8/88

**BEATY GEOLOGICAL LTD.**
*Consulting Geological Services*

900-625 Howe Street
Vancouver, B.C., Canada V6C 2T6
Telephone (604) 684-5887

LOG NO: 1214 RD.
ACTION:
FILE NO: 87-880-16619

# REPORT ON A GEOCHEMICAL SURVEY on the CAY PROPERTY INCLUDING CAY #3 AND CAY #6 CLAIMS

Liard Mining Division

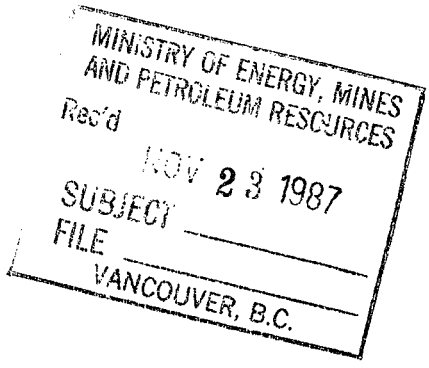
| | |
|---|---|
| Longitude | 123° ~~55'~~ 56'18" W |
| Latitude | ~~55° 45'~~ N 57°43'25" |
| NTS Map | 94G/12W |

FILMED

16,619

GEOLOGICAL BRANCH
ASSESSMENT REPORT

| | |
|---|---|
| OWNER: | Equinox Resources Ltd. |
| OPERATOR: | Equinox Resources Ltd. |
| CONSULTANT: | Beaty Geological Ltd. |
| AUTHOR: | Douglas G. Leighton, B.Sc., F.G.A.C. |
| SUBMITTED: | 23 November 1987 |


MINISTRY OF ENERGY, MINES
AND PETROLEUM RESOURCES
Rec'd
NOV 23 1987
SUBJECT
FILE
VANCOUVER, B.C.

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## 1. SUMMARY

The Cay property is a lead-zinc-gallium-germanium prospect located in the northern Rocky Mountains of British Columbia. Access is by means of helicopter from Trutch, a convenient staging point, 60 km to the east on the Alaska Highway. The property consists of 13 metric claims comprising 168 units in one contiguous block owned by Equinox Resources Ltd.

Work carried out during 1987 included: geological and geochemical surveys, induced polarization surveys, prospecting, trenching and diamond drilling. This report describes part of a larger geochemical survey, the part covering portions of the Cay 3 and Cay 6 mineral claims completed in July. The objectives of the geochemical work were to delineate drill targets in areas largely covered by overburden and to establish the location of the Dunedin Formation - Besa River shale contact. Results of the sampling on this part of the property were not conclusive, however, some useful information was obtained.

## 2. INTRODUCTION

In 1987 Beaty Geological Ltd. carried out an exploration program on the Cay property located in northeastern B.C. on behalf of Equinox Resources Ltd. The work was follow-up to preliminary surveys conducted the previous year when encouraging lead-zinc-gallium-germanium mineralization was discovered with coincident anomalous geochemistry in soils. The 1987 program was extensive involving grid controlled surveys, trenching and diamond drilling. This report describes the results of grid controlled soil sampling on parts of the Cay 3 and Cay 6 claims carried out at intervals between the 1st and 31st of July.

## 3. PROPERTY

### 3.1 Location and Access (see Figure 1)

The Cay property lies between the Prophet and Muskwa Rivers in the Rocky Mountains of northeastern B.C. Topographic coordinates for the center of the claim block are approximately 57° 45'N. latitude 123° 55'W longitude. The property is at about 1500 meters elevation.

Practical access for purposes of exploration is by means of helicopter at present. The nearest significant town is Fort Nelson which is 50 kilometers to the northeast. The most convenient staging point is Trutch about 40 km to the east on the Alaska Highway. Fort St. John is 260 km to the southeast.

### 3.2 Claims (see Figure 2)

The Cay property, owned by Equinox Resources Ltd. of Vancouver, B.C., consists of thirteen metric claims comprising one contiguous block. This report concerns two claims as follows:

| Claim Name | Units | Record No. | Record Date | Expiry Date |
|---|---|---|---|---|
| Cay 3 | 6 | 3626 | 25 Aug. '86 | 25 Aug. '89 |
| Cay 6 | 4 | 3670 | 7 Oct. '86 | 7 Oct. '89 |

Both Cay 3 and Cay 6 are part of the larger Cay North Group. All claims are within the Liard Mining Division.

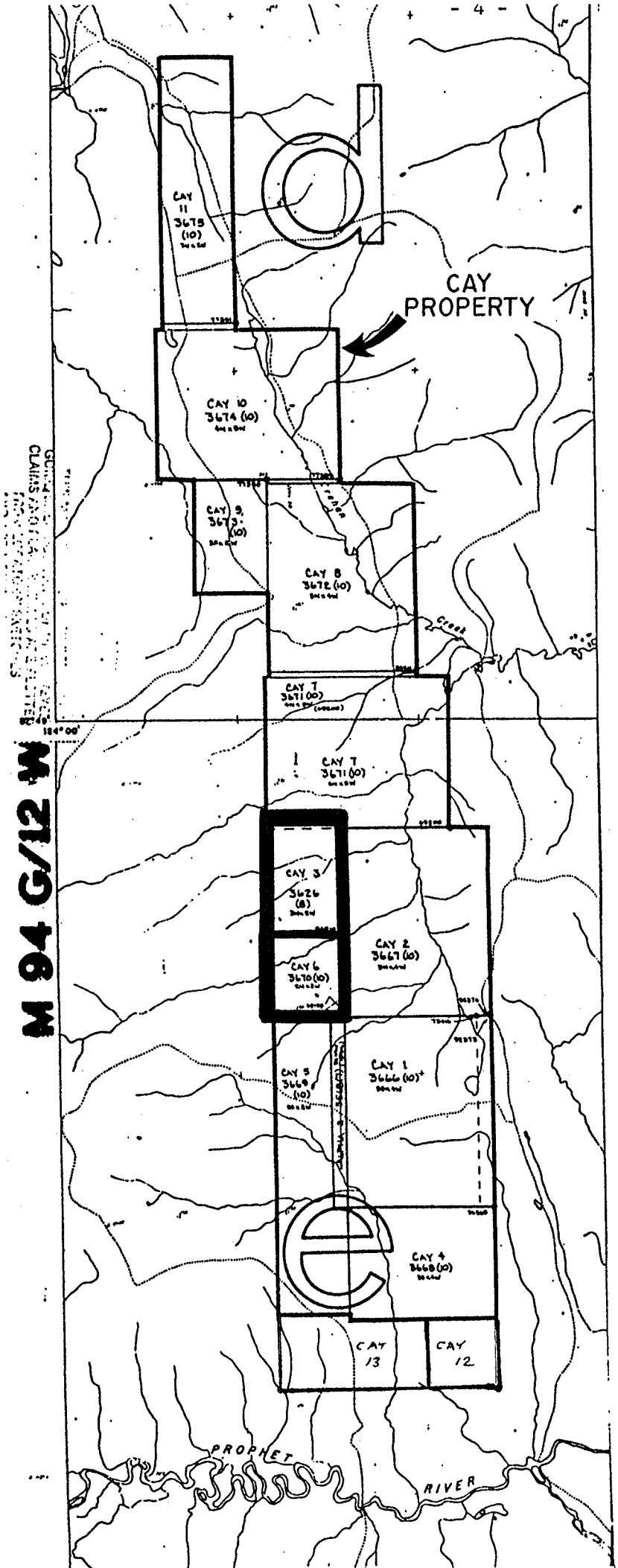

MILES 0 100 200 300 MILES

Km 0 100 200 400 Km

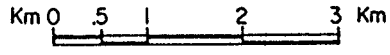
BEATY GEOLOGICAL LTD.

# CAY PROPERTY
# LOCATION MAP

| | |
|---|---|
| PROJECT: GAGE | PROJECT No. 169 |
| DATE: 1987 | FIGURE No. 1. |








BEATY GEOLOGICAL LTD.

# CAY PROPERTY
# CLAIM MAP

| | |
|---|---|
| PROJECT: GAGE | PROJECT No. 169 |
| DATE: 1987 | FIGURE No. 2 |

## 4. HISTORY

Part of the present Cay property was staked by Cominco Ltd. in 1972 to cover lead-zinc occurrences discovered at that time. Work undertaken included geological and geochemical surveys plus prospecting. The Cominco claims were abandoned in 1974 and allowed to lapse.

Equinox Resources Ltd. restaked the area in 1986. The region covered by Equinox is considerably larger than the original Cominco holdings.

## 5. GEOLOGY

The Cay group covers lead-zinc showings associated with barite occurring at or near the contact of Middle Devonian age limestone with underlying Stone Formation limestone and overlying Besa River shale. The mineralization is found in both limbs of a tighly folded anticline. Middle Devonian rocks correspond to a reefal fossil assemblage with an average thickness of 30 to 40 metres.

Zinc from the Cay property carries highly anomalous gallium and germanium levels. There seems to be a correlation between the trace element content of mineralization with copper. Since the main thrust of exploration work involved assessment of the gallium and germanium components, soil samples were tested for copper as well as lead, zinc and barium.

## 6. GEOCHEMICAL SAMPLING PROGRAM

### 6.1 Field Work

In 1986 Beaty Geological carried out a soil and rock geochemical orientation program. Lines of samples were collected from rocks and soil from various areas, including mineralized zones. Data were recorded on various topographic, soil and rock parameters and samples were tested for Pb, Zn, Cd, Ga and Ge. In some cases 30 element ICP analyses were made. The objective of this work was to identify trace elements to zinc mineralization in general and Ga-Ge enriched areas in particular.

During 1987 a detailed grid controlled soil sampling program was carried out across areas of geologic interest. This report describes the results of geochemical work on parts of the Cay 3 and Cay 6 claims. In total 117 samples were collected here.

A base line was cut out and surveyed between the southern edge of Cay 1 and the northern edge of the Cay 3 claim. This line runs at 20° west of north. Cross lines were established at 100 meter intervals to serve as ground control for geologic mapping and geochemical sampling. Soil samples were collected on the cross tines at 25 metre intervals.

Soil development in the Cay property has been complicated by forest fires. As a result of the burning, in most areas there is now a repetition of the various soil horizons. Wherever possible soil was collected from the lowest B horizon using special shovels. In most cases this layer occurs between 25-35 cm below surface. Where no B type soil was present samples were collected from the C horizon immediately below organic rich topsoils.

## 6.2 Analytical Procedure

Samples were sent to Acme Analytical Laboratories Ltd. at 852 E. Hastings Street, Vancouver, B.C. for geochemical analysis. The analysis method used by Acme is as follows:

1) Soils are dried at 60° C and sieved to -80 mesh size.

2) Pulp is digested with 3 mls 3-1-2 $HCl-HNO_3-H_2O$ at 95° C. for one hour and then diluted with water. This leach is near total.

3. In the case of copper, lead and zinc analysis is by Atomic Absorption.

4. In the case of barium, analysis is by ICP.

## 6.3 Results (see Figures 3A-3D)

Results of soil sampling on the Cay 3 and Cay 6 claims are shown on Figures 2A-2D inclusive and the analytical results are listed in Appendix I. The maps show, barium, copper, lead and zinc in soil. These are the elements considered to be useful pathfinder elements to zinc-gallium-germanium mineralization.

No clearly significant patterns are apparent in these results. Scattered high values in the vicinity of line 102 north may correspond to bedrock mineralization depending upon the overburden thickness.

## 7. CONCLUSIONS

There were two objectives to the soil sampling carried out on the Cay 3 and Cay 6 claims. One was to help delineate the surface trace of the west limb of the Dunedin Formation. The other was to look for signs of significant mineralization in areas largely covered by overburden but considered to have potential based in geological projections.

In both cases results are either negative or at best inconclusive. There are a few scattered high values in barium, copper, lead and zinc in the vicinity of grid station 100 west in line 102 north. This may correspond to mineralization of interest at depth. It is recommended therefore that a few geochemical soil profile pits be dug in this area. If values increase with depth more detailed geochemical and/or geophysical work would be warranted.

## 8. REFERENCES

Leighton, D.G. 1987. Cay property completion report on phase I exploration program for Equinox Resources Ltd., private company report.

Zabo, N.L. 1973. Soil geochemistry on the Cay claims, Liard Mining Division, British Columbia Department of Mines and Petroleum Resources, Assessment Report No. 4201.

## 9. STATEMENT OF QUALIFICATIONS

I, Douglas G. Leighton, do hereby certify that:

1. I am a professional geologist with offices at 900 - 625 Howe Street, Vancouver, B.C.

2. I am a graduate of the University of British Columbia, B.Sc., (1968).

3. I am a fellow in the Geological Association of Canada.

4. I have practiced my profession as a geologist since 1968 mostly in British Columbia.

5. I personally supervised exploration work carried out on the Cay Property during 1987, for Equinox Resources Ltd.

Dated at Vancouver, British Columbia, this 19th day of November, 1987.

Douglas G. Leighton, B.Sc., F.G.A.C.

GEOLOGICAL ASSOCIATION OF CANADA
D. G. LEIGHTON
FELLOW

# APPENDIX I

# GEOCHEMICAL RESULTS

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 4 1987
DATE REPORT MAILED: Aug. 11/87

# GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.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 AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 TO P8-SOIL P9-ROCK

ASSAYER: DEAN TOYE, CERTIFIED B.C. ASSAYER

BEATY GEOLOGICAL PROJECT-160 File # 87-2974 Page 1

| SAMPLE# | CU PPM | PB PPM | ZN PPM | BA PPM |
|---|---|---|---|---|
| 110N 1+25W | 4 | 21 | 57 | 172 |
| 110N 0+75W | 9 | 23 | 98 | 400 |
| 110N 0+50W | 11 | 23 | 125 | 399 |
| 110N 0+50E | 6 | 15 | 58 | 393 |
| 110N 0+75E | 9 | 22 | 99 | 483 |
| 110N 1+00E | 16 | 28 | 124 | 759 |
| 110N 1+25E | 9 | 24 | 103 | 321 |
| ~~STD C~~ | ~~57~~ | 40 | 128 | 175 |
| ✓110N 1+75E | 2 | 10 | 42 | 87 |
| 109N 1+00W | 11 | 29 | 113 | 427 |
| 109N 0+75W | 16 | 26 | 125 | 393 |
| 109N 0+50W | 11 | 23 | 112 | 368 |
| 109N 0+25W | 16 | 19 | 119 | 492 |
| 109N 0+00W | 23 | 25 | 175 | 395 |
| 109N 0+25E | 18 | 25 | 152 | 558 |
| 109N 0+50E | 24 | 20 | 116 | 408 |
| 109N 0+75E | 10 | 26 | 119 | 307 |
| 109N 1+00E | 13 | 27 | 136 | 397 |
| 109N 1+25E | 18 | 28 | 205 | 366 |
| 109N 1+50E | 18 | 26 | 145 | 345 |
| 109N 1+75E | 12 | 27 | 131 | 246 |
| ✓109N 2+00E | 15 | 34 | 135 | 401 |
| 108N 1+25W | 39 | 15 | 267 | 859 |
| 108N 1+00W | 42 | 24 | 186 | 837 |
| 108N 0+75W | 31 | 25 | 283 | 704 |
| 108N 0+50W | 14 | 31 | 182 | 382 |
| 108N 0+25W | 36 | 36 | 325 | 679 |
| 108N 0+00E | 22 | 38 | 166 | 384 |
| 108N 0+25E | 30 | 37 | 240 | 782 |
| 108N 0+50E | 31 | 30 | 338 | 801 |
| 108N 0+75E | 23 | 38 | 277 | 695 |
| 108N 1+00E | 26 | 32 | 238 | 843 |
| 108N 1+25E | 18 | 20 | 105 | 766 |
| 108N 1+50E | 25 | 21 | 194 | 600 |
| 108N 1+75E | 18 | 37 | 229 | 565 |
| ✓108N 2+00E | 17 | 41 | 244 | 488 |
| 106N 2+00W | 31 | 30 | 199 | 1098 |

BEATY GEOLOGICAL PROJECT-160 FILE # 87-2974 Page 2

| SAMPLE# | CU PPM | PB PPM | ZN PPM | BA PPM |
|---|---|---|---|---|
| 106N 1+75W | 32 | 27 | 186 | 1020 |
| 106N 1+50W | 30 | 26 | 191 | 822 |
| 106N 1+25W | 28 | 25 | 187 | 907 |
| 106N 1+00W | 22 | 13 | 113 | 1032 |
| 106N 0+75W | 30 | 23 | 193 | 998 |
| 106N 0+50W | 31 | 30 | 211 | 833 |
| 106N 0+25W | 31 | 29 | 162 | 962 |
| 106N 0+00W | 24 | 20 | 191 | 776 |
| ✓ 106N 1+50E | 23 | 31 | 252 | 806 |
| 105N 2+00W | 23 | 17 | 200 | 1186 |
| 105N 1+75W | 27 | 25 | 175 | 507 |
| 105N 1+50W | 24 | 16 | 128 | 798 |
| 105N 1+25W | 23 | 22 | 145 | 530 |
| 105N 1+00W | 24 | 13 | 173 | 413 |
| 105N 0+75W | 21 | 11 | 188 | 703 |
| 105N 0+50W | 14 | 17 | 104 | 337 |
| 105N 0+25W | 17 | 22 | 153 | 356 |
| ✓ 105N 0+00W | 24 | 26 | 156 | 461 |
| 104N 2+00W | 14 | 24 | 132 | 719 |
| 104N 1+75W | 8 | 17 | 93 | 226 |
| 104N 1+50W | 23 | 26 | 136 | 559 |
| 104N 1+25W | 11 | 25 | 87 | 771 |
| 104N 1+00W | 24 | 28 | 147 | 975 |
| 104N 0+75W | 12 | 28 | 107 | 716 |
| 104N 0+50W | 18 | 23 | 152 | 1320 |
| 104N 0+25W | 30 | 28 | 167 | 817 |
| ✓ 104N 0+00W | 25 | 28 | 186 | 822 |
| 103N 2+00W | 18 | 23 | 160 | 1070 |
| 103N 1+75W | 31 | 25 | 135 | 1865 |
| 103N 1+50W | 32 | 23 | 273 | 1032 |
| 103N 1+25W | 19 | 21 | 175 | 880 |
| 103N 1+00W | 19 | 11 | 282 | 829 |
| 103N 0+75W | 20 | 15 | 183 | 723 |
| 103N 0+50W | 30 | 20 | 140 | 947 |
| 103N 0+25W | 33 | 29 | 318 | 980 |
| ✓ 103N 0+00W | 23 | 22 | 161 | 1108 |
| STD C | 59 | 39 | 133 | 182 |

BEATY GEOLOGICAL PROJECT-160 FILE # 87-2974 Page 3

| SAMPLE# | CU PPM | PB PPM | ZN PPM | BA PPM |
|---|---|---|---|---|
| 102N 2+00W | 36 | 27 | 300 | 993 |
| 102N 1+75W | 30 | 19 | 170 | 1613 |
| 102N 1+50W | 30 | 22 | 168 | 1383 |
| 102N 1+25W | 43 | 44 | 403 | 1104 |
| 102N 1+00W | 23 | 36 | 230 | 1055 |
| 102N 0+75W | 25 | 20 | 221 | 1266 |
| 102N 0+50W | 21 | 23 | 173 | 1629 |
| 102N 0+25W | 35 | 37 | 297 | 1643 |
| ✓102N 0+00W | 30 | 27 | 174 | 1500 |
| 101N 2+00W | 23 | 23 | 222 | 964 |
| 101N 1+75W | 26 | 22 | 193 | 1431 |
| STD C | ~~58~~ | ~~41~~ | ~~134~~ | ~~175~~ |
| 101N 1+50W | 16 | 18 | 188 | 1120 |
| 101N 1+25W | 29 | 26 | 259 | 1067 |
| 101N 1+00W | 23 | 29 | 332 | 1161 |
| 101N 0+75W | 29 | 26 | 166 | 1772 |
| 101N 0+50W | 12 | 15 | 106 | 231 |
| 101N 0+25W | 14 | 30 | 143 | 420 |
| ✓101N 0+00W | 33 | 22 | 335 | 779 |
| 100N 2+00W | 44 | 18 | 303 | 1310 |
| 100N 1+75W | 23 | 22 | 89 | 1247 |
| 100N 1+50W | 29 | 28 | 306 | 1119 |
| 100N 1+25W | 27 | 3 | 210 | 1331 |
| 100N 1+00W | 18 | 6 | 259 | 1256 |
| ✓100N 0+00W | 24 | 30 | 258 | 776 |
| 98N 2+00W | 20 | 21 | 118 | 1148 |
| 98N 1+75W | 20 | 26 | 136 | 1000 |
| 98N 1+50W | 30 | 30 | 196 | 1230 |
| 98N 1+25W | 23 | 31 | 138 | 2111 |
| 98N 1+00W | 11 | 24 | 158 | 628 |
| 98N 0+75W | 20 | 32 | 225 | 1031 |
| 98N 0+50W | 32 | 35 | 223 | 1703 |
| 98N 0+25W | 23 | 23 | 147 | 1376 |
| ✓98N 0+00W | 29 | 24 | 101 | 1739 |
| ~~96N 2+00W~~ | ~~6~~ | ~~12~~ | ~~75~~ | ~~334~~ |
| ~~96N 1+75W~~ | ~~17~~ | ~~17~~ | ~~122~~ | ~~191~~ |
| ~~96N 1+50W~~ | ~~10~~ | ~~10~~ | ~~158~~ | ~~496~~ |

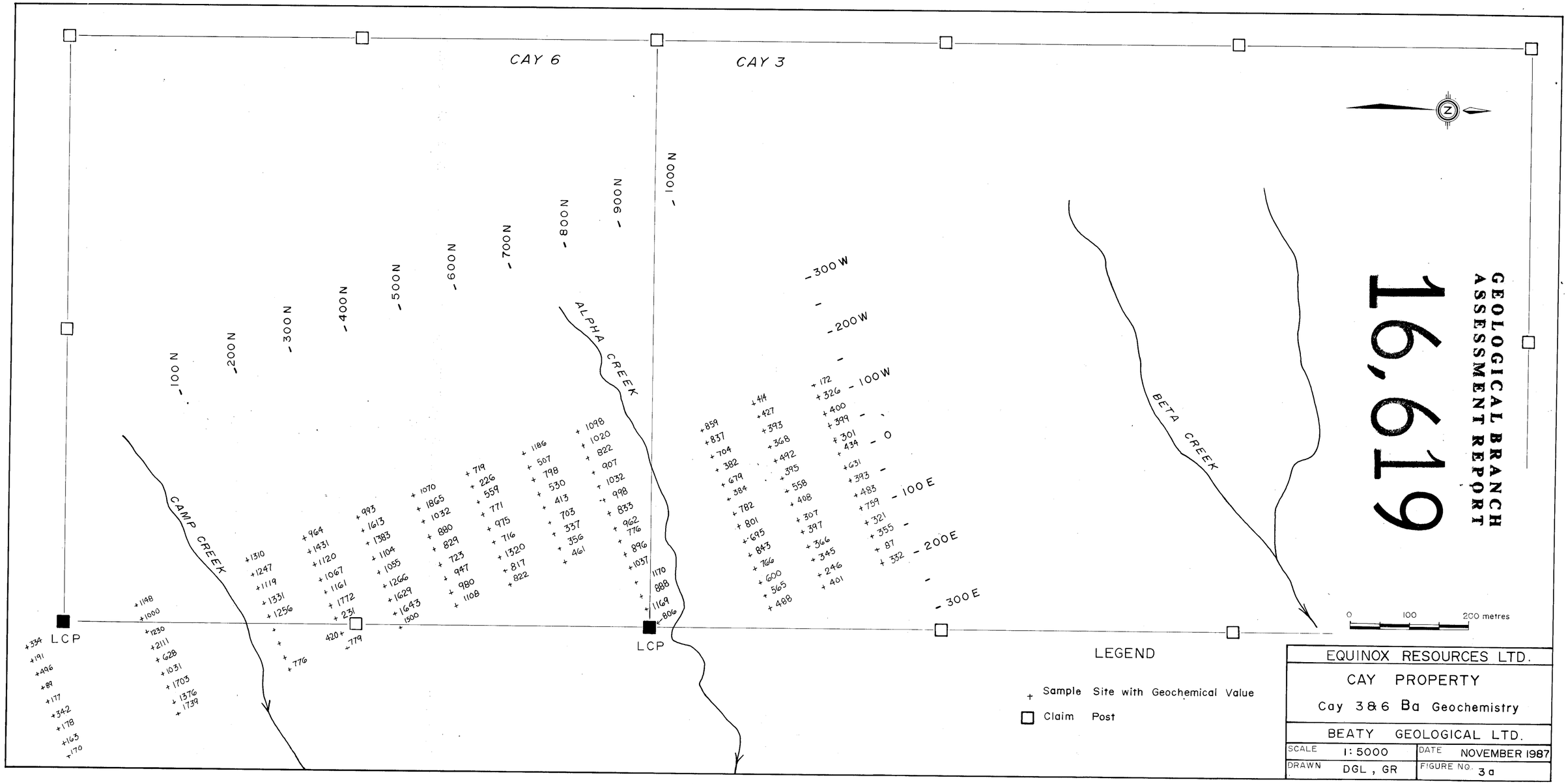
BEATY GEOLOGICAL PROJECT-160 FILE # 87-2974 

| SAMPLE# | CU PPM | PB PPM | ZN PPM | BA PPM |
|---|---|---|---|---|
| 110N 1+00W | 9 | 18 | 60 | 326 |
| 110N 0+25W | 10 | 21 | 135 | 301 |
| 110N 0+00W | 14 | 21 | 86 | 434 |
| 110N 0+25E | 14 | 29 | 116 | 631 |
| 110N 1+50E | 9 | 26 | 82 | 355 |
| 110N 2+00E | 5 | 17 | 58 | 332 |
| 109N 1+25W | 19 | 26 | 130 | 414 |
| 106N 0+25E | 27 | 15 | 196 | 896 |
| 106N 0+50E | 26 | 24 | 197 | 1037 |
| 106N 0+75E | 27 | 30 | 217 | 1170 |
| 106N 1+00E | 30 | 25 | 228 | 888 |
| 106N 1+25E | 37 | 39 | 230 | 1169 |
| STD C | 61 | 42 | 133 | 183 |

# APPENDIX II

## STATEMENT OF COSTS

| | | |
|---|---|---|
| Salaries: | | |
| E. Mackenzie | | |
| 15-18 July 4 days @ $130 | $520.00 | |
| D. Read | | |
| 1-3, 5 July 4 days @ $130 | 520.00 | |
| C. Hopping | | |
| 1-3, 5 July 4 days @ $130 | 520.00 | |
| D. Leighton | | |
| 29-31 July 3 days @ $250 | 750.00 | |
| 25% contract expenses (WCB,CPP,UIC) | 577.50 | $2,887.50 |
| Disbursements: | | |
| Supplies; sample bags, flagging,etc. | 275.00 | |
| Geochemical Analyses | 525.00 | |
| Camp @ $35/man day | 1,113.75 | |
| Transportation-helicopter support | 1,650.00 | |
| Drafting and report preparation | 500.00 | 4,063.75 |
| Total | | $6,951.25 |




GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,619

LEGEND

+ Sample Site with Geochemical Value

□ Claim Post

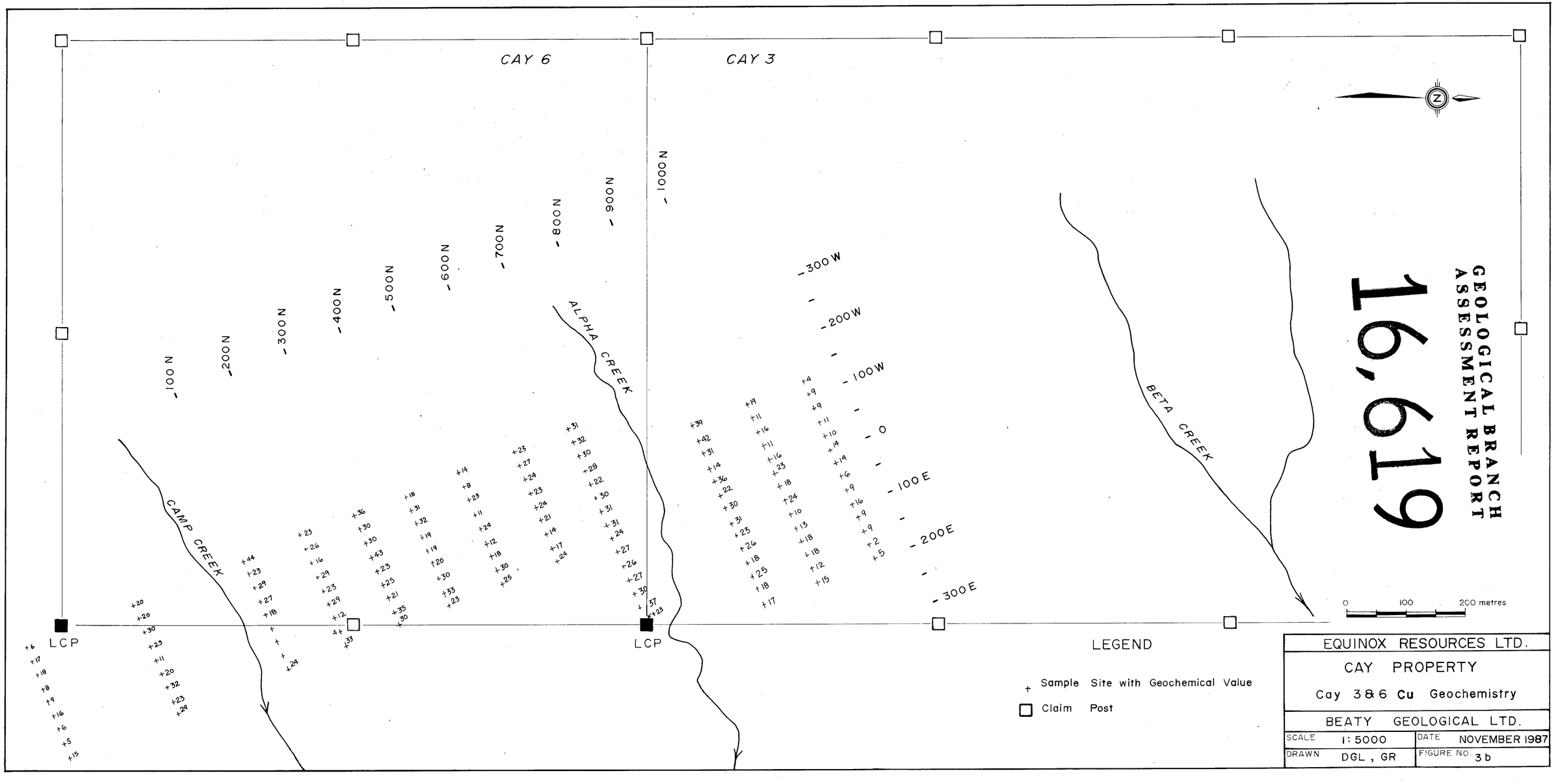
EQUINOX RESOURCES LTD.

CAY PROPERTY

Cay 3&6 Ba Geochemistry

BEATY GEOLOGICAL LTD.

| | | | |
|---|---|---|---|
| SCALE | 1:5000 | DATE | NOVEMBER 1987 |
| DRAWN | DGL, GR | FIGURE NO. | 3a |

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ASSESSMENT REPORT

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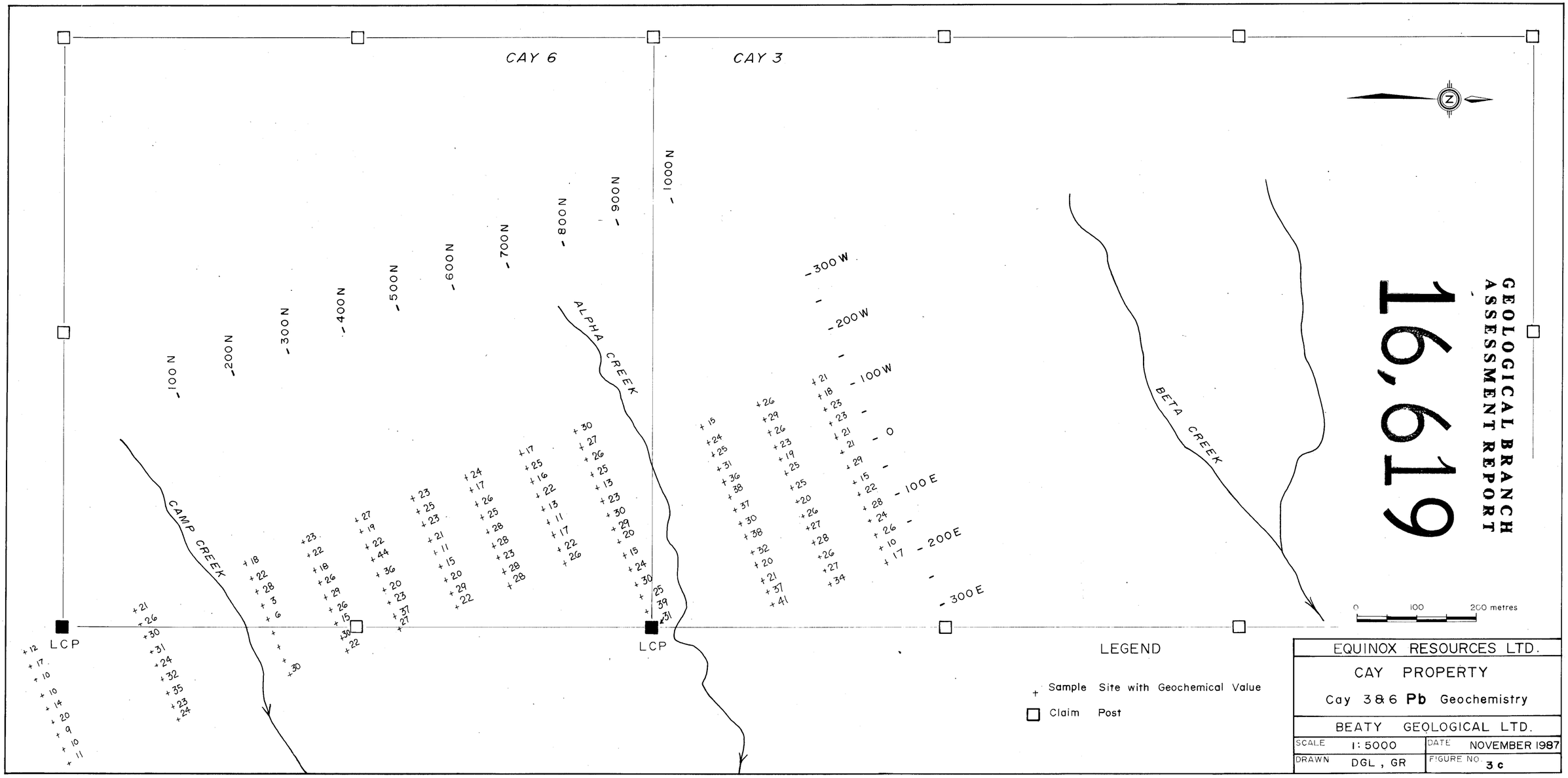
CAY 6
CAY 3
100 N
200 N
300 N
400 N
500 N
600 N
700 N
800 N
900 N
1000 N
300 W
200 W
100 W
0
100 E
200 E
300 E
ALPHA CREEK
CAMP CREEK
BETA CREEK
LCP
LCP
0
100
200 metres
LEGEND
+ Sample Site with Geochemical Value
Claim Post
GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,619
EQUINOX RESOURCES LTD.
CAY PROPERTY
Cay 3&6 Pb Geochemistry
BEATY GEOLOGICAL LTD.
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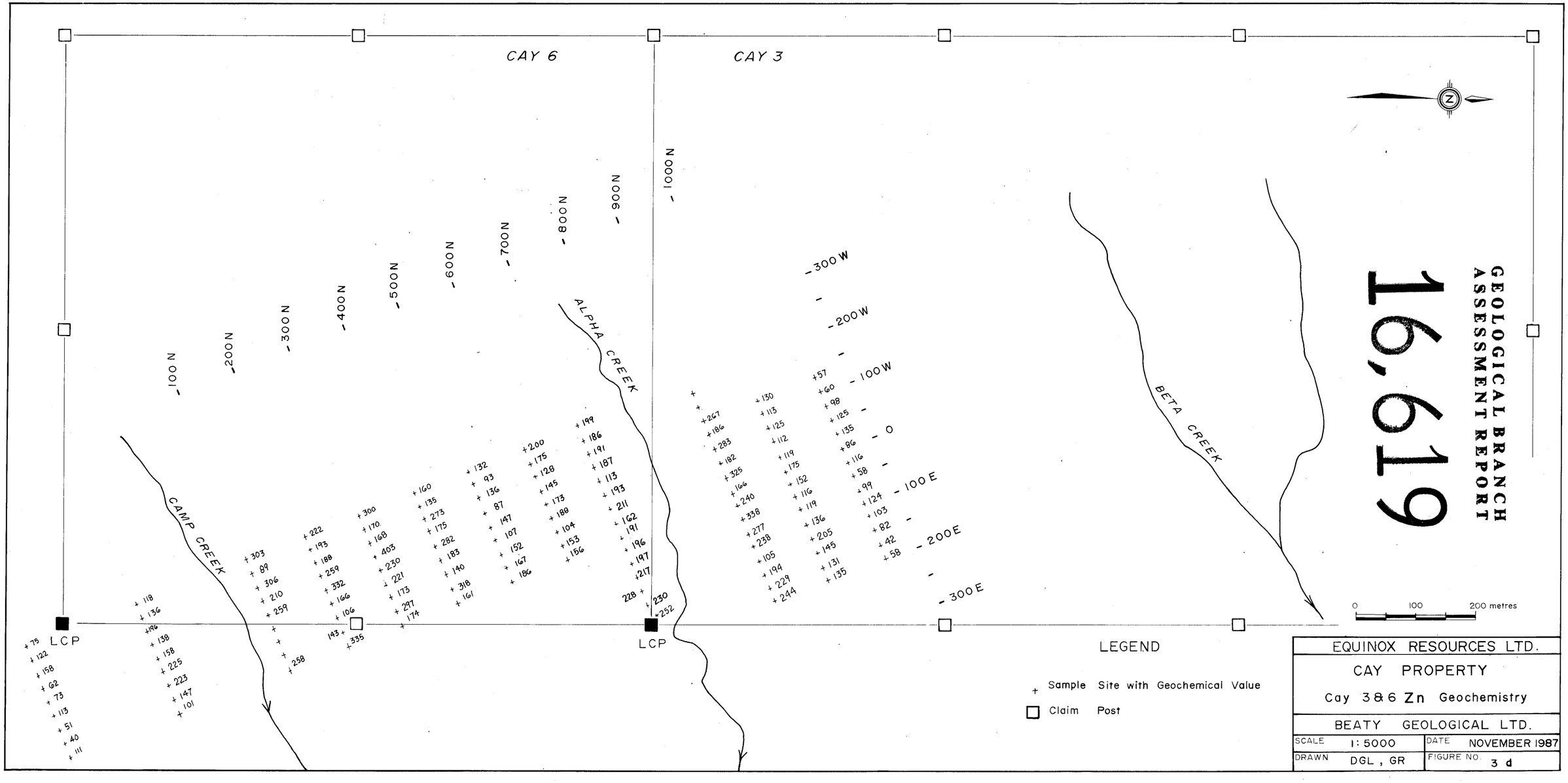
DATE NOVEMBER 1987
DRAWN DGL, GR
FIGURE NO. 3c




EQUINOX RESOURCES LTD.

CAY PROPERTY

Cay 3&6 Zn Geochemistry

BEATY GEOLOGICAL LTD.

| | |
|---|---|
| SCALE 1:5000 | DATE NOVEMBER 1987 |
| DRAWN DGL, GR | FIGURE NO. 3 d |