	"
Z - 28	06	"
Z - 29	07	"
Z - 30	08	"
Z - 31	09	"
Z - 32	82410	"
Z - 33	11	"
Z - 34	12	"
Z - 35	13	"
Z - 36	14	"
Z - 37	15	"
Z - 38	16	"

'Z' CLAIMS (Cont'd)

<u>Claim No.</u>	<u>Record No.</u>	<u>Date Recorded</u>
Z - 39	82417	19-11-69
Z - 40	18	"
Z - 41	19	"
Z - 42	82420	"
Z - 43	21	"
Z - 44	22	"

CHUTANLI PROJECT'C' CLAIMS

<u>Claim No.</u>	<u>Record No.</u>	<u>Date Recorded</u>
C - 71	75761	26-6-69
C - 72	62	"
C - 73	63	"
C - 74	64	"
C - 75	65	"
C - 76	66	"
C - 77	67	"
C - 78	68	"
C - 79	69	"
C - 80	75770	"
C - 81	71	"
C - 82	72	"
C - 83	73	"
C - 84	74	"
C - 85	75	"
C - 86	76	"
C - 87	77	"
C - 88	78	"
C - 89	79	"
C - 90	75780	"
C - 91	81	"
C - 92	82	"
C - 93	83	"
C - 94	84	"
C - 95	76223	10-7-69
C - 96	24	"
C - 97	25	"
C - 98	26	"
C - 99	27	"
C - 100	28	"
C - 101	29	"
C - 102	76230	"
C - 103	31	"
C - 104	32	"
C - 105	33	"
C - 106	34	"
C - 107	35	"
C - 108	36	"

'C' CLAIMS (Cont'd)

<u>Claim No.</u>	<u>Record No.</u>	<u>Date Recorded</u>
C - 109	76237	10-7-69
C - 110	38	"
C - 111	39	"
C - 112	76240	"
C - 113	41	"
C - 114	42	"
C - 115	43	"
C - 116	44	"
C - 117	45	"
C - 118	46	"
C - 119	47	"
C - 120	48	"
C - 121	49	"
C - 122	76250	"
C - 123	51	"
C - 124	52	"
C - 125	53	"
C - 126	54	"
C - 145	81706	29-10-69
C - 146	07	"
C - 147	08	"
C - 148	09	"
C - 149	81710	"
C - 150	11	"
C - 151	12	"
C - 152	13	"
C - 153	14	"
C - 154	15	"
C - 155	16	"
C - 156	17	"
C - 157	18	"
C - 158	19	"
C - 159	81720	"
C - 160	21	"
C - 161	22	"
C - 162	23	"
C - 163	24	"
C - 164	25	"
C - 165	26	"
C - 166	27	"
C - 167	28	"

'C' CLAIMS (Cont'd)

<u>Claim No.</u>	<u>Record No.</u>	<u>Date Recorded</u>
C - 168	81729	29-10-69
C - 169	81730	"
C - 170	31	"
C - 171	32	"
C - 172	33	"
C - 173	34	"
C - 174	35	"
C - 175	36	"
C - 176	37	"
C - 177	38	"
C - 178	39	"
C - 179	81740	"
C - 180	41	"

TO ACCOMPANY ASSESSMENT REPORT: 'C' AND 'Z' CLAIM GROUPSQUALIFICATIONS - M.B. MEHRTENS:Academic

1957	B.Sc.	Honours Geology:	Hull University, England.
1966	DIC	Applied Geochemistry:	Royal School of Mines, Imperial College, England.
1966	Ph.D	Applied Geochemistry:	Royal School of Mines, Imperial College, England.

Practical

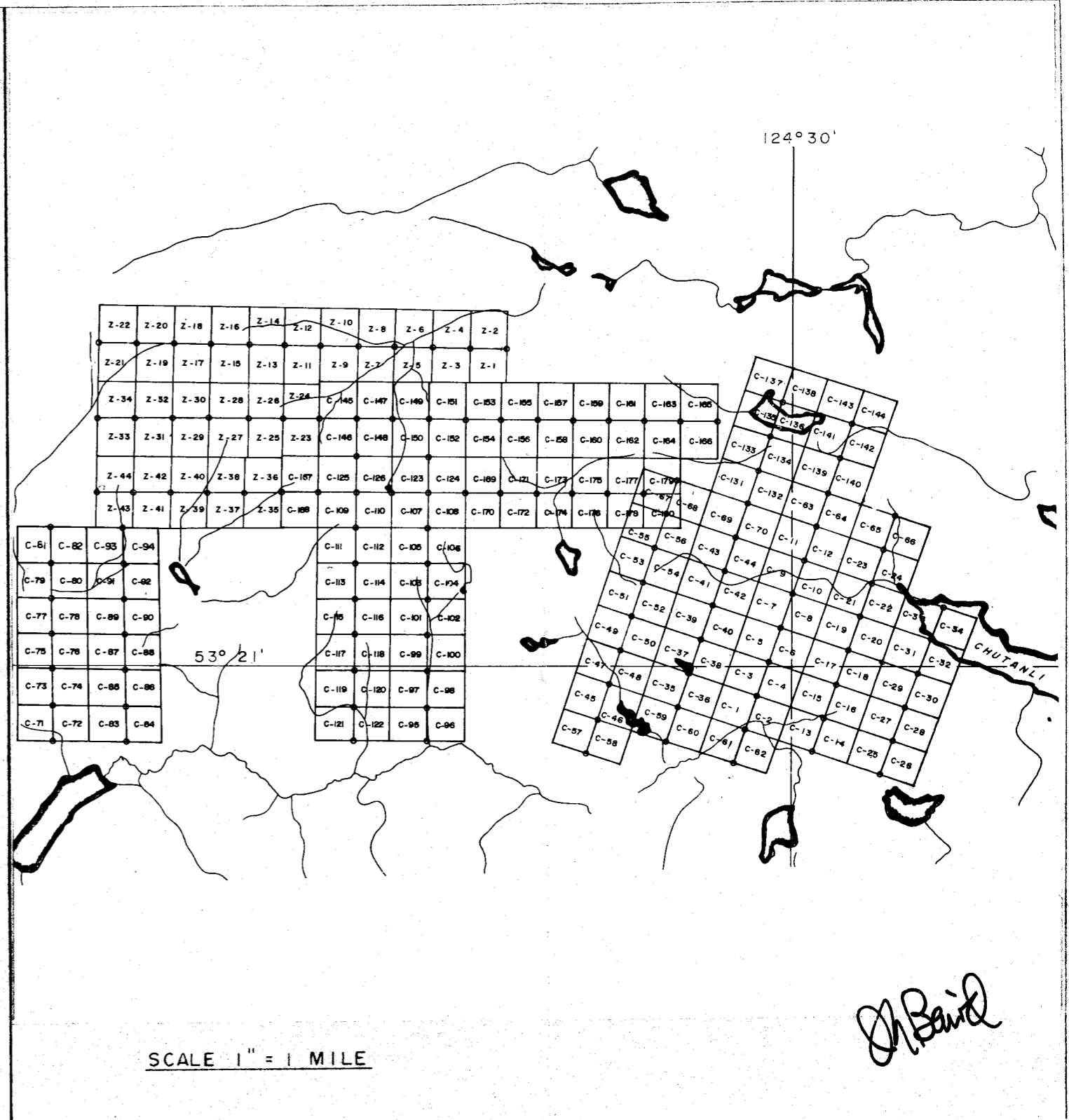
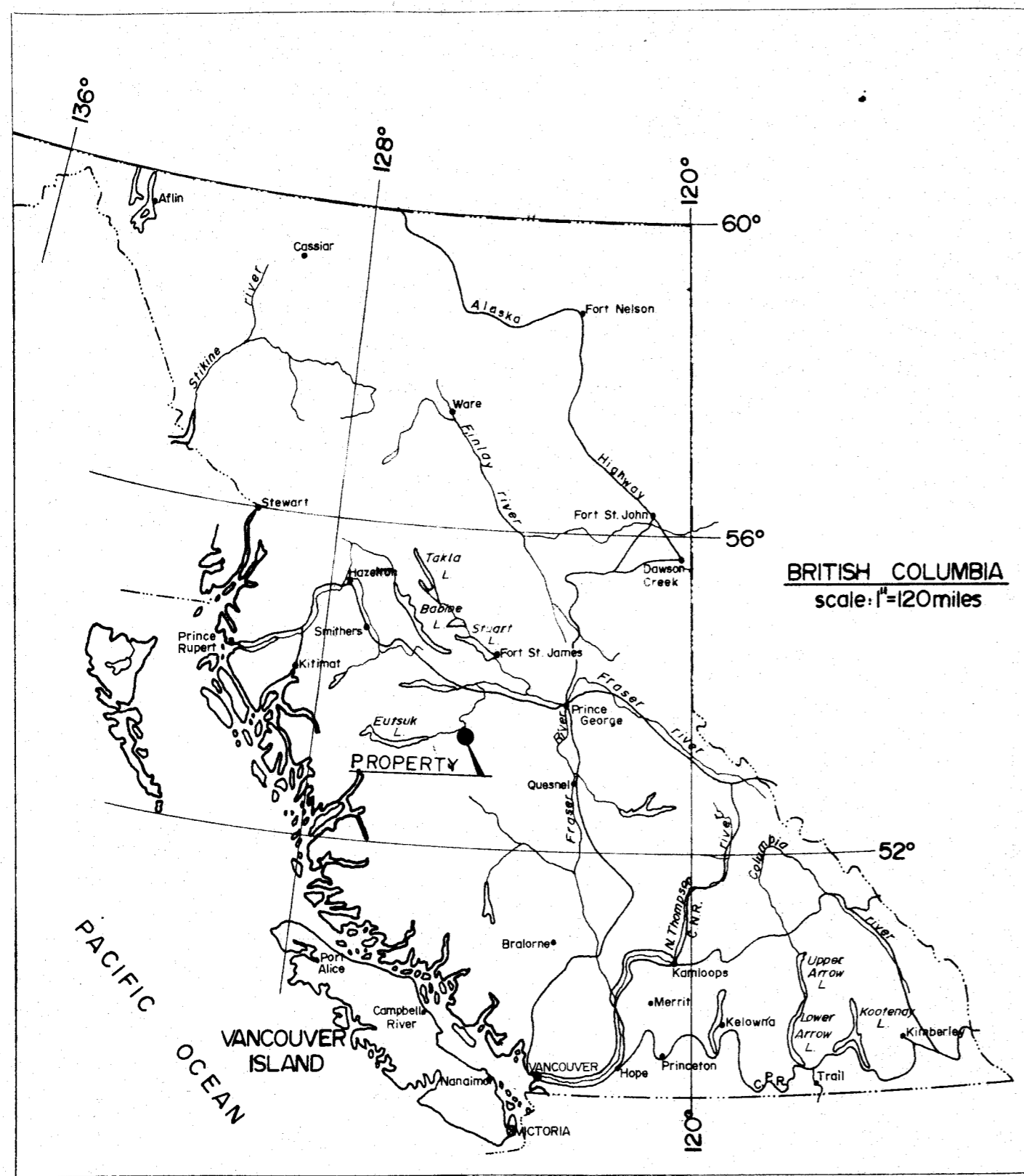
1957 - 1961	Exploration Geologist:	Zambia for Anglom American Corp. of S. Africa Ltd.
1961 - 1963	Mine Geologist:	President Steyn Gold Mining Co. Ltd., South Africa.
1963 - 1966	Ph.D. Field Work:	In Central Norway.
1966 - 1968	Base Metal Exploration in U.K.:	Rio Tinto Finance & Exploration Ltd.
1968 - 1970	Consulting Geochemist:	Rio Tinto Canadian Exploration Ltd.

QUALIFICATIONS - A. TROUP:Academic

1967	B.Sc.	Honours Geology:	McMaster University, Ontario.
1969	MSc.	Geochemistry:	McMaster University, Ontario.

Practical

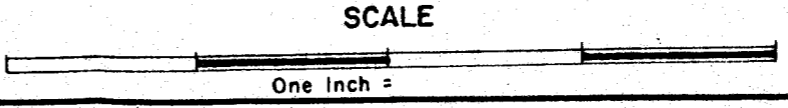
1964 - 1966	Geological Mapping & Geochemical Expl.	Student vacation work
1967 - 1970	Geologist-Geochemist:	Placer Development and Rio Tinto Canadian Exploration Ltd.

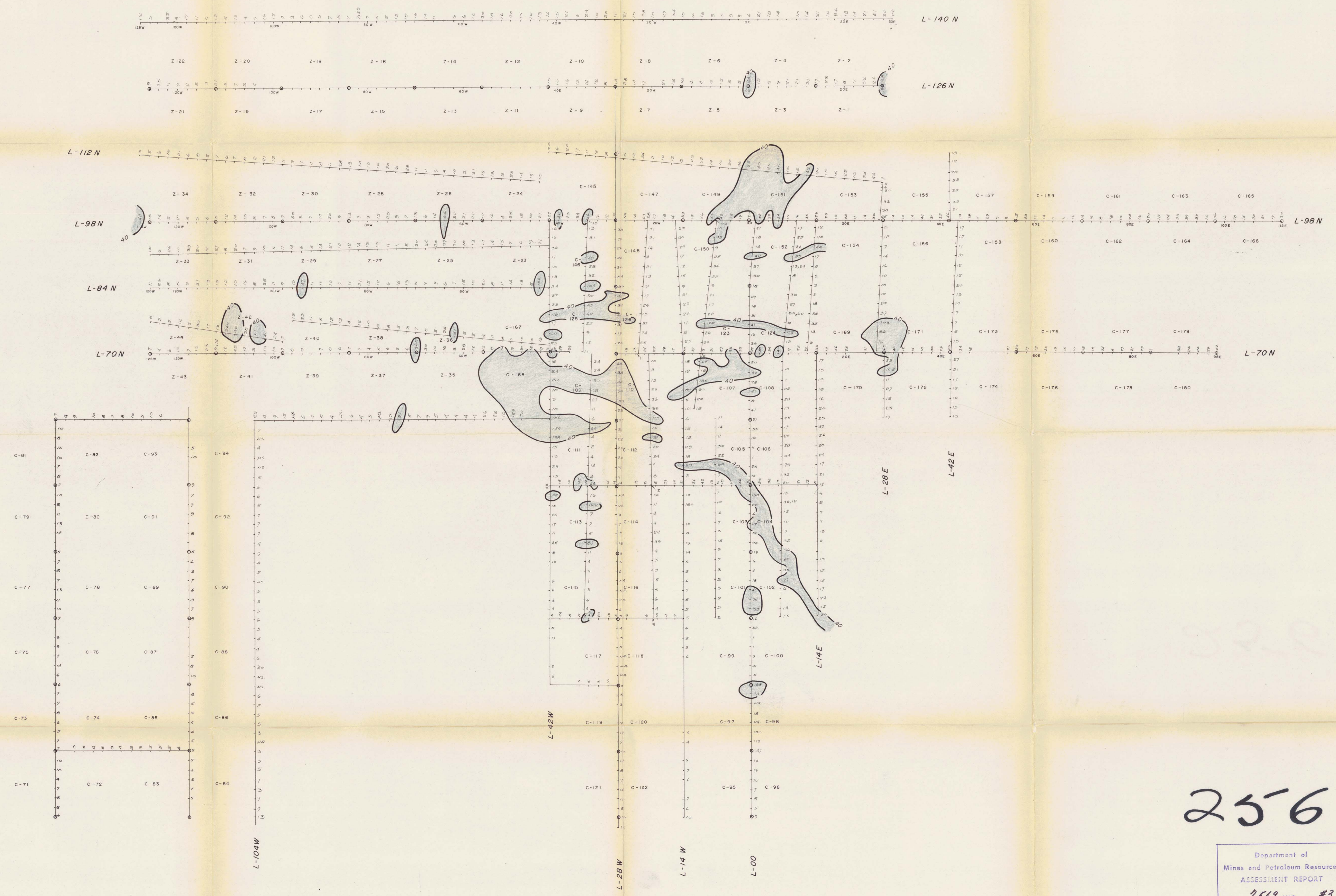


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ASSESSMENT REPORT
NO. 2569 MAP #1

NTS
93-F-7,8

RIO TINTO CANADIAN EXPLORATION LTD.
CHUTANLI LAKE PROJECT B.C.
LOCATION MAP
AUG. 70 /rwr DWG. L-6010A



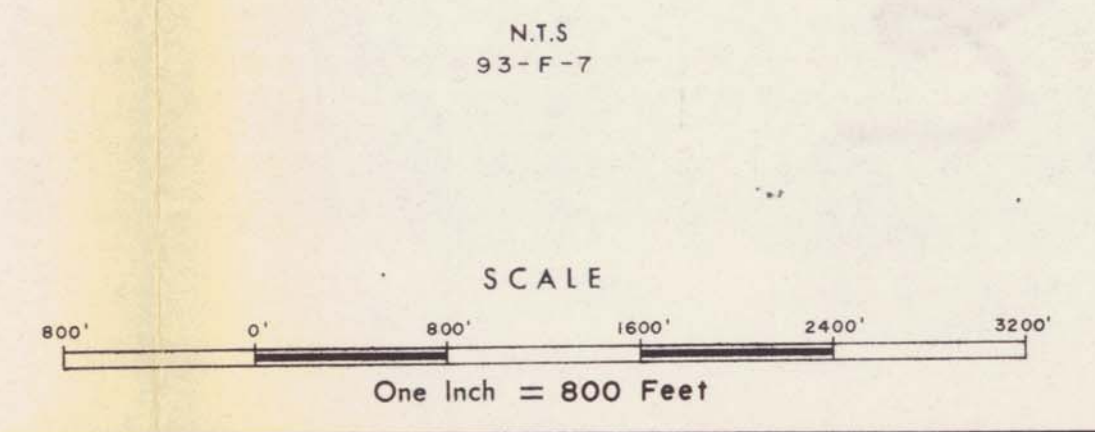


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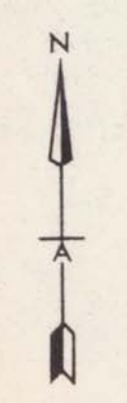
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ASSESSMENT REPORT
NO. 2569 MAP #3

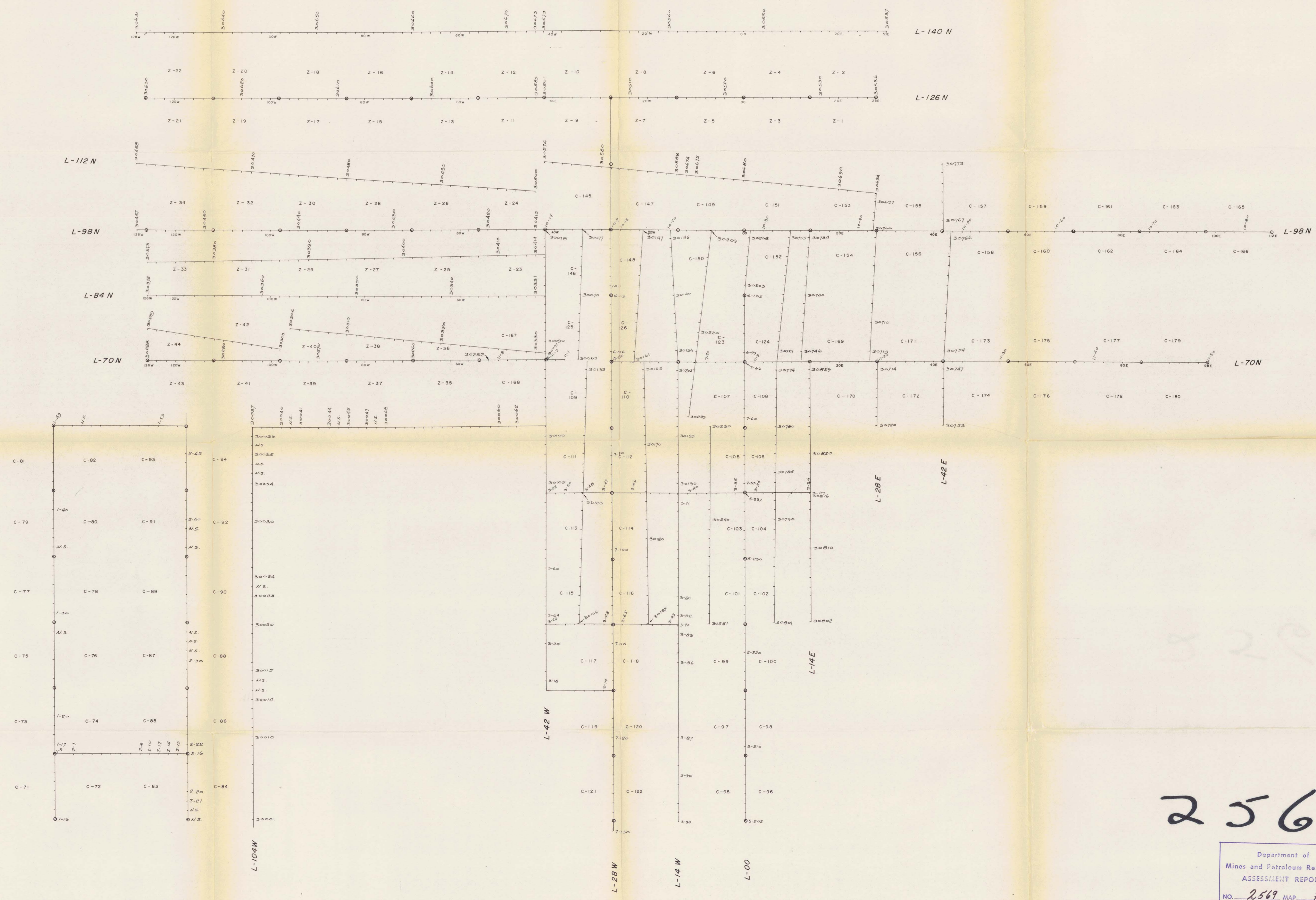
ABand

LEGEND
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RIO TINTO CANADIAN EXPLORATION LIMITED
CHUTANLI PROJECT BC.
C & Z CLAIMS
GEOCHEM. MAP SHOWING
Cu RESULTS IN P.P.M.
JULY, 70 AT./r.w.r. DWG. GC-8088

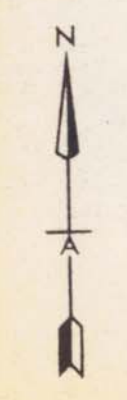




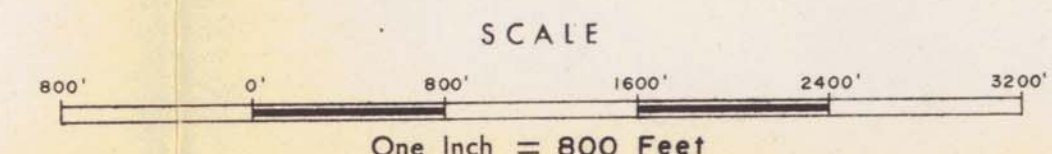
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N.T.S.
93-F-7



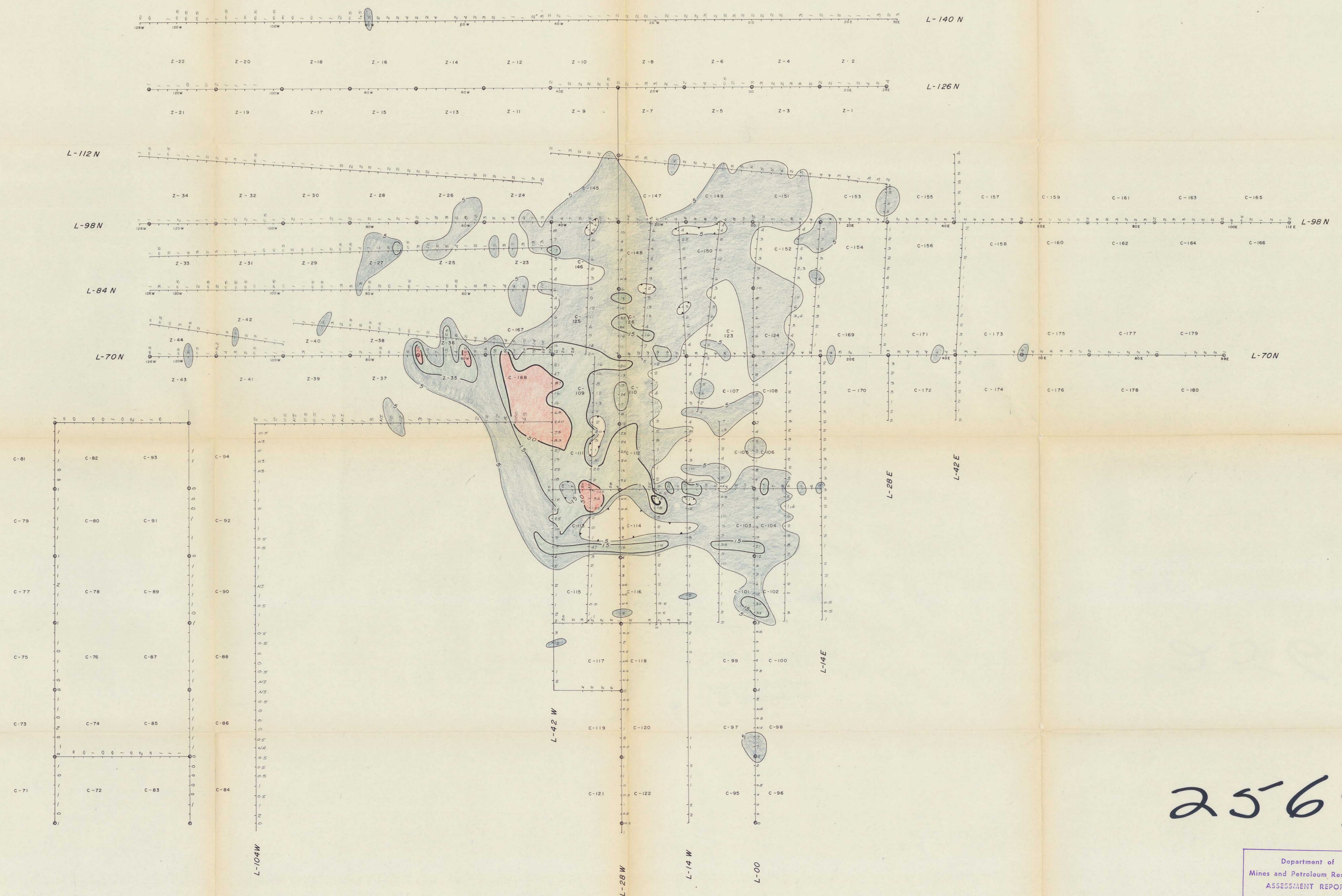
RIO TINTO CANADIAN EXPLORATION LIMITED

CHUTANLI PROJECT B.C.

CBZ CLAIMS

SAMPLE LOCATIONS

JULY, 70 AT. /r.w.r. DWG. GC-8087



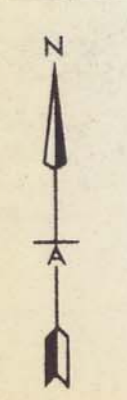
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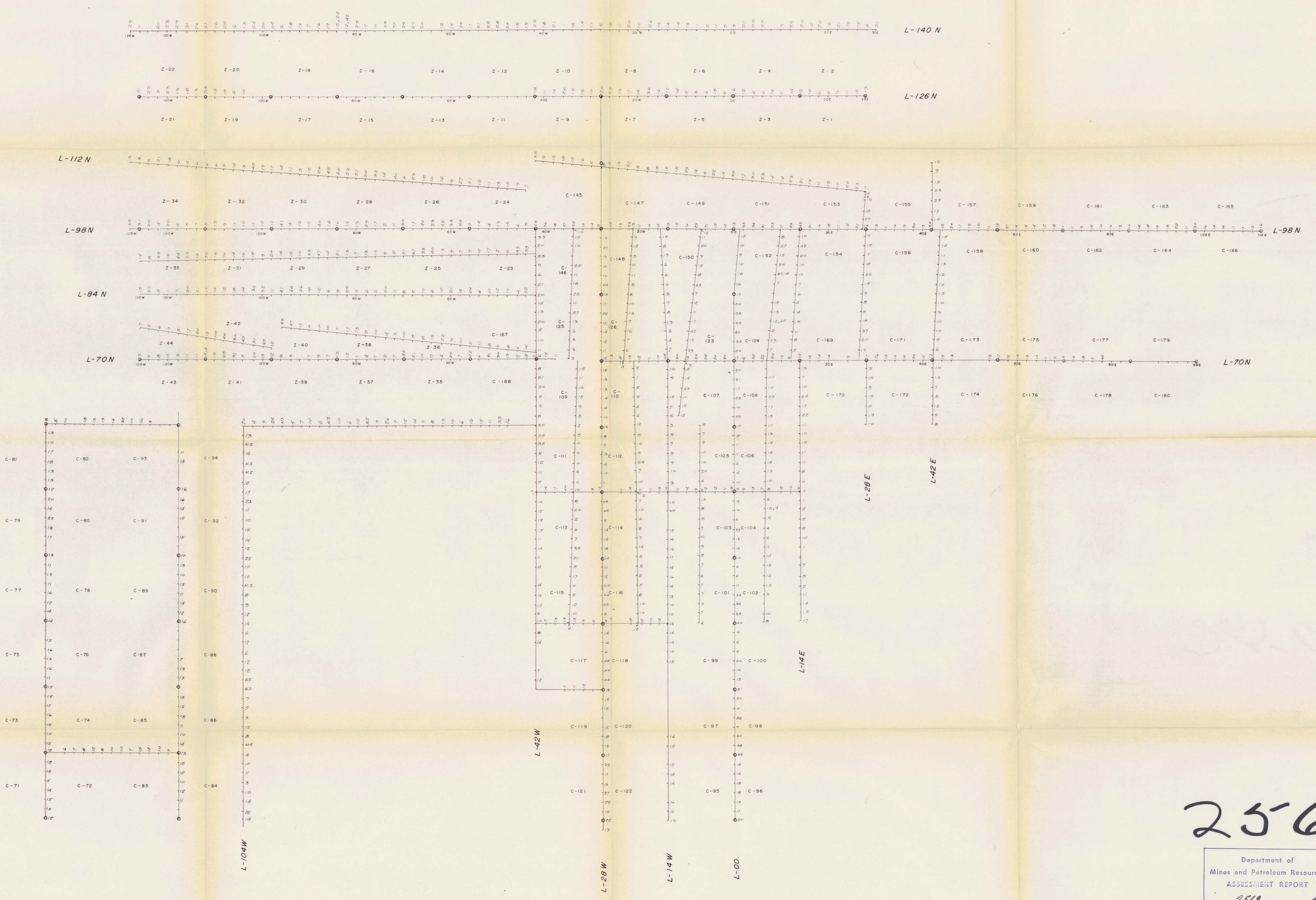
Department of
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NO. 2569 MAP #4

LEGEND:
 5 P.P.M. MOLY CONTOUR
 15 " " "
 50 " " "
 GEOCHEM. LOW

N.T.S.
93-F-7
SCALE
800' 0' 800' 1600' 2400' 3200'
One Inch = 800 Feet

RIO TINTO CANADIAN EXPLORATION LIMITED
 CHUTANLI PROJECT BC.
 C/Z CLAIMS
 GEOCHEM. MAP SHOWING
 Mo RESULTS IN P.P.M.
 JULY, 70 AT. /r.w.r. DWG. GC-8089

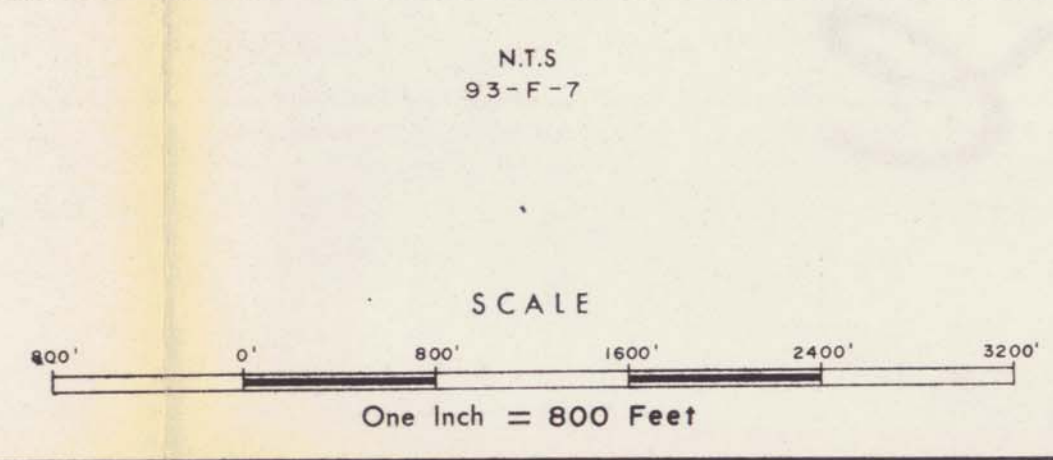
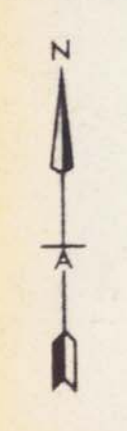




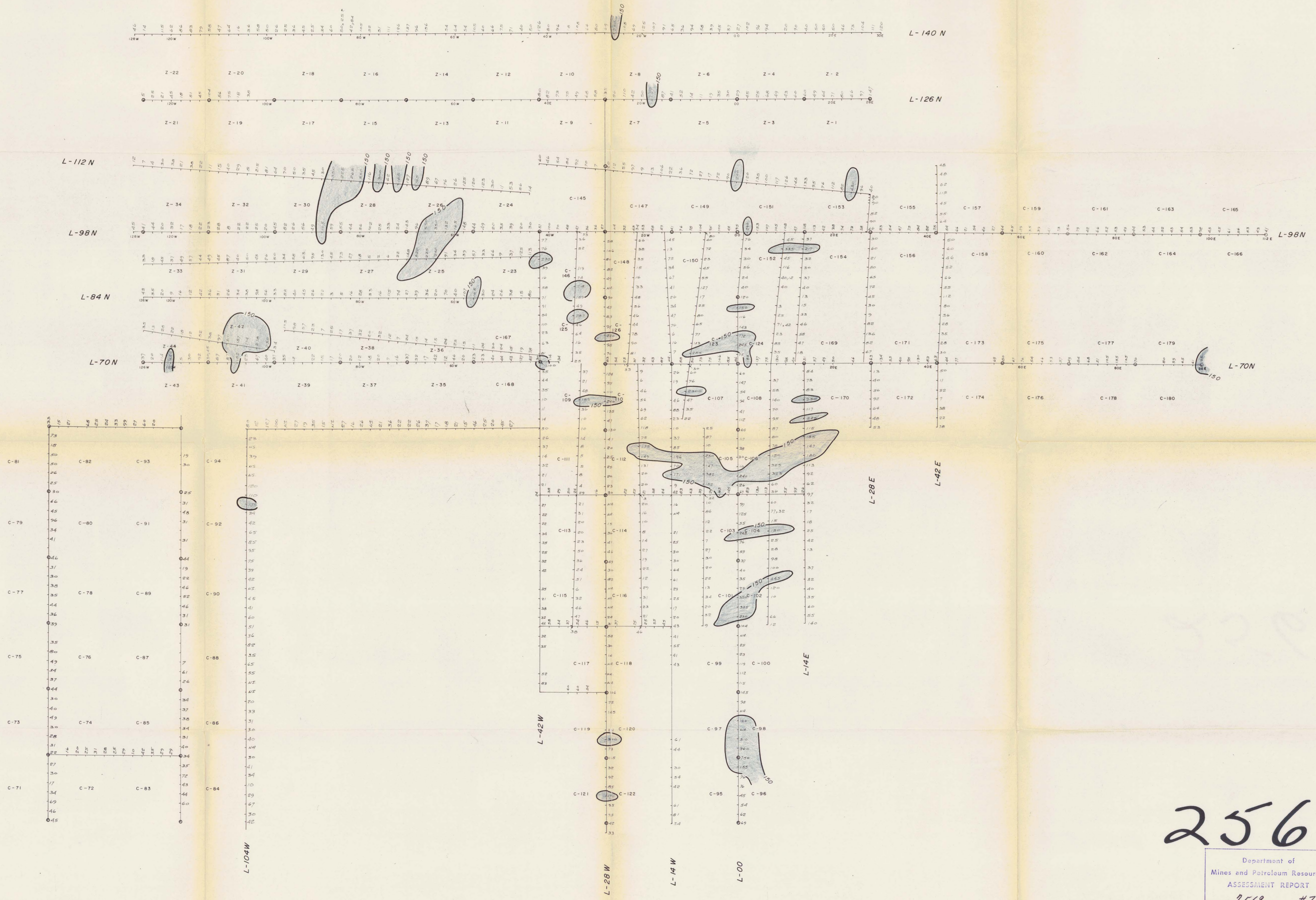
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RIO TINTO CANADIAN EXPLORATION LIMITED
CHUTANLI PROJECT BC.
C & Z CLAIMS
GEOCHEM. MAP SHOWING
Ni RESULTS IN P.P.M.
JULY, 70 AT. /r.w.r. DWG. GC-8090



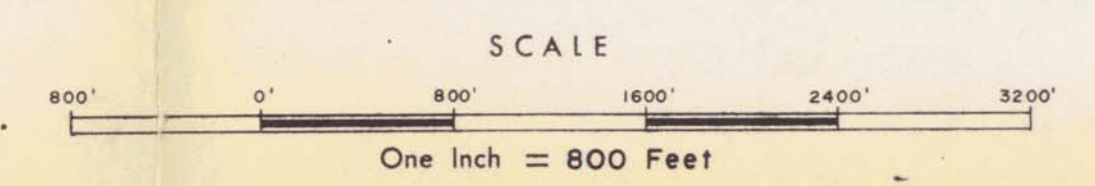
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NO. 2569 MAP #7

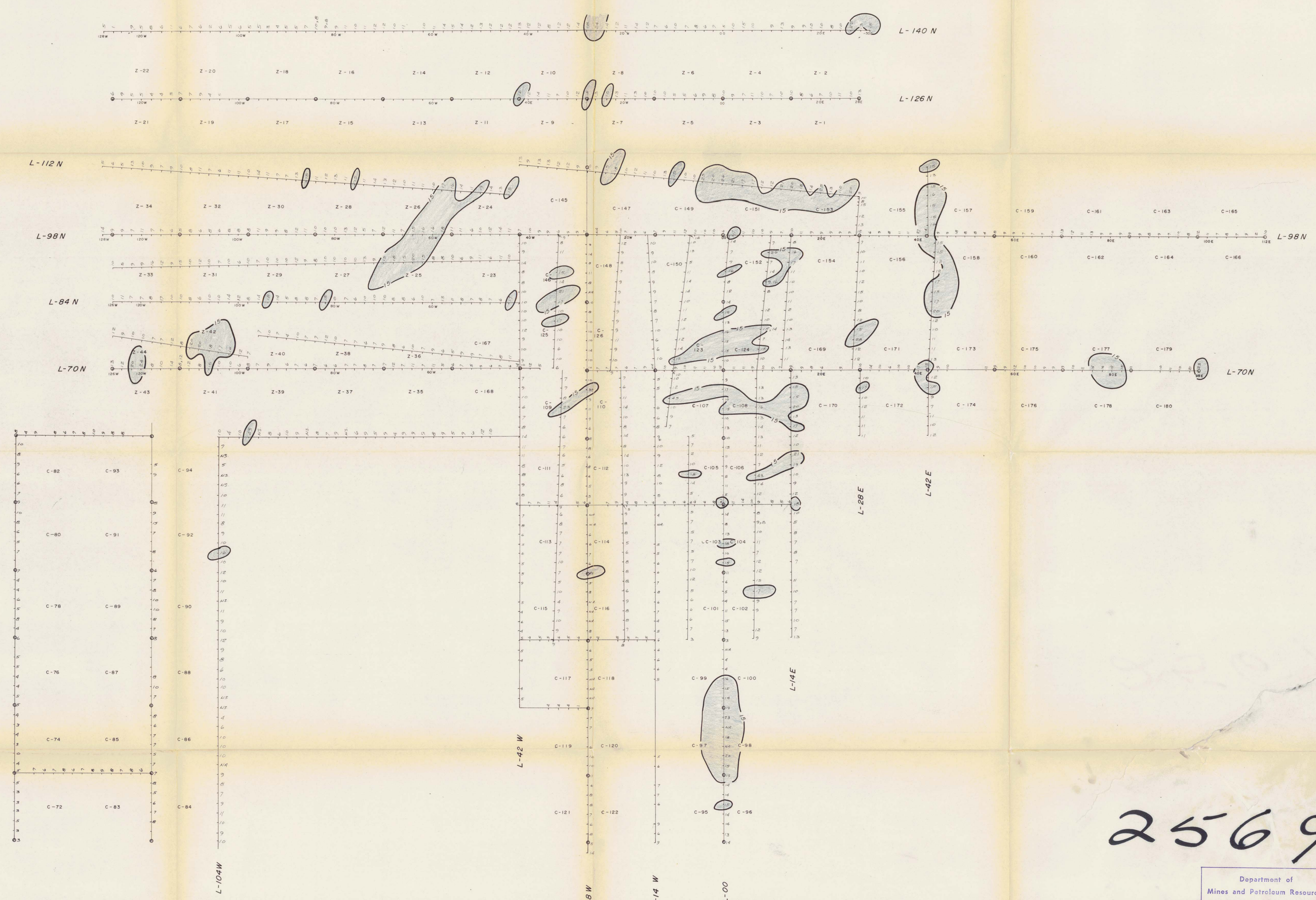
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LEGEND
150 PPM ZINC CONTOUR

N.T.S.
93-F-7



RIO TINTO CANADIAN EXPLORATION LIMITED
CHUTANLI PROJECT BC.
C.B.Z CLAIMS
GEOCHEM. MAP SHOWING
Zn RESULTS IN P.P.M.
JULY, 70 AT.r.w.r. DWG. GC-8092



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ASSESSMENT REPORT
NO. 2569 MAP #6

LEGEND
15 PPM LEAD CONTOUR

N.T.S.
93-F-7
SCALE
0' 800' 1600' 2400' 3200'
One Inch = 800 Feet

RIO TINTO CANADIAN EXPLORATION LIMITED
CHUTANLI PROJECT BC
C&Z CLAIMS
GEOCHEM. MAP SHOWING
Pb RESULTS IN P.P.M.
JULY70 AT/r.w.f. DWG. GC-8091

