

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS 105 G/8

1994 ASSESSMENT REPORT

ON PROPERTY

SOIL GEOCHEMISTRY AND GEOLOGICAL MAPPING

WATSON LAKE M.D., YUKON

PELLY MOUNTAINS AREA

LAT: 61° 28'

LONG: 130° 24'

WORK PERIOD

JULY 10 and 29, 1994

093339

APRIL, 1995

PAUL A. MacROBBIE

COMINCO LTD.

EXPLORATION

NTS 105 G/8

WESTERN DISTRICT

1994 ASSESSMENT REPORT

ON PROPERTY

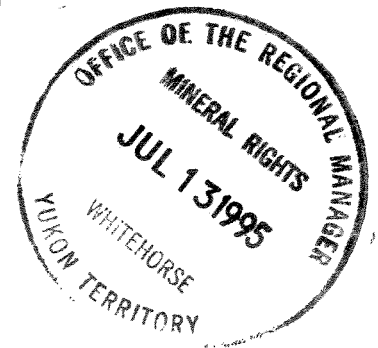
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PAUL A. MacROBBIE

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This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 2000.

M. Burke

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

**1994 ASSESSMENT REPORT
ON PROPERTY, YUKON TERRITORY**

1. SUMMARY

The ON property is located 11 kms east of Cominco's ABM VHMS deposit, approximately 3 kms west of Wolverine Lake, 25 kms southeast of Finlayson Lake and 120 kms southeast of Ross River.

The property was staked to cover airborne geophysical targets identified during a Cominco survey conducted in early 1994.

The rocks underlying this part of southeastern Yukon have been assigned to 2 terranes: the Yukon-Tanana Terrane (YTT) and the Slide Mountain Terrane (SMT). The YTT consists primarily of a layered sequence of metamorphosed rocks comprising a "*lower unit*" of pre-Devonian quartzite, pelitic schist and minor marble, a late Devonian to mid-Mississippian "*middle unit*" comprising carbonaceous phyllite and schist with interbanded mafic and, locally significant, felsic metavolcanics, and an "*upper unit*" of Pennsylvanian marbles and quartzite. Volcanism within the "*middle unit*" was accompanied by the intrusion of 2-3, late Devonian to Mississippian, mafic to felsic metaplutonic suites. Felsic volcanics of the middle unit are host to the ABM deposit.

The majority of the property, including the area of the AEM/Mag anomaly, is overburden covered and may be underlain by the YTT metasedimentary/metavolcanic package exposed a few kms to the west on the Kudz Ze Zayah property. Outcrop exposure is restricted to the ridge along the northern edge of the property. These outcrops comprise well foliated, medium to dark green, chloritic and locally epidote altered, intermediate to mafic volcanic tuffs and lapilli-tuffs with minor pillowed flow breccias. The age and relative stratigraphic position of these rocks is uncertain; however, this package likely belongs to the SMT and may occur as a thrust panel(?) above the YTT metasedimentary/metavolcanic sequence.

Soil geochemistry sampling in the area of the AEM/Mag anomaly returned no anomalies of interest.

No indications of the presence of felsic metavolcanics or base metal mineralization of a VHMS style were found. Dependant on an evaluation of the AEM/Mag anomaly, a ground geophysical survey (UTEM/HLEM and Mag) maybe warranted. No other work is recommended.

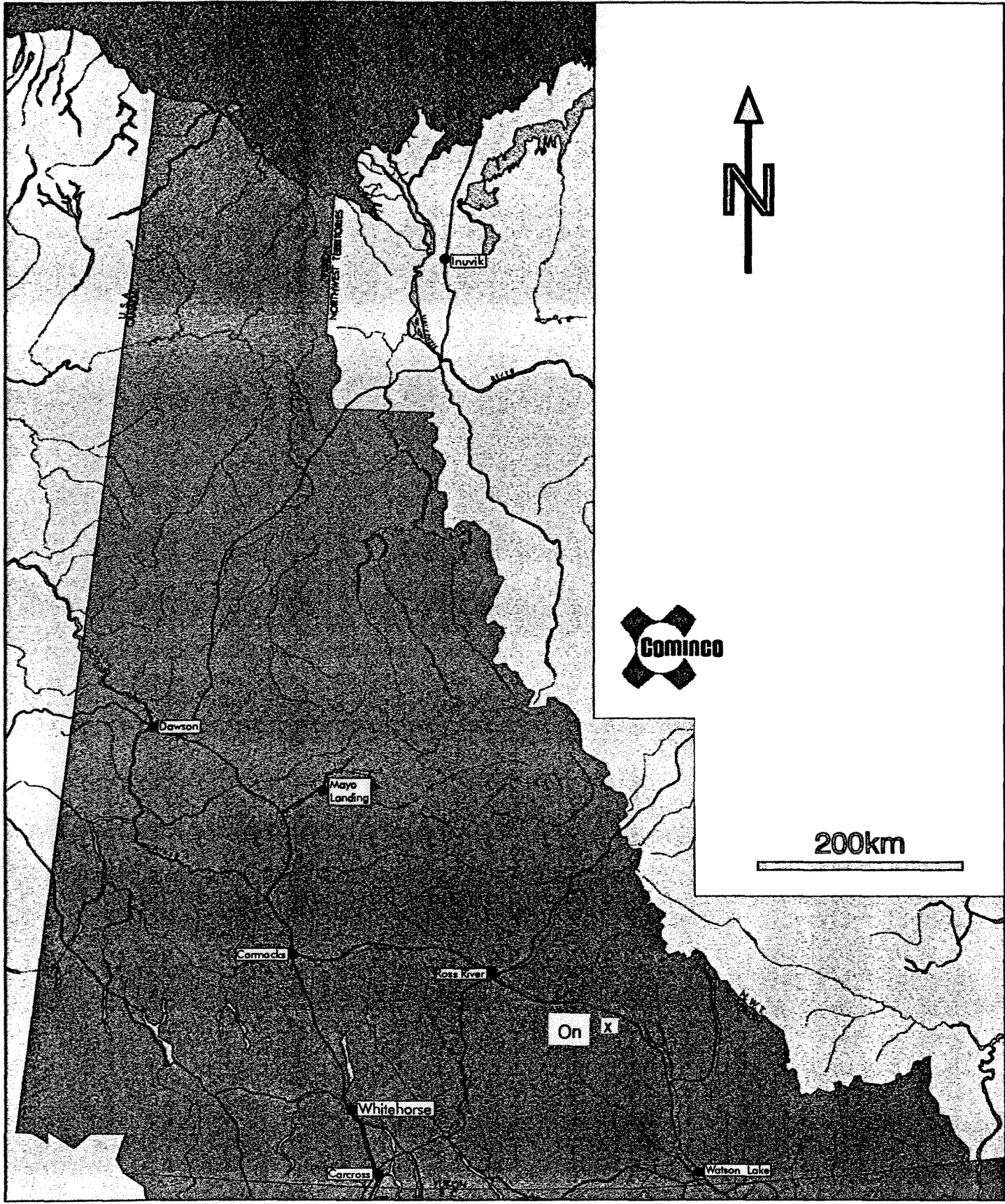
2. LOCATION AND ACCESS

The ON property is located 11 kms east of Cominco's ABM deposit, approximately 3 kms west of Wolverine Lake, 25 kms southeast of Finlayson Lake and 120 kms southeast of Ross River (Figures 1). The gravel, all-weather Robert Campbell Highway provides access to within 15 kms of the property. Direct access is by helicopter. An old, overgrown winter road is present, extending from the property to the highway at Wolverine Creek.

3. PROPERTY AND OWNERSHIP

The ON property, totalling 20 units due June 22, 1995 (Figure 2), is 100% owned by Cominco Ltd.

<u>NAME</u>	<u>UNITS</u>	<u>CLAIM NO.</u>	<u>DUE DATES</u>
ON 1-20	20	YB47740-59	June 22/95



Drawn by:		Traced by: a. m. a.	
Revised by:	Date:	Revised by:	Date:

Property Location Map

Scale: as above Date: 29 April 1995 Plate: Fig 1

4. PREVIOUS WORK

No previous work by Cominco, other than broad heavy mineral stream sediment sampling of the immediate property drainage in 1977, has been done in the property area.

Claims (Minfile #116; Charlie) were staked by prospectors(?) in the vicinity of the ON property in 1990/91; however, no mineralization is noted and no work was recorded.

5. 1994 WORK

GEOLOGICAL MAPPING

On July 10, 1994, minor 1:10,000 scale geological mapping and prospecting was carried out by N.J. Callen (Figure 2).

SOIL GEOCHEMISTRY

A total of 35 soil samples were collected on July 29, 1994. Data is presented in Figure 2 and Appendix 3.

The soil samples were analyzed for Cu, Pb, Zn, Ag, As, Cd, Co, Ni, Fe, Mo, Cr, Bi, Sb, V, Sn, W, Sr, Y, La, Mn, Mg, Ti, Al, Ca, Na and K by Reverse Aqua Regia decomposition/I.C.P., Au by Aqua Regia decomposition/AAS and Ba by XRF at Cominco Exploration Research Laboratory (CERL) in Vancouver.

6. REGIONAL GEOLOGY

The rocks underlying this part of southeastern Yukon have been assigned to 2 terranes: the Yukon-Tanana Terrane (YTT) and the Slide Mountain Terrane (SMT) (Mortensen, 1983a; Mortensen and Jilson, 1985).

The YTT consists primarily of a layered sequence of metamorphosed rocks comprising a "*lower unit*" of pre-Devonian quartzite, pelitic schist and minor marble, a late Devonian to mid-Mississippian "*middle unit*" (3F) comprising carbonaceous phyllite and schist with interbanded mafic and, locally significant, felsic metavolcanics (3G), and an "*upper unit*" of Pennsylvanian marbles and quartzite. Volcanism within the "*middle unit*" was accompanied by the intrusion of 2-3, late Devonian to Mississippian, mafic to felsic metaplutonic suites (Simpson Range suite and augen and monzonitic orthogneisses). This sequence appears to reflect stable platformal or shelf sedimentation with an intervening period of mafic to felsic arc volcanism developed within a more reduced basinal setting.

A subhorizontal to moderately north to northeast dipping, penetrative ductile deformation fabric (S2) and associated middle greenschist facies (chlorite-biotite grade) metamorphism affects all YTT rocks. This fabric reflects the first, and most significant, deformational and metamorphic event (D1) perhaps related to a continent-arc collision during late Permian to early Triassic time.

The late Devonian to Triassic SMT comprises a heterogeneous package of mafic to ultramafic plutonic rocks, mafic volcanics, massive carbonate and chert. This sequence was structurally emplaced as thrust bounded klippen on YTT rocks or as thrust slices imbricated within YTT rocks during a period of crustal shortening (D2). The SMT is thought to represent a disrupted oceanic crust and volcanic arc assemblage thought to be located between the YTT and ancestral North America(?).

Late Triassic immature clastics comprising micaceous argillite, siltstone and sandstone unconformably(?) overlie the deformed and metamorphosed YTT rocks. These sediments are often closely associated with SMT volcanics and are invariably in fault contact with YTT rocks.

The SMT, Late Triassic sediments and Late Triassic to Middle Jurassic plutons are all affected by a period of thrust faulting (D2) during the Jurassic.

7. PROPERTY GEOLOGY AND GEOCHEMISTRY

The property has generally poor outcrop exposure restricted to the ridge along the northern edge of the property. The ridge outcrops comprise well foliated, medium to dark green, chloritic, intermediate to mafic

volcanic tuffs and lapilli-tuffs with minor pillowed flow breccias. Intermediate to mafic volcanic fragments within these volcanoclastics are often epidote altered.

The age and relative stratigraphic position of these rocks is uncertain. This intermediate to mafic volcanic package likely belongs to the SMT and may occur as a thrust panel(?) above the YTT metasedimentary/metavolcanic sequence exposed a few kms to the west on the Zudz Ze Kayah property. A similar sequence of chloritic and variably epidote altered, pillowed flows and breccias are found above the metasedimentary sequence on the WOL property.

The majority of the property, including the area of the AEM/Mag anomaly, is overburden covered and may be underlain by the YTT metasedimentary/metavolcanic package exposed to the west on the Kudz Ze Zayah property.

Soil geochemistry sampling in the area of the AEM/Mag anomaly returned no anomalies of interest.

8. CONCLUSIONS and RECOMMENDATIONS

The majority of the property, including the area of the AEM/Mag anomaly, is overburden covered and may be underlain by the YTT metasedimentary/metavolcanic package exposed a few kms to the west on the Kudz Ze Zayah property.

Outcrop exposure is restricted to the ridge along the northern edge of the property. These outcrops comprise well foliated, medium to dark green, chloritic and locally epidote altered, intermediate to mafic volcanic tuffs and lapilli-tuffs with minor pillowed flow breccias.

The age and relative stratigraphic position of these rocks is uncertain. This intermediate to mafic volcanic package likely belongs to the SMT and may occur as a thrust panel(?) above the YTT metasedimentary/metavolcanic sequence.


Soil geochemistry sampling in the area of the AEM/Mag anomaly returned no anomalies of interest.

No indications of the presence of felsic metavolcanics or base metal mineralization of a VHMS style were found. Dependant on an evaluation of the AEM/Mag anomaly, a ground geophysical survey (UTEM/HLEM and Mag) maybe warranted. No other work is recommended.


Report by:


P.A. MacRobbie, P. Geo
Geologist

Endorsed by:


D. Rhodes,
Senior Geologist

Approved for
Release by:


J.M. Hamilton
Manager, Exploration
Western Canada

PAM/

DISTRIBUTION:
W.D. Files
Admin. Files

9. REFERENCES

MORTENSEN, J. K., 1983a. AGE AND EVOLUTION OF THE YUKON-TANANA TERRANE, SOUTHEASTERN YUKON TERRITORY [Ph.D. Thesis]; Santa Barbara, University of California, 155 p.

MORTENSEN, J. K. AND JILSON, G. A., 1985. EVOLUTION OF THE YUKON-TANANA TERRANE : EVIDENCE FROM SOUTHEASTERN YUKON TERRITORY; *Geology*, 13, p. 806-810.

APPENDIX 1

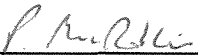
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Paul A. MacRobbie, of 11164 Southridge Rd., Delta, B.C. hereby declare that I:

1. Graduated from Carleton University, Ottawa, Ontario with a B.Sc. in Geology in May, 1986 and a M.Sc. in Geology in June, 1988.
2. Have been actively engaged in mineral exploration in Western Canada as a permanent geologist with Cominco Ltd. since June, 1988.
3. Am a registered member of The Association of Professional Engineers and Geoscientists of the Province of British Columbia.

Date: May 8, 1995



P.A MacROBBIE, P.Ge
GEOLOGIST

APPENDIX 2

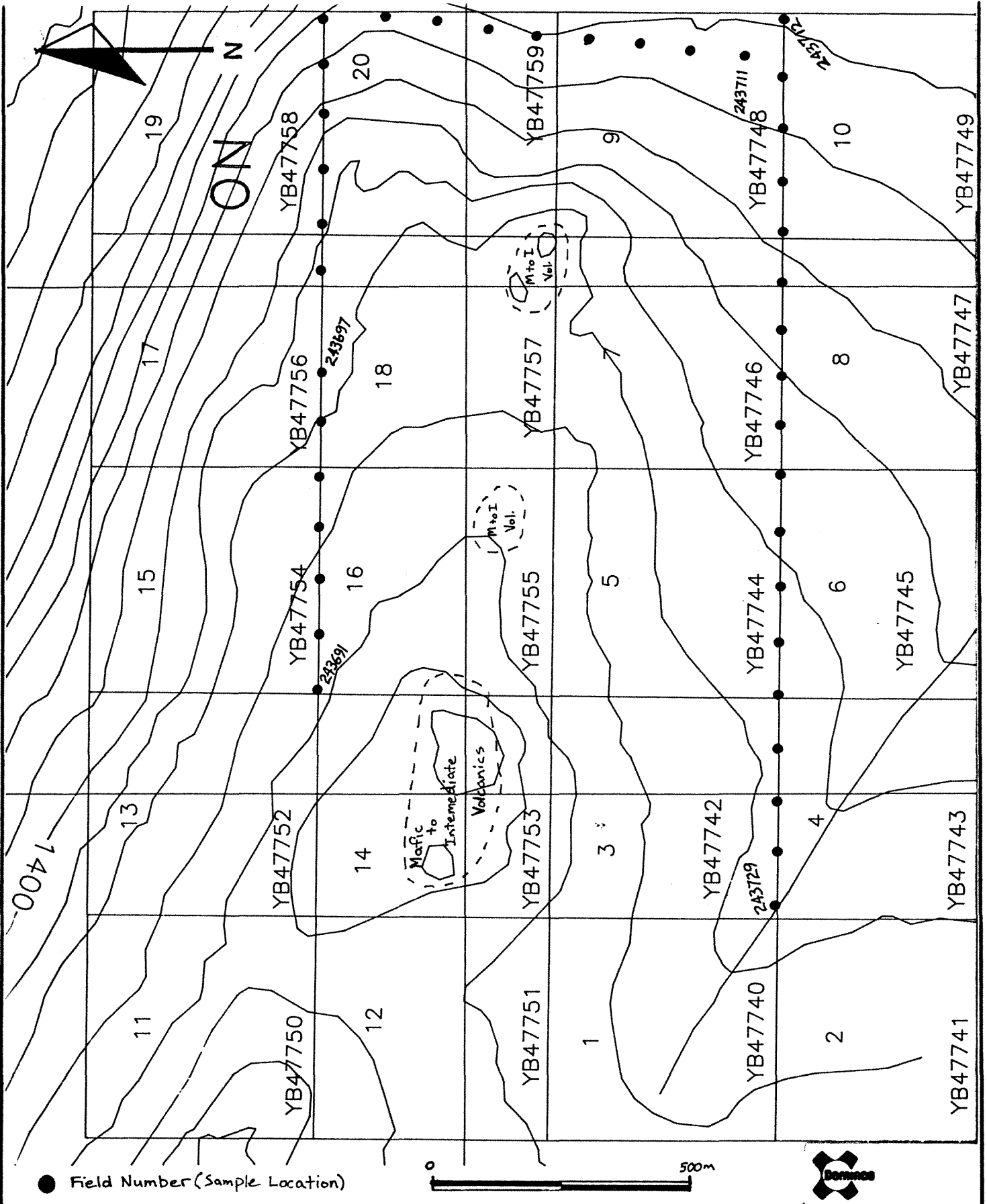
1994 GEOCHEMISTRY DATA

Property	LabNo	FieldNo	S	M	O	S	Col	Sz	O	W	Dph	WS	FW	P	Cu	Pb	Zn	Ag	As	Ba(lcp)	Cd	Co	Ni	Fe	Mo	Cr	Bi	Sb	V	Sn	W	Sr	Y	La	Mn	Mg	Ti	Al	Ca	Na	K	Au	Wt	Be(xrf)
On	S9416338	243691	1	1	4	1	2B	23	1	2	25	4	B2	**	16	20	79	0.2	5	70	1	3	23	1.63	4	26	2	2	29	1	1	10	4	11	117	0.33	0.02	0.84	0.13	0.01	0.05	5	10	2370
On	S9416339	243692	1	1	4	1	3B	2	3	2	25	3	C1	**	21	13	134	0.4	11	125	1	3	20	1.11	5	13	2	2	26	1	1	27	27	57	199	0.31	0.01	0.78	0.47	0.01	0.03	5	10	2288
On	S9416340	243693	1	1	4	1	2B	23	2	2	45	3	B2	**	18	12	84	0.2	2	110	1	5	22	1.41	4	19	2	2	47	1	1	22	11	16	284	0.48	0.01	0.81	0.74	0.01	0.04	5	10	2592
On	S9416341	243694	1	1	4	1	2B	23	2	2	35	3	C1	**	9	2	44	0.2	1	57	1	2	27	0.64	3	10	2	2	22	1	1	9	5	10	77	0.26	0.01	0.42	0.17	0.01	0.05	5	10	2892
On	S9416342	243695	1	1	4	1	3B	23	3	2	50	3	C1	**	25	5	80	0.2	3	167	1	4	21	0.91	3	15	2	2	21	3	1	58	14	24	363	0.29	0.02	0.70	1.22	0.01	0.06	5	10	1907
On	S9416343	243696	1	1	4	1	1B	3	1	2	40	2	B2	**	5	5	52	0.2	2	64	1	2	15	0.93	3	18	2	2	59	1	1	11	5	6	87	0.47	0.04	0.58	0.23	0.01	0.08	5	10	1903
On	S9416344	243697	1	1	4	1	1B	2	3	2	35	2	C1	**	5	7	21	0.2	1	37	1	1	8	0.91	2	9	2	2	34	2	1	6	3	7	80	0.15	0.03	0.44	0.05	0.01	0.07	5	10	1553
On	S9416345	243698	1	1	4	1	K	4	3	3	60	3	Z	**	86	7	138	0.2	2	303	2	8	83	1.32	11	23	2	2	43	1	1	90	67	92	869	0.48	0.02	1.18	2.28	0.01	0.07	5	10	1928
On	S9416346	243699	1	1	2	1	2B	24	3	2	35	3	Z	**	12	7	80	0.2	7	110	1	3	19	1.42	14	22	2	2	54	2	1	25	9	15	238	0.64	0.03	0.92	0.51	0.01	0.07	5	10	2186
On	S9416347	243700	1	1	4	1	2B	23	2	2	40	3	B2	**	17	9	136	0.2	8	123	1	7	42	1.96	5	31	2	2	76	1	1	26	14	27	222	0.90	0.04	1.41	0.48	0.01	0.12	5	10	2575
On	S9416348	243701	1	1	4	1	2B	14	3	2	30	4	C1	**	6	6	62	0.2	1	41	1	3	18	1.52	2	17	2	2	35	1	1	8	6	14	143	0.42	0.02	0.86	0.15	0.01	0.07	5	10	1326
On	S9416349	243702	1	1	4	1	2B	14	3	2	45	4	C1	**	7	5	40	0.2	5	97	1	3	13	1.01	2	16	2	2	33	1	1	18	7	18	171	0.45	0.03	0.80	0.33	0.02	0.07	5	10	1821
On	S9416350	243703	1	1	4	1	2B	13	2	2	40	4	B2	**	6	4	63	0.2	4	67	1	2	15	1.42	3	20	2	2	59	3	1	8	4	8	155	0.64	0.05	0.86	0.18	0.01	0.11	5	10	1826
On	S9416351	243704	1	1	2	1	2B	23	2	2	30	4	B2	**	6	8	85	0.2	9	81	1	5	23	1.66	2	32	2	2	67	5	1	19	5	8	171	1.14	0.06	1.26	0.46	0.01	0.10	5	10	1999
On	S9416352	243705	1	1	4	1	2B	12	2	2	45	3	C1	**	7	4	76	0.2	3	145	1	4	18	1.67	2	34	2	2	54	4	1	17	7	19	204	1.02	0.06	1.29	0.45	0.01	0.15	5	10	1778
On	S9416353	243706	1	1	4	1	3B	2	3	2	40	3	C1	**	24	4	84	0.2	1	135	1	2	22	0.61	5	11	2	2	20	2	1	67	20	27	343	0.27	0.01	0.59	1.82	0.02	0.06	5	10	1093
On	S9416354	243707	1	1	2	1	K	4	3	2	60	3	A	**	118	7	59	0.2	14	229	2	4	72	0.83	8	17	2	2	25	1	1	86	40	32	584	0.49	0.02	0.73	3.25	0.01	0.04	5	10	851
On	S9416355	243708	1	1	2	**	3B	2	3	2	55	3	B1	**	64	7	200	0.4	8	200	6	7	46	1.62	11	20	2	2	33	1	1	50	25	34	349	1.46	0.05	1.51	1.18	0.01	0.34	5	10	2942
On	S9416356	243709	1	1	4	**	2G	23	2	2	35	3	C1	**	25	34	58	0.7	9	83	1	1	14	1.05	14	11	2	2	23	1	1	17	5	28	52	0.14	0.01	0.45	0.06	0.01	0.05	5	10	2624
On	S9416357	243710	1	1	2	**	1G	12	3	1	30	2	C1	**	8	13	31	0.2	8	53	1	1	9	0.59	4	7	2	2	41	1	1	5	3	9	67	0.09	0.01	0.41	0.06	0.01	0.03	5	10	2971
On	S9416358	243711	1	1	2	**	NB	12	2	2	55	3	B2	**	33	4	75	0.2	7	86	1	5	47	1.04	3	29	2	2	28	1	1	19	16	23	102	1.43	0.01	1.31	0.54	0.01	0.24	5	10	800
On	S9416359	243712	1	1	5	**	1B	23	1	2	40	2	B2	**	20	9	339	0.2	14	249	1	6	46	2.07	12	33	2	2	64	2	1	26	10	14	140	1.66	0.08	1.75	0.70	0.01	0.40	5	10	5194
On	S9416360	243713	1	1	4	**	NB	12	3	2	60	3	B2	**	476	32	360	0.2	29	438	2	12	248	1.81	16	37	2	2	387	1	1	91	147	69	271	1.67	0.05	1.83	2.67	0.01	0.30	5	10	1955
On	S9416361	243714	1	1	2	**	2B	23	2	2	45	3	B2	**	62	23	238	0.2	7	169	1	5	31	1.26	3	25	2	2	34	1	1	24	35	41	101	0.82	0.02	1.05	0.70	0.01	0.03	5	10	1676
On	S9416362	243715	1	1	4	**	1Y	24	1	1	30	3	B2	**	8	4	200	0.2	1	40	1	4	47	2.34	24	29	2	2	143	1	1	7	6	6	103	0.67	0.01	1.10	0.16	0.01	0.03	5	10	1956
On	S9416363	243716	1	1	2	**	3B	4	3	2	50	3	A	**	133	14	953	0.4	11	259	2	35	175	5.31	27	39	2	2	76	5	1	28	70	78	1151	1.08	0.05	2.07	0.66	0.01	0.07	5	10	2061
On	S9416364	243717	1	1	4	**	1G	2	1	1	40	2	C1	**	15	5	30	0.2	2	37	1	1	15	0.17	4	17	2	2	216	1	1	5	9	6	8	0.12	0.02	0.16	0.15	0.01	0.02	5	10	1704
On	S9416365	243718	1	1	4	**	1Y	24	1	1	30	2	B2	**	5	8	62	0.2	5	57	1	2	20	1.06	4	20	2	2	76	1	1	11	6	6	93	0.53	0.03	0.75	0.27	0.01	0.06	5	10	2260
On	S9416366	243719	1	1	5	**	GB	23	2	2	45	2	B2	**	18	6	62	0.2	12	236	1	4	40	1.50	7	32	2	2	65	1	1	26	19	30	122	0.81	0.02	1.35	0.62	0.01	0.05	5	10	2909
On	S9416367	243720	1	1	5	**	1Y	14	2	1	30	2	B2	**	3	5	24	0.2	7	101	1	2	52	0.65	1	45	2	2	188	2	1	13	10	9	38	0.75	0.01	0.94	0.37	0.01	0.07	5	10	2423
On	S9416368	243721	1	1	5	**	2Y	24	1	1	30	2	B2	**	83	10	222	0.4	32	401	1	4	234	4.83	2	148	2	6	718	5	1	17	15	5	161	2.34	0.06	3.47	0.31	0.01	0.61	5	10	1294
On	S9416369	243722	1	1	5	**	1G	23	1	1	45	2	B2	**	5	2	18	0.2	7	75	1	1	14	0.62	2	14	2	2	38	2	1	10	5	7	46	0.35	0.01	0.53	0.25	0.01	0.03	5	10	2301
On	S9416370	243723	1	1	5	**	2B	23	2	2	40	2	B2																															

APPENDIX 3
STATEMENT OF EXPENDITURES

ON PROPERTY

STAFF COSTS	700
DOMICILE	109
GEOCHEMISTRY	595
HELICOPTER	720
COMMUNICATIONS	25
TRUCK RENTAL	52
FREIGHT	161
EXPEDITING	33
DRAFTING	156
TOTAL	2,551



● Field Number (Sample Location)

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

Geochem Sample Locations,
Claim Number/Boundary and Geology

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS 105 G/8

1994 ASSESSMENT REPORT

ON PROPERTY

SOIL GEOCHEMISTRY AND GEOLOGICAL MAPPING

WATSON LAKE M.D., YUKON

PELLY MOUNTAINS AREA

LAT: 61° 28'

LONG: 130° 24'

WORK PERIOD

JULY 10 and 29, 1994

APRIL, 1995


PAUL A. MacROBBIE

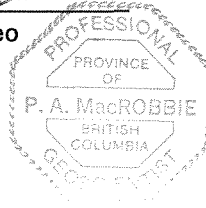
STATEMENT OF QUALIFICATIONS

I, Paul A. MacRobbie, of 11164 Southridge Rd., Delta, B.C. hereby declare that I:

1. Graduated from Carleton University, Ottawa, Ontario with a B.Sc. in Geology in May, 1986 and a M.Sc. in Geology in June, 1988.
2. Have been actively engaged in mineral exploration in Western Canada as a permanent geologist with Cominco Ltd. since June, 1988.
3. Am a registered member of The Association of Professional Engineers and Geoscientists of the Province of British Columbia.

Date: April 10, 1995


P.A MacROBBIE, P.Geo
GEOLOGIST



MAP NO:105G/8

ASSESSMENT REPORT: X

DOCUMENT NO: 093339

PROSPECTUS:

MINING DISTRICT: Watson Lake

CONFIDENTIAL: X

TYPE OF WORK:Geology,
geochemistry

OPEN FILE:

REPORT FILED UNDER: Cominco Ltd.

DATE PERFORMED:July 1994

DATE FILED:June 23, 1995

LATITUDE:61 28

AREA:Pelly Mountains

LONGITUDE:130 24

VALUE:\$2000

CLAIM NAME AND #:On 1-20

WORK DONE BY:P. MacRobbie

WORK DONE FOR:Cominco Ltd.

DATE TO GOOD STANDING	REMARKS:Geochemistry revealed no strong anomalies. The area is underlain by intermediate to mafic metavolcanics.