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GEOLOGICAL AND GEOCHEMICAL REPORT

on the

**HOLY CROSS PROPERTY
HC and ZUR Mineral Claims**

**Omineca Mining Division
British Columbia**

**NTS 93F15
53° 47' North Latitude
124° 56' West Longitude**

by

P.E. Fox., Ph.D., P.Eng.

**FOX GEOLOGICAL SERVICES INC.
#1409 - 409 Granville Street
Vancouver, BC V6C 1T8**

**Work paid for by
PHELPS DODGE CORPORATION OF CANADA, LIMITED**

December 31, 1997

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

25,313

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SUMMARY

The Holy Cross Property consists of 132 units in seven claims, located approximately 145 kilometres west of Prince George in central British Columbia. The claims can be readily accessed by a network of forest service and secondary logging roads from the village of Fraser Lake, 33 kilometres to the north. This report describes a short exploration program conducted during June 1997.

The claims are underlain by andesite flows of the middle Jurassic Hazelton, overlain by upper Cretaceous Kasalka Group rhyolite, rhyodacite and tuff. The rhyolite occurs in a series of three northwesterly trending domes that outcrop between Bentzi Lake and the peak of Holy Cross Mountain. Minor sedimentary rocks of the Cretaceous Skeena Group and Eocene Endako Group basalts locally cap the older units.

Gold mineralization on the Holy Cross prospect was discovered in 1987 by Noranda Exploration who explored the property until 1989. They defined several areas of silicified, quartz veined rhyolite with gold concentrations up to 1.0 g/t gold over 8.5 metres. The HC 1 and 6 claims were staked by Cogema Resources in 1994 and explored by Phelps Dodge Corporation of Canada during 1995 and 1996.

The 1997 exploration program consisted of geological mapping, prospecting and rock sampling. Mapping on the Zur claims identified mixed sedimentary and intermediate to mafic volcanic rocks between the three rhyolite domes. Rock samples returned generally low gold tenors with the exception of one sample from a rhyolite dome which returned 967 ppb gold. Prospecting identified no new areas of mineralization.

INTRODUCTION

A program of geological mapping, prospecting and rock sampling was conducted on the Holy Cross property between June 14 and June 17, 1997. This report details the work program and discusses the results obtained.

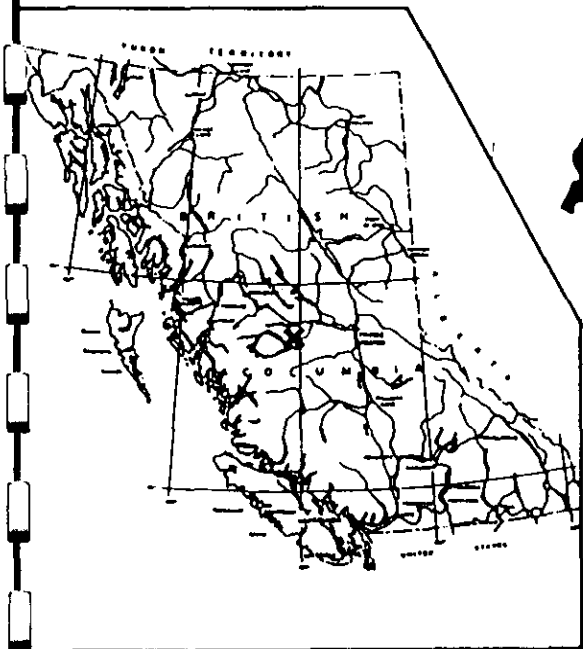
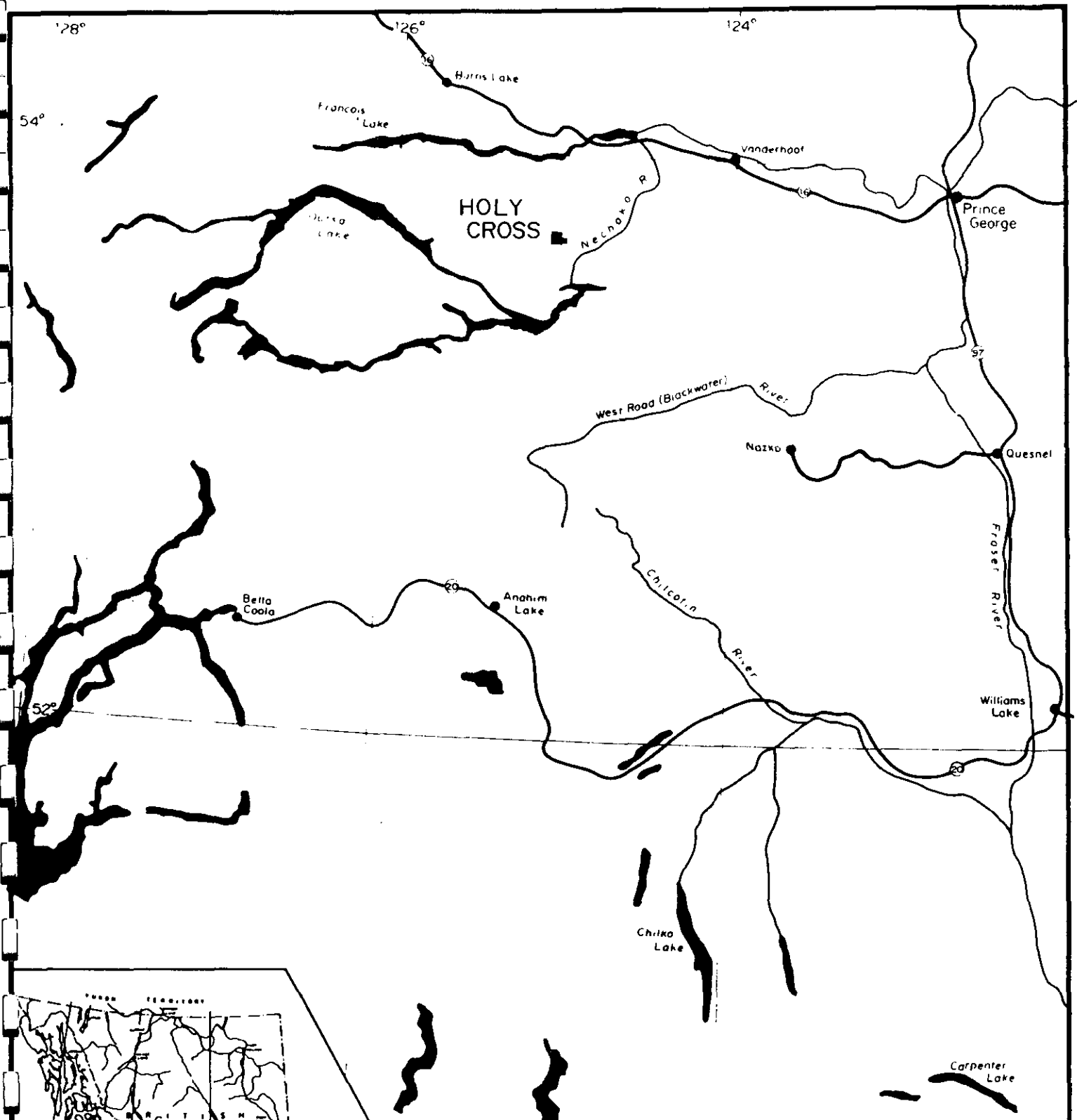
LOCATION, ACCESS and PHYSIOGRAPHY

The Holy Cross Property is located approximately 33 kilometres south of the village of Fraser Lake in central British Columbia. The claims are situated in the vicinity of Hallett Lake, between Bentzi Lake and the summit of Holy Cross Mountain (Figure 1). Access from Fraser Lake is via the Holy Cross Forest Service Road which bisects the HC 6 claim at about the 40 kilometre mark. Three subsidiary logging roads leave the main Forest Service Road at kilometres 36, 37 and 40, providing access to most portions of the claims.

The claims encompass a series of knolls on the east side of Holy Cross Mountain. Topography is gentle to moderate with elevations ranging from approximately 1,158 metres at Targe Creek in the southeast corner of HC 6 to 1,411 metres on a hilltop in the northwest portion of HC 1. Forest cover consists primarily of spruce and pine on the western third of the claims, the eastern area has been clear-cut.

CLAIM INFORMATION

The Holy Cross Property consists of 4 four-post claims, totalling 80 units, recorded in the Omineca Mining Division and shown on NTS map sheet 93F/15W (Figure 2). The HC 1 claim is entirely contained within Zur 1 and 2 claims. Claim details are set out in Table 1. It should be noted that work was done on the Zur 3, 4 and 5 claims which have since been allowed to lapse. Expiry dates indicated for the HC 1 and 6 and Zur 1 and 2 claims are contingent upon the work contained herein being accepted for assessment credits.



<p>PHELPS DODGE CORP. OF CANADA LTD.</p>			
<p>PROJECT Nº 256</p>		<p>OMINECA M.D.</p>	
<p>HOLY CROSS PROPERTY LOCATION</p>			
<p><i>Fox Geological Consultants Ltd.</i></p>			
<p>SCALE</p>	<p>DATE</p>	<p>NTS</p>	<p>FIG Nº</p>
<p>1:2000000</p>	<p>Nov. 1996</p>	<p>93F/15</p>	<p>1</p>

125°00' W

Holy Cross North (36 km) Road

to Fraser Lake

37 Km Road

HOLY CROSS FSR

HC#1
4N x 5W

ZUR 1
5N x 4W

ZUR 2
5N x 4E

HC#6
4S x 5W

40 Km Road

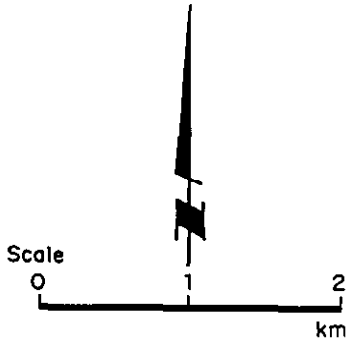
ZUR 5
4S x 5E

ZUR 3
4S x 4W

ZUR 4
4S x 4E

Bentzi Lake

53°45' N



PHELPS DODGE CORPORATION OF CANADA LIMITED			
PROJECT No 256		OMINECA M.D.	
HOLY CROSS PROPERTY			
CLAIM MAP			
SCALE	DATE	NTS	DWG No
1:50,000	Mar. '96	93F/15	2

Table I: CLAIM DATA			
Claim Name	Record No.	No. of Units	Expiry Date
HC 1	331896	20	October 14, 1999
HC 6	331897	20	October 14, 1999
Zur 1	341371	20	October 18, 1998
Zur 2	341372	20	October 19, 1998
Zur 3	341373	16	October 19, 1997
Zur 4	341374	16	October 19, 1997
Zur 5	341375	20	October 20, 1997

HISTORY

The Holy Cross prospect was discovered in 1987 by Noranda Exploration Company during a reconnaissance exploration program. The original claims were staked after rock samples collected from a rhyolite dome returned anomalous concentrations of gold. Noranda explored the property during 1988-89 with geological mapping, extensive soil sampling, trenching and geophysical surveys (IP, magnetometer). They identified several areas of pervasively silicified, quartz veined rhyolite with anomalous gold concentrations. Trench 1, excavated on silicified rhyolite breccia, returned 1.0 g/t gold over 8.5 metres.

During October 1994, Cogema Resources conducted reconnaissance rock and soil sampling, followed by staking of the HC 1 and 6 claims. Phelps Dodge Corporation of Canada explored the HC 1 and 6 during 1995 and 1996, staking the intervening ground as the Zur 1 to 5 claims in October 1995.

REGIONAL GEOLOGY

The Holy Cross property is located in the Interior Plateau region of British Columbia, within the Intermontane Belt, which consists late Palaeozoic to late Tertiary sedimentary and volcanic belonging to the Stikinia, Cache Creek and Quesnellia Terranes (Figure 3). The claims lie in the Nechako Basin, within the central portion of the Stikine Terrane, which locally consists of three volcanic-stratigraphic groups ranging in age from upper Cretaceous to Miocene. The oldest of these, Eocene and possibly Oligocene Ootsa Lake Group rocks, consists of rhyolitic to dacitic flows, tuff and breccia with minor amounts of andesite, basalt, conglomerate and tuffaceous shale. Pliocene to Pleistocene Chilcotin

Group vesicular andesite and basalt flows, breccia and cinder cones conformably overlie the Ootsa Lake Group. An arcuate belt of Paleocene Nanika and Quanchus quartz monzonite and granite intrudes Ootsa Lake and older rocks. An Eocene extensional tectonic event, which resulted in basin and range type topography, is associated with epithermal, volcanic-hosted gold mineralization.

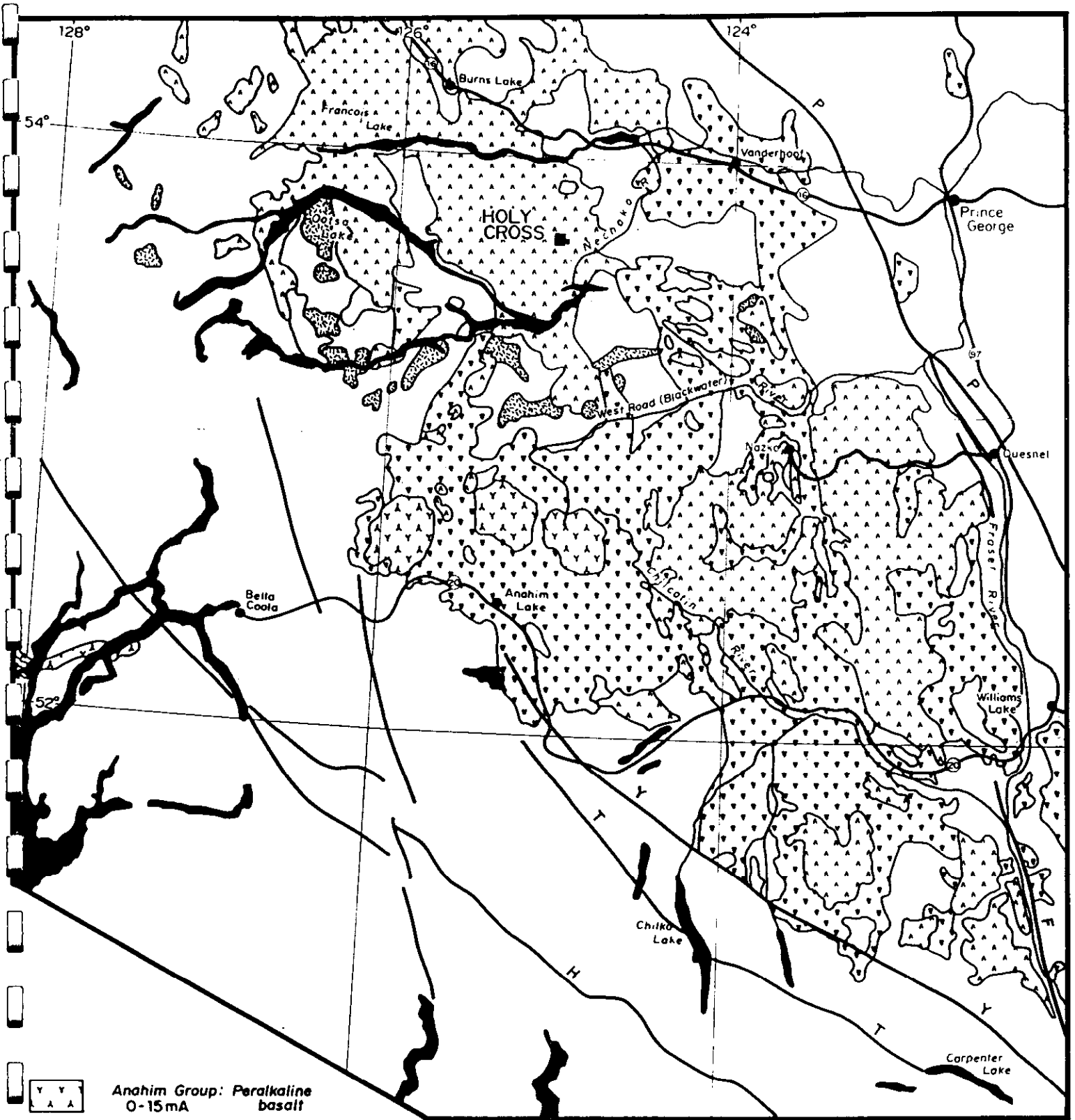
Pre-Tertiary rocks include lower Cretaceous Skeena Group, an assemblage of easterly derived back-arc clastics, middle Jurassic Hazelton Group alkaline to calc-alkaline volcanic and volcanoclastic rocks and Jurassic to Cretaceous granitic rocks in the Coast Plutonic Complex.

Mapping in the Holy Cross Mountain area by B.C. Geological Survey geologist R. Lane in 1994 shows the immediate area of the property to be underlain by Hazelton Group andesite and reworked crystal tuff, overlain by Skeena Group sedimentary rocks and Kasalka Group andesite flows. Ootsa Lake Group rhyolite, rhyolite breccia and andesite unconformably overlie the older rocks and flat-lying Endako Group andesite and basalt locally overlie all rocks in the area. Immediately north of the property, biotite quartz monzonite has intruded and metamorphosed Hazelton Group rocks. Diorite and gabbro plugs are locally associated with Endako Group rocks.

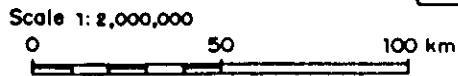
PROPERTY GEOLOGY

The HC property is underlain by volcanic and minor sedimentary rocks. The oldest rocks on the property are andesitic flows belonging to the middle Jurassic Hazelton Group (Figure 4, unit 1). These are aphanitic to feldspar porphyritic and purple to grey or dark green in colour. Specular hematite has been observed in andesite outcropping on the east side of the property, as blebs, irregular stringers and local breccia matrices. Light green to grey, locally foliated tuff occurs as thin interbeds within the andesite sequence.

Overlying the Jurassic andesites are lower to upper Cretaceous Kasalka Group felsic volcanic rocks consisting of rhyolite and rhyodacite (unit 2), and crystal, ash and lapilli tuff (unit 3). Rhyolite occurs in a series of three northwesterly trending domes that outcrop between Bentzi Lake and the peak of Holy Cross Mountain. The HC 1 claim overlies the two western domes, the easternmost dome straddles the Zur 4/Zur 5 claim boundary. Rhyolite is pink to maroon in colour, locally porphyritic and/or flow banded and commonly



- Anahim Group: Peralkaline basalt
0-15mA
 - Chilcotin Group: Backarc alkaline, tholeiite basalt
2-10mA
 - Nanika, Quanchus Intrusives: Quartz monzonite, granite
60mA
 - Ootsa Group: Calc-alkaline felsic volcanics
35-70mA
 - Pre-Tertiary rocks and Coast Intrusions
- Fault H - Harrison F - Fraser
 T - Tchaikozan P - Pinchi
 Y - Yalakom



PHELPS DODGE CORP. OF CANADA LTD.			
PROJECT Nº 256		OMINECA M.D.	
HOLY CROSS REGIONAL GEOLOGY			
Fox Geological Consultants Ltd.			
SCALE	DATE	NTS	FIG Nº
1:2,000,000	Nov. 1996	93F/15	3

displays a slaty cleavage. Banded rhyolite (unit 2a) and rhyolite breccia (unit 2b) are spatially related. Lapilli tuff is locally interbedded with rhyolitic and andesitic flows. Lapilli are composed of rhyolite and feldspar porphyry, are variably clay-altered and set in a dark purple matrix.

Only minor sedimentary rocks have been encountered to date on the Holy Cross property. Polyolithic conglomerate (unit 4) and argillite (unit 4a) are believed to belong to the Cretaceous Skeena Group. The youngest rocks on the property are Endako Group basalt, andesite and lapilli tuff, which locally cap the older volcanic units. These rocks are common cliff formers. The blocky, locally amygdaloidal olivine basalt and vesicular andesite are dark grey while the associated lapilli tuffs tend to be light grey coloured.

ALTERATION and MINERALIZATION

Argillic alteration is widespread within the Ootsa Lake volcanic rocks, locally overprinted by silicification which is reported in zones ranging up to 10 metres wide. Silicification is generally accompanied by quartz veins and local banded quartz-chalcedony or quartz-jasper veins. Two areas of quartz stockworks, hosted in argillic altered rhyolite, occur in the eastern portion of the property. Quartz-healed breccias, fracture controlled drusy quartz and specular hematite are also common. Specular hematite is locally disseminated within silicified rhyodacite and brecciated volcanic fragments set in a matrix of massive specular hematite have also been noted. Pyrite is disseminated, in amounts up to 5%, in banded rhyolite flow units and breccia on the ridge areas on HC 1 claim. Minor arsenopyrite and pyrrhotite have also been observed. Gold and silver mineralization is associated with banded, vuggy quartz veinlets and in silicified volcanic rocks. At Trench 1, excavated on the HC 1 claim, 1.0 gpt gold has been reported over an 8.5 metre section containing banded, pyritic quartz-jasper veins up to 10 centimetres wide. The mineralization in Trench 1 occurs at the intersection of two lineaments that trend approximately 35° and 120°

1996 WORK PROGRAM

Exploration during 1997 consisted of geological mapping, prospecting and rock sampling. Work was completed by a four person crew during the period of June 14 to June 17. Geology is compiled at a scale of 1:10,000 and is shown in Figure 4. A total of 24 rock samples was collected, tagged with unique numbers and submitted to Acme Analytical

Laboratories Ltd. in Vancouver, B.C. for analysis. Each sample was crushed and analyzed for 34 elements by ICP techniques and for gold by geochemical atomic absorption analysis. Sample descriptions and key results are compiled in Appendix I, analytical method and certificates comprise Appendix II.

RESULTS

Geologic mapping was done over the Zur claims which have not been previously mapped and geology of the HC 1 was refined slightly. Rhyolite in the northern dome is more extensive than mapped earlier with northwest trending andesitic and rhyolitic lahar units identified. On the Zur claims, a large outcrop of mixed chert, shale, pebble conglomerate and greywacke was located in the southwest Zur 1 area. Elsewhere on the Zur claims, andesitic flows, tuff, lahars and basalt outcrop between the rhyolite domes. Prospecting identified no new areas of mineralization.

Gold concentrations of rock samples was generally low. One sample (number 62347) of rhyolite crackle breccia with traces of pyrite and specular hematite collected from the easternmost rhyolite dome returned 967 ppb gold. A few samples of silicified, quartz veined rhyolite contained slightly elevated gold concentrations up to 54 ppb, however, most contained background gold tenors.

DISBURSEMENTS

Expenditures for the 1997 work program on the Holy Cross property are \$6,448.00 as tabulated below:

Accommodation & Board	12 mandays @ \$80/manday	960.00
Assays	24 Rock Samples @ \$19.50	468.00
Communication		120.00
Labour		
R. Cameron, geologist	2 days @ \$325.00	650.00
S. Wetherup, geologist	4 days @ 295.00	1,180.00
L. Poznikoff, sampler	3 days @ 225.00	675.00
T. Archibald, sampler	3 days @ 225.00	675.00
Report		750.00
Reproductions, Maps, Drafting		300.00
Equipment, Supplies and Services		220.00
2 Trucks, fuel	6 days @ \$75.00	<u>450.00</u>
Total		<u>\$ 6,448.00</u>

Prepared by:

FOX GEOLOGICAL SERVICES INC.



P.E. Fox, Ph.D., P. Eng.

December 31, 1997

REPORT DISTRIBUTION:

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Cogema Resources	1

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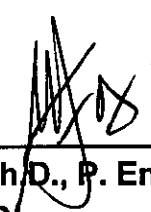
"Geochemical Report on the Holy Cross Property"; Noranda Exploration Company, Limited, December 1988, Assessment Report Number 19,005.

CERTIFICATE

I, Peter Edward Fox, certify to the following:

1. I am a consulting geologist residing at #902 - 2077 Nelson Street, Vancouver, B.C.
2. I am a Professional Engineer registered in the Association of Professional Engineers and Geoscientists of British Columbia.
3. My academic qualifications are:

B.Sc. and M.Sc., Queens University, Kingston, Ontario
Ph.D., Carleton University, Ottawa, Ontario
4. I have been engaged in geological work since graduation in 1966.



Peter E. Fox, Ph.D., P. Eng.
Vancouver, B.C.
December 31, 1997

APPENDIX I

Field Notes and Selected Analytical Results

**1997 GEOCHEMICAL DATA WITH SELECTED ANALYTICAL RESULTS
HOLY CROSS PROPERTY**

SAMPLE	PROJECT	PROPERTY	TYPE	MATERIAL	REMARKS	Au (ppm)	As (ppm)
62280	256	HOLY CROSS	GRAB	BEDROCK	MAROON ANDESITE WITH SPECULARITE	4.0	6.6
62281	256	HOLY CROSS	GRAB	BEDROCK	10% EUHEDRAL PYRITE IN ANDESITE	3.0	4.7
62283	256	HOLY CROSS	GRAB		ORANGE-RED JASPEROID W/QTZ VEINLETS	8.0	9.1
62284	256	HOLY CROSS	GRAB		FLOW-BANDED RHYOLITE, PYRITIC	2.0	3.8
62285	256	HOLY CROSS	GRAB		CHLORITIZED ANDESITE-UP TO 5% PYRITE	6.0	21.7
62286	256	HOLY CROSS	GRAB	FLOAT	SPECULARITE-QUARTZ-ANDESITE BRECCIA	1.0	2.2
62287	256	HOLY CROSS	GRAB	BEDROCK	BRECCIATED RHYOLITE TUFF	2.0	1.9
62288	256	HOLY CROSS	GRAB	BEDROCK	PYRITE-BORNITE? VEINS IN DACITE TUFF	1.0	4.2
62337	256	HOLY CROSS	GRAB	FLOAT	QUARTZ STOCK IN FLOW-BANDED RHYOLITE	3.0	3.0
62338	256	HOLY CROSS	GRAB	TALUS	DRUSY QUARTZ IN FLOW-BANDED RHYOLITE	3.0	7.4
62340	256	HOLY CROSS	GRAB	BEDROCK	BANDED QUARTZ VEIN IN RHYOLITE	54.0	49.3
62341	256	HOLY CROSS	GRAB	BEDROCK	QTZ STOCKWORK IN RHYOLITE-TRENCH 7	10.0	52.4
62342	256	HOLY CROSS	GRAB	BEDROCK	QUARTZ-PYRITE IN RHYOLITE	23.0	5.6
62343	256	HOLY CROSS	GRAB	BEDROCK	TRENCH 7-QUARTZ+PYRITE IN RHYOLITE	11.0	48.4
62344	256	HOLY CROSS	GRAB	FLOAT	TRENCH 7-BANDED QTZ VNS IN RHYOLITE	26.0	19.4
62345	256	HOLY CROSS	GRAB	FLOAT	MASSIVE GREY CHALCEDONY/QUARTZ	7.0	194.0
62346	256	HOLY CROSS	GRAB	BEDROCK	SILICIFIED ANDESITE/DACITE	14.0	208.8
62347	256	HOLY CROSS	GRAB	TALUS	CRACKLE BX RHYOLITE, MINOR PYRITE	967.0	239.9
62348	256	HOLY CROSS	GRAB	TALUS	BRECCIA WITH SPECULARITE MATRIX	11.0	12.4
62349	256	HOLY CROSS	GRAB	BEDROCK	JASPER VEIN IN RHYOLITE	20.0	18.3
62350	256	HOLY CROSS	GRAB	BEDROCK	RHYOLITE BX-LOCATED ALONG FAULT?	7.0	366.4
62351	256	HOLY CROSS	GRAB	BEDROCK	RHYOLITE, BRECCIATED, QUARTZ-RICH	3.0	5.7
62352	256	HOLY CROSS	GRAB	BEDROCK	HIGHLY SILICIFIED RHYOLITE BRECCIA	27.0	17.5
62353	256	HOLY CROSS	GRAB	BEDROCK	SILICIFIED CONGLOMERATE	6.0	8.2
62354	256	LAIMAN	GRAB	FLOAT	QUARTZ HEALED BRECCIA, VUGGY, DRUSY	24.0	3.3

APPENDIX II

Geochemical Analyses

ANALYTICAL METHOD

Soil Samples

ICP A 30 gram sample is digested with 180 millilitres 3-1-2 HCL-HNO₃-H₂O at 95° C for one hour and is diluted to 600 millilitres with water. This each is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K, Ga and Al. The solution is analysed directly by ICP. Mo, Cu, Pb, Zn, Ag, As, Au, Cd, Sb, Bi, Tl, Hg, Se, Te and Ga are extracted with MIBK-Aliquat 336 and analysed by ICP. Elevated detection limits for samples contain Cu, Pb, Zn, As > 1500 ppm, Fe > 20%.

Au⁺ Extracted by aqua-regia/MIBK with GF/AA finished.

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 256 File # 97-3542

1409 - 409 Granville St., Vancouver BC V6T 1T2 Submitted by: Robert Cameron



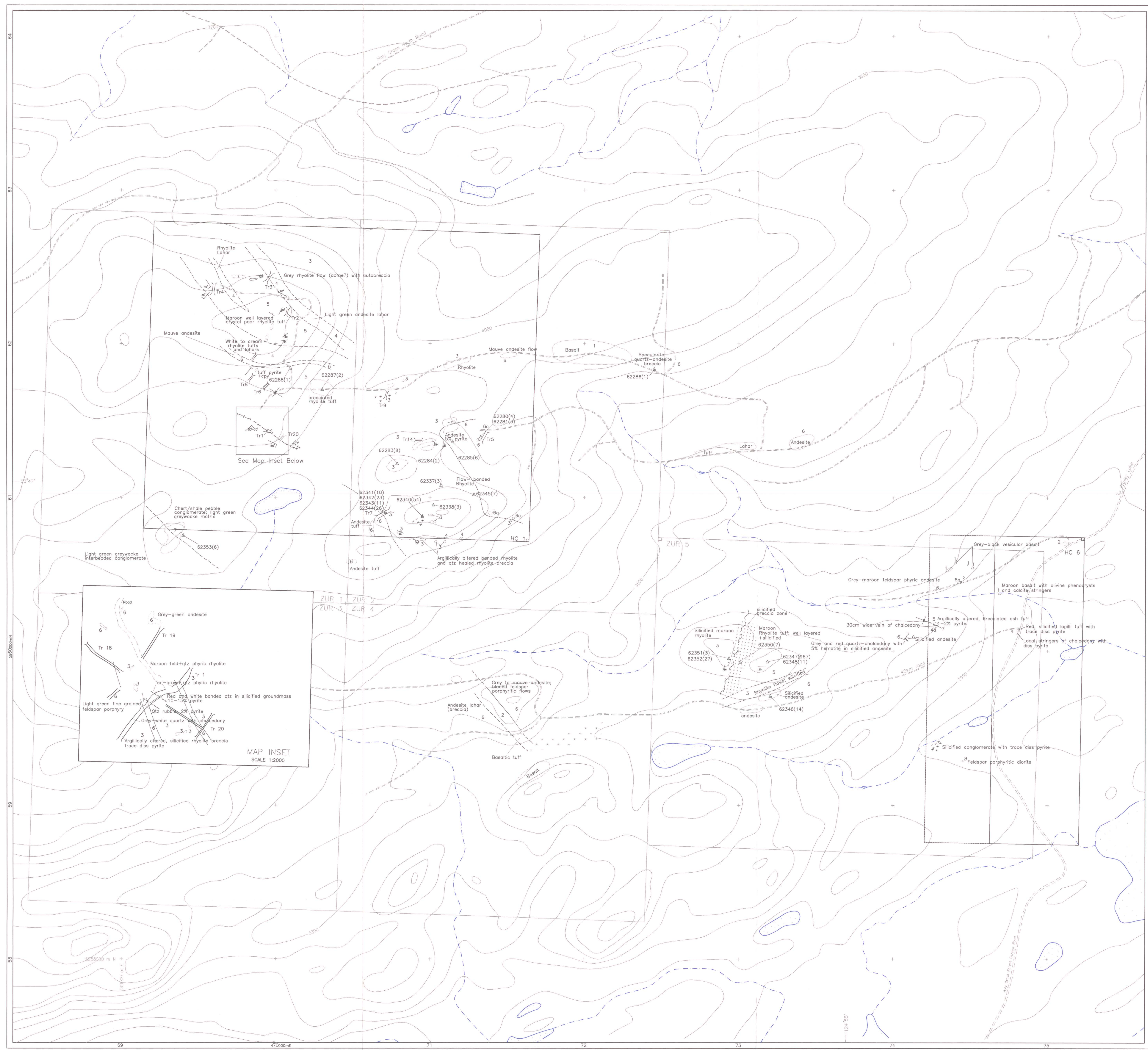
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
62280	1.1	10.2	7.7	157.6	151	28	57	1568	12.13	6.6	<5	2	13	.15	1.0	.1	219	.26	.065	4	29	1.37	469	.13	3	2.06	.01	.20	<2	<.2	41	<.3	<.2	11.7	4
62281	.2	28.3	7.9	130.1	254	15	33	1441	7.60	4.7	<5	1	21	.11	1.2	.2	188	.36	.062	4	19	1.26	63	.24	<2	2.25	.01	.13	<2	<.2	26	.3	.2	8.3	3
62283	16.1	25.9	32.8	33.0	1763	4	1	86	1.63	9.1	<5	1	30	.08	9.9	.6	8	.02	.036	8	22	.02	245	<.01	<2	.22	<.01	.11	15	.2	46	<.3	.2	.9	8
62284	7.2	12.5	14.6	8.2	221	2	<1	86	.65	3.8	<5	4	5	.04	.7	.1	3	.01	.009	14	14	.01	139	<.01	2	.20	.01	.22	4	<.2	17	<.3	<.2	.5	2
62285	1.2	105.6	17.3	182.6	360	52	28	2048	7.97	21.7	<5	1	17	.05	1.0	.1	90	.15	.108	5	102	1.43	53	.01	3	2.85	<.01	.38	<2	.2	48	.5	.3	7.5	6
62286	8.0	5.8	5.3	6.1	53	2	3	191	8.27	2.2	<5	1	17	.02	1.5	.1	58	.13	.065	9	32	.01	851	.04	<2	.33	<.01	.17	32	<.2	21	<.3	<.2	1.3	1
62287	4.2	17.6	14.9	11.0	174	2	1	117	2.01	1.9	<5	4	4	<.01	2.9	.3	4	.01	.017	13	11	.02	68	.03	<2	.30	<.01	.23	7	<.2	15	<.3	<.2	1.4	2
62288	.8	21.9	10.0	25.1	140	2	2	327	2.88	4.2	<5	6	16	.03	.4	.1	10	.04	.069	37	21	.08	312	.01	3	.74	<.01	.28	4	<.2	<10	<.3	<.2	3.5	1
62337	8.3	10.1	6.9	20.4	216	3	<1	71	.48	3.0	<5	3	4	.13	.6	.2	2	.01	.010	6	19	<.01	97	<.01	<2	.19	.01	.19	4	<.2	13	<.3	<.2	<.5	3
62338	2.3	7.9	7.9	12.3	298	2	<1	71	.60	7.4	<5	4	6	.05	.9	.4	1	<.01	.014	5	33	<.01	463	<.01	2	.14	<.01	.17	7	<.2	26	<.3	<.2	<.5	3
62340	85.4	22.7	667.6	258.4	4778	3	1	240	2.11	49.3	<5	2	5	1.30	7.0	2.2	6	<.01	.038	15	20	.01	112	<.01	3	.22	<.01	.15	8	.6	148	.4	2.4	1.0	54
62341	9.2	18.5	56.3	8.3	1049	3	2	81	1.12	52.4	<5	3	5	.11	3.4	.3	4	<.01	.005	4	22	.01	146	<.01	4	.15	<.01	.18	8	.4	136	<.3	<.2	.6	10
62342	2.3	48.0	4342.8	38.7	11958	3	2	94	2.94	5.6	<5	2	5	.08	3.5	9.2	6	<.01	.032	20	19	.01	75	<.01	<2	.18	<.01	.14	7	.9	13	3.1	4.0	1.2	23
62343	5.7	23.3	67.0	6.8	958	4	3	55	1.16	48.4	<5	1	3	.07	3.7	.3	2	<.01	.002	2	17	.01	96	<.01	<2	.15	<.01	.16	7	.4	142	<.3	<.2	<.5	11
RE 62343	5.7	22.1	66.1	6.3	956	4	3	73	1.13	46.5	<5	2	3	.08	3.9	.2	2	<.01	.002	3	20	.01	92	<.01	2	.15	<.01	.15	9	.5	148	<.3	<.2	<.5	10
62344	4.7	69.0	52.3	51.4	657	4	3	234	4.13	19.4	<5	4	2	.06	2.9	.7	47	<.01	.006	4	22	.06	78	.01	3	.54	<.01	.13	9	<.2	99	<.3	<.2	3.1	26
62345	10.6	19.3	26.8	9.2	1238	3	2	64	1.00	194.0	<5	2	5	.12	6.7	.4	2	<.01	.003	6	27	.01	92	<.01	2	.13	<.01	.15	10	.5	177	<.3	.2	<.5	7
62346	411.6	13.5	171.4	317.2	4302	5	1	93	.92	208.8	<5	2	16	.12	10.0	.4	3	.03	.007	4	46	.01	320	<.01	3	.08	<.01	.08	10	4.9	586	.5	2.4	<.5	14
62347	18.6	41.6	38.1	24.1	3013	3	2	77	4.65	239.9	<5	1	27	.09	24.1	1.3	7	<.01	.035	3	20	<.01	24	.01	<2	.17	.01	.42	11	.7	332	2.4	.2	.5	967
62348	12.3	13.1	18.4	7.6	216	1	2	172	14.33	12.4	<5	3	15	.04	11.5	1.9	72	.01	.017	33	12	<.01	247	.04	<2	.22	<.01	.15	43	<.2	14	<.3	<.2	1.3	11
62349	6.6	6.4	13.7	5.7	757	3	1	94	5.20	18.3	<5	1	6	.02	12.2	.4	20	<.01	.010	3	28	<.01	230	<.01	2	.05	<.01	.09	55	<.2	15	1.7	.2	.5	20
62350	101.5	57.2	1.7	263.9	208	4	4	289	8.04	366.4	<5	3	7	.09	6.0	.3	5	.01	.131	12	42	<.01	1207	<.01	<2	.28	.01	.16	10	.3	54	<.3	.4	<.5	7
62351	1.5	7.2	2.3	6.5	67	2	<1	82	.50	5.7	<5	4	5	.02	1.5	<.1	3	<.01	.007	20	28	<.01	357	<.01	2	.15	<.01	.19	8	<.2	<10	<.3	<.2	<.5	3
62352	3.1	9.8	3.5	9.1	251	3	1	86	.78	17.5	<5	2	9	.03	1.2	.1	3	.01	.010	7	59	<.01	1456	<.01	3	.16	<.01	.12	7	<.2	<10	<.3	<.2	<.5	27
62353	7.9	19.9	6.7	15.0	320	11	7	106	.54	8.2	<5	1	12	.20	1.3	.1	8	.04	.010	2	27	.02	62	<.01	<2	.22	<.01	.07	8	<.2	20	<.3	<.2	.5	6
STANDARD	24.7	131.5	104.8	265.3	1854	33	18	1151	4.57	79.9	22	20	59	2.04	7.2	23.0	82	.77	.116	22	66	1.33	268	.13	27	2.40	.09	.74	15	2.7	458	.6	2.1	7.1	509

Standard is STANDARD D2/HG-500.

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUAT 336 AND ANALYSED BY ICP. ELEVATED DETECTION LIMITS FOR SAMPLES CONTAIN CU,PB,ZN,AS>1500 PPM,Fe>20%.

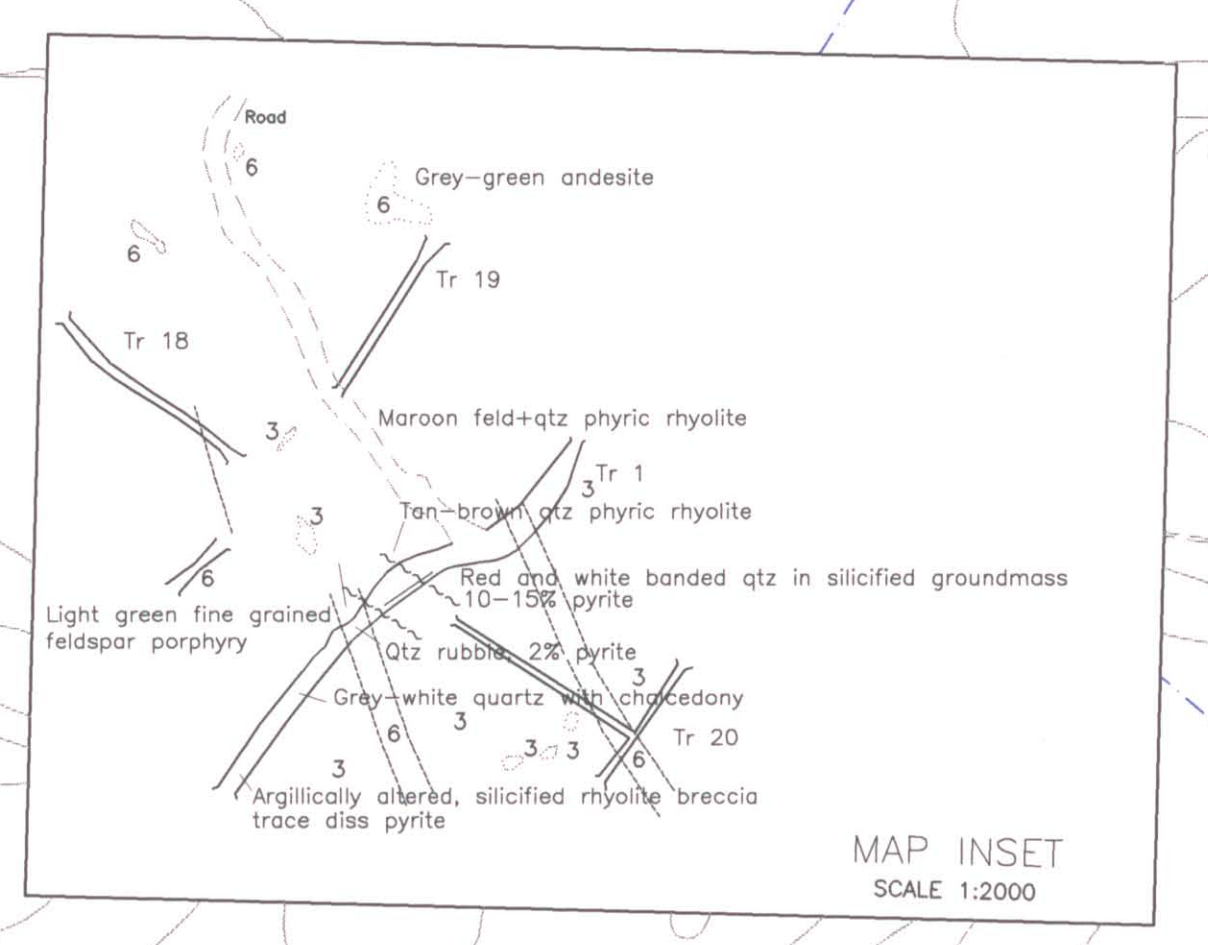
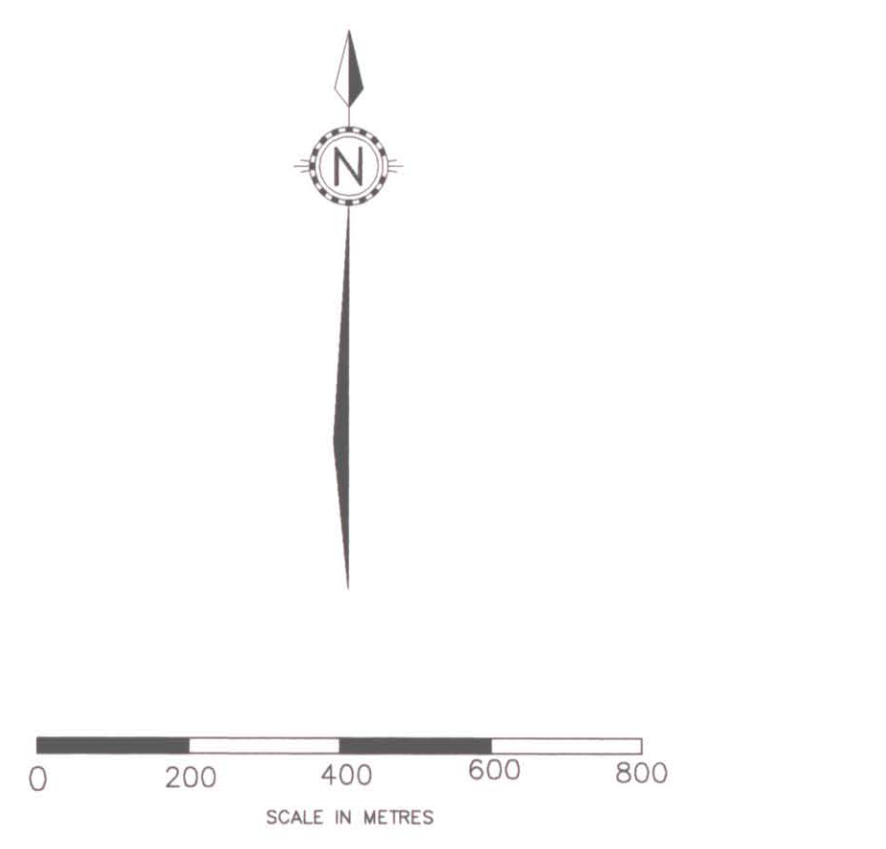
- SAMPLE TYPE: ROCK AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 14 1997 DATE REPORT MAILED: *Jul 24/97* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



- LEGEND**
EOCENE TO OLILOCENE
- ENDAKO GROUP**
- 1 Basalt, dark grey, locally vesicular, olivine and feldspar phyrlic, local flow top breccia, epistole veins and vesicle infillings
 - 2 Lapilli tuff, light grey, sparse angular fragments to 2cm
- MIDDLE JURASSIC?**
- 8 Diorite, Diabase, medium grey, fine grained, "salt and pepper" texture, locally feldspar phyrlic
- EOCENE TO MIDDLE JURASSIC?**
OOTSA LAKE GROUP? HAZELTON GROUP?
- 3 Banded rhyolite, dark to light purple, tan, buff, cream banding is 1-2mm thick, local quartz-chalcedony veins and veinlets, local abundant epistole/chlorite locally extensive brecciation
 - 4 Lapilli tuff, lahar agglomerate(?), dark to light purple to light green to tan, sparse light grey cists, 1mm to 1cm, pyritic
 - 5 Ash tuff, crystal tuff, light green-grey, locally feldspar phyrlic, silicified, chloritic, clay altered.
 - 6 Andesite, dark to light purple, massive crowded feldspar phyrlic
a) dark green, chloritic, local propylitic alteration
 - 7 Pebble conglomerate, quartzite, matrix supported

- SYMBOLS**
- Geological contact (approximate, known)
 - Fault (approximate)
 - Outcrop
 - Shear (vertical)
 - Floot
 - Joint (inclined, vertical)
 - Flow layering (inclined)
 - Foliation (inclined)
 - Syncline
 - Trench
 - Tr5 - Trench number
 - 62348(11) 1997 rock sample, sample number, gold (ppb)
 - Lake / pond
 - Creek
 - Contour; (contour interval 100ft)
 - UTM coordinate
 - Road



PHELPS DODGE CORP. OF CANADA LIMITED
PROJECT NO. 256 (HOLY CROSS PROPERTY) OMECA MINING DIVISION

PROPERTY GEOLOGY AND ROCK SAMPLES

SCALE	DATE	BY	NTS NO.	FIGURE
1:10000	DEC/97	CWP	93 F/15	4

FOX GEOLOGICAL SERVICES INC.

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,313