

85-579-13865

6/86

GEOCHEMICAL AND GEOLOGICAL REPORT

on the

KANGAROO CLAIM GROUP
CARIBOO MINING DIVISION
BRITISH COLUMBIA

located at

Latitude 52°41' north Longitude 121°39' west
N.T.S. 93 A/12.

for

MT. CALVERY RESOURCES LTD.
1027-470 GRANVILLE STREET
VANCOUVER, B.C. V6C 1V5

Report by: R.M.Durfeld B.Sc.

JULY 1985

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,865

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INTRODUCTION

This report documents geochemical sampling and geological mapping that was conducted on the Kangaroo Group of mineral claims during the period June 23 to July 7, 1985. Most of the work was concentrated in areas that were anomalous in gold from the 1984 surveys.

PROPERTY DESCRIPTION

1) Location

The Kangaroo Group of mineral claims is located in the Cariboo Mining Division, British Columbia, sixty-five kilometres southeast of the community of Quesnel (Figure 1). More precisely it is located at 52°41' north latitude and 121°39' west longitude (National Topographic System Map 93A/12).

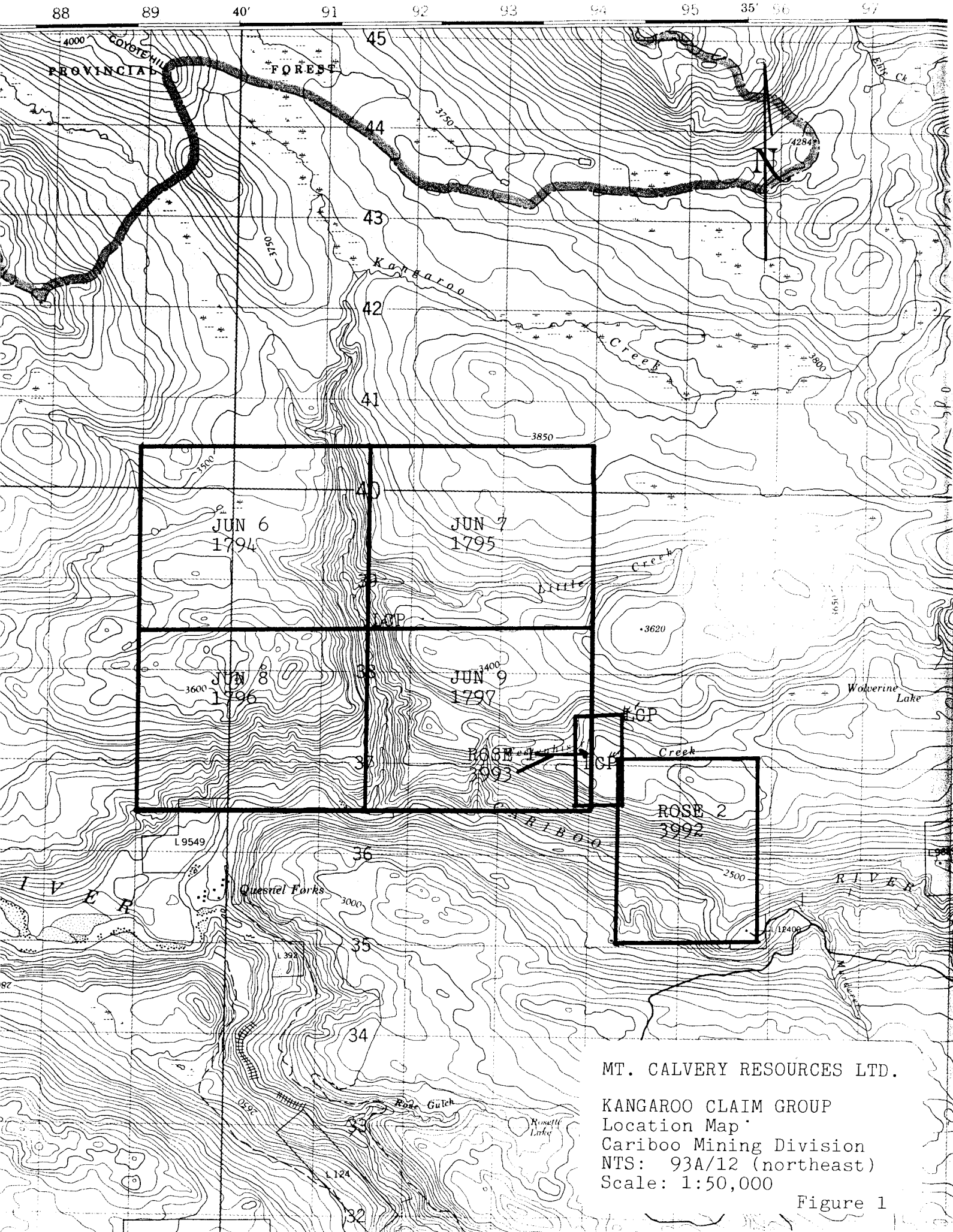
2) Access and Physiography

The Kangaroo Claim Group is readily accessible from Williams Lake or Quesnel via paved and gravel highway to the community of Likely and then 9 kilometres of secondary gravel road to the historic community of Quesnel Forks that is located on the western edge of the property. From here the Cariboo River bounds the property on the south and had to be crossed to access the Jun 8 and Jun 9 mineral claims on which all of the geological mapping and geochemical sampling were conducted. This crossing was achieved by a cable crossing and/or a river boat that are located at Quesnel Forks.

The claim group generally lies on a south facing slope that becomes steeper as it approaches the Cariboo River or Kangaroo and Westhiser Creeks. The elevation on the property ranges from 2200 to 3750 feet above sea level.

3) Climate

The climate of this area is typical of the central British Columbia Interior, with its warm often dry summers and cold winters. The area is typically frost free for 60 to 100 days per year and has a mean annual precipitation of 50 to 75 centimetres, of which approximately half would fall as snow.



MT. CALVERY RESOURCES LTD.
 KANGAROO CLAIM GROUP
 Location Map
 Cariboo Mining Division
 NTS: 93A/12 (northeast)
 Scale: 1:50,000

Figure 1

4) Claim Summary

the Kangaroo Group of mineral claims consists of 94 mineral claim units that were located under the British Columbia modified grid system (Figure 1).

The current status of these mineral claims is summarized as:

CLAIM NAME	NO. OF UNITS	RECORD NO.	ANNIVERSARY DATE
JUN 6	20	1794	July 7
JUN 7	20	1795	July 7
JUN 8	20	1796	July 7
JUN 9	20	1797	July 7
ROSE 1	2	3993	August 24
ROSE 2	12	3992	August 24

GEOLOGY

1) Regional Geology

The Kangaroo Claim Group is underlain by a sequence of volcanic-clastic and sedimentary rocks comprised of green pyroxene bearing andesitic flows, agglomerate and breccia, conglomerates, argillite and limestone. The Geological Survey of Canada maps this sequence as having been deposited in the Triassic to Jurassic Age structural feature known as the Quesnel Trough.

2) Local Geology

The local geology is based on mapping of limited outcrop that was encountered during the geochemical sampling (Figure 2).

The Kangaroo Claim Group is underlain by a northwesterly trending section of sedimentary rocks (unit 1) and volcanic rocks (unit 2) that have been intruded by mafic intrusive rocks (unit 3).

Unit 1 - is subdivided into siltstone (1a), argillite (1b), and conglomerate (1c).

Unit 2 - is subdivided into greenstone (2a), andesite (2b) and rhyolite (2c).

Unit 3 - is subdivided into gabbro (3a) and diorite (3b).

The gabbro and diorite lithologies crosscut and are younger than the sedimentary and volcanic lithologies.

The alteration associated with the intrusive lithologies is recognized as fine chlorite on shears and matrix of all lithologies. Minor quartz carbonate veining is developed as metamorphic sweats and in association with the intrusive lithologies.

The sedimentary and volcanic strata generally develop a north-west strike with variable dips to the east and west. Locally considerable variation is noted in this trend, particularly near the intrusive lithologies and in sections of Westhiser and Kangaroo Creeks where there is extensive faulting.

Variable pyrite was noted disseminated and on shears in all the lithologies. Minor chalcopyrite was noted with arsenopyrite and pyrite in narrow discontinuous quartz veins in Westhiser Creek.

GEOCHEMICAL SURVEY

During the 1984 field season geochemical soil sampling was conducted on the Kangaroo Claim Group on a grid basis with lines 400 metres apart and a sample interval of 50 metres. This survey developed five distinct areas with anomalous gold values (greater than 20 ppb gold) that were chosen for follow-up by way of detail soil sampling with lines 50 metres apart and a 25 metre sample interval. In conjunction with this soil sampling, silt and rock samples were collected in the areas of Kangaroo and Westhiser Creeks.

1) Geochemical Sample Collection and Analysis

The soils that are developed on the Kangaroo Claim Group are of the Podsollic to Lithic Podsollic type and are characterized by a well developed B-horizon that was sampled for this geochemical survey. Silt samples were collected from active streams. The individual soil and silt samples were placed in labelled Kraft sample bags. Random rock chip samples were collected from several outcrops in Westhiser Creek and placed in large plastic sample bags with the relevant assay tag.

All of the soil, silt and rock chip samples were subsequently shipped to MIN-EN Laboratories in North Vancouver where they were analyzed for silver, arsenic, copper, lead and zinc by Inductively Coupled Argon Plasma and geochemical gold by Atomic Absorption.

2) Geochemical Results

Silt Sampling

The gold and associated copper, silver and arsenic values for the silt samples are plotted on the Geochemical Plan 1:5000 (Figure 3). Silt sample K-D-5 in Westhiser Creek is strongly anomalous in gold (400 ppb) without associated silver, arsenic or copper values. A source for this anomalous sample would be expected below K-D-4 and above K-D-5. The elevated gold values below K-D-5 may be due to the downstream dispersion from this same source.

Rock Chip Sampling

The gold and associated copper, silver and arsenic values for the rock chip samples are plotted on the Geological Plan 1:5000 (Figure 2). Of this limited rock chip sampling only sample # 26035 returned significant gold (6000 ppb) with associated silver (13.5 ppm), arsenic (18951 ppm) and copper (2044 ppm) values. This sample was taken from narrow discontinuous quartz, arsenopyrite and chalcopyrite vein material just above silt sample K-D-5.

Soil Sampling

Follow-up soil sampling was conducted in the five anomalous areas that were defined by the 1984 soil sampling. The gold and associated copper, silver and arsenic values for the follow-up sampling are plotted on the Geochemical Plans 1:2000 (Figures 4, 5 and 6).

To better define the anomalous values the data was statistically analyzed. High values were arbitrarily cut and the mean and standard deviations calculated. The anomalous values were defined as the mean plus one standard deviation. These values are summarized below and have also been highlighted on figures 4, 5 and 6.

ELEMENT	CUT TO	MEAN	STANDARD DEVIATION	ANOMALOUS
Silver	2.0 ppm	1.1 ppm	0.4 ppm	1.5 ppm
Arsenic	40 ppm	14.9 ppm	18.7 ppm	34 ppm
Copper	150 ppm	73.8 ppm	47.3 ppm	120 ppm
Gold	25 ppb	9.3 ppb	6.4 ppb	16 ppb

Anomaly 1 (Figure 4)

Soil sample 484N 62+00W of the 1984 survey developed the highest gold (450 ppb) value with an associated elevated copper value. Detail sampling in this area of shallow overburden that is underlain by rhyolitic to andesitic volcanic rocks that are cut by mafic intrusive rocks returned weakly anomalous gold (40 ppb) and associated copper values.

Anomaly 2 (Figure 4)

Anomaly 2 is developed at 476N 70+50W in deep overburden as an isolated gold (210 ppb) value that was not reproduced by the additional soil sampling.

Anomaly 3 (Figure 4)

Anomaly 3 is developed in an area of deep overburden where the soils are alluvial in character. The anomalous gold values developed here can be explained as placer concentrations.

Anomaly 4 (Figure 5)

Anomaly 4 is developed as sporadic anomalous gold and associated copper values developed in shallow overburden in an area that is underlain by felsic to andesitic volcanics.

Anomaly 5 (Figure 6)

Anomaly 5 is developed as an isolated anomalous gold (40 ppb) in an area of elevated copper values that is underlain by greenstone.

Anomaly 6 (Figure 6)

Anomaly 6 is developed as sporadic weakly anomalous gold values with no associated anomalous silver, arsenic or copper values.

DISCUSSION

Silt sample K-D-5 in Westhiser Creek is strongly anomalous in gold (400 ppb). Rock chip sample 26035 was taken as quartz-sulphide vein material just upstream from this silt sample site and returned significant gold (6000 ppb), silver (13.5 ppm), arsenic (18951 ppm) and copper (2044 ppm) values and represents the probable source for this anomalous silt sample.

The vein structures sampled as rock chip sample 26035 are discontinuous and narrow. Additional prospecting and sampling should be conducted in this area to expand the potential of this mineralized structure.

The 1984 reconnaissance and 1985 follow-up soil sampling of the Kangaroo Claim Group develops sporadic anomalous gold values. The spurious nature of gold in soil samples is demonstrated by anomalies 2,3 and 6 where the detail sampling did not reproduce any anomalous gold values in the area of the initially anomalous site. Additional fill-in sampling in the areas of anomalies 1, 4 and 5 is necessary to better define the anomalous gold and pathfinder (silver, arsenic and copper) trends.

APPENDIX I

GEOCHEMICAL ANALYSES

COMPANY: WELCOME NORTH MINES

MIN-EN LABS ICF REPORT

(RET.) PAGE 1 OF 1

PROJECT NO: KANGAROO

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 5-3278

ATTENTION: JOHN MCCLINTOCK/R. BURFELD

16041980-5814 OR 16041988-4524

* TYPE SILT GEOCHEM *

DATE: JULY 12, 1985

(VALUES IN PPM)	AG	AS	CU	PB	ZN	AU-PPB
KD 1	2.4	99	426	68	94	5
KD 2	1.1	16	63	21	78	5
KD 3	1.2	9	51	15	63	5
KD 4	1.3	13	63	22	76	10
KD 5	1.2	20	76	19	80	400
KD 6	1.2	24	84	22	104	15
KD 7	1.2	19	71	22	84	5
KD 8	1.3	31	96	36	120	50
KD 9	1.2	25	82	30	123	10
KD 10	1.5	27	116	32	117	25
KD 11	1.3	28	93	37	121	5
KD 12	.8	8	31	19	50	5
KD 13	.8	4	29	14	48	5
KD 14	.8	8	30	18	50	10
KD 15	1.1	6	28	15	46	20
KD 16 40M	1.2	10	29	14	47	5
KD 17	1.1	6	32	20	53	5
KD 18	1.1	7	29	15	48	10
KD 19	1.0	3	24	13	40	10
KD 20	.8	4	26	14	42	5

(VALUES IN PPM)	AS	CS	CU	FE	ZN	MO-PPB
460N47+50W	.8	7	30	17	83	5
460N48+50W	.6	4	9	4	30	10
49+50W459+50N	.6	1	16	11	106	10
49+50W459+75N	.8	4	25	17	218	5
49+50W460+00N	.6	3	14	10	115	5
49+50W460+25N	.6	1	17	10	167	5
49+50W460+50N	.6	5	21	17	113	5
49+50W460+75N	.6	12	18	19	132	10
BL50W459+50N	.8	10	27	16	78	20
BL50W459+75N	.8	3	18	13	118	10
BL50W460+00N	.8	2	32	15	81	5
BL50W460+25N	.8	7	21	12	125	5
BL50W460+50N	.8	9	43	21	130	20
BL50W460+75N	.6	1	11	8	42	5
49+50W471+00N	1.3	15	201	39	372	5
49+50W471+25N	1.5	15	166	32	98	10
49+50W471+50N	1.0	8	58	19	62	5
49+50W471+75N	1.6	27	239	56	206	5
49+50W472+00N	2.2	25	335	50	121	3
49+50W472+25N	.6	7	30	17	39	5
49+50W472+50N	.6	12	77	21	161	5
BL50W471+25N	.6	19	49	27	52	10
BL50W471+50N	2.7	22	349	51	103	40
BL50W471+75N	1.0	22	192	40	84	5
BL50W472+00N	1.6	27	301	50	124	5
BL50W472+25N	1.5	51	448	56	192	10
BL50W472+50N	3.0	33	449	73	100	15
BL50W472+75N	1.3	8	74	21	91	10
50+50W459+75N	1.7	15	119	34	209	10
50+50W460+00N	1.1	15	75	29	165	5
50+50W460+25N	.6	15	51	17	95	25
50+50W460+50N	.6	1	9	6	83	5
50+50W460+75N	.6	4	20	10	73	10
BL70W476+00N	.8	12	84	20	58	10
476N70+25W	.6	11	42	18	60	5
476N70+50W	.6	7	25	13	111	5
476N70+75W	.6	7	27	15	47	3
483+50N61+50W	1.2	18	64	19	113	5
483+50N61+75W	1.1	2	27	5	57	5
483+50N62+00W	1.0	22	74	25	109	3
483+50N62+25W	.8	14	38	20	124	5
483+50N62+50W	1.0	14	39	19	82	10
483+50N62+75W	.8	8	51	13	89	5
483+50N63+00W	1.2	18	57	12	70	20
483+50N63+25W	1.3	30	127	40	148	15
483+50N63+50W	1.1	46	85	36	125	5
483+50N63+75W	1.0	6	43	14	93	5
483+50N64+00W	1.1	30	125	33	144	5
483+50N64+25W	1.2	30	109	30	106	10
483+50N64+50W	1.2	20	80	25	133	5
484N61+50W	1.0	32	77	23	189	5
484N61+75W	1.5	21	51	22	151	25
484N62+00W	1.2	22	53	15	128	15
484N62+25W	1.0	98	80	24	81	30
484N62+50W	1.2	4	56	13	85	5
484N62+75W	1.1	9	57	18	78	5
484N63+00W	1.2	22	259	26	132	40
484N63+25W	1.3	17	126	23	127	5
484N63+50W	1.2	25	214	26	121	10
484N63+75W	1.0	18	15	18	155	15

COMPANY: WELCOME NORTH MINES

MIN-EM LABS ICP REPORT

(ACT:) PAGE 1 OF 1

PROJECT NO: KANGAROO

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 5-3275/P4+5

ATTENTION: JOHN MCCLINTOCK/R. DURFELD

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

* TYPE SOIL GEOCHEM *

DATE: JULY 12, 1985

(VALUES IN PPM)	AS	CS	CU	PR	ZN	AU-PPB
484N64+00W	.8	9	26	19	72	5
484N64+25W	1.1	8	119	18	84	10
484N64+50W	1.2	1	55	9	92	5
484+50N61+50W	1.5	18	98	21	148	5
484+50N61+75W	1.2	1	57	8	144	3
484+50N62+00W	1.3	29	156	21	95	20
484+50N62+25W	1.2	1	32	1	68	5
484+50N62+50W	1.2	6	45	18	113	10
484+50N62+75W	1.0	13	74	20	69	5
484+50N63+00W	1.2	6	73	16	90	5
484+50N63+25W	1.2	6	83	17	111	10
484+50N63+50W	1.2	10	49	17	143	5
484+50N63+75W	1.1	7	93	29	90	5
484+50N64+00W	1.6	6	52	19	186	5
484+50N64+25W	1.2	1	22	10	70	20
484+50N64+50W	1.7	46	194	101	176	10
468N60+50W	.8	7	28	20	48	5
468N60+75W	.8	11	30	21	57	2
468N61+00W	.6	17	32	22	60	10
468N61+25W	.8	9	17	14	52	45
468N61+50W	1.6	8	16	15	48	15
471+50N54+00W	1.8	7	125	36	157	10
471+50N54+25W	1.0	15	90	27	110	5
471+50N54+50W	1.5	13	136	29	100	5
471+50N54+75W	1.2	2	46	19	50	5
471+50N55+00W	1.2	2	71	20	100	5
471+75N57+00W	1.2	12	474	34	40	35
472N54+00W	1.0	6	31	18	171	5
472N54+25W	.8	11	37	21	150	25
472N54+50W	.6	13	28	23	95	5
472N54+75W	.8	17	76	25	60	15
472N55+00W	1.2	17	137	30	169	10
472N56+50W	.6	22	99	26	69	5
472N56+75W	1.0	21	187	28	78	5
472N57+00W	1.0	17	172	25	62	20
472N57+25W	1.1	3	127	22	86	25
472N57+50W	1.1	17	158	25	74	10
472+25N56+00W	1.2	13	68	27	110	5
472+50N54+00W	1.2	5	55	18	180	5
472+50N54+25W	1.1	11	45	21	167	15
472+50N54+50W	1.2	17	115	37	182	5
472+50N54+75W	1.7	11	67	27	310	5
472+50N55+00W	1.8	14	137	33	150	5

COMPANY: WELCOME NORTH MINES

MIN-EM LABS ICF REPORT

(ACT.) PAGE 1 OF 1

PROJECT NO: KANGAROO

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 5-327R

ATTENTION: JOHN MCCLINTOCK/R. DURFELD

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

* TYPE ROCK GEOCHEM *

DATE: JULY 12, 1985

(VALUES IN PPM)	AG	AS	CU	PB	ZN	AU-PPB
26028	1.0	90	60	34	221	20
26029	1.8	42	131	11	77	5
26030	2.2	44	126	17	53	5
26031	2.5	3	195	7	63	5
26032	2.4	1	159	8	57	25
26033	.8	490	92	30	81	5
26034	.8	44	57	23	59	5
26035	13.5	18951	2044	186	938	6000

APPENDIX II

ITEMIZED COST STATEMENT

PERSONNEL

Contract Geologist - R.M.Durfeld
9 days @ \$250/day \$ 2,250.00

Contract Assistant - D.Dunlop and A.Niquidet
9 days @ \$100/day 900.00

TRANSPORTATION

Truck Rental - 10 days @ \$30/day 300.00

Truck Fuel - 150.00

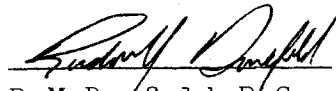
ROOM AND BOARD - 18 man days @ \$35/day 630.00

RIVER BOAT CHARTER - 8 days 360.00

GEOCHEMICAL ANALYSES - 1,386.35

REPORT PREPARATION AND DRAFTING - 600.00

Total \$ 6,576.35



R.M.Durfeld B.Sc.
Geologist

Durfeld Geological Management Ltd.

180 Yorston Street

Williams Lake, B.C. V2G 3Z1


Telephone (604) 392-4691

APPENDIX III

STATEMENT OF QUALIFICATIONS

I Rudolf M. Durfeld of 2029 South Lakeside Drive, Williams Lake, British Columbia, hereby certify that:

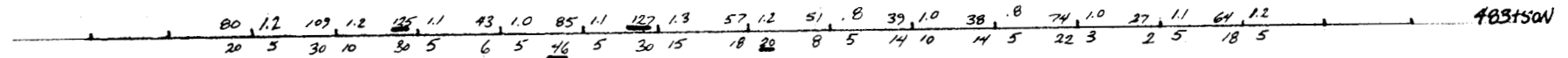
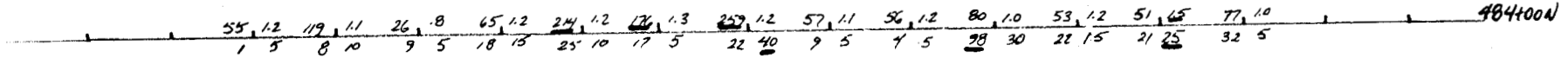
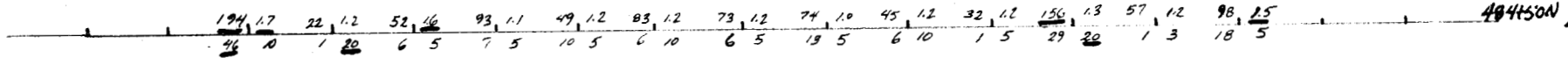
- 1) I am a graduate of the University of British Columbia, Bachelor of Science (Geology Major) in 1972 and have practiced my profession as geologist since that time.
- 2) I am a Fellow of the Geological Association of Canada (Member No: F3025).
- 3) I am the author of this report which is based on work that was conducted on the JUN 8 and JUN 9 mineral claims during the period June 23rd to July 7, 1985.


R.M. Durfeld B.Sc.
Geologist

65100W

ANOMALY 1

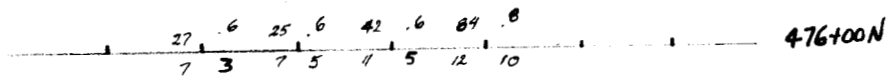
6100W



ANOMALY 2

7100W

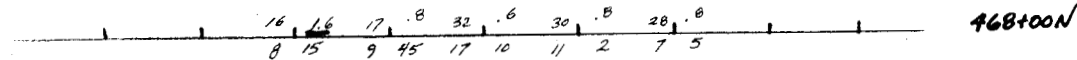
B.L. 70W



6200W

ANOMALY 3

60100W



474	1.2
12	35

COPPER PPM	SILVER PPM
ARSENIC PPM	GOLD PPB

MT CALVERY RESOURCES LTD.
 KANGAROO CLAIM GROUP
 GEOCHEMICAL SURVEY

July 1985
 Scale: 1:2000 Figure 4

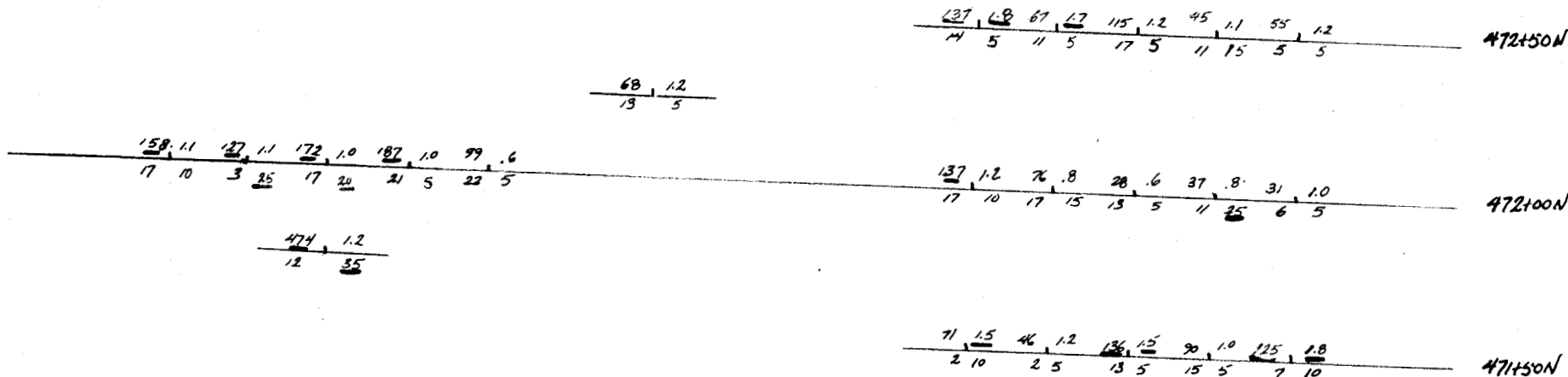
ANOMALY 4

57100W

56100W

55100W

54100W



MT CALVERY RESOURCES LTD.
KANGAROO CLAIM GROUP
GEOCHEMICAL SURVEY

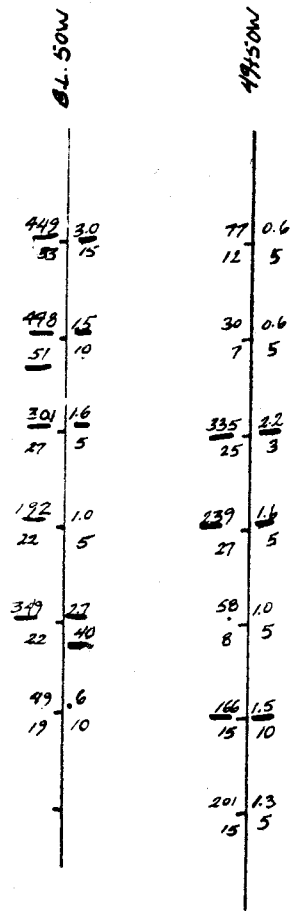
July 1985

Scale: 1:2000

474 12
12 35

COPPER PPM SILVER PPM
ARSENIC PPM GOLD PPB

ANOMALY 5

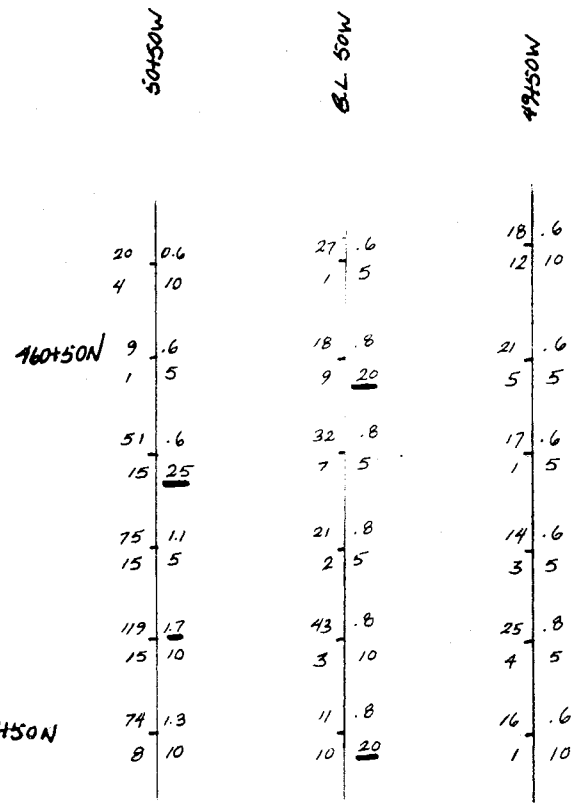


472+50N

471+50N

459+50N

ANOMALY 6



48+50W

47+50W

9 | .6
7 | 10

30 | .8
1 | 5

474 | 1.2
12 | 35
180 | 1.5
12 | 22

COPPER PPM SILVER PPM
ARSENIC PPM GOLD PPB
ANOMALOUS VALUE

MT CALVERY RESOURCES LTD.
KANGAROO CLAIM GROUP
GEOCHEMICAL SURVEY

July 1985
Scale: 1:2000 Figure 6



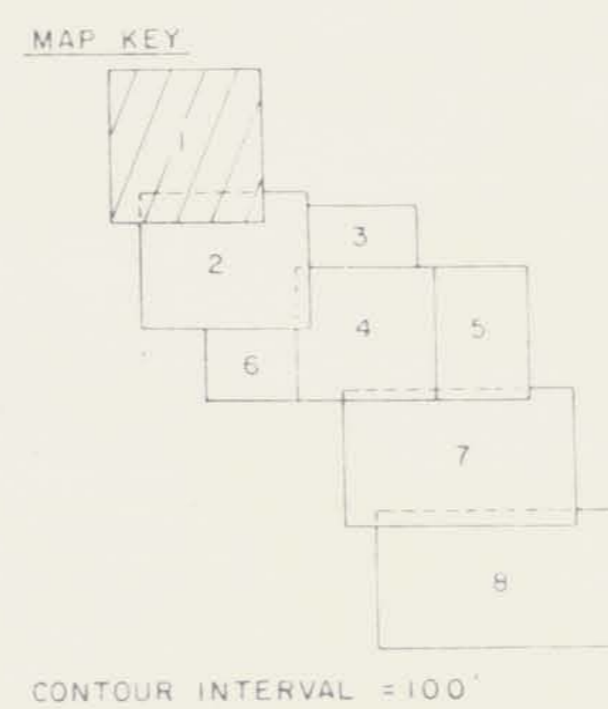
LEGEND

- 3a GABBRO
- 3b DIORITE
- 2a GREENSTONE
- 2b ANDESITE
- 2c RHYOLITE
- 1a SILTSTONE
- 1b ARGILLITE
- 1c CONGLOMERATE

- OUTCROP AREA
- ROCK SAMPLE SITE
- FAULT INCLINED, VERTICAL
- BEDDING INCLINED, VERTICAL
- VEIN INCLINED, VERTICAL

- AREA OF 1985 SAMPLING
- SITE SAMPLE SITE

- Cu ppm - 25 ppm
- Ag ppm - 5 ppm
- 40 ppm Cu - 0.4 ppm Ag
- 40 ppm Au - 0.5 ppm Au



CONTOUR INTERVAL = 100'

LEGEND

- PPM COPPER PPM SILVER PPM
- ARSENIC PPM GOLD PPM
- 40 PPM Cu - 0.4 PPM Ag
- 40 PPM Au - 0.5 PPM Au



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,865

MT. CALVEY RESOURCES LTD
CARIBOO - LIKELY PROJECT

**1985 GEOLOGY & SILT
SAMPLING**

DATE JULY 1985 NTS: 93-A-12

BY RD. / r. w. FIGURE 2
PLATE