

**D. L. COOKE AND ASSOCIATES LTD.**  
**MINERAL EXPLORATION CONSULTANTS**

ASSESSMENT REPORT

1989 PRELIMINARY GEOCHEMICAL SURVEY  
KC MINERAL CLAIMS  
MT. MILLIGAN AREA            OMINECA M.D.

Latitude:     55°    07' N  
Longitude:    123°   56' W  
NTS:           93 0/4 W.

for  
HLX RESOURCES LTD.  
1900 - 999 West Hastings St.,  
Vancouver, B.C., V6V 2W2

by  
David L. Cooke, Ph.D., P.Eng.  
D.L. COOKE AND ASSOCIATES LTD.  
811 - 675 West Hastings St.  
Vancouver, B.C., V6B 1N2

NOVEMBER 10, 1989

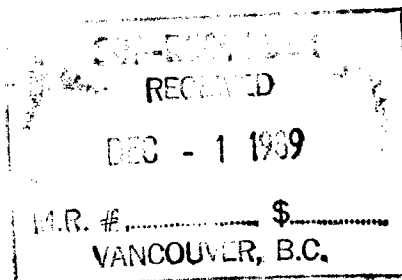
FIELD WORK DONE: July 15 & Aug. 28, 1989

CLAIMS ON WHICH WORK DONE:

Claim  
KC 2

Record No.  
10098

Record Date  
February 14/89



LOG NO:	1205	RD.
ACTION:		
FILE NO:		

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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,396

## SUMMARY AND CONCLUSIONS

The KC 1 and 2 claims (40 units) cover an area believed to be underlain by Triassic volcanic and/or intrusive rocks. They are favourable for the occurrence of porphyry copper-gold mineralization similar to that which occurs on the adjacent Mt. Milligan property of Continental Gold Corporation and BP Resources Can. Ltd. The claims adjoin the east boundary of the Continental property and straddle the main logging road which runs some 90 kilometers west from McKenzie, B.C. to the Mt. Milligan area.

A preliminary, reconnaissance type soil and rock sampling survey was done over the KC property in late July and August, 1989 to determine the usefulness of geochemistry in evaluating the potential for the occurrence of copper and gold on the property. Anomalous levels of gold in soils and copper and gold in erratic rock samples lead to the conclusion that more detailed geochemical work is warranted. The area is relatively flat and bedrock is obscured by glacial drift. Consequently the source of the anomalous levels of Cu and Au in soil and rock samples is unknown. Mineralized float of intermediate and basic volcanic rocks contain abundant disseminations of pyrite and various amounts of chalcopyrite.

## RECOMMENDATIONS

Further evaluation of the KC claims will require a combination of exploration techniques. A detailed geochemical survey is recommended for the claims in conjunction with geophysical surveys to better locate the source of anomalous gold and copper found in the soils and in mineralized float.

## INTRODUCTION

The KC claims were staked in the covered area on the eastern margin of the Mt. Milligan property because of the potential for the occurrence of other porphyry copper-gold deposits in the area. A reconnaissance soil survey was done in July and August by geologists D.L. Cooke, Ph.D., P.Eng., and R.U. Bruaset, B.Sc., along logging roads which cross the property. This survey was confined to the KC 2 claim. Because of the unknown thickness but widespread nature of glacial drift cover in the area, mineralized volcanic float was also collected for analysis.

The expenditures for this preliminary geochemical survey are being applied for one year's assessment credits on the KC 1 and 2 claims.

## LOCATION AND ACCESS

The KC claims are located immediately west of Philip Lakes, along the main logging road, 90 kilometers west of McKenzie, B.C. (Figure 2). Timber on parts of the KC claims have been clear-cut, allowing easy access to most areas of the claims. The property adjoins the east boundary of the Mt. Milligan property which consists of the Heidi, Phil and Rainbow claims. (Figure 2).

## PROPERTY AND OWNERSHIP

The KC claims are held by D.L. Cooke in trust for the Cooke Nation Syndicate. The pertinent claim data is as follows:

<u>Claim</u>	<u>Units</u>	<u>Rec. No.</u>	<u>Rec. Date</u>
KC 1	20	10097	February 14, 1989
KC 2	20	10098	February 14, 1989

## GEOLOGY AND MINERALIZATION

The area of the KC claims is covered by glacial drift of unknown thickness. It is probably underlain by Takla volcanics of Triassic age, similar to the sequence which occurs on the Mt. Milligan property to the west. Abundant erratics in the glacial cover on the KC 2 claim consists of augite andesite and basalt boulders. Some of these volcanic boulders are impregnated with disseminations of pyrite, with or without chalcopyrite. The best geochemical values obtained from these boulders are 3650 ppm. Cu and 444 ppb. Au. (Figure 3).

HLX RESOURCES LTD.

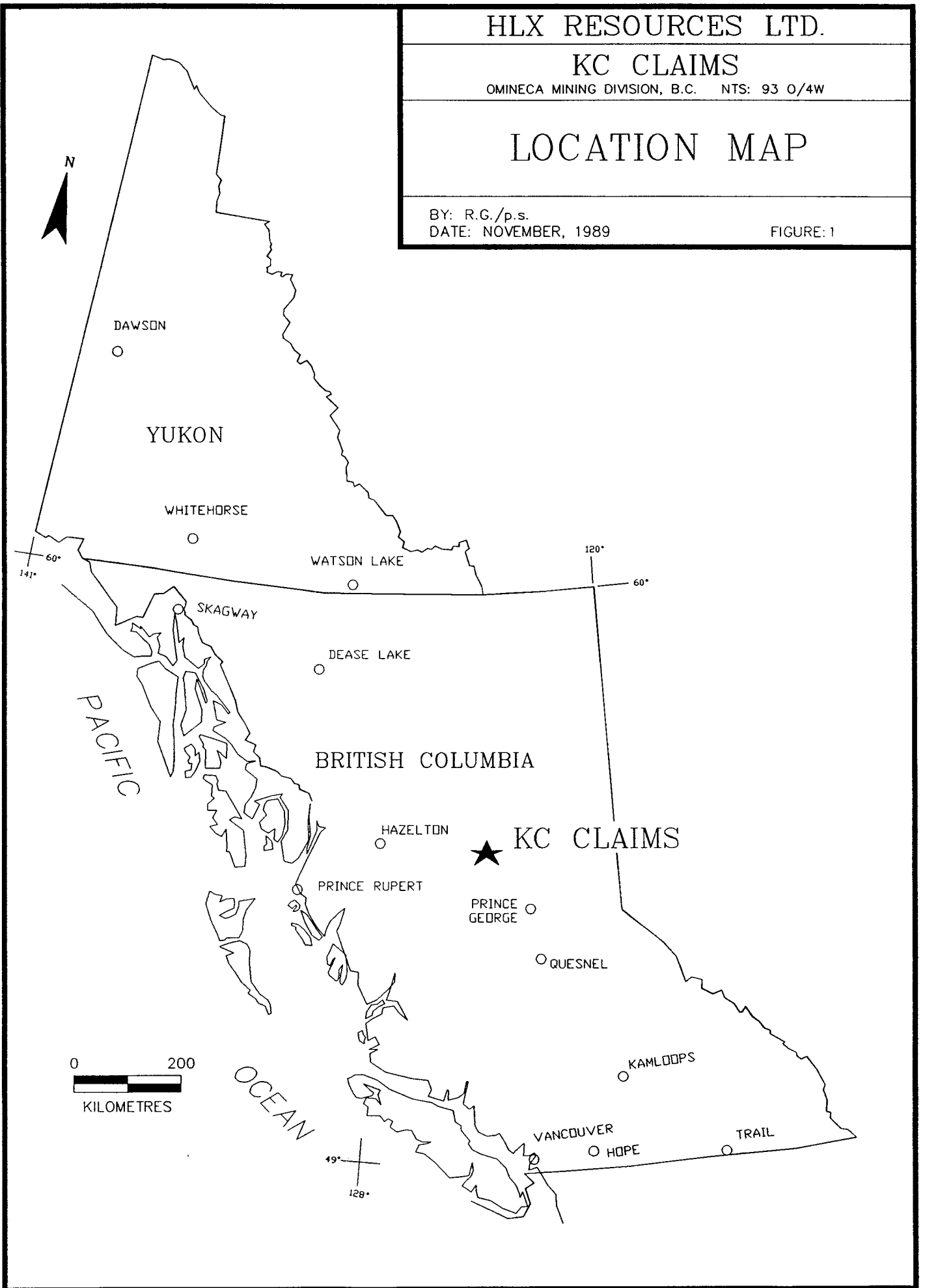
KC CLAIMS

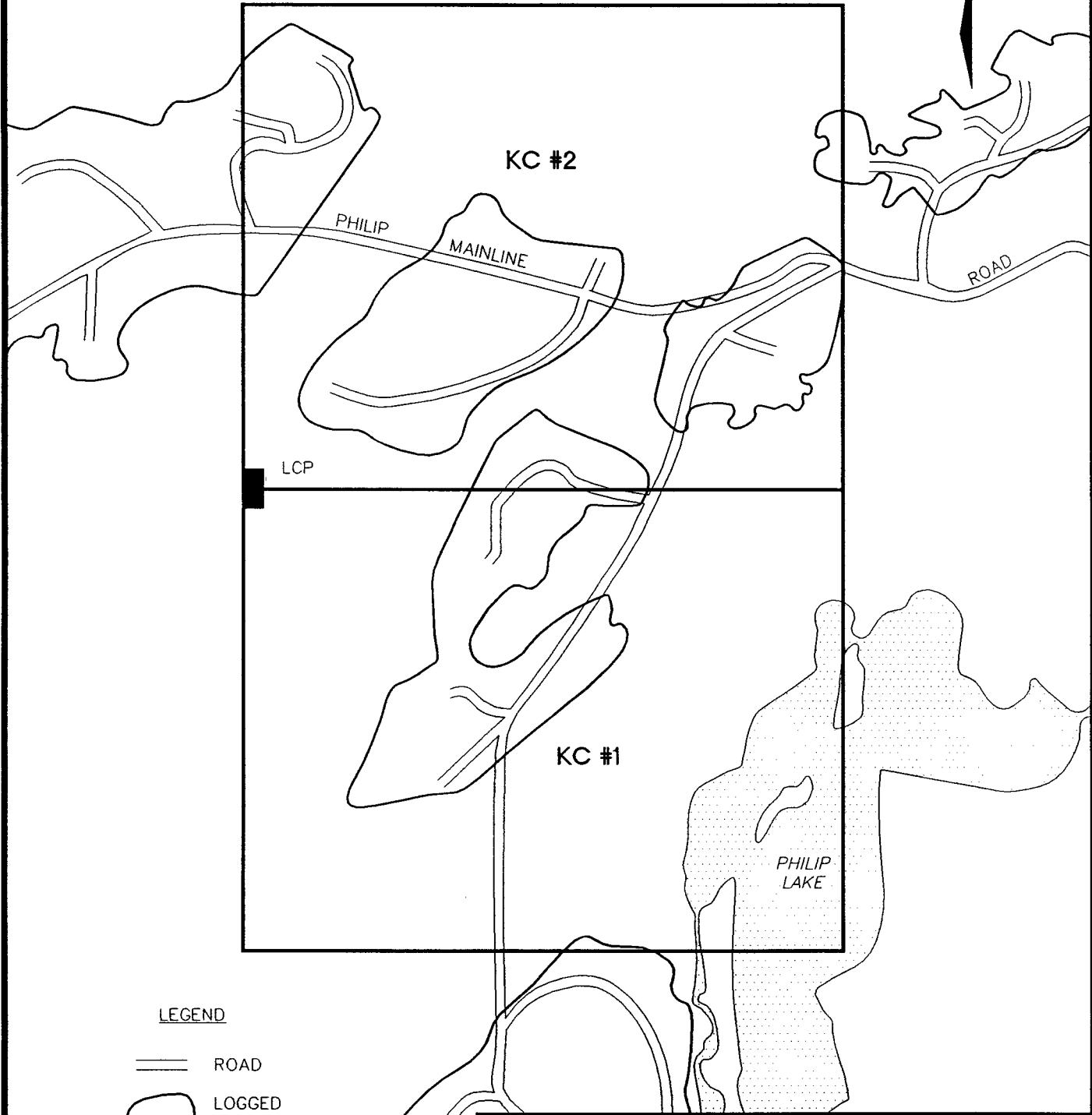
OMINECA MINING DIVISION, B.C. NTS: 93 O/4W

LOCATION MAP

BY: R.G./p.s.  
DATE: NOVEMBER, 1989

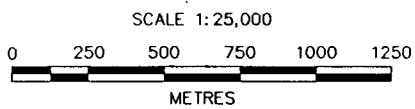
FIGURE: 1





LEGEND

-  ROAD
-  LOGGED AREA



HLX RESOURCES LTD.

KC CLAIMS

OMINECA MINING DIVISON, B.C. NTS: 93 0/4W

CLAIM MAP

BY: D.C./p.s.  
DATE: NOVEMBER, 1989

FIGURE: 2

## GEOCHEMISTRY

Soil samples were collected at 50 metre intervals along logging roads and skid trails on the KC 2 claim (Figure 3). Sample depth varied from 15 cm to 25 cm. In general a good red-brown B horizon is developed at these depths within the glacial drift cover. The B horizon is less well-developed on eskers which are common in this area. Soil samples were placed in kraft sample bags and shipped to Min-En Laboratories in North Vancouver for analysis. Sulphide-bearing float were collected from the vicinity of some soil samples and submitted for geochemical analysis.

Soil samples were dried at approximately 60°C and the -80 mesh portions digested with an acid mixture of HNO<sub>3</sub> and HClO<sub>4</sub>. The solutions were standardized and then analysed by computer operated Jarrell Ash 9000 Induction Plasma (ICP) Analyser. Gold was determined by atomic absorption spectrophotometry. Rock samples were crushed and treated in the same manner as the soil samples. The analytical results are presented in Appendix III. Plots of copper and gold values are shown in Figure 3.

## DISCUSSION OF RESULTS

Anomalous values in soils and rocks are assumed to be as follows:

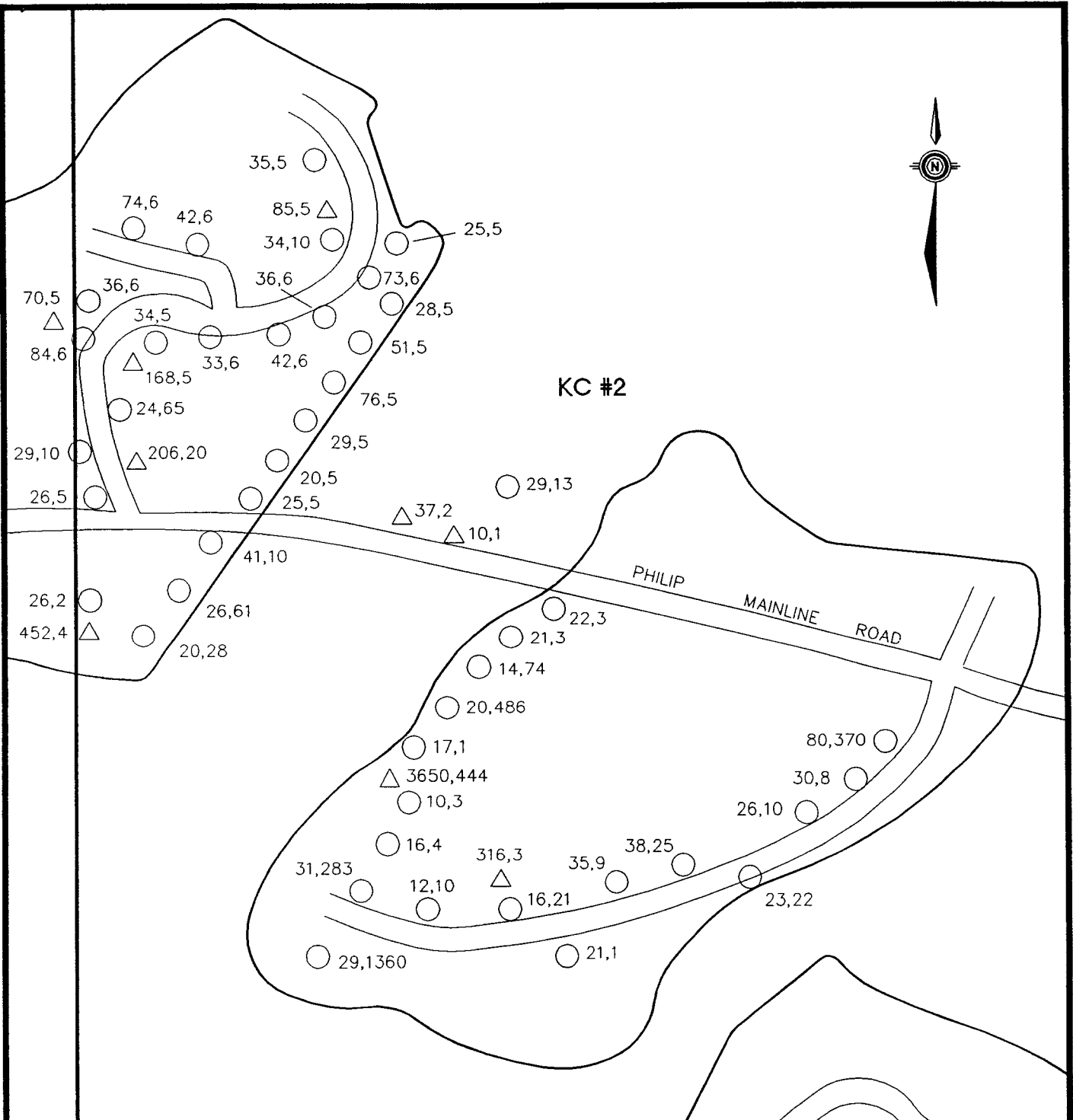
Cu  $\geq$  100 ppm; Au  $\geq$  20 ppb; Ag  $\geq$  1.0 ppm, and As  $\geq$  15 ppm. The total number of samples are insufficient to statistically determine the anomalous levels.

On the basis of the assumptions made above, it is evident that many of the mineralized rock samples are anomalous for copper, gold, silver and arsenic. On the other hand, some soil samples are anomalous for gold and arsenic only.

Report by  
D.L. COOKE AND ASSOCIATES LTD.

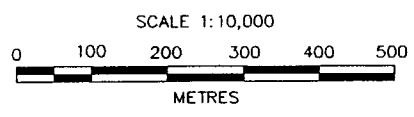


David L. Cooke, Ph.D., Eng.  
November 10, 1989.



LCP LEGEND

- 35,5 SOIL SAMPLE: 35ppm Cu, 5ppb Au
- △ 85,5 ROCK SAMPLE: 85ppm Cu, 5ppb Au
- CLAIM BOUNDARY
- ◻ LOGGED AREA
- /// ROAD



HLX RESOURCES LTD.

KC CLAIMS

OMINECA MINING DIVISION, B.C. NTS: 93 0/4W

SAMPLE LOCATION MAP

CU & AU RESULTS

BY: D.C./p.s.  
DATE: NOVEMBER, 1989

FIGURE: 3



#### REFERENCES

1. Hunter, R.G., 1989: News Releases; Continental Gold Corp. - Nov. 7, 1989; Aug. 21, 1989; Aug. 10, 1989, etc.
2. Rice, H.M.A., 1948: G.S.C. Map 971A, Smithers - Ft. St. James, 1" = 8 miles.
3. Muller, J.E., 1960: G.S.C. Map 11 - 1961, Pine Pass, 1:253,440.

APPENDIX I

1989 EXPENDITURES  
KC CLAIMS, COOKE NATION SYNDICATE

SALARIES

D.L. Cooke, Geologist		
July 15 & Aug. 28, 1989:		
2 days @ \$350/day .....	\$700.00	
M. Cooke, Assistant		
July 15, 1989:		
1 day @ \$150/day .....	150.00	
R. Bruaset, Geologist		
August 28, 1989:		
1 day @ \$250/day .....	250.00	
Report - D.L. Cooke: 1 day .....	350.00	
Supplies, equipment, maps .....	<u>50.00</u>	\$1,500.00

GEOCHEMISTRY - ANALYSES

Min-En Labs - Sept. 17, 1989:		
6 rocks @ \$17.35 ea. ....	103.50	
23 soils @ \$ 7.00 ea. ....	350.75	
Min-En Labs - Aug. 1, 1989:		
5 rocks @ \$14.75 ea. ....	73.75	
21 soils @ \$ 7.00 ea. ....	<u>147.00</u>	675.00

CAMP & DOMICILE

July 14 - 15 & Aug. 27 - 28, 1989:		
8 man days @ \$50.00/ea.		400.00

TRANSPORTATION

Truck Rental - July 14 - 16 &		
Aug. 27 - 28, 1989		
5 days @ \$50.00/day .....	250.00	
Gasoline, etc. ....	279.55	
Mileage: 1997 km @ 15 /km .....	<u>299.55</u>	<u>829.10</u>

TOTAL EXPENDITURES \$3,404.10

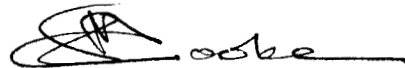
OCTOBER 16, 1989

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, DAVID LAWRENCE COOKE, of the Municipality of Surrey in the Province of British Columbia, hereby certify:

1. That I am a Consulting Geologist, with a business office at 811 - 675 West Hastings Street, Vancouver, B.C., V6B 1N2.
2. That I graduated with a B.Sc. degree in Geology from the University of New Brunswick in 1959, and with a M.A. degree and Ph.D. degree in Geology from the University of Toronto in 1961 and 1966 respectively.
3. That I have practised my profession as an exploration geologist from 1959 to the present time in Canada, the U.S.A., Mexico, the Caribbean and South America.
4. That I am a Registered Member of the Association of Professional Engineers of the Province of British Columbia.
5. That I have personally examined the KC Property, carried out the sampling on the said property, and that I am the author of this report.



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David L. Cooke, Ph.D., P.Eng.  
November 10, 1989

Report/DLC

APPENDIX III  
ANALYTICAL RESULTS

COMP: D.L. COOKE & ASSOC.

MIN-EN LABS — ICP REPORT

FILE NO: 9V-0754-RJ1

PROJ:

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

DATE: JUL-31-89

ATTN: D.L. COOKE

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

\* TYPE ROCK GEOCHEM \* (ACT:F31)

Table with 28 columns (AG, AL, AS, B, BA, BE, BI, CA, CD, CO, CU, FE, K, LI, MG, MN, MO, NA, NI, P, PB, SB, SR, TH, U, V, ZN, GA, SN, W, CR, AU) and 5 rows of sample data (KC-R-1 to KC-R-5).

COMP: D.L.COOKE & ASSOCIATES

MIN-EN LABS — ICP REPORT

FILE NO: 9V-1063-SJ1

PROJ:

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

DATE: SEP-16-89

ATTN: D.L.COOKE

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

\* TYPE SOIL GEOCHEM \* (ACT:F31)

Table with 28 columns (AG, AL, AS, B, BA, BE, BI, CA, CD, CO, CU, FE, K, LI, MG, MN, MO, NA, NI, P, PB, SB, SR, TH, U, V, ZN, GA, SN, W, CR, AU) and 40 rows of sample data (KC22S to KC44S).

COMP: D.L.COOKE & ASSOC.

MIN-EN LABS — ICP REPORT

FILE NO: 9V-1063-RJ3

PROJ:

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

DATE: SEP-15-89

ATTN: D.L.COOKE

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

\* TYPE ROCK GEOCHEM \* (ACT:F31)

Table with 28 columns (AG, AL, AS, B, BA, BE, BI, CA, CD, CO, CU, FE, K, LI, MG, MN, MO, NA, NI, P, PB, SB, SR, TH, U, V, ZN, GA, SN, W, CR, AU) and 7 rows of sample data (KC8R to KC12R).

COMP: D.L. COOKE & ASSOC.

PROJ:

ATTN: D.L. COOKE

MIN-EN LABS — ICP REPORT

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

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

FILE NO: 9V-0754-SJ1+2

DATE: JUL-31-89

\* TYPE SOIL GEOCHEM \* (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	HG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SH PPM	W PPM	CR PPM	AU PPM
KC-S-01	.4	22550	6	1	74	.8	5	3570	1.9	16	26	28380	600	13	5040	764	1	180	14	1440	20	1	14	1	1	82.3	136	1	1	1	28	5
KC-S-02	.1	20740	1	1	73	.6	4	3150	.6	16	29	27210	570	14	4680	612	1	170	16	1360	16	1	13	1	1	75.2	135	1	1	1	29	10
KC-S-03	.4	22380	5	1	74	.8	5	3930	1.5	18	24	33740	750	14	5010	947	1	160	19	1890	18	1	16	1	1	96.1	95	1	1	1	36	65
KC-S-04	.9	22410	15	1	116	1.1	7	4760	3.1	23	84	41830	980	16	9030	573	2	200	19	1700	24	3	19	1	1	123.1	127	2	1	1	55	6
KC-S-05	.9	23180	18	1	100	1.3	8	5910	2.5	24	77	43640	970	15	9080	625	3	200	26	1240	26	3	19	3	1	123.6	88	2	1	1	43	6
KC-S-07	.8	27030	14	1	100	1.0	5	4590	1.9	17	33	36640	940	15	5180	445	1	160	13	3100	17	2	19	1	1	100.7	132	1	1	1	33	6
KC-S-08	.7	20360	4	1	251	.7	6	7690	3.1	21	42	29810	1070	17	6730	1229	2	230	20	1260	27	2	27	1	1	87.0	90	1	1	1	33	6
KC-S-09	1.0	26170	26	1	103	1.1	8	6080	2.2	22	74	40280	1010	19	9890	396	2	240	27	2770	24	3	22	1	1	118.1	86	2	1	1	57	6
KC-S-10	.6	21580	12	1	73	.9	6	4200	1.5	18	36	37850	660	13	6310	455	2	160	20	1390	21	2	17	1	1	115.6	83	1	1	1	38	6
KC-S-11	.3	19840	1	1	99	.8	5	3680	1.5	15	36	32050	670	14	4930	909	1	170	13	1600	21	1	17	1	1	92.7	95	1	1	1	28	6
KC-S-12	.5	24240	13	1	98	1.1	5	3500	1.2	17	73	34330	730	10	7240	279	2	170	32	1170	20	1	16	1	1	89.9	63	1	1	1	38	6
KC-S-13	.6	21560	1	1	109	1.0	7	5270	1.8	20	34	31060	1040	18	6780	585	2	230	17	1310	18	1	21	1	1	94.8	100	1	1	1	33	10
KC-S-14	.5	19120	4	1	111	.9	6	4970	1.8	16	35	29660	790	11	5360	1093	2	230	17	1520	24	2	22	1	1	92.7	65	1	1	1	33	5
KC-S-15	.5	21430	16	1	78	1.0	6	4770	1.8	17	25	35820	770	14	6110	352	2	170	15	1890	19	1	19	1	1	106.1	118	1	1	1	37	5
KC-S-16	.5	17130	1	1	94	.8	6	5500	1.7	19	28	34530	830	14	5800	1111	2	180	14	1080	20	2	21	1	1	116.2	109	1	1	1	38	5
KC-S-1740H	.6	22970	16	1	121	1.0	7	6700	2.3	21	51	40100	970	14	8480	1002	2	240	26	1560	31	1	24	1	1	135.2	94	2	1	1	44	5
KC-S-18	.8	26710	14	16	117	1.0	8	6340	3.4	21	76	36190	910	14	8850	456	2	360	28	1150	26	2	26	1	1	118.6	57	2	1	1	36	5
KC-S-19	.5	19150	7	1	93	.7	6	5080	1.5	18	29	32280	840	16	5890	853	2	230	16	1170	19	1	20	1	1	102.8	111	1	1	1	36	5
KC-S-20	.6	23330	1	1	73	.8	6	3990	1.2	14	20	29110	630	15	4150	464	1	180	13	1190	15	1	18	1	1	91.9	124	1	1	1	31	5
KC-S-21	.5	23970	10	1	74	.8	6	4090	1.6	17	25	31570	650	13	4860	909	1	190	19	1480	19	2	18	1	1	96.4	125	1	1	1	36	5
89-S-01	1.2	18490	15	1	88	.7	6	5570	.7	15	25	35360	670	13	4730	226	2	220	10	940	17	1	23	1	1	126.0	78	1	1	1	30	5
89-S-03	.7	20370	6	1	134	.7	5	7030	1.9	14	32	23220	1050	10	6800	485	2	220	22	760	23	2	28	1	1	73.3	55	1	1	1	33	5
89-S-04	.6	14630	6	1	122	.5	5	4530	1.1	13	12	22060	1030	8	5510	322	2	190	28	1350	19	1	16	1	1	61.3	86	1	1	1	35	5
89-S-05	.5	13110	9	1	127	.6	5	3690	1.6	12	12	19290	870	10	6280	312	2	220	31	340	17	1	14	1	1	58.9	80	1	1	1	42	5
89-S-06	.4	22340	1	1	258	1.0	5	4720	2.2	14	34	24240	1300	11	7860	522	2	220	60	650	20	1	18	1	1	68.7	99	1	1	1	68	5
89-S-07	.5	21300	19	1	147	1.0	7	5880	1.9	18	27	31390	1870	12	8480	532	2	320	31	820	27	1	18	2	1	74.1	73	1	1	1	40	5
89-S-08	.5	15870	17	1	89	.8	6	6870	2.1	19	32	32000	1980	11	7210	598	2	200	22	930	25	2	19	2	1	89.7	69	1	1	1	33	5
89-S-09	.3	12540	1	1	129	.6	4	5790	1.1	14	20	20250	1360	9	4410	576	2	180	18	860	15	1	20	1	1	59.6	68	1	1	1	32	5
89-S-1040H	.6	18550	11	1	245	.8	6	4040	1.5	15	17	28510	1320	17	6750	381	2	210	23	1710	21	1	17	2	1	68.6	155	1	1	1	42	5
89-S-1140H	.3	16430	11	1	142	.9	4	4850	1.4	15	24	28180	900	10	5460	255	1	150	22	1730	19	1	20	1	1	74.6	89	1	1	1	32	5
89-S-1240H	.6	12990	16	1	84	.7	5	4150	1.4	13	24	23080	690	10	5310	361	2	150	17	600	22	1	13	1	1	69.9	58	1	1	1	32	5
89-S-1340H	.8	12290	5	1	126	.4	5	3450	.2	11	9	18400	780	9	3000	273	1	110	15	950	13	1	13	1	1	52.9	77	1	1	1	30	5
89-S-1440H	.7	20230	18	1	129	.9	7	4330	3.0	16	20	28180	1630	17	8000	504	2	210	28	600	27	2	18	1	1	70.0	107	2	1	1	35	5
89-S-15	.7	16080	17	1	129	.6	6	4180	2.3	13	16	24210	1250	13	6070	329	2	120	29	1080	20	1	15	2	1	57.8	90	2	1	1	37	5