

84-#579 - 12589

7

GEOLOGICAL MAPPING AND GEOCHEMICAL SURVEY REPORT
ON THE
JACOBE 2 MINERAL CLAIM
CARIBOO MINING DIVISION
NTS 93A/12

LATITUDE 52° 32' N

LONGITUDE 121° 45' W

WORK PERIOD: MAY 8 TO JUNE 17, 1984

OWNER: Hennessy Resources Corporation
1108-407 Granville Street
Vancouver, B.C.
V6C 1T2

CONTRACTOR: E & B Explorations Inc.
1440-800 West Pender Street
Vancouver, B.C.
V6C 2V6

WRITTEN BY: R.G. Simpson

SUBMITTED: July 25, 1984

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,589

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SECTION A - SUMMARY OF WORK

INTRODUCTION

The Jacobie property is situated near Jacobie Lake some 50 km northeast of Williams Lake, B.C. Work carried out by E & B Explorations Inc. during May and June of 1984 consisted of geologic mapping and a geochemical survey of rocks and soils. Total expenditures amounted to \$8396.28.

LOCATION AND ACCESS

The Jacobie property is situated 53 km northeast from the town of Williams Lake and 14 km southwest from the community of Likely. Access is via the Likely road which leaves Highway 97 at 150 Mile House and passes within 5 km of the claim. Secondary logging roads lead into and through the property from the north and south. At the present time the preferred route leaves the Likely Road 3 km south of Morehead Lake and reaches the northern claim boundary after a distance of 7 km. The road then winds through the eastern half of the claim block and exits near the southeastern corner.

TOPOGRAPHY AND PHYSICAL ENVIRONMENT

The claim block lies immediately southeast of Jacobie Lake and extends eastward onto the flank of Mount Jacobie. Topography is fairly subdued with total relief in the order of 120 meters. Approximately 50 percent of the area within the claim block has been logged, primarily for spruce and fir.

MINERAL CLAIMS

The property consists of one 20 unit mineral claim with details summarized below.

<u>Claim Name</u>	<u>Units</u>	<u>Record #</u>	<u>Record Date</u>	<u>Owner</u>
Jacobe 2	20	4863(5)	May 24, 1983	Hennessy Resources Corp. (formerly Shaughnessy Resources Corp.)

REGIONAL GEOLOGY

The Jacobie property lies within the Quesnel Trough, a linear belt of early Mesozoic volcanic and sedimentary rocks. The trough is believed to represent an island arc assemblage formed at a consuming plate margin above an easterly dipping subduction zone which existed from late Triassic to early Jurassic time.

The regional geology is depicted on G.S.C. Map O.F. 574 compiled by R.B. Campbell (1978). An unpublished Ph.D. thesis by David G. Bailey (Queen's University, 1978) entitled "The Geology of the Morehead Lake Area," describes the regional geology in more detail.

PROPERTY GEOLOGY

The Jacobie property is underlain by basic volcanic flows, breccias and associated sedimentary rocks of Upper Triassic to Lower Jurassic age. Bedding is essentially homoclinal, striking northwesterly and dipping moderately to the northeast, and conforms to the regional trend.

The southeastern portion of the property is underlain by massive, polylithologic basaltic breccia exhibiting the chaotic, unsorted characteristics of laharic deposits (unit 1). Epidote is the only common alteration product and local zones of intense epidotization of both fragments and matrix were observed.

Massive, green to grey basalt flows and breccias (unit 2) conformably underlie the unit 1 breccias in the southwestern corner of the claim.

The northern portion of the claim block is underlain by maroon basalt flows and flow breccias (unit 3) with associated interbedded sandstone. The basalts are commonly vesicular or amygdaloidal with calcite and white zeolite fillings. Locally, amygdules carry minor amounts of native copper and chalcocite which is invariably oxidized to malachite in surface exposures. Minor copper showings are also associated with quartz-carbonate - ankerite alteration zones related to faulting. These types of copper occurrences have been known in the area since the early 1960's and several showings in the Jacobie Lake vicinity were investigated by trenching in 1966 and 1972.

The contact between the maroon basalts of unit 1 and the two previously described units was not observed but is thought to be an east-west trending fault (Bailey, 1978).

A quartz monzonite porphyry dyke is exposed near the southern claim boundary and cuts basic volcanic flows of unit 2.

ROCK GEOCHEMISTRY

A total of 50 rock samples were taken during the course of geologic mapping. Geochemical analyses for copper and gold were carried out at Min-en Laboratories in North Vancouver.

The highest copper values were obtained from amygdaloidal basalts of unit 3 containing visible copper mineralization in the form of malachite. One sample grading 4800 ppm was obtained from an outcrop located 350 m southwest of the legal Corner Post. Five other samples from unit 3 carried from 205 to 1430 ppm copper. Background copper content of the volcanics is erratic and ranges from 20 to 150 ppm with a mean value of 84 ppm.

The highest gold value obtained (25 ppb) coincided with the highest copper value (4800 ppm). Average background gold content ranged between 5 and 10 ppb.

Sample locations and results are plotted on map J-83-4.

SOIL GEOCHEMISTRY

A total of 238 soil samples were collected at 50 meter intervals along east-west lines spaced 100 to 200 metres apart. Samples were taken from the B soil horizon and geochemically analyzed for Cu, Au and As at Vangeochem Laboratories in North Vancouver.

Copper content of the soils was highly erratic. Background copper content ranged from 15 to 100 ppm with a mean value of 46 ppm. Eighteen of the samples contained greater than 100 ppm Cu with the highest value being 449 ppm. The higher values were randomly scattered throughout the grid.

Gold content was very low averaging less than 5 ppb and rarely exceeding 10 ppb. The highest value of 20 ppb was obtained in only four of the 238 samples.

The first 147 samples were also analyzed for As. Background content was between 2 and 4 ppm and the maximum value was 20 ppm.

No significant correlation was observed between copper, gold and arsenic in the soils. Sample locations and results are plotted on maps J-84-5a and 5b.

CONCLUSIONS AND RECOMMENDATIONS

Rock and soil geochemical sampling over the Jacobie 2 claim has indicated erratic copper distribution but low gold and arsenic content.

Geologic mapping has revealed that the higher copper values are associated with the amygdaloidal basalts mapped as unit 3 and with quartz-carbonate-ankerite alteration zones related to faulting. These copper occurrences are not considered to have any economic importance.

In view of absence of anomalous gold or arsenic values in 288 geochemical analyses, the property is considered to have minimal potential for hosting a precious metal deposit and no further investigations are recommended.

Respectfully submitted,



R.G. Simpson
Project Geologist

/cp

SECTION B - STATEMENT OF EXPENDITURES

WORK PERIODS MAY 8-13, JUNE 11-17, 1984

FIELD SALARIES:

R. Simpson, Project Geologist 10 days @ \$250/day	
D. Fernie, Sampler 5 days @ \$100/day	\$3,000.00

Accommodation & Travel	894.66
Vehicle Rental - 4wd truck - Rentway Canada Ltd.	700.81
Field Supplies	416.57
Shipping	81.25

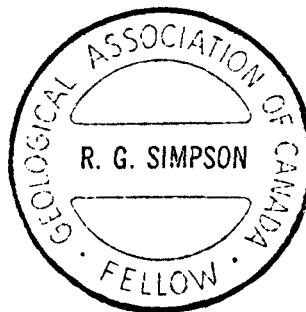
ANALYTICAL:

50 Rock geochem analyses Cu, Au - Min-En Labs	2,810.11
238 Soil geochem analyses Cu, Au - Vangeochem Labs	
147 Soil geochem analyses As - Vangeochem Labs	
Drafting	492.88
	<hr/>
	\$ 8396.28

SECTION C - STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS
RONALD G. SIMPSON

1. Attended the University of British Columbia and graduated in May 1975 with an honours B.Sc. degree in Geology.
2. Is a fellow of the Geological Association of Canada.
3. Has carried out his profession continuously since 1975 and has been employed as a project geologist with E & B Explorations Inc. since March 1981.



Respectfully submitted,



R.G. Simpson
Project Geologist

/cp

SECTION D - LABORATORY REPORTS

Irreducible
M.F

VANGEOCHEM LAB LIMITED

1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: E & B EXPLORATION INC. **DATE: June 25 1984**
ADDRESS: #1440, 800 West Pender Street **REPORT#: B4-39-823**
 : Vancouver B.C.
 : V6C 2V6

PROJECT#: 5117 JOB#: 84160
COPY SENT TO: E & B EXPLORATION INC. INVOICE#: 7933
SAMPLES ARRIVED: June 18 1984 TOTAL SAMPLES: 147
REPORT COMPLETED: June 25 1984 SAMPLE TYPE: 147 Soil
ANALYSED FOR: Cu Au As REJECTS: DISCARDED

PREPARED FOR: E & B EXPLORATION INC.

ANALYSED BY: VGC Staff

SIGNED:

GENERAL REMARK: None

VANBEDICHEN LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: -- = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-023 JOB NUMBER: 84168

PAGE 1 OF 4

SAMPLE #	Cu ppm	Au ppb	As ppm
1700N 65E	8	nd	nd
1700N 70E	8	10	nd
1700N 75E	20	5	2
1700N 80E	22	5	nd
1700N 85E	20	5	2
1700N 90E	15	nd	2
1700N 95E	15	nd	nd
1700N 100E	45	5	2
1700N 105E	76	nd	nd
1700N 110E	98	5	4
1700N 115E	29	5	2
1700N 120E	51	nd	4
1700N 125E	480	nd	2
1700N 130E	14	nd	nd
1700N 135E	25	5	2
1700N 140E	48	5	2
1700N 145E	23	nd	nd
1700N 150E	23	nd	2
1700N 155E	58	nd	4
1700N 160E	151	5	10
1700N 165E	49	10	4
1900N 55E	38	10	4
1900N 60E	36	5	4
1900N 65E	39	nd	10
1900N 70E	26	nd	2
1900N 75E	38	nd	nd
1900N 85E	47	nd	2
1900N 90E	65	nd	4
1900N 95E	85	nd	4
1900N 100E (E. SIDE OF BL)	100	5	4
1900N 100E (W. SIDE OF BL)	74	5	4
1900N 105E	498	nd	15
1900N 110E	148	5	2
1900N 115E	17	nd	nd
1900N 120E	39	nd	4
1900N 125E	34	nd	4
1900N 130E	15	nd	2
1900N 135E	28	nd	2
1900N 140E	25	5	4
DETECTION LIMIT	1	5	2

VANCOUVER LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 84-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: -- = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-823 JOB NUMBER: 84168

PAGE 2 OF 4

SAMPLE #	Cu ppm	Au ppb	As ppm
1900N 1450E	14	5	2
1900N 1500E	18	5	nd
1900N 1550E	18	nd	nd
1900N 1600E	22	nd	2
1900N 1650E	41	nd	4
1900N 1700E	57	5	2
1900N 1750E	95	5	4
1900N 1800E	125	nd	2
1900N 1850E	64	nd	2
1900N 1900E	124	nd	nd
1900N 1950E	19	nd	4
1900N 2000E	13	5	2
1900N 2050E	38	5	10
2100N 100E	21	10	2
2100N 150E	28	nd	2
2100N 200E	33	10	2
2100N 250E	15	10	2
2100N 300E	13	5	2
2100N 350E	18	5	nd
2100N 400E	11	5	2
2100N 450E	38	nd	4
2100N 500E	38	nd	2
2100N 550E	18	5	2
2100N 600E	46	5	4
2100N 650E	191	10	10
2100N 700E	28	5	2
2100N 750E	15	5	nd
2100N 800E	27	5	2
2100N 850E	108	10	10
2100N 950E	84	nd	10
2100N 1000E	21	nd	4
2100N 1050E	31	nd	2
2100N 1100E	24	10	4
2100N 1150E	14	10	4
2100N 1200E	24	nd	4
2100N 1250E	32	nd	4
2100N 1300E	71	10	4
2100N 1350E	32	5	2
2100N 1400E	38	5	4
DETECTION LIMIT	1	5	2

VANCOUVER LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: -- = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-023

JOB NUMBER: 84160

PAGE 3 OF 4

SAMPLE #	Cu ppb	Au ppb	As ppm
2100N 1450E	68	5	2
2100N 1500E	75	5	4
2100N 1550E	38	nd	4
2100N 1600E	105	nd	18
2100N 1650E	78	10	18
2100N 1700E	46	nd	4
2100N 1750E	38	nd	4
2100N 1800E	48	nd	2
2100N 1850E	35	nd	4
2100N 1900E	16	10	nd
2100N 1950E	38	nd	4
2100N 2000E	239	nd	4
2100N 2050E	63	5	4
2300N 1000E	11	nd	nd
2300N 1500E	10	5	2
2300N 2000E	27	nd	4
2300N 2500E	85	nd	28
2300N 3000E	32	18	4
2300N 3500E	27	5	2
2300N 4000E	16	5	nd
2300N 4500E	51	nd	4
2300N 5000E	28	nd	4
2300N 5500E	38	nd	2
2300N 6000E	11	nd	nd
2300N 6500E	24	nd	nd
2300N 9500E	210	nd	10
2300N 10000E	34	nd	nd
2300N 10500E	21	nd	2
2300N 11000E	25	5	4
2300N 11500E	20	nd	2
2300N 12000E	22	nd	2
2300N 12500E	18	5	nd
2300N 13000E	15	5	2
2300N 13500E	23	nd	4
2300N 14000E	84	nd	2
2300N 14500E	32	nd	4
2300N 15000E	68	nd	2
2300N 15500E	20	nd	2
2300N 16000E	34	5	4
DETECTION LIMIT	1	5	2

VANCOUVER LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 84-352578

PREPARED FOR: E & B EXPLORATION INC.
NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 84-39-023 JOB NUMBER: B4160

PAGE 4 OF 4

SAMPLE #	Cu ppm	Au ppb	As ppm
2300N 1700E	39	5	2
2300N 1750E	28	nd	2
2300N 1800E	39	nd	2
2300N 1850E	48	nd	2
2300N 1900E	67	5	nd
2300N 1950E	23	5	2
2300N 2000E	39	10	nd
2300N 2050E	87	5	4
2500N 1000E	41	nd	2
2500N 1050E	13	nd	nd
2500N 1100E	29	nd	2
2500N 1150E	4	nd	2
2500N 1200E	85	nd	4
2500N 1250E	40	nd	4
2500N 1300E	21	10	4
2500N 1350E	33	5	2
2500N 1400E	11	5	nd
2500N 1450E	6	5	nd
2500N 1500E	17	5	2
2500N 1550E	11	5	2
2500N 1600E	27	5	2
2500N 1650E	8	5	2
2500N 1700E	7	5	nd
2500N 1750E	17	nd	2
2500N 1800E	20	5	4
2500N 1850E	19	5	4
2500N 1900E	25	nd	2
2500N 1950E	35	5	4
2500N 2000E	49	5	4
2500N 2050E	175	10	10
DETECTION LIMIT	1	5	2

Progr
JACOBIE

VANGEOCHEM LAB LIMITED

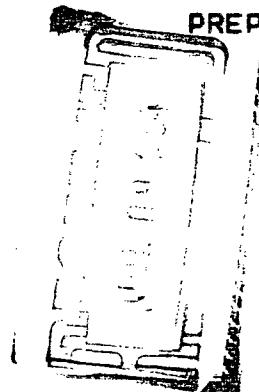
1521 Pemberton Ave.
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: E & B EXPLORATION INC. **DATE:** July 5 1984
ADDRESS: #1440, 800 West Pender Street **REPORT#:** 84-39-024
 : Vancouver B.C.
 : V6C 2V6

PROJECT#: -- JOB#: 84179
COPY SENT TO: E & B EXPLORATION INC. INVOICE#: 7956
SAMPLES ARRIVED: June 28 1984 TOTAL SAMPLES: 91
REPORT COMPLETED: July 5 1984 SAMPLE TYPE: 91 Soil
ANALYSED FOR: Cu Au REJECTS: DISCARDED

PREPARED FOR: E & B EXPLORATION INC.



ANALYSED BY: VGC Staff

SIGNED:

GENERAL REMARK: None

WIMBODIEN LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: — = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-024 JOB NUMBER: 84179

PAGE 1 OF 3

SAMPLE #	Cu ppm	Au ppb
1500N 800E	48	nd
1500N 850E	9	5
1500N 900E	50	5
1500N 950E	21	nd
1500N 1000E	23	5
1500N 1100E	26	nd
1500N 1150E	15	nd
1500N 1200E	27	nd
1500N 1250E	24	nd
1500N 1300E	18	nd
1500N 1350E	62	5
1500N 1400E	31	5
1500N 1450E	39	nd
1500N 1500E	48	5
1500N 1550E	15	nd
1500N 1600E	158	10
1500N 1650E	132	5
1500N 1700E	21	nd
1500N 1750E	15	20
1500N 1800E	43	5
1500N 1850E	44	10
1500N 1900E	54	nd
1500N 1950E	59	5
1500N 2000E	42	10
1500N 2050E	39	5
1700N 1700E	39	5
1700N 1750E	25	nd
1700N 1800E	36	nd
1700N 1850E	32	nd
1700N 1900E	48	5
1700N 1950E	58	5
1700N 2000E	27	nd
1700N 2050E	44	10
2000N 1600E	52	5
2000N 1650E	75	5
2000N 1700E	58	nd
2000N 1750E	40	5
2000N 1800E	48	nd
2000N 1850E	25	5
DETECTION LIMIT	1	5

WISSECKER LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: — = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-824 JOB NUMBER: 84179

PAGE 2 OF 3

SAMPLE #	Cu	Au
	ppm	ppb
2000N 1900E	19	20
2000N 1950E	38	18
2000N 2000E	23	15
2000N 2050E	40	nd
2200N 3000E	25	5
2200N 3500E	45	5
2200N 4000E	43	5
2200N 4500E	15	5
2200N 5000E	35	5
2200N 5500E	34	5
2200N 6000E	21	5
2200N 10000E	40	5
2200N 10500E	27	10
2200N 11000E	190	5
2200N 11500E	50	15
2200N 12000E	188	10
2200N 12500E	14	nd
2200N 13000E	42	nd
2200N 13500E	23	10
2200N 14000E	24	5
2200N 14500E	64	5
2200N 15000E	12	5
2200N 15500E	85	20
2200N 16000E	20	nd
2200N 16500E	13	5
2200N 17000E	42	15
2200N 17500E	14	10
2200N 18000E	24	5
2200N 18500E	22	5
2200N 19000E	26	5
2200N 19500E	40	5
2200N 20000E	150	5
2200N 20500E	40	10
2300A 10500E	22	10
2300A 11000E	44	5
2300A 11500E	81	10
2300A 12000E	72	5
2300A 12500E	44	5
2300A 13000E	23	nd
DETECTION LIMIT	1	5

WIMBERICHEN LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: E & B EXPLORATION INC.

NOTES: nd = none detected

: -- = not analysed

: is = insufficient sample

REPORT NUMBER: 84-39-024 JOB NUMBER: 84179

PAGE 3 OF 3

SAMPLE #	Cu ppm	Au ppb
2300A 1350E	48	nd
2300A 1400E	43	10
2300A 1450E	40	nd
2300A 1500E	12	5
2300A 1550E	29	nd
2300A 1600E	40	nd
2300A 1650E	35	5
2300A 1700E	21	5
2300A 1750E	10	5
2300A 1800E	16	20
2300A 1850E	26	nd
2300A 1900E	35	10
2300A 2050E	225	nd
DETECTION LIMIT	1	5

MIN-VN Laboratories Ltd.
Specialists in Mineral Enviro. Tests
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352B28

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY E & B EXPLORATIONS
PROJECT 5117 Jacobie II Prop'

FILE NO 4-268
DATE MAY 22/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	CU PPM	AU PPB
36401	125	5
36402	27	<5
36403	86	10
36404	139	5
36405	172	5
36406	25	5
36407	205	15
36408	19	10
36409	4800	25
36410	108	10
36411	320	10
36412	46	15
36413	63	5
36414	1430	10
36415	152	20
36416	54	10
36417	75	10
36418	100	15
36419	182	5
36420	14	<5
36421	33	10
36422	21	10
36423	72	5
36424	123	20
36425	54	15
36526	34	15
36527	210	5
36528	40	5
36529	148	10
36430	117	15

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

JACOBIE
Maria F.C.

PHONE: (604) 980-5814 DR (604) 988-4524

TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: E & B EXPLORATIONS

FILE 4-405

PROJECT: 5117

DATE: JUNE 22/84

ATTENTION: LEN SALEKEN

TYPE: ROCK GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 20 samples submitted.

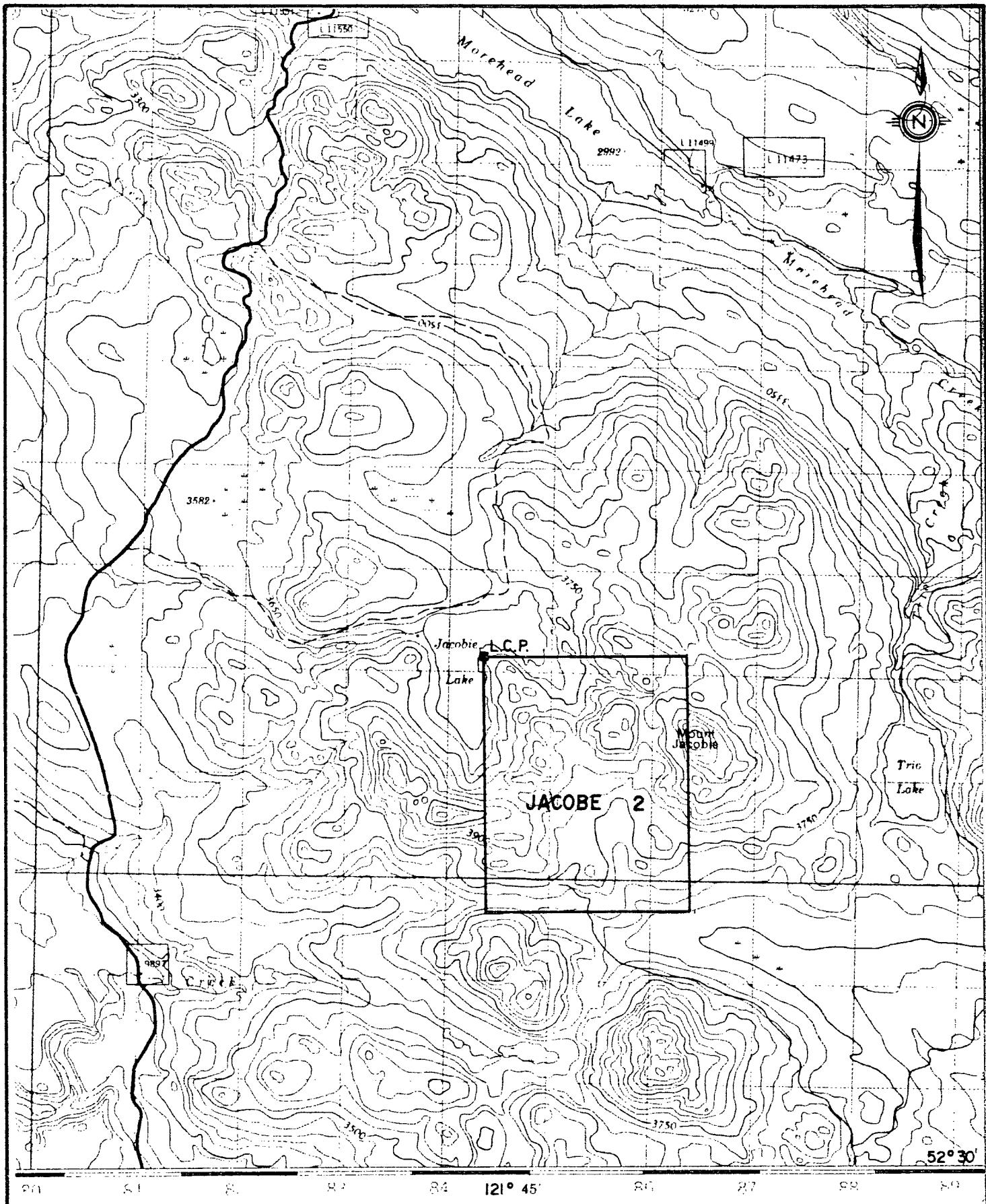
SAMPLE NUMBER	CU PPM	AU PPB
36431	227	5
32	22	5
33	196	5
34	61	5
35	90	5
36	41	10
37	67	5
38	4	5
39	124	5
40	3	5
41	399	<5
42	9	5
43	98	5
44	14	5
45	23	10
46	20	5
47	28	5
48	19	5
49	60	<5
36450	10	5

Certified by



SECTION E - ILLUSTRATIONS





E & B EXPLORATIONS INC.
VANCOUVER CANADA

**HENNESSY RESOURCES CORPORATION
JACOBIE 2 PROPERTY
CLAIM MAP**

DATE	OFFICE	DEPARTMENT	MAP INDEX NO.	SCALE	DRAWING NO.
May / 1984			N.T.S. 93A / 12	1: 50,000	J - 84-2

