

092L 293
 Marino/Kilpala
 FILE NO: OV-0237-RJ1
 DATE: 90/03/27
 * ROCK * (ACT:F31)

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

COMP: LAIRD EXPLORATION
 PROJ: V.I.
 ATTN: J.LAIRD

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPM
NPO-1	.8	10790	15	1	28	.5	5	7760	.1	6	18	18770	710	2	4530	277	2	590	25	390	14	1	16	1	1	20.0	18	1	1	1	114	45
NOCS-1	6.9	15100	55	3	5	1.5	1	6200	.1	54	5135	163600	120	6	7660	298	5	90	2	1610	5	9	4	1	1	370.4	28	1	1	1	1	255
TKP-2	3.2	2650	443	8	5	1.5	17	1710	.1	127	394	153240	240	1	1660	60	761	40	9	20	13	3	1	1	1	19.8	128	1	1	1	154	4650
TKP-3	1.8	17950	25	1	6	.5	7	14430	.8	19	83	29230	450	6	17790	383	20	830	102	110	9	1	18	1	1	44.6	21	1	2	2	202	135

Karmutsen Pink Porphyry - Kilpala Area (THULITE?)

PROPERTY FILE

012928



ANALYTICAL SERVICES REQUEST

Submitter H. PAUL WILTON Date submitted 90/06/19 Date started _____
 Number of samples 1 Date required N.A Date reported _____
 Special instructions XRD ident. of pink mineral in amygdules - Karmutsen Fm. basalt, Nimpkish lake. (Min epidote, rhodonite, rose quartz or?)
 Project 404-00 Area Vancouver Island Priority _____ Chief Analyst _____
 Air photo _____ Card 1 of 1 **PRINT CLEARLY (use dark pen or pencil)**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
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Lab
Number

X-RAY Diffraction Report and Comments

041053 Clinozoisite

90/035



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SPECTROGRAPHIC REPORT

<p>1 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>	<p>2 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>	<p>3 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>
<p>4 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>	<p>5 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>	<p>6 Si ___ Al ___ Mg ___ Ca ___ Fe ___ Pb ___ Cu ___ Zn ___ Mn ___ Ag ___ V ___ Ti ___ Ni ___ Co ___ Na ___ K ___ W ___</p>

X-RAY DIFFRACTION REPORT AND COMMENTS

41053 - CLINOZOISITE

KEY

COLUMNS 28-31

UMFC ultramafic	GRNS greenstone	TRCT trachyte	SKRN skarn	SNDS sandstone
ANDS andesite	MNZN monzonite	TUFF tuff	GOUG gouge	SHLE shale
BSLT basalt	OBSD obsidian	AMPB amphibolite	ARGL argillite	SLSN siltstone
CRBN carbonatite	PNLT phonolite	CLCC calc-silicate	CHRT chert	MRLZ mineralization
DCIT dacite	QZPP quartz porphyry	GNSS gneiss	COAL coal	MVSP massive sulphide
DORT diorite	RYLT rhyolite	MRBL marble	DLMT dolomite	DISS disseminated
GBBR gabbro	SRPN serpentinite	PLLT phyllite	LMSN limestone	SCKK stockwork
GRNT granite	SNKN shonkinite	SCST schist	MARL marl	VEIN vein
GRDR granodiorite	SYNT syenite	HRFL hornfels	QRTZ quartzite	ALRZ alteration

ANALYTICAL METHOD

AA	ATOMIC ABSORPTION
AH	HYDRIDE GENERATION
FA	FIRE ASSAY
ES	EMMISSION SPEC
XR	X-RAY FLUORESCENCE
WC	WET CHEMICAL
CL	COLORIMETRIC
CV	COLD VAPOUR

COLUMNS 32 - 33

04 Proterozoic	12 Cambrian	21 Mississippian	34 Jurassic
05 Helikian	14 Ordovician	22 Pennsylvanian	36 Cretaceous
06 Hadrynian	16 Silurian	24 Permian	40 Cenozoic
10 Paleozoic	18 Devonian	30 Mesozoic	42 Tertiary
11 Prot.-Paleozoic	20 Carboniferous	32 Triassic	44 Quaternary
			50 Unknown

COLUMN 34

SAMPLE TYPE
1 Single grab sample
2 Channel/chip
3 Composite sample
4 Drill core
5 Talus or transported
6 Soil
7 Silt
8 Other

COLUMN 35

% SULPHIDE
0 <0.5
1 0.5-1
2 1-10
3 10-50
4 >50

COLUMNS 36 - 43

Mineral Inventory Number or property name

COLUMNS 44 - 80

Comments

SAMPLE PREPARATION

W	TUNGSTEN CARBIDE
C	CERAMIC
S	STEEL



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources
GEOLOGICAL SURVEY BRANCH

Parliament Buildings
Victoria
British Columbia
V8V 1X4
Telephone: (604) 356-2818
Fax: (604) 356-8153

June 25, 1990

Mr. James W. Laird
3868 Mt. Seymour Parkway
North Vancouver, British Columbia
V7G 1C4

Dear Jim:

Mac Chaudhry at our laboratory has done an XRD on the pink mineral you found in the amygdules of Karmutsen basalt in the Kilpala River area. He reports that the mineral is clinozoisite, the iron-poor end member of a continuous series with epidote. Your suggestion of thulite (pink zoisite) was very close, as was Dan Hora's suggestion of pink epidote.

It occurs in the amygdules with more normal green epidote. My guess would be that these unusual amygdules are due to local contact metamorphism of calcareous basalt in which the amygdules originally contained calcite or pumpellyite. However it formed, it is an unusual and attractive rock.

Cheers.

Yours truly,

H. Paul Wilton,
District Geologist

HPW:gd