FOX GEOLOGICAL SERVICES INC

ASSESSMENT REPORT

GEOLOGICAL AND ROCK GEOCHEMICAL REPORT

on the

HOLY CROSS PROPERTY
HC 1 and HC 6 Mineral Claims
PROJECT NO. 256

OMINECA MINING DIVISION
BRITISH COLUMBIA

NTS 93F/15
53° 47' North Latitude
124° 56' West Longitude

by

C. W. Payne M.Sc., P.Geo.

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

Work Paid for by
PHELPS DODGE CORPORATION OF CANADA, LIMITED

January 13, 1996

TABLE OF CONTENTS

Tables

List of Figures

Appendices

SUMMARY

A program of geological mapping, prospecting and rock sampling was conducted on the Holy Cross Property consisting of the HC 1 and HC 6 non-contiguous claims in central B.C. between August 4 and 9, 1995. The property is located approximately 33 kilometres south of Fraser Lake on the Nechako Plateau. Access is south from Fraser Lake via the Holy Cross Forest Service Road for 36 kilometres and then west on the Holy Cross North Road for five kilometres to the north side of the HC 1 claim block.

The Holy Cross Property is centrally located in the Interior Plateau of British Columbia, within the Intermontaine Belt, in the central portion of the Stikine Terrane. The claims are underlain by Mesozoic and Cenozoic volcanic, sedimentary and intrusive rocks. Jurassic intermediate volcanic rocks are cut by middle Jurassic intrusions which are unconformably overlain by Cretaceous sedimentary rocks and intermediate volcanic flows. These underlying rocks are capped by intermediate to felsic volcanics of the Ootsa Lake and Endako Groups.

The 1995 exploration program was designed as a follow-up to Cogema's 1994 field season to further evaluate and confirm areas containing anomalous gold and silver values in quartz/chalcedony flooded banded rhyolite and rhyolite breccia located in the central part of the HC 1 claim. Rock sampling confirmed the presence of anomalous gold (up to 9,560ppb Au) and silver values (up to 50,015ppb Ag) within silica flooded rhyolite breccia with quartz-chalcedony veining. Four contiguous one metre chip samples across a portion of the mineralized zone from trench 1 contained 1,795ppb Au over four metres.

Rock sampling results on the HC 6 claim contained weak to moderately anomalous gold values ranging from 135ppb Au to 935ppb Au within silica flooded lapilli tuff with 1% to 2% disseminated pyrite.

INTRODUCTION

This report details an exploration program conducted on the Holy Cross Property consisting of the non-contiguous HC 1 and HC 6 claims between August 4 to 9, 1995. A total of 12 man days (8 man-days on HC 1 claim and 4 man-days on HC 6 claim) was spent collecting rock samples, prospecting and geological mapping through the central and northern parts of the properties. The results of this work on both properties is reported herein.

LOCATION, ACCESS and PHYSIOGRAPHY

The Holy Cross Property is located in central British Columbia, approximately 33 kilometres south of Fraser Lake. The claims lie between Bentzi Lake and Holy Cross Mountain on NTS map sheet 93 F/15 (see Figure 1).

Access from Fraser Lake is via the Holy Cross Forest Service Road, south for 36 kilometres and then west on the Holy Cross North Road (36 road) for five kilometres to the north side of the HC 1 claim. The Holy Cross Forest Service Road bisects the HC 6 claim at approximately 40 kilometre.

The property is a series of northwest-southeast trending knolls located on the eastern side of Holy Cross Mountain. Topography is gentle to moderately sloping hills with elevations ranging from approximately 1,158 metres in the valley on the northeast corner of the HC 1 claim to 1,402 metres on the hill tops in the northwest and southeast areas of the property.

Forest cover consists primarily of spruce and pine on the western third of the claims while the eastern part of the property is clearcut.

CLAIM INFORMATION

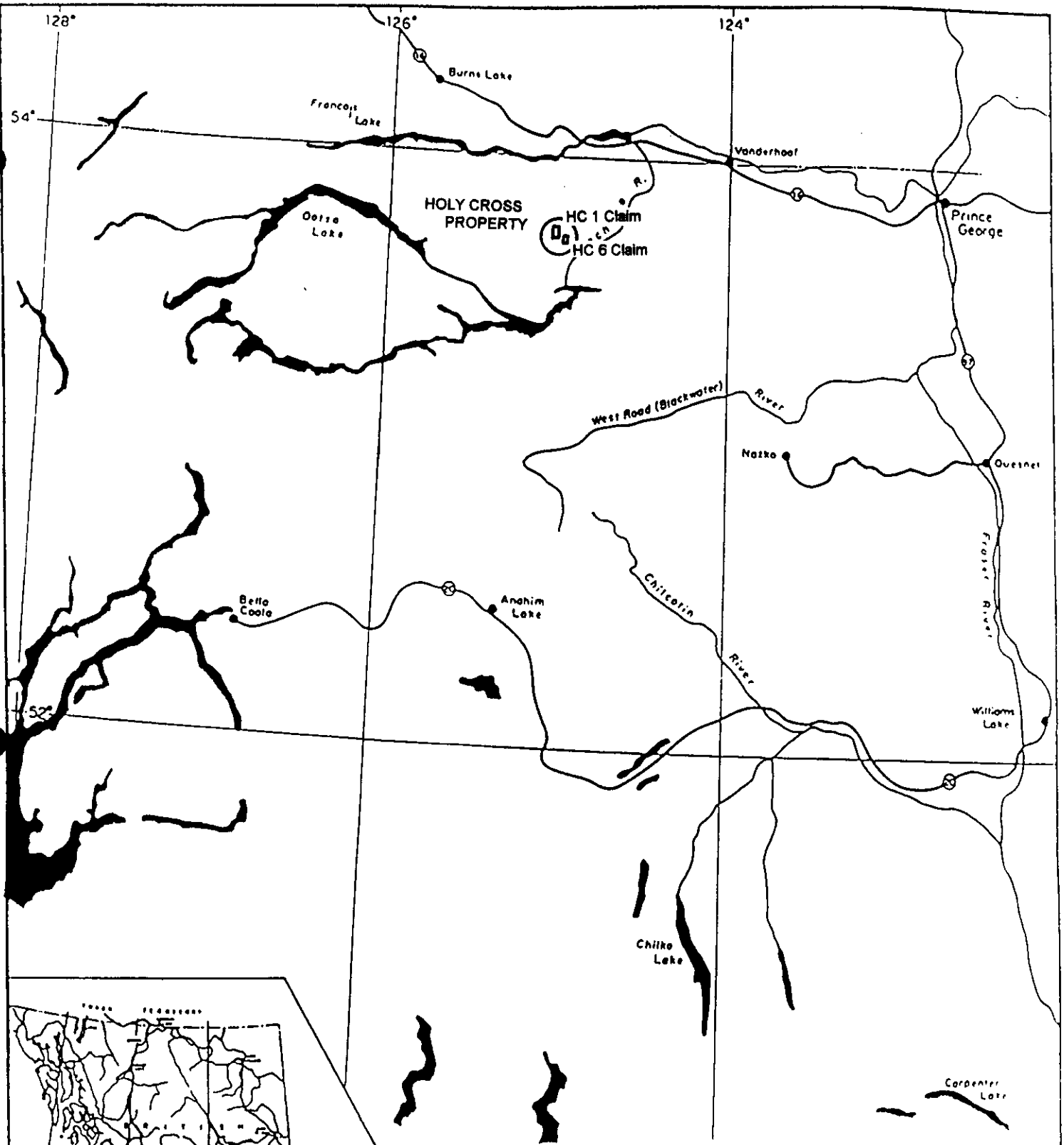
The Holy Cross Property consists of two non contiguous claims, totalling 40 units, recorded in the Omineca Mining Division and shown on NTS map sheet 93F/15W (see Figure 2). Claim details are set out below. Expiry dates listed below assumes that current work is accepted for assessment purposes.

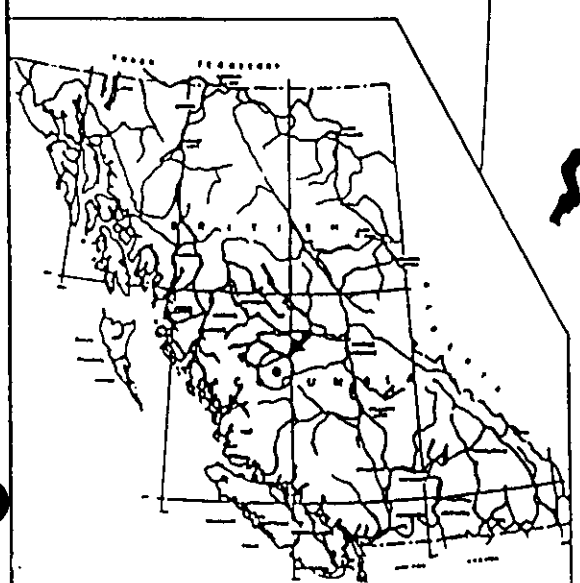
Table 1

CLAIM NAME	TENURE NO.	EXPIRY DATE	UNITS
HC 1	331896	Oct 14, 1996	20
HC 6	331897	Oct 15, 1996	20

HISTORY

The Holy Cross Property was staked by Cogema Resources Inc. in 1994 and conducted limited prospecting, rock sampling and soil/till sampling during that same year. The property was originally staked by Noranda Exploration Company Limited in 1987 as follow-up to a regional reconnaissance program which found anomalous gold values in rhyolite. During 1988 and 1989 Noranda carried out geological mapping, prospecting, extensive soil sampling, magnetometer and IP surveys and trenching. The





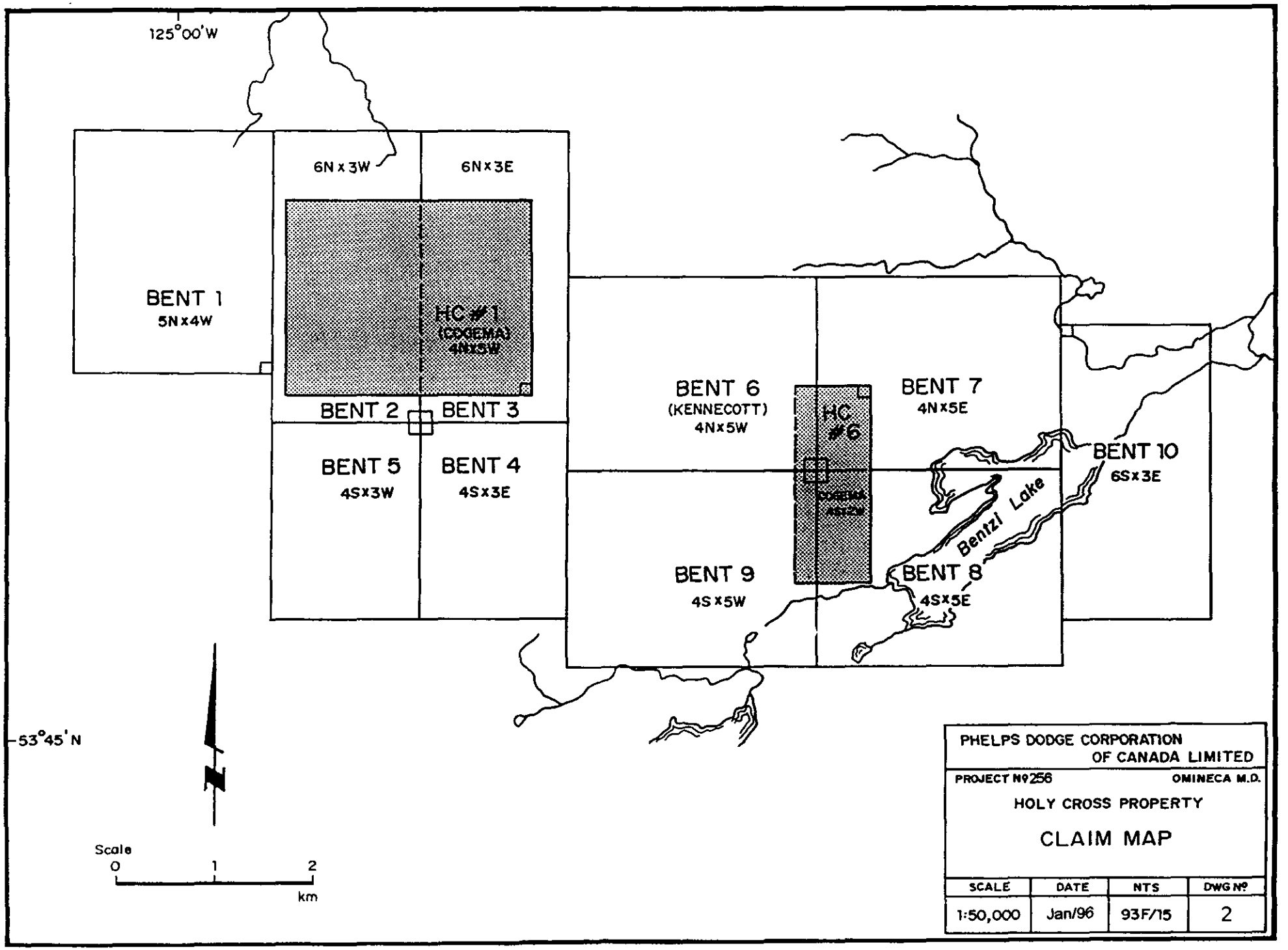
PHELPS DODGE CORP. OF CANADA LTD.

PROJECT NO. 256 OMINECA MINING DIVISION

HOLY CROSS PROPERTY

PROPERTY LOCATION

SCALE	DATE	NTS	FIG No
1:2,000,000	Jan/96		1


125°00'W
6N x 3W
6N x 3E
BENT 1
5N x 4W
HC #1
(COGEMA)
4N x 3W
BENT 2
BENT 3
BENT 5
4S x 3W
BENT 4
4S x 3E
BENT 6
(KENNECOTT)
4N x 5W
HC
#6
BENT 7
4N x 5E
BENT 10
6S x 3E
Bentzi Lake
BENT 9
4S x 5W
BENT 8
4S x 5E
53°45'N
Scale
0 1 2
km
PHELPS DODGE CORPORATION
OF CANADA LIMITED
PROJECT N9256
OMINECA M.D.
HOLY CROSS PROPERTY
CLAIM MAP
SCALE
DATE
NTS
DWG Nº
1:50,000
Jan/96
93F/15
2

best result reported from the property is from Trench 1 where sampling of silica flooded rhyolite breccia returned 1.0 g/t gold over 8.5 metres.

REGIONAL GEOLOGY

The Holy Cross Property is centrally located in the Interior Plateau of British Columbia within the Intermontaine Belt, which consists of late Palaeozoic to late Tertiary sedimentary and volcanic rocks belonging to the Stikinia, Cache Creek and Quesnellia Terranes. The Yalakom and Fraser Fault systems bound the plateau to the northeast and southwest. A third fault has been inferred from oil exploration data to bisect the plateau. The Anahim Volcanic Belt, which crosses the plateau in an east-west direction, is composed of a series of alkaline and peralkaline volcanic centres of Miocene to Quaternary age which become younger from west to east.

The HC 1 and HC 6 claims lie within the central portion of the Stikine Terrane, which locally consists of three volcanic-stratigraphic groups ranging in age from upper Cretaceous to Miocene. An Eocene extensional tectonic event, which resulted in basin and range type topography, is associated with epithermal, volcanic-hosted gold mineralization.

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 middle Jurassic Hazelton Group andesite and reworked crystal tuff. These rocks are overlain by Cretaceous Skeena Group chert pebble conglomerate, minor argillite, conglomerate, sandstone, mudstone and Kasalka Group hornblende phyric andesite flows. Eocene to Late Cretaceous Ootsa Lake Group maroon flow banded rhyolite and rhyolite breccia and andesite unconformably overlie the older rocks in the area. Flat lying Eocene to Oligocene 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. Locally associated with Endako Group rocks are plugs of diorite and gabbro. Regional geology is presented in Figure 3.

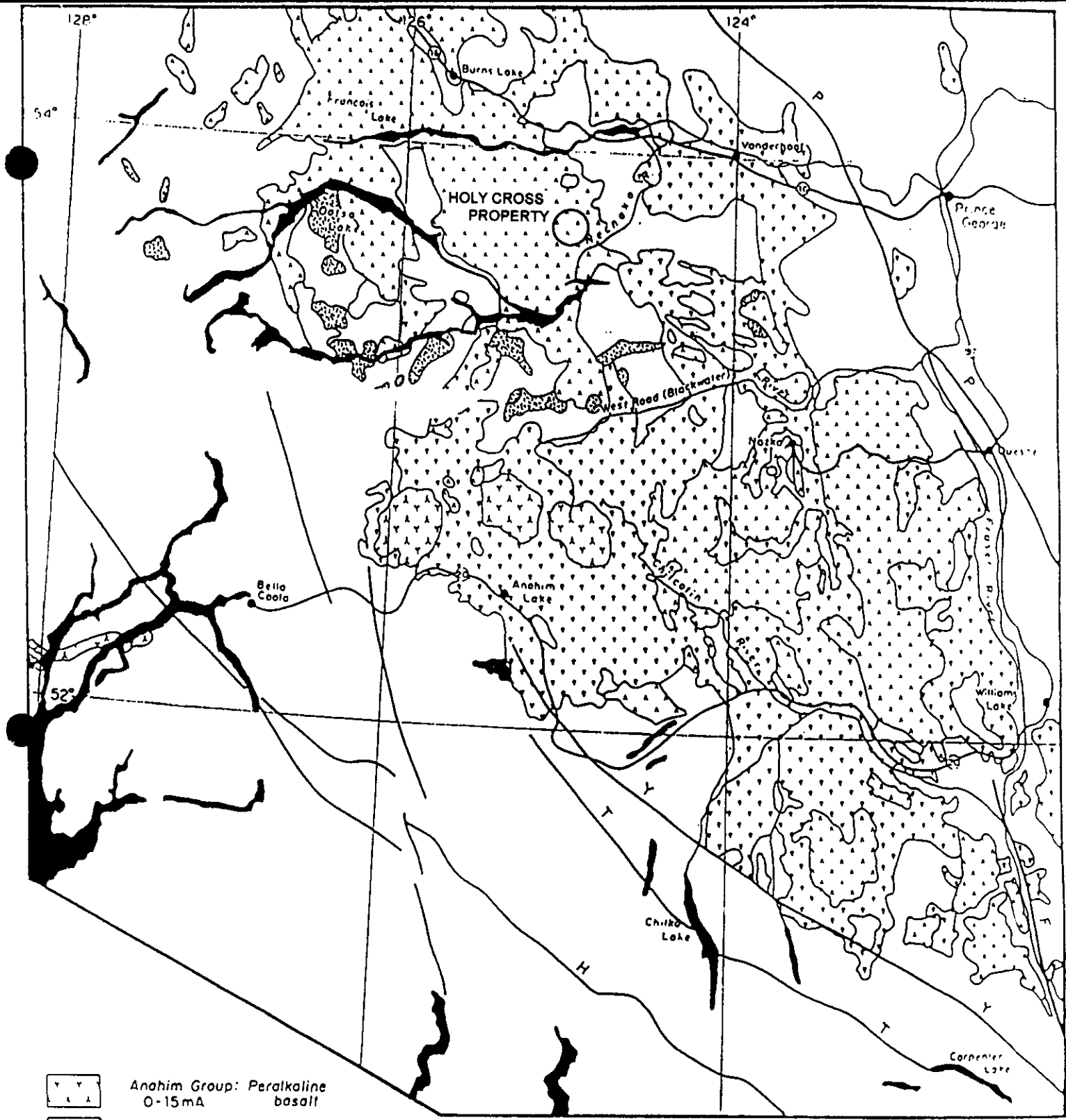
PROPERTY GEOLOGY

The Holy Cross Property is underlain by Mesozoic and Cenozoic volcanic, sedimentary and intrusive rocks. Jurassic intermediate volcanic rocks are cut by middle Jurassic intrusions which are unconformably overlain by Cretaceous sedimentary rocks and intermediate volcanic flows. These underlying rocks are capped by intermediate to felsic volcanics of the Ootsa Lake and Endako Groups (see Figure 4).

The HC 1 claim is underlain by banded rhyolite, rhyolite breccia, andesite and tuff. Previous work has described these rocks as belonging to the Eocene Ootsa Lake Group; however, it is possible that they are older, Upper Cretaceous Kasalka Group or Jurassic Hazelton Group. These rocks are overlain by Eocene Endako Group basalt.

Banded rhyolite is dark purple to maroon where unaltered, light purple, tan, buff, or cream where argillically altered. They are thinly banded with 1-2mm wide bands, and commonly develop a slaty cleavage in outcrop.

Rhyolite breccias appear to be syn-depositional. They comprise 1mm to 5cm angular to subangular fractured fragments of light purple, buff, tan, and cream-coloured banded rhyolite



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 - Tchaikazan P - Pinchi
Y - Yalakom

PHELPS DODGE CORP. OF CANADA LTD.

PROJECT NO. 256 OMINECA MINING DIVISION

HOLY CROSS PROPERTY

REGIONAL GEOLOGY

SCALE	DATE	NTS	FIG Nº
1:2,000,000	Jan/96		3

in a dark purple\maroon fine grained matrix. They are typically matrix supported where fragments are small and fragment supported where fragments are larger.

Banded rhyolite and rhyolite breccia are spatially related, however the exact nature of the relationship is unclear, consequently they are mapped as a single unit.

Quartz phyric rhyolite was observed at one location, adjacent to the north end of Trench 1 (TR 1). It is buff, with sparse 1mm to 2mm rounded "quartz-eyes", and is foliated adjacent to the mineralized zone, but competent and "fresh" looking two metres to the north.

Interbedded with rhyolite and volumetrically less important are lapilli and ash tuffs, feldspar porphyritic andesite flows and andesitic tuffs. Lapilli tuffs are associated with the banded rhyolite, rhyolite breccia and feldspar phyric andesite. The sequence: banded rhyolite-rhyolite breccia-lapilli tuff-feldspar phyric andesite may represent a depositional record, or one or more of these units may be in fault contact.

Lapilli tuffs exhibit a dark purple matrix usually with preferentially clay altered clasts. More significant clay or silica alteration results in a light purple, light green or light grey matrix and clasts. Clasts are angular to rounded, less than 1mm to 5cm and are rhyolite, banded rhyolite and feldspar porphyry. Clasts exhibit varying degrees of clay alteration within the same rock. The lapilli tuffs are matrix supported to clast supported, in appearance the latter suggests an agglomerate or debris flow.

Andesite is volumetrically the most common rock type after banded rhyolite/rhyolite breccia. These comprise two lithologies with the most abundant type being dark purple to dark grey where unaltered, and light purple, tan or cream where clay altered, feldspar phyric (1mm to 2mm subhedral to euhedral feldspar phenocrysts). Less important are interbeds of medium to dark green, aphanitic to fine grained andesite.

Ash tuff comprise thin interbeds in the andesite sequence and are light green to light grey in colour, fine grained and locally foliated.

No other rock types were observed on the HC 1 claim during the work program.

The property is cut by faults trending southeast, east and northeast. A syncline trending 120° through trench 6 is a possible interpretation of the mapping results.

The northern half of the HC 6 claim is underlain by a sequence of andesite, tuff, lapilli tuff, minor conglomerate and sandstone which are similar in appearance to those observed on the HC 1 claim. Previous work has identified these rocks as Ootsa Lake Group, however they could also be Cretaceous Kasalka Group or Jurassic Hazelton Group rocks. In the northwest, these rocks are overlain by Eocene Endako Group basalt, flow breccia and lapilli tuff.

Andesite is medium to dark green, aphanitic to fine grained, and contains large irregular stringers and blebs of specular hematite. Locally the andesite is brecciated with a specular hematite rich matrix.

The most common rock type on the HC 6 claim is lapilli tuff which appears to be correlative with a similar unit on the HC 1 claim. It outcrops at the 40km road-Holy Cross FSR road

intersection. Locally the lapilli tuff is crowded with subrounded to angular clasts which gives it the appearance of an agglomerate or debris flow. Where unaltered or weakly altered the matrix is dark purple with preferentially clay altered clasts, where altered the matrix is light purple to light green. Clasts are rounded to angular, less than 1mm to 5cm in size comprising feldspar porphyry, rhyolite and banded rhyolite. The central part of the outcrop contains a thin (less than 1m thick) bed of chert pebble conglomerate. The matrix supported conglomerate consists of rounded to angular pebble sized chert clasts set in a silicified, brick red hematite rich matrix. Locally, the conglomerate exhibits graded bedding. Underlying the conglomerate is fine gained quartzite which exhibits ripple bedding and grey to white chalcedonic (chert?) cross-bedded ripples. Immediately above this sedimentary sequence is a fine grained, tan ash tuff. This sequence of rocks has not been observed elsewhere on either claim block. Bedding dip angles from an outcrop of lapilli tuff on the hill immediately to the west of the "40 km" road cut, indicate the presence of a synform trending 110°.

Endako Group basalts are dark grey, blocky, often cliff forming, locally vesicular olivine phyric and exhibit epidote infilling of vesicles. The lapilli tuff is light grey, containing angular lithic fragments up to 2 centimeters in size.

The only outcrop observed in the southern half of the property consists of a magnetic, fine grained intrusive with a salt and pepper texture, possibly a fine grained diorite.

MINERALIZATION

A total of 52 rock samples were collected within the HC 1 claim and 31 rock samples from the HC 6 claim. All rock samples were tagged with a unique number and submitted to Acme Analytical Laboratories Ltd. in Vancouver, B.C. for analyses. Each sample was analyzed for 34 elements by ICP techniques and for gold by geochemical atomic absorption analysis. Rock sample descriptions and geochemical results are presented in Appendix 1. Analytical methodology is set out in Appendix 2.

Mineralization on the HC 1 claim consists of less than 1cm to greater than 10 metre wide zones of silicification accompanied by argillic alteration and 1% to 5% disseminated euhedral pyrite. Locally within these areas are zones of secondary brecciation, drusy quartz in open fractures, quartz healed breccias, specular hematite, 1cm to 10cm wide veins of banded quartz with jasper and less frequently chalcedony veins hosted in banded rhyolite or rhyolite breccia. Several episodes of secondary brecciation are evident locally. The above type of mineralization is common on the property. At Trench 1, where significant gold geochemical values have been reported (1.0 g/t Au over 8m, 12.4 g/t Au in grab samples, Barber,1989) up to 10cm wide veins of quartz banded with jasper contain 10% to 15% disseminated pyrite as blebs within the quartz. Massive grey chalcedony and intense silicification are immediately adjacent, within an argillic alteration halo containing abundant euhedral pyrite. Mineralization in Trench 1 occurs at the intersection of two lineaments visible on airphotos trending 120° and 030°-040° respectively. Gold values from rock samples collected from the HC 1 claim during 1995 contained gold values ranging from 1ppb to 9,560ppb. Nine of the 51 samples contained gold values greater than 100ppb. Six of the nine samples containing anomalous gold values were collected from Trench 1. Four of the samples (54078 to 54081 inclusive) are 1 metre chip samples from within the mineralized zone (pyritic, banded grey chalcedony in silica flooded rhyolite breccia) of Trench 1. Average of the four samples is 1,798ppb gold over 4 metres. A mineralized grab sample (54084) of banded grey and white quartz with chalcedony contains

9,560ppb gold. Quartz banded with jasper occurs elsewhere on the property, notably at Trench 6 and Trench 7; however, it does not attain as great a thickness or to contain abundant pyrite.

Pyrite mineralization is observed in weakly altered dark green andesite, consisting of pyrite blebs and veinlets and abundant euhedral pyrite along fractures comprise up to 5% of the rock.

On the HC 6 claim mineralization was observed at two locations, the "40km" road cut and on the hilltop immediately to the west of the "40km" road cut.

At the "40km" road cut silicified lapilli tuff is argillically altered, chlorite rich, pyritic, minor chalchopyrite, brecciated, and contains tan/green chalcedony with jasper veinlets. The highest gold value from the "40 km" road cut is 132 ppb Au and 2,698ppb Ag.

On the hill top immediately to the west of the "40km" road cut, both the ash and lapilli tuff contain finely disseminated pyrite, the conglomerate unit is pyritic and contains banded quartz/jasper and chalcedony veins up to 30cm wide both containing minor pyrite. Gold values from a silicified fine grained tuff containing weak chalcedony veining and 1% to 2% disseminated pyrite contained 935ppb Au. Further to the west at sample site 54412 a gold value of 204ppb Au is reported in banded quartz-chalcedony with 5% disseminated hemitite.

1995 WORK PROGRAM

The 1995 field program, was carried out during the period August 4 to 9, (August 4 to 7, 1995 on the HC 1 claim and August 8 and 9, 1995 on the HC 6 claim) and focused on confirming the presence of anomalous gold and silver values in silica flooded banded rhyolite and rhyolite breccia in trenches developed by Noranda Exploration Company Limited during 1987 to 1989 and to further evaluate the area surrounding known mineralization by prospecting and rock sampling.

Approximately 5 square kilometres was prospected and geologically mapped at a scale of 1:10,000 on the HC 1 claim and 2 square kilometres on the HC 6 claim. Property geology is shown in Figure 4. In addition, 51 rock samples were collected from the HC 1 claim and 31 rock samples from the HC 6 claim and sent to Acme Analytical Laboratories Ltd. for multi-element analysis. Rock sample locations are shown in Figure 4.

RESULTS

Geological mapping and prospecting on the HC 1 claim has confirmed the presence of a series of rhyolitic domes within a predominantly intermediate sequence of volcanics and associated sedimentary rocks. Flanking and within the rhyolite sequence where they have been structurally prepared is extensive silicification, brecciation, quartz and chalcedony veining and significant concentrations of pyrite and trace chalcopyrite. Within silicified banded rhyolite and rhyolite breccia gold values range up to 9,560ppb Au with a four metre section averaging 1,798ppb Au.

The HC 6 claim is underlain by predominantly pyroclastic rocks with localized areas of intense silicification and quartz-chalcedony veining and veinlets with trace to 2% disseminated pyrite. Anomalous gold values within the pyroclastic sequence range from 132ppb Au to 935ppb Au.

The highest gold value from quartz-chalcedony veining from the HC 6 claim contained 204ppb Au.

CONCLUSIONS

Rock geochemical results on the HC 1 claim have confirmed the presence of significant concentrations of gold and silver values in silica flooded banded rhyolite and rhyolite breccia within the area of trench 1. Geological mapping and prospecting results indicate that lateral continuity of the rhyolite sequence extending across the claim represents a favourable area for economic concentrations of both base and precious metals.

A thick sequence of pyroclastic rocks with minor intercalated sequences of sedimentary rocks underlies the HC 6 claim. Within the volcanic-sedimentary sequence are localized zones of silicification and quartz-chalcedony veining carrying up to 2% disseminated pyrite. Gold values within the pyroclastic sequence range up to 935ppb Au and 2,698ppb Ag. Quartz-chalcedony veining where sampled contains up to 204ppb Au and 5,505ppb Ag.

DISBURSEMENTS

Expenditures on the HC 1 claim total $4,490 and for the HC 6 claim $2,670 as tabulated below:

HC 1 EXPENDITURES

		$
Labour		
K. Karchamer, Geologist	4 days @ $295/day	1,180.00
T. Archibald, Prospector	4 days @ $225/day	900.00
Accommodation & Board		260.00
Geochemical Analyses		
51 rock samples	$19.00/sample	969.00
Truck Rental		260.00
Field Equipment/Consumables		185.00
Radio Rentals		80.00
Report Writing and Drafting		656.00
TOTAL		**$4,490.00**

HC 6 EXPENDITURES

		$
Labour		
K. Karchamer, Geologist	2 days @ $295/day	590.00
T. Archibald, Prospector	2 days @ $225/day	450.00
Accommodation & Board		140.00
Geochemical Analyses		
31 rock samples	$19.00/sample	589.00
Truck Rental		130.00
Field Equipment/Consumables		75.00
Radio Rentals		40.00
Report Writing and Drafting		656.00
TOTAL		**$2,670.00**

FOX GEOLOGICAL SERVICES INC.

C. W. PAYNE M.Sc., P.Geo
January 13, 1996

REPORT DISTRIBUTION:
Phelps Dodge, Toronto Land File 1
Phelps Dodge, Vancouver 2
B.C. Mining Recorder 2

REFERENCES

Barber, R.1989
"Geological and Geochemical Report on the Holy Cross Property (HC 1, 4, 5, HCM 2-3 Mineral Claims), Omineca Mining Division" British Columbia Assessment Report No.19,627.

Lane R. A. 1994
"Preliminary Bedrock Geology, Holy Cross Mountain to Bentzi Lake, Central British Columbia" Geological Survey Branch Open File 1995-22.

Schimann, K. (1994)
"Holy Cross Property, Omenica Mining Division", NTS 93 F/15W, Cogema Resources Inc., Company Report

CERTIFICATE

STATEMENT OF QUALIFICATIONS

I, Craig W. Payne of Coquitlam, British Columbia do hereby certify that I:

1. am a graduate of Brock University, St. Catharines, Ontario with a Master of Science degree in Geological Sciences, 1979.

2. am a Fellow of the Geological Association of Canada.

3. am a member of the Association of Professional Engineers and Geoscientists of British Columbia.

4. have practised my profession since 1972.

5. am a consulting geologist with Crest Geological Consultants Limited.

6. am the author of the report entitled "Geological and Rock Geochemical Report on the Holy Cross Property, HC 1 and HC 6 Claims"; Omineca Mining Division, dated: January 13, 1996.

Dated at Vancouver, B.C. this 13th day of January, 1996.

Respectfully submitted,

Craig W. Payne M.Sc. P. Geo.
Vancouver, B.C.
January 13,, 1996

APPENDIX I

ROCK SAMPLE DESCRIPTIONS
and
ROCK GEOCHEMICAL RESULTS

ROCK SAMPLE DESCRIPTIONS AND GEOCHEMISTRY

SAMPLE	TYPE	DESCRIPTION	Au ppb	Ag ppb	As ppm	Sb ppm	Hg ppb
53475	GRAB	Medium green, propylitic altered, andesite with 5% 1-2mm euhedral pyrite, epidote shear zone.	2	435	21.3	5.5	100
53476	GRAB	White/grey/orange, clay altered, foliated andesite with <5% euhedral pyrite, 3mm limonite veinlet.	2	760	40.1	3.4	71
53477	GRAB	Light purple/tan/grey, brecciated, foliated, silicified, clay altered andesite, locally up to 10% euhedral 1mm pyrite, vuggy, drusy quartz lining vugs, limonite stain.	24	3894	31.5	8.1	100
53478	GRAB	Black glassy vein material from silicified and brecciated rhyolite, veins 2-3cm, glassy to earthy, vesicular (?), hematite rich	18	1305	212.4	24.4	129
53479	GRAB	From Trench 5, dark green-light grey, andesite, fractured, locally silicified, 10-15% euhedral pyrite and pyrite veinlets, locally bleached.	33	5649	25.1	8.2	52
53480	GRAB	Subcrop on bedrock, brecciated, bleached, quartz healed banded rhyolite with heavy limonite stain.	7	478	58.3	4.3	52
53481	GRAB	Subcrop on bedrock, purple/pink, rhyolite, brecciated, quartz healed, vuggy, drusy quartz, weak clay alteration, locally (euhedral to 2mm) pyrite hematite.	5	461	14.5	2.2	23
53482	GRAB	Light purple-tan, rhyolite, brecciated, quartz healed, bleached in places, 1mm euhedral pyrite in places, drusy quartz.	6	712	12.2	1.5	18
53483	GRAB	Light purple, brecciated, quartz healed, bleached, clay altered, silicified, rhyolite, hematite.	20	670	50.9	2.5	72
53484	GRAB	Light purple-tan, rhyolite, brecciated, quartz healed, silicified, euhedral pyrite to 2mm, hematite, weak clay altered.	9	804	9.2	3.7	38
53485	GRAB	Vuggy rhyolite breccia with quartz veinlets, hematite.	264	50015	74.8	8.6	270
53486	GRAB	Subcrop. Grey, feldspar porphry, silicified, brecciated, healed with white and red banded quartz, open fractures with small clear euhedral quartz, disseminated pyrite above Trench 1.	206	7367	18.6	15.9	42
53487	GRAB	Brown/tan, quartz eye rhyolite immediately north of Trench 1, unaltered, competent 10m from zone, sheared closer to zone.	12	254	3.6	0.8	36
53488	GRAB	Light green, fine grained feldspar porphry, phenocrysts are clay altered, silicified.	14	498	5.1	0.9	20
53489	GRAB	Trench 1, red and white banded quartz in silicified grey ground mass, 10-15% blebs and veinlets of pyrite.	5120	9412	5.6	6.9	55
53490	GRAB	Trench 20, silicified fault breccia, 1% pyrite as blebs to 1mm.	100	761	3.6	0.6	23
53491	GRAB	Trench 9, red, fault breccia, pink stain, grey fragments, silicified, foliated, clay altered, euhedral pyrite, limonite stain.	43	5898	20.7	1	90
53492	GRAB	Tan/maroon/pink, rhyolite breccia, grey and red chalcedony, white and red quartz banding, vuggy with drusy quartz, euhedral pyrite to 2mm, rebrecciated .	42	805	4.4	5.1	23
53493	GRAB	Tan and light purple, rhyolite breccia with red, white and grey banded quartz, immediately south of Trench 6.	26	1325	3.9	6.5	24
53494	GRAB	Silicified brecciated rhyolite (?), vuggy with drusy quartz, euhedral pyrite, limonite stain, red and white banded quartz veinlets to 2cm.	11	2464	2.4	1.1	128
53495	GRAB	Rhyolite breccia with tan and grey chalcedony 1cm bands, chalcedony and hematite matrix, remanent euhedral pyrite and trace pyrite blebs in chalcedony.	5	209	0.9	0.5	17
53496	GRAB	Trench 3, silicified banded rhyolite, pink with rare chalcedony bands, 1-2% euhedral pyrite <1mm.	16	993	11.8	0.3	10
53497	GRAB	From Trench 4, 4cm wide red, quartz and hematite vein in grey and white silicification, banded rhyolite, 1-2%, 1-2mm euhedral and blebs of pyrite. Rock is brecciated.	24	1902	8.2	3.6	62
54067	GRAB	Rhyolite, bleached, rusty weathering, slightly vuggy, weathered cubes of pyrite. Interbedded or in contact with andesite.	7	316	32.1	0.9	12
54068	GRAB	Subcrop. Rhyolite, somewhat brecciated and silicified. Vuggy.	10	420	43.4	5	47
54069	GRAB	Quartz vein material from Trench 7.	27	865	18.2	2.9	34
54070	GRAB	Silicified fine grained white/grey/red rhyolite (?) with 3-4% pyrite from Trench 7.	29	1080	53.6	2.7	72
54071	GRAB	Light red quartz, trace diss pyrite and specular hematite from Trench 7.	23	192	12.8	4.5	38
54072	GRAB	Maroon volcanic, silicified, white/greenish grey, contains <1%)pyrite cubes, from Trench 5.	8	561	10.1	1.5	26
54073	GRAB	Subcrop, thinly banded maroon rhyolite, silicified, trace diss pyrite.	5	302	3.3	1.3	10
54074	GRAB	Quartz healed rhyolite breccia.	6	601	6.5	1.7	41
54075	GRAB	Quartz healed rhyolite breccia, composite (12 locations).	36	8872	31.4	3.5	66
54076	GRAB	Lapilli tuff.	4	476	46.6	1.6	13
54077	GRAB	Mineralized grey quartz from Trench 1, broken up quartz rubble, 2% pyrite.	1241	6304	21.7	6.8	8
54078	CHIP	1m chip sample at west edge (faulted off) of Trench 1. Silicified rhyolite (mainly grey) with chaledony banding. Banded quartz.	3540	28060	4.1	3.2	76
54079	CHIP	1m chip sample on east side of 54078.	2300	6955	6	3.6	25
54080	CHIP	1m chip sample east side of 54079.	857	6463	10.3	14.6	26
54081	CHIP	1m chip sample on east side of 54080.	497	6277	23.6	30.2	95

SAMPLE	TYPE	DESCRIPTION	Au ppb	Ag ppb	As ppm	Sb ppm	Hg ppb
54082	GRAB	Silicified, brecciated, white/pink, rhyolite at SW corner of Trench 1, clay alteration, trace diss pyrite.	35	240	1.8	1	14
54083	GRAB	Maroon rhyolite, weak clay alteration, trace diss pyrite.	10	82	1.5	0.6	8
54084	GRAB	Quartz (grey/white) minor chalcedony, red and yellow stained, from Trench 1.	9560	9492	3.4	2.4	23
54085	GRAB	Clay altered rhyolite(?), unmineralized, silicified, fine grained, white, grey, green and maroon, from Trench 9?	89	1031	13.3	0.4	13
54086	GRAB	Quartz healed brecciated rhyolite, minor hematite, from Trench 9.	81	843	2.2	0.5	14
54087	GRAB	2-3m long section of breccia with maroon matrix. No mineralization, silicification or chalcedony. Most of trench maroon volcanic feldspar porphyrys, from Trench 6.	49	385	2.5	1.8	8
54088	GRAB	Banded quartz-chalcedony, grey and white, some rusty weathering, trace diss pyrite, from Trench 8.	9	2510	3.8	4.4	37
54089	GRAB	Silicified fault gouge, from Trench 8.	11	2058	3.7	0.7	5
54090	GRAB	Red, grey and white banded quartz-chalcedony, 15x25cm, angular float.	7	1278	70.6	97.4	77
54091	GRAB	Grey rhyolite breccia with quartz and red chalcedony from N end of Trench 2.	3	318	4.1	1.7	8
54092	GRAB	Red, quartz healed rhyolite breccia, from S end of Trench 3.	3	451	9.4	1.3	12
54093	GRAB	*Rhyolite breccia, maroon matrix, silicified, from centre of Trench 4.*	9	247	3.2	1	5
54098	GRAB	Silicified, maroon rhyolite, from Trench 14.	2	30	1.4	0.2	5
54099	GRAB	Banded/mottled, white & maroon, silicified rhyolite, minor chalcedony and hematite, from Trench 14.	2	94	1.8	0.2	5
54338	GRAB	Cream/light purple, clay altered rhyolite, remanent pyrite cubes, 1-2mm, silicified, grey and red chalcedony bands (weak). brecciated.	3	120	1.8	0.4	5
54339	GRAB	Angular silicified rhyolite (?), brecciated with grey chalcedony, 1-2% fine pyrite disseminated and blebs.	4	1293	2.3	1.5	19

ROCK SAMPLE DESCRIPTIONS AND GEOCHEMISTRY

SAMPLE	TYPE	DESCRIPTION	Au ppb	Ag ppb	As ppm	Sb ppm	Hg ppb
53498	GRAB	Grey and maroon feldspar porphyry, weak chlorite alteration, crowded-subcrowded 1-2mm euhedral feldspar phenocrysts, 5-10% hb.	8	55	6.4	2.3	21
53499	GRAB	Subcrop. Dark green, strongly chlorite altered, calcareous, limonitic, hematite, basalt or feldspar porphry.	7	56	25.4	2.5	30
53500	GRAB	Orange, red and grey breccia, fractured subangular float boulder, chalcedony healed breccia.	9	2555	130.7	14.4	35
54094	GRAB	Basalt with >50% hematite (specular).	14	30	4.5	3.2	39
54095	GRAB	Tuff with 15-20% hematite.	1	30	5.6	2.2	9
54096	GRAB	Maroon basalt with olivine and some calcite stringers, chlorite altered and contains minor hematite.	5	63	11.2	1.8	10
54097	GRAB	Silicified tuff.	3	30	2.1	0.2	5
54100	GRAB	Subangular, silicified, conglomerate, rusty weathering.	4	566	7.6	1.2	19
54337	GRAB	Dark grey to brick red, aphanitic rhyolite (?), intense silicification, blebs of epidote, hematite.	4	30	4.7	1.1	28
54340	GRAB	Red, lapilli tuff (?), silicified, clay altered, trace disseminated pyrite.	65	517	12.6	2	52
54341	GRAB	Cay altered, grey, lapill tuff breccia, silicification, chalcedony veins to 1cm, grey chalcedony carries trace disseminated pyrite.	7	481	14.4	0.9	26
54342	GRAB	Intensly silicified fault breccia, trace pyrite, in lapilli tuff, debris flow, hematite.	79	2698	11.4	16.9	339
54343	GRAB	Olive green chalcedony, brecciated with white calcite and hematite veinlets, from 15x30cm block.	7	182	9.3	2.1	64
54344	GRAB	Green and red, chalcedony breccia with local bleby pyrite and disseminated pyrite, chlorite, vuggy, drusy quartz.	132	831	10.2	1.8	33
54345	GRAB	Clast supported agglomerate (debris flow?), clay altered, pyritic clasts in banded rhyolite fragments.	13	296	7.5	0.8	21
54346	GRAB	Red, brecciated chalcedony veinlets with hematite veinlets, 1-2% pyrite blebs in clay altered, silicified ash tuff(?)	5	77	3.8	5.8	6
54347	GRAB	30cm wide o/c of massive chalcedony, brecciated with 1-2mm blebs pyrite.	74	175	5.9	8	7
54401	GRAB	Same location and notes as Sample 54100 except the silicified conglomerate has 1% disseminated pyrite.	58	3034	100.5	16.9	79
54402	GRAB	*Subcrop. Silicified lapilli tuff or debris flow. Trace disseminated pyrite, clay altered.*	24	849	32.7	5.3	132
54403	GRAB	Lapilli tuff or debris flow, clay altered.	32	504	15.7	2.1	73
54404	GRAB	Silicified lapilli tuff or debris flow, clay altered, minor chalcedony, trace disseminated pyrite and chalcopyrite.	29	606	9.5	1.5	40
54405	GRAB	Silicified maroon lapilli tuff, trace disseminated pyrite.	9	473	15.3	1.4	65
54406	GRAB	Brecciated, silicified lapilli tuff (?), chalcedony stringers, disseminated pyrite.	9	855	16	0.6	26
54407	GRAB	Lapilli tuff or debris flow, with maroon matrix. Minor clay alteration, no silicification, but contains trace disseminated pyrite and chalcopyrite.	6	228	7.5	1.7	16
54408	GRAB	Debris flow, silicified, minor chalcedony, trace disseminated chalcopyrite and pyrite.	935	823	5.7	1.1	31
54409	GRAB	Quartz-chalcedony, white, grey, red and green with trace chalcopyrite.	34	1684	13	23	714
54410	GRAB	Off-white to light brown, silicified andesite with trace disseminated pyrite.	6	30	4.7	0.2	5
54411	GRAB	Silicified matrix supported pebble conglomerate, disseminated pyrite and minor blebs hematite, approx. 25cm thick.	37	8566	7.3	6.5	11
54412	GRAB	Grey and red quartz-chalcedony with up to 5% hematite.	204	5505	5.2	10.6	15

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 256 File # 95-2855 Page 1

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

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
53475	2.8	81.1	26.3	111.0	435	6	4	682	9.38	21.3	<5	1	9	.20	5.5	<.1	30	.17	.103	13	4	.31	120	<.01	<2	1.32	<.01	.31	12	.1	100	<.3	<.1	4.0	2
53476	5.0	72.5	37.8	103.2	760	9	4	1651	5.90	40.1	<5	1	7	.35	3.4	<.1	11	.05	.068	24	7	.04	265	<.01	2	.60	<.01	.26	7	.3	71	<.3	<.1	1.5	2
53477	19.8	34.5	74.7	103.5	3894	11	1	99	2.46	31.5	<5	2	7	.81	8.1	.3	4	.01	.016	4	13	.01	213	<.01	2	.22	<.01	.26	5	.2	100	<.3	.2	.5	24
53478	178.7	103.1	50.7	652.0	1305	9	<1	214	19.77	212.4	<5	2	6	2.24	24.4	.2	5	.01	.279	5	7	.01	202	<.01	<2	.23	<.01	.16	16	1.2	129	<.3	2.0	4.3	18
53479	14.6	534.8	88.4	119.5	5649	13	23	702	8.12	25.1	<5	<1	7	1.23	8.2	1.0	64	.05	.041	3	17	.29	22	.01	<2	1.08	<.01	.26	4	<.1	52	2.8	1.1	5.5	33
53480	6.8	49.7	32.3	37.1	478	8	<1	64	2.34	58.3	<5	1	3	.16	4.3	.1	4	.01	.009	7	10	.01	52	<.01	<2	.27	<.01	.19	3	.1	52	<.3	<.1	1.8	7
53481	4.0	22.9	21.3	40.9	461	8	<1	171	4.21	14.5	<5	3	3	.13	2.2	<.1	10	.01	.022	9	10	.02	69	.02	<2	.34	<.01	.21	6	.1	23	<.3	.2	2.4	5
53482	3.6	18.0	21.6	41.1	712	7	<1	112	1.94	12.2	<5	2	2	.11	1.5	.2	5	<.01	.011	7	9	.01	56	.01	<2	.29	<.01	.23	3	.2	18	<.3	.3	1.7	6
53483	11.5	21.7	24.6	32.7	670	9	<1	88	1.71	50.9	<5	3	2	.14	2.5	.2	4	.01	.006	5	11	.01	55	<.01	<2	.34	<.01	.20	4	.2	72	<.3	.1	2.1	20
53484	6.2	66.2	45.7	74.9	804	7	<1	935	2.65	9.2	<5	2	4	.18	3.7	.1	4	.01	.016	6	10	.01	316	.01	<2	.30	.01	.24	20	<.1	38	<.3	<.1	1.2	9
RE 53484	5.5	59.5	43.0	75.4	754	8	<1	932	2.66	7.7	<5	2	4	.16	3.5	<.1	5	.01	.015	6	10	.01	316	.01	<2	.30	<.01	.25	21	.4	32	<.3	.1	2.0	5
RRE 53484	5.2	61.5	46.3	76.4	911	5	<1	1072	2.73	7.2	<5	2	4	.17	2.9	.1	4	.01	.016	6	7	.01	373	.01	<2	.26	<.01	.21	17	.1	32	<.3	.1	1.6	9
53485	120.8	888.0	415.8	62.9	50015	12	3	135	8.67	74.8	<5	1	28	.62	8.6	10.8	17	.01	.081	11	13	.01	441	<.01	<2	.29	<.01	.13	18	1.1	270	1.1	2.7	1.9	264
53486	5.1	75.3	93.1	11.9	7367	8	<1	78	.90	18.6	<5	2	4	.07	15.9	4.1	4	.01	.009	14	12	.01	56	<.01	<2	.17	<.01	.14	4	.3	42	1.1	.7	1.3	206
53487	4.4	6.3	7.7	14.2	254	10	<1	67	.36	3.6	<5	4	5	.05	.8	.2	1	.02	.003	7	12	.01	600	<.01	<2	.23	<.01	.16	3	.1	36	.3	<.1	.6	12
53488	4.7	8.5	10.1	16.7	498	4	<1	77	.24	5.1	<5	3	5	.02	.9	<.1	1	.03	.005	19	5	.03	583	<.01	4	.42	<.01	.30	<2	.1	20	<.3	.1	1.3	14
53489	34.2	58.4	15.9	15.9	9412	14	1	88	1.12	5.6	<5	1	4	.15	6.9	1.7	2	.01	.002	2	19	<.01	116	<.01	2	.14	<.01	.11	5	.2	55	.5	3.8	.8	5120
53490	17.8	71.5	71.8	5.5	761	8	<1	69	.55	3.6	<5	3	25	.04	.6	.3	4	.01	.009	7	10	.01	324	<.01	<2	.22	<.01	.20	2	.2	23	<.3	.2	1.1	100
53491	211.1	140.0	12.6	17.0	5898	10	2	97	1.91	20.7	<5	1	13	.06	1.0	1.8	7	.01	.006	5	11	.02	1917	<.01	3	.44	<.01	.27	4	1.6	90	1.0	2.7	3.2	43
53492	12.9	20.2	30.8	13.4	805	11	<1	96	1.76	4.4	<5	1	26	.14	5.1	.6	5	.01	.012	36	14	<.01	594	<.01	<2	.14	<.01	.14	13	.2	23	.4	.4	.9	42
53493	4.5	15.0	20.3	8.3	1325	11	1	155	.98	3.9	<5	1	27	.03	6.5	.4	3	.01	.010	14	12	<.01	1723	<.01	<2	.18	<.01	.17	5	<.1	24	<.3	.1	1.1	26
53494	5.8	16.9	22.0	22.5	2464	12	<1	103	.67	2.4	<5	1	8	.13	1.1	.1	4	.01	.006	5	14	.01	277	<.01	<2	.21	<.01	.16	4	.1	128	<.3	.2	.6	11
53495	7.3	9.9	11.0	5.3	209	6	<1	95	.58	.9	<5	2	5	<.01	.5	.2	1	.01	.006	13	9	<.01	71	<.01	<2	.18	<.01	.22	3	.3	17	<.3	.2	.9	5
53496	4.3	12.3	22.2	5.2	993	9	4	80	.63	11.8	<5	3	6	.01	.3	.4	1	.01	.002	5	10	<.01	150	<.01	<2	.18	<.01	.22	3	<.1	10	<.3	.3	.5	16
53497	10.1	29.1	33.7	49.6	1902	12	3	106	4.37	8.2	<5	1	6	.33	3.6	.9	11	.01	.003	5	13	.01	99	.01	<2	.10	<.01	.08	16	.2	62	1.2	.8	.9	24
53498	2.0	4.3	9.1	230.0	55	22	21	2504	4.50	6.4	<5	1	62	.06	2.3	.2	141	2.59	.082	17	22	1.31	57	.04	<2	1.30	.03	.24	<2	<.1	21	.3	.1	6.9	8
53499	1.9	21.1	9.9	162.7	56	12	11	3579	6.38	25.4	<5	2	11	.05	2.5	.2	121	.52	.084	27	19	.34	69	.06	<2	1.10	.04	.22	3	.1	30	<.3	<.1	2.8	7
53500	4.7	37.4	20.4	11.6	2555	11	1	128	1.76	130.7	<5	1	13	.01	14.4	.6	9	.02	.010	8	15	.01	489	<.01	<2	.17	<.01	.16	16	.3	35	.3	.1	<.5	9
RE 53500	5.0	36.9	20.0	11.8	2523	10	1	120	1.77	130.9	<5	1	13	.02	14.4	.6	8	.02	.010	8	15	.01	490	<.01	<2	.17	<.01	.16	16	.3	37	<.3	.2	<.5	14
RRE 53500	5.4	34.9	22.0	12.2	2581	12	1	94	1.87	143.7	<5	2	15	.01	17.0	.6	10	.03	.011	9	16	.01	528	<.01	2	.21	<.01	.18	17	.4	27	<.3	.3	.6	12
54067	2.5	37.6	3.0	14.0	316	4	1	74	1.84	32.1	<5	1	14	.02	.9	.2	6	.04	.034	17	5	.02	269	<.01	<2	.41	<.01	.30	2	.1	12	.3	.1	1.0	7
54068	4.8	21.5	6.7	5.9	420	9	1	63	1.59	43.4	<5	1	15	<.01	5.0	.1	5	.03	.014	6	11	.02	168	<.01	<2	.37	.01	.31	3	.3	47	<.3	.4	1.6	10
54069	4.4	55.8	15.3	18.4	865	11	<1	118	2.17	18.2	<5	1	2	.02	2.9	.7	18	.01	.004	2	14	.01	33	<.01	<2	.12	<.01	.06	9	.1	34	<.3	.3	1.4	27
54070	9.9	65.1	119.2	48.4	1080	10	3	361	7.10	53.6	<5	7	2	.12	2.7	.3	43	<.01	.005	5	10	.12	31	<.01	<2	.61	<.01	.18	3	.2	72	.4	.5	5.5	29
STANDARD D/AU-R	22.1	111.4	81.4	251.8	1669	28	12	875	3.96	82.8	18	18	50	2.29	10.0	22.8	67	.61	.084	17	51	1.04	194	.13	23	2.24	.05	.69	23	2.2	450	.7	2.0	6.6	541

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 100 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.
- SAMPLE TYPE: ROCK AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 12 1995 **DATE REPORT MAILED:** Aug 21/95 **SIGNED BY** .....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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
54071	5.1	20.6	13.5	32.3	192	10	3	351	3.53	12.8	<5	1	7	.03	4.5	.5	26	.01	.002	4	13	.07	31	<.01	5	.33	<.01	.05	15	.2	38	<.3	.2	1.5	23
54072	5.0	65.2	10.4	23.4	561	11	4	244	1.79	10.1	<5	2	14	.01	1.5	.3	14	.04	.012	5	12	.15	714	<.01	4	.50	<.01	.21	2	.1	26	.5	.4	1.9	8
54073	2.9	43.9	12.1	53.9	302	7	1	218	3.19	3.3	<5	2	9	.21	1.3	.3	5	.01	.009	5	8	.06	151	.01	4	.39	<.01	.19	3	<.1	10	<.3	.2	3.5	5
54074	12.1	55.2	83.5	99.0	601	8	2	73	2.87	6.5	<5	2	9	.21	1.7	.6	2	.01	.016	14	8	.01	153	<.01	5	.25	<.01	.21	4	.3	41	<.3	.3	.6	6
54075	21.2	67.5	43.3	11.5	8872	9	1	90	1.56	31.4	<5	2	15	.03	3.5	.7	5	.01	.011	9	9	.01	153	<.01	4	.21	<.01	.19	3	.3	66	.9	.4	1.0	36
54076	6.0	18.4	7.7	16.6	476	5	<1	101	1.62	46.6	<5	2	14	.15	1.6	.6	12	.02	.038	18	7	.02	432	<.01	5	.30	<.01	.30	<2	.4	13	<.3	.3	1.0	4
54077	190.6	47.5	77.4	8.6	6304	13	2	96	1.49	21.7	<5	1	8	.19	6.8	4.2	1	.03	.002	2	15	<.01	52	<.01	5	.09	<.01	.14	4	1.6	8	.4	3.4	1.0	1241
54078	29.5	23.5	11.4	5.1	28060	12	1	88	.84	4.1	<5	1	14	<.01	3.2	3.7	2	.01	.004	4	14	.01	549	<.01	5	.18	<.01	.19	3	.4	76	.7	9.7	.7	3540
54079	34.2	24.8	16.6	3.6	6955	9	<1	65	.69	6.0	<5	1	15	<.01	3.6	1.9	2	.01	.007	5	11	<.01	189	<.01	4	.17	<.01	.18	3	.2	25	<.3	5.7	.6	2300
54080	66.8	38.2	19.0	4.1	6463	12	<1	67	1.46	10.3	<5	2	12	.03	14.6	3.2	3	.01	.006	4	14	<.01	100	<.01	4	.13	<.01	.19	4	.4	26	.9	4.5	.6	857
54081	60.1	108.8	18.3	8.5	6277	12	<1	83	1.00	23.6	<5	1	10	.11	30.2	2.9	3	.01	.004	4	14	<.01	224	<.01	4	.14	<.01	.16	3	.5	95	.3	2.6	.8	497
54082	3.3	15.2	5.7	4.3	240	6	<1	87	1.29	1.8	<5	3	7	<.01	1.0	.2	2	.01	.008	5	7	.01	389	<.01	5	.32	<.01	.32	2	<.1	14	<.3	<.1	<.5	35
54083	3.3	12.5	9.7	5.6	82	6	<1	147	1.78	1.5	<5	4	5	.03	.6	.2	8	.02	.027	8	8	.01	82	.02	5	.25	<.01	.25	3	.1	8	<.3	<.1	.5	10
54084	19.6	32.6	11.3	3.1	9492	12	<1	79	.61	3.4	<5	1	6	.01	2.4	1.0	1	<.01	.003	3	16	<.01	168	<.01	3	.09	<.01	.10	4	.1	23	.3	1.6	<.5	9560
RE 54084	16.0	27.4	9.6	2.6	8366	10	<1	79	.59	2.4	<5	<1	6	<.01	2.0	1.1	1	<.01	.003	3	15	<.01	161	<.01	3	.08	<.01	.10	4	.2	25	.5	1.3	<.5	9760
RRE 54084	17.7	29.8	11.3	2.0	8544	10	<1	121	.66	2.9	<5	1	6	<.01	2.3	1.2	1	<.01	.004	4	14	<.01	184	<.01	3	.09	<.01	.11	4	.1	38	.4	1.6	<.5	9020
54085	24.3	78.5	4.0	4.0	1031	8	1	48	.96	13.3	<5	2	11	.02	.4	.7	1	.02	.004	5	9	.02	1792	<.01	3	.34	<.01	.27	<2	.3	13	.8	.5	1.1	89
54086	6.9	41.0	3.7	8.5	843	9	1	76	.98	2.2	<5	2	9	.04	.5	.3	4	.01	.008	7	12	.01	1449	<.01	2	.20	<.01	.19	2	.2	14	<.3	.2	<.5	81
54087	4.2	11.1	20.9	11.6	385	7	<1	56	.64	2.5	<5	1	12	.03	1.8	.4	3	.01	.010	15	9	<.01	282	<.01	2	.19	<.01	.20	3	<.1	8	<.3	.1	<.5	49
54088	5.8	58.1	24.2	10.9	2510	8	1	56	.79	3.8	<5	1	17	.07	4.4	.1	2	.01	.012	5	12	.01	1465	<.01	2	.22	<.01	.16	2	.2	37	.7	<.1	<.5	9
54089	5.1	37.6	15.8	8.8	2058	9	<1	50	.68	3.7	<5	1	24	.05	.7	.1	2	.01	.007	4	12	<.01	957	<.01	3	.25	<.01	.20	2	<.1	<5	<.3	<.1	<.5	11
54090	11.7	13.6	27.7	10.0	1278	9	<1	111	5.33	70.6	<5	1	14	.04	97.4	.4	20	<.01	.002	2	14	<.01	731	<.01	2	.04	<.01	.02	48	.2	77	<.3	<.1	<.5	7
54091	5.1	23.3	3.2	9.8	318	6	<1	103	1.49	4.1	<5	3	7	.03	1.7	.2	3	<.01	.016	23	9	<.01	124	.01	<2	.18	<.01	.22	2	.1	8	<.3	<.1	<.5	3
54092	5.1	7.8	9.2	11.2	451	5	3	222	1.14	9.4	<5	2	6	.06	1.3	.3	3	.01	.011	6	8	<.01	128	<.01	<2	.22	<.01	.25	2	<.1	12	.3	.1	<.5	3
RE 54092	4.8	6.6	8.6	9.5	435	6	3	231	1.19	9.2	<5	3	6	.06	1.0	.3	4	.01	.011	7	8	<.01	135	<.01	<2	.23	<.01	.26	2	<.1	5	<.3	.3	<.5	2
RRE 54092	4.8	6.9	9.7	13.4	429	5	3	224	1.20	8.1	<5	2	5	.07	.9	.4	4	.01	.011	7	7	<.01	109	.01	<2	.21	<.01	.23	2	<.1	10	<.3	.1	<.5	7
54093	4.0	20.4	10.1	5.7	247	8	<1	91	1.11	3.2	<5	2	7	.05	1.0	.4	2	<.01	.004	18	12	<.01	374	.01	<2	.17	<.01	.22	2	.1	<5	<.3	.1	<.5	9
54094	10.8	2.1	8.3	50.8	<30	7	2	2328	16.09	4.5	<5	1	17	.08	3.2	.4	163	.82	.028	4	6	.14	120	.03	<2	.55	<.01	.17	23	.1	39	<.3	.2	.8	14
54095	6.9	4.3	4.4	77.4	<30	10	7	2014	10.59	5.6	<5	1	36	.05	2.2	.2	118	1.99	.048	18	12	.27	62	.05	<2	.73	.01	.25	3	.1	9	<.3	<.1	2.3	1
54096	.7	1.5	4.2	298.5	63	63	18	4442	7.79	11.2	<5	<1	115	.05	1.8	.4	133	4.89	.055	6	124	2.60	29	.04	<2	2.43	.01	.18	<2	<.1	10	<.3	.1	8.9	5
54097	1.7	57.2	4.8	90.3	<30	17	17	602	4.65	2.1	<5	2	127	.08	<.2	.1	151	1.54	.139	10	20	1.68	65	.16	2	2.43	.21	.14	<2	<.1	<5	<.3	<.1	9.8	3
54098	2.3	7.6	4.1	8.7	<30	5	1	110	1.46	1.4	<5	3	6	.02	<.2	.3	5	.04	.010	16	6	.03	90	.01	2	.23	.01	.25	2	<.1	<5	<.3	<.1	<.5	2
54099	2.9	8.0	3.2	6.9	94	7	1	112	.96	1.8	<5	3	9	.02	<.2	.2	3	.05	.004	9	9	.04	157	<.01	2	.23	.01	.29	<2	<.1	<5	<.3	<.1	<.5	2
54100	48.1	13.6	4.6	8.2	566	13	2	152	.73	7.6	5	1	16	.05	1.2	.3	7	.09	.018	8	15	.04	100	<.01	2	.25	.01	.16	2	.3	19	<.3	.3	<.5	4
STANDARD	23.0	118.4	90.4	250.9	1856	28	12	1014	3.86	76.3	17	18	55	2.25	9.9	20.7	61	.63	.090	17	45	1.10	211	.13	25	1.99	.05	.73	18	1.9	448	.8	2.1	7.3	540

Standard is STANDARD D/AU-R. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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
54337	1.1	.8	4.5	130.8	<30	17	17	1719	3.35	4.7	<5	1	74	.04	1.1	<.1	97	1.85	.072	10	33	2.28	31	.05	<2	1.50	.03	.10	<2	<.1	28	<.3	<.1	7.1	4
54338	3.9	5.4	6.0	5.8	120	7	<1	72	.89	1.8	<5	2	5	.02	.4	.1	2	.02	.003	9	9	.02	95	<.01	<2	.21	<.01	.23	2	.2	<5	<.3	<.1	.8	3
54339	15.3	13.5	45.5	24.1	1293	6	<1	54	.56	2.3	<5	2	6	.18	1.5	.2	2	.02	.004	8	8	.02	147	<.01	<2	.24	<.01	.21	<2	.4	19	.5	.3	.8	4
54340	4.0	6.0	4.9	5.4	517	7	1	80	1.04	12.6	<5	2	16	.04	2.0	<.1	5	.06	.016	12	10	.02	297	<.01	<2	.26	<.01	.19	2	.2	52	<.3	<.1	.7	65
54341	3.3	37.9	6.5	10.8	481	7	4	58	.59	14.4	<5	3	13	.13	.9	<.1	2	.08	.023	22	9	.01	292	<.01	<2	.34	<.01	.24	2	.2	26	<.3	<.1	.7	7
54342	6.3	44.0	18.1	31.6	2698	12	7	379	2.39	11.4	<5	1	14	.15	16.9	3.3	14	.06	.012	9	16	.03	850	<.01	2	.35	<.01	.15	11	.3	339	<.3	2.7	1.3	79
54343	2.2	9.2	4.6	169.3	182	19	23	1132	2.01	9.3	<5	1	13	.16	2.1	<.1	12	.07	.008	12	5	.13	713	<.01	<2	.70	<.01	.20	5	.1	64	<.3	<.1	1.2	7
54344	4.6	13.2	6.7	37.9	831	9	6	458	1.81	10.2	<5	1	16	.15	1.8	.1	13	.15	.045	14	8	.06	75	<.01	<2	.73	<.01	.27	2	.3	33	<.3	<.1	1.7	132
RE 54344	5.2	13.9	7.2	38.6	878	9	6	471	1.84	10.0	<5	1	17	.18	2.0	<.1	13	.16	.047	13	9	.06	72	<.01	<2	.71	<.01	.26	3	.4	39	<.3	<.1	1.1	164
RRE 54344	4.8	12.8	7.5	32.7	865	9	5	397	1.62	9.3	<5	1	16	.15	2.0	.1	12	.15	.044	14	8	.05	68	<.01	2	.68	<.01	.26	2	.2	38	<.3	<.1	1.3	199
54345	2.5	3.4	5.1	11.9	296	4	1	120	1.88	7.5	<5	2	11	.01	.8	<.1	20	.11	.039	22	8	.03	55	<.01	2	.40	<.01	.25	2	.3	21	<.3	<.1	.7	13
54346	4.3	10.3	8.8	12.7	77	8	1	121	1.65	3.8	<5	1	7	.02	5.8	<.1	7	.04	.017	19	10	.01	400	<.01	2	.30	<.01	.20	5	.2	6	<.3	<.1	.8	5
54347	3.7	12.9	16.7	16.3	175	6	1	213	1.99	5.9	<5	1	9	.03	8.0	<.1	11	.02	.006	14	8	.02	940	<.01	3	.34	<.01	.20	7	.3	7	<.3	.1	1.2	74
54401	172.2	10.9	96.7	41.3	3034	16	4	289	2.22	100.5	<5	<1	15	.38	16.9	<.1	11	.05	.006	4	12	.02	100	<.01	2	.26	<.01	.15	2	1.4	79	.7	1.6	1.6	58
54402	24.8	5.5	18.5	6.3	849	8	3	69	.67	32.7	<5	1	10	.04	5.3	.1	4	.06	.020	10	10	.02	177	<.01	<2	.29	<.01	.17	2	.8	132	<.3	<.1	<.5	24
54403	8.0	3.5	10.7	7.6	504	4	<1	54	.63	15.7	<5	1	11	.02	2.1	.1	4	.06	.017	19	6	.03	116	<.01	<2	.40	<.01	.27	<2	.3	73	<.3	<.1	.7	32
54404	3.3	5.1	6.9	12.4	606	3	2	58	1.54	9.5	<5	1	18	.03	1.5	.1	10	.07	.024	9	7	.02	115	<.01	2	.32	<.01	.21	<2	.1	40	<.3	<.1	.8	29
54405	3.2	16.1	3.8	21.2	473	7	6	321	1.69	15.3	<5	3	24	.09	1.4	<.1	8	.09	.027	18	8	.03	459	<.01	<2	.47	<.01	.24	<2	.3	65	<.3	<.1	.8	9
RE 54405	3.0	14.8	3.3	17.5	426	6	5	276	1.41	13.3	<5	3	20	.09	1.3	<.1	7	.08	.023	15	7	.03	327	<.01	<2	.39	<.01	.19	<2	.2	55	<.3	<.1	.7	9
RRE 54405	3.1	15.9	4.1	18.0	518	6	5	300	1.51	13.0	<5	3	22	.11	1.6	<.1	7	.09	.025	15	7	.03	380	<.01	<2	.42	<.01	.22	<2	.2	50	<.3	.3	1.3	7
54406	2.8	26.7	11.3	11.0	855	4	3	67	.64	16.0	<5	2	15	.05	.6	.1	2	.07	.021	9	6	.01	501	<.01	<2	.27	<.01	.21	<2	.4	26	.9	<.1	.9	9
54407	3.2	4.7	6.4	10.1	228	5	2	136	2.32	7.5	<5	2	10	.01	1.7	.1	25	.14	.037	10	11	.02	200	<.01	<2	.44	<.01	.22	2	.3	16	<.3	<.1	.9	6
54408	2.2	3.6	5.3	11.8	823	6	4	156	2.21	5.7	<5	1	7	.05	1.1	<.1	17	.14	.038	9	9	.02	62	<.01	2	.48	<.01	.27	2	.3	31	<.3	<.1	.8	935
54409	5.8	85.5	17.2	30.5	1684	10	7	524	2.55	13.0	<5	1	14	.13	23.0	5.7	18	.04	.007	8	18	.03	884	<.01	2	.30	<.01	.12	17	.2	714	<.3	5.0	<.5	34
54410	2.1	4.8	3.4	41.1	<30	5	4	581	1.28	4.7	<5	1	10	.03	<.2	.1	3	.03	.025	20	5	.08	477	<.01	2	.58	<.01	.25	<2	.2	<5	<.3	.2	.8	6
54411	39.5	20.1	30.8	3.5	8566	9	1	126	2.28	7.3	<5	<1	12	.02	6.5	10.5	14	.02	.007	7	12	.01	262	<.01	2	.19	<.01	.13	11	.5	11	.5	3.8	<.5	37
54412	15.1	12.7	12.9	8.5	5505	6	<1	136	6.11	5.2	<5	1	11	.02	10.6	5.5	39	.01	.005	21	7	.01	852	.01	4	.23	<.01	.14	25	.3	15	.9	7.5	.8	204
STANDARD	23.5	118.3	87.0	253.9	1845	27	13	972	3.96	70.9	21	18	51	2.21	8.7	21.0	62	.62	.091	16	46	1.09	213	.13	25	2.26	.05	.67	19	1.9	471	.8	2.0	6.6	483

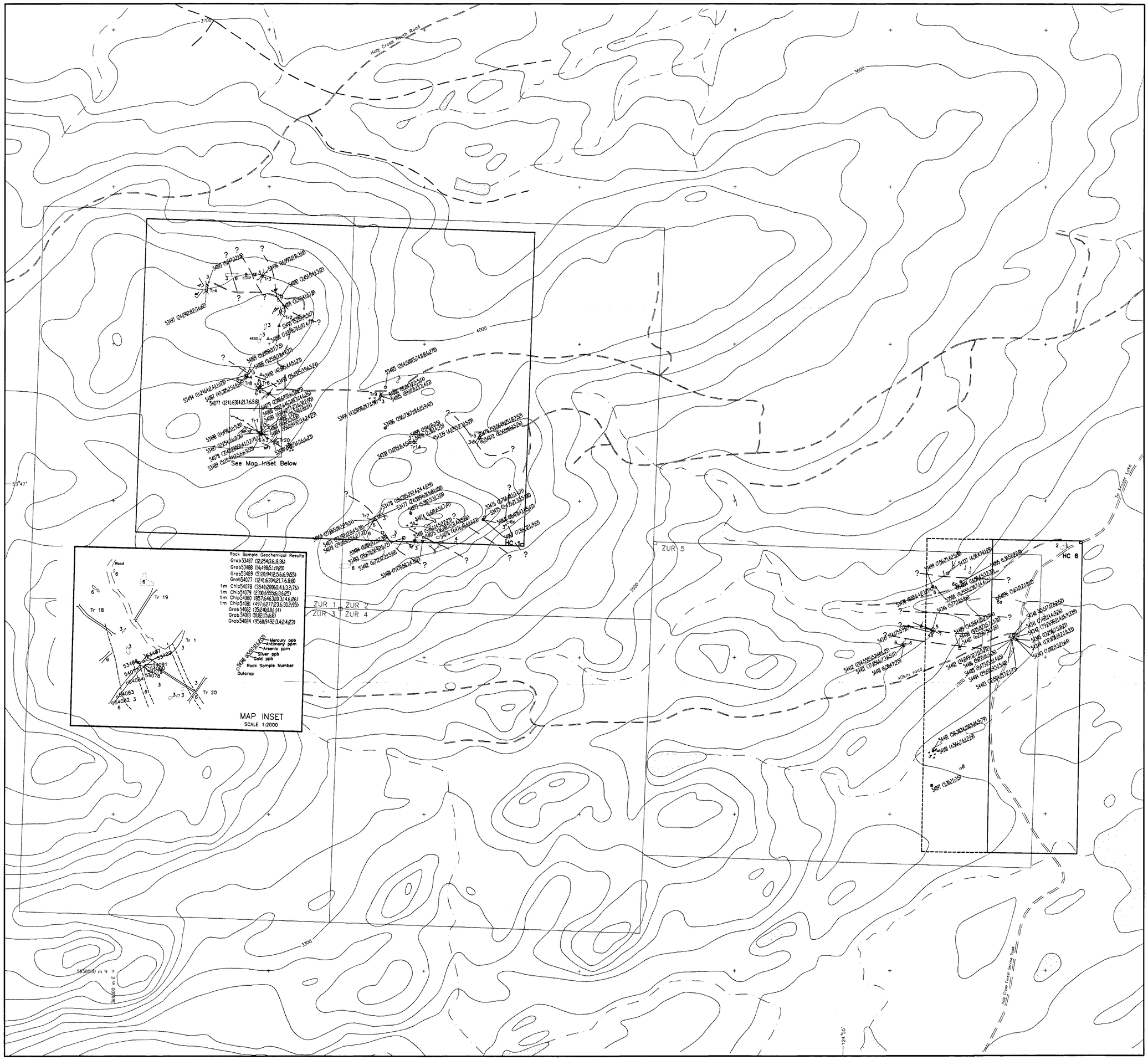
Standard is STANDARD D/AU-R. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

APPENDIX 2

Analytical Method

ICP: A 30 gram sample is digested with 180 millilitres 3-1-2 HCl-HNO_3-H_2O at 95° Centigrade for one hour and is diluted to 100 millilitres 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 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.

Au^+: Gold is extracted by aqua-regia/MIBK extract, GF/AA finished.



LEGEND

EOCENE TO OLIGOCENE

ENDAKO GROUP

1 — Basalt, dark grey, locally vesicular, olivine and feldspar phyric; local flow top breccia, epidote veinlets and vesicle infillings

2 — Lapilli tuff, light grey, sparce angular fragments to 2cm

MIDDLE JURASSIC?

8 — Diorite, Diabase, medium grey, fine grained, "salt and pepper" texture, locally feldspar phyric

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 epidote/chlorite locally extensive brecciation

3a — Quartz phyric rhyolite, tan aphanitic, rounded quartz phenocrysts to 1mm

4 — Lapilli tuff, agglomerate(?), dark to light purple to light green
a) tan, sparse light grey clasts, 1mm to 1cm, pyritic

5 — Ash tuff, crystal tuff, light green-grey, locally feldspar phyric, silicified, chloritic, clay altered.

6 — Andesite, dark to light purple, massive crowded feldspar phyric
a) dark green, chloritic, local propylitic alteration

7 — Pebble conglomerate, quartzite, matrix supported

SYMBOLS

- Geological contact (approximate)
- Fault (approximate)
- Outcrop
- Shear (vertical)
- Float
- Joint (inclined, vertical)
- Flow layering (inclined)
- Foliation (inclined)
- Syncline
- Trench
- Tr5 — Trench number
- Mercury ppb / Antimony ppm / Arsenic ppm / Silver ppb / Gold ppb / Rock Sample Number
- Float / Outcrop / Subcrop / Talus
- Lake / pond
- Creek
- 3500 — Contour; (contour interval 100ft)
- 5937000 m N / 343000 m E — UTM coordinate
- Road

0 200 400 600 800
SCALE IN METRES

PHELPS DODGE CORP. OF CANADA LIMITED

PROJECT NO.: 256 (HOLY CROSS PROPERTY) — OMINECA MINING DIVISION

PROPERTY GEOLOGY and ROCK GEOCHEMICAL RESULTS

SCALE	DATE	BY	NTS NO.	FIGURE
1:10000	DEC/95	CWP	93 F/15	4

FOX GEOLOGICAL SERVICES INC.