

LOG NO: 0113	RD.
ACTION:	
FILE NO:	

Diamond Drilling Report

Canamera Property

Victoria Mining Division
NTS 92 B/BW 13W
48° 123° 50' Longitude

Owner: Minnova Inc.
Operator: Minnova Inc.
by: G. S. Wells
October, 1987

Claims
Cu Canyon Group
Copper Canon
Victoria
Elmore Fraction

16,871

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Diamond Drill Report

Canamera Property

1. Introduction

Minnova Inc. optioned the Canamera property from Canamera Exploration Inc. in June, 1986. The claim group is located between Minnova's Mt. Sicker property and Abermin's Lara property. It was acquired to evaluate the strike extent of Abermin's polymetallic Coronation zone. This report summarizes the results from diamond drill hole CM-1 which was drilled on the eastern part of the property during the period May 25th to May 27th, 1987.

1.1 Location and Access

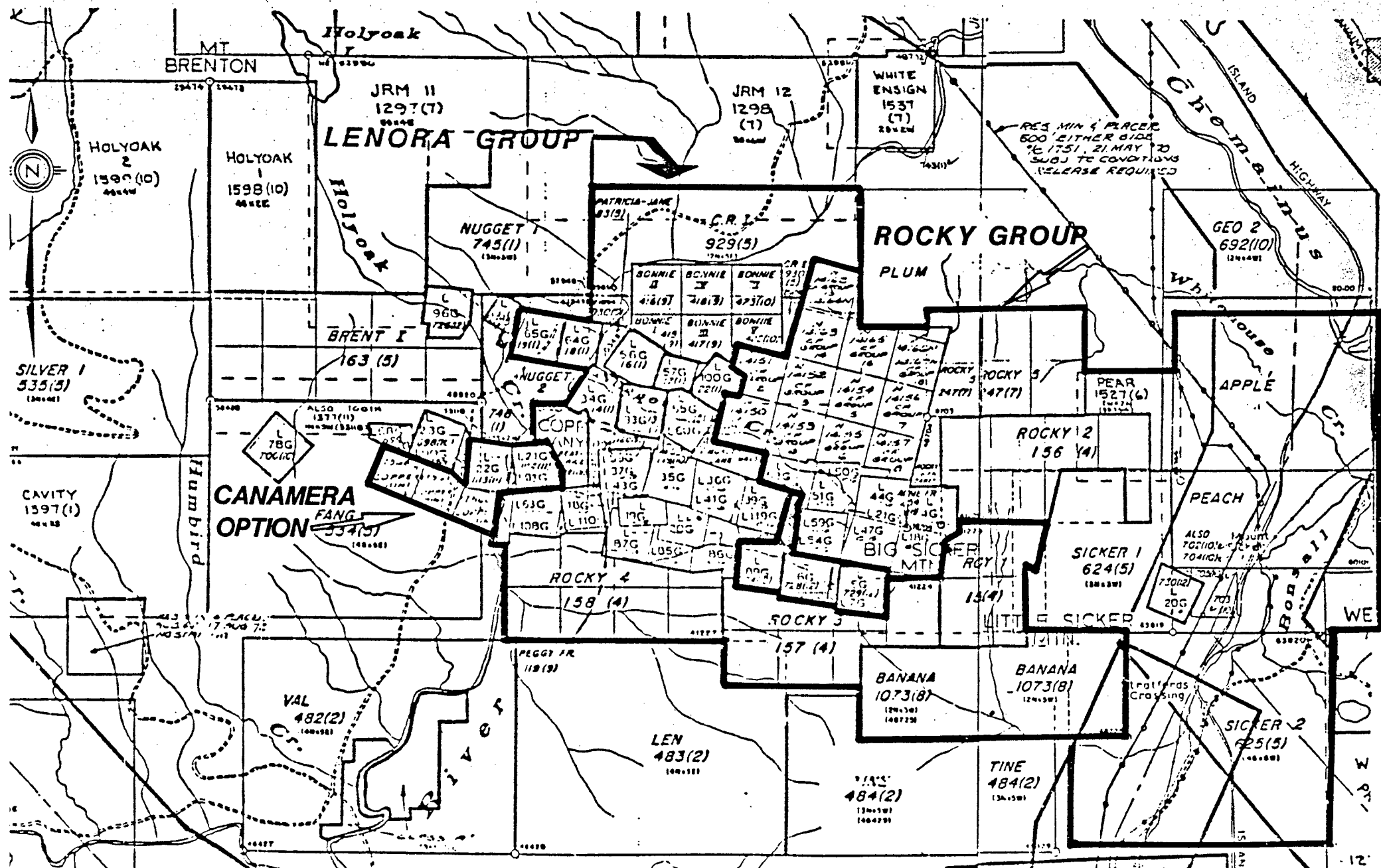
The Canamera property is located on Vancouver Island approximately 12 km northwest of Duncan (Figure 1). The property is readily accessible from Highways 1 and 18 using a network of logging roads.

1.2 Mineral Rights

Drill hole CM-1 is located on the Copper Canyon claim which is part of the Cu Canyon group (Figure 2,3). The claim status of the property is as follows:

Cu Canyon Group

<u>Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Month of Record</u>
Copper Canyon	1	1113	Nov.
Victoria	1	1114	Nov.
Elmore Fraction	1	1115	Nov.
Copper Mint No. 1	1	17566	Aug.
Copper Mint No. 2	1	17567	Aug.
Copper Mint No. 3	1	17568	Aug.



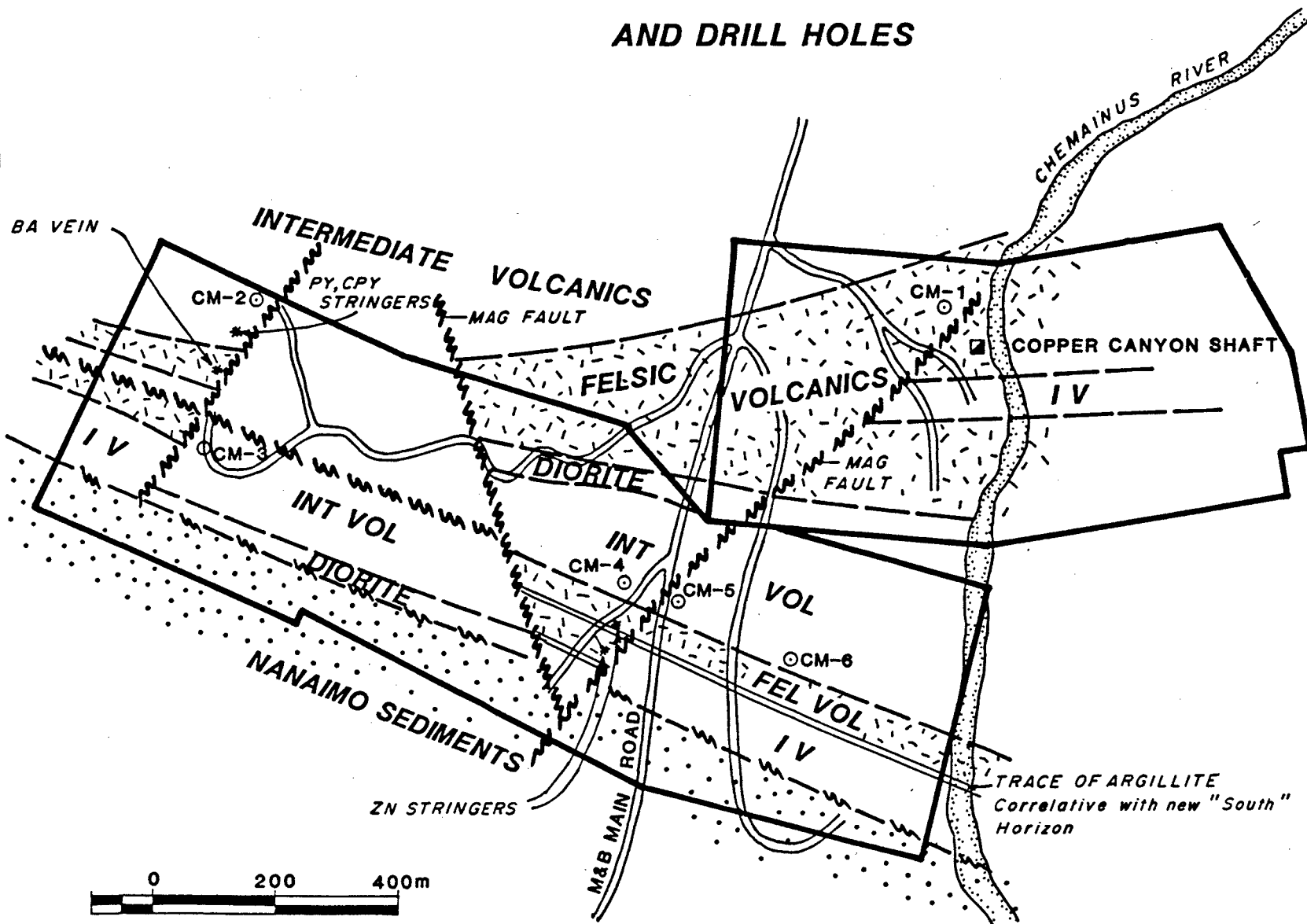
NTS 92B/13
 0 1 2Km

**MT. SICKER PROPERTY
 CANAMERA OPTION
 LOCATION MAP**

MINNOVA

1:50,000

CANAMERA OPTION GENERALIZED GEOLOGY AND DRILL HOLES



MG/dm JUNE 1987

FIGURE 2

1.3 History

Initial work was done on the claims following the discovery of the Lenora-Tyee ore-bodies in 1897. Pits and adits were driven on 2 showings - the Copper Canyon showing located on the western side of the Chemainus River and the Victoria showing located in the center of the Victoria claim. Both showings consist of quartz-pyrite-chalcopyrite stringers. The latter occurrence is reported to have yielded 120 tons of ore grading 4% Cu and 79 tons grading 0.05 oz/T Au. Little work was done on the property between the turn of the century and 1970 when it was acquired by a group of people who subsequently formed Viva Ventures. Between 1971 and 1973 they carried out soil geochemical, geological and geophysical surveys (JEM, VLF, magnetics, IP, seismic, gravity, SP). Umex acquired the property in 1979 and they conducted soil sampling, VLF and magnetic surveys. Canamera optioned the claims in 1985 and they did linecutting, a limited amount of IP, soil sampling, a "Genie" EM survey, 3 trenches and 5 diamond drill holes totalling 670 m. No significant zones of mineralization were located.

In June, 1987 Canamera and Minnova Inc. entered into a joint venture agreement to explore the property with Minnova as the operator. They carried out VLF, magnetic, geological, soil and litho-geochemical surveys, a limited amount of trenching and 6 diamond drill holes totalling 892 meters.

1.4 Work Done

This report summarizes the results of diamond drill hole CM-1 which was part of a 6-hole program testing geological and geophysical targets on the property. Hole CM-1 which is 175.6 meters deep was drilled on the Copper Canyon claim (record #1113).

2. Canamera Area Geology

The Canamera property is underlain by volcanic rocks of the Paleozoic Sicker Group and sediments of the Cretaceous Nanaimo Group (Figure 2,3). Muller (1980) has subdivided the Sicker Group as follows:

1. Buttle Lake Formation
2. Sediment - Sill Unit
3. Myra Formation
4. Nitinat Formation

Although outcrop density on the property is less than 5%, geological mapping has indicated that felsic and intermediate volcanic tuffs and ashes of the Myra formation are the most common rock type on the claim group. These units are cut by two northeasterly trending faults and one northwesterly trending fault which have been

defined on the basis of magnetic data. The amount of movement along these faults is unknown due to the lack of a distinctive marker horizon.

Two old mineralized showings occur on the property - the Copper Canyon showing and the Victoria showing. The mineralization at each is characterized by quartz-pyrite-chalcopyrite stringers of subeconomic grades. The property is strategically placed along strike and east of Abermin's polymetallic Coronation zone and to the west of Minnova's Mt. Sicker property which includes the old Lenora-Tyee Mines which yielded 300,000 tons of ore grading 3.31% Cu, 7.51% Zn, 2.75 oz/T Ag and 0.13 oz/T Au.

3. Diamond Drill Results

Hole CM-1 tested a VLF anomaly located 100 meters west of pyrite-chalcopyrite stringer mineralization exposed at the old Copper Canyon workings on the west side of the Chemainus River (Figures 2,3). A 7.7 meter wide pyritic stringer zone was intersected but metal values of this zone are low. A detailed log and assays for hole CM-1 are included in Appendix L.

4. Conclusions

The VLF conductor which CM-1 was testing is explained by the 7.7 meter wide pyritic stringer zone that was intersected. Low metal values in this zone and throughout the hole indicate that there are no economically significant sulphides associated with this conductor. Further work in the Copper Canyon area is not warranted at this time.

Gary Vells

5. Statement of Costs

Copper Canon claim - hole CM-1 filed for \$14,563.67

CM-1

Footage Costs	7,751.25
Casing (124 ft)	1,912.65
Casing shoe	393.08
Drilling additives	268.80
Drill bits	1,497.89
Man hours (44 hrs. at \$24)	1,056.00
Drill hours (22 hrs. at \$22)	484.00
M. Gray 4 days at \$300/day	<u>1,200.00</u>
total:	\$14,563.67

6. References

Muller, J. E.

- 1980: The Paleozoic Sicker Group of Vancouver Island, B. C.
GSC Paper 79-30

Whittles, A. B. L. and Loring, F. C.

- 1971: Geophysical - Geochemical Report on the Copper Canon claim group
Assessment report - 3099

Whittles, A. B. L.

- 1973: Geophysical, Geological, Geochemical Report on the Copper
Canon Group. Assessment report - 4626

Statement of Qualifications

I, Gary S. Wells, hereby certify that:

1. I hold an Honours Bachelor of Science degree in combined geology and chemistry (1975) from Carleton University, Ottawa, Ontario and a Ph.D degree in geology (1980) from Queen's University, Kingston, Ontario.
2. I am an associate member of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.
3. I have practised my profession in exploration continuously since graduation in 1980.
4. I have based conclusions contained in this report on knowledge of the area, my previous experience and results of field work conducted on the property.

Date: October 23, 1987

Gary Wells

Gary S. Wells, Ph.D.

Vancouver, British Columbia

Statement of Qualifications of Field Personnel

Michael J. Gray :

B.Sc (Geology) 1985, University of British Columbia.

2 years full-time experience in mineral exploration

4 years part-time experience in mineral exploration

Address: c/o Minnova Inc., 4th Floor, 311 Water Street
Vancouver, B. C. (phone 681-3771)

F. BOISVENU DIAMOND DRILLING LTD.
 C/O 200 2695 GRANVILLE STREET
 VANCOUVER, B.C. V6H 3H4

INVOICE
#870504

DATE: June 10, 1987

TO: Minnova Inc.
 4th Floor, 311 Water Street
 Vancouver, B.C.
 V6B 1B8

FOR: Mt. Sicker Property - Duncan, B.C.
 Surface drilling - Boyles BBS56 drill
 May 25-31, 1987

Drilling
 Drilling overburden
 Moving
 Materials
 Mobilization

\$ 21,498.75
 1,540.00
 2,115.00 1520
 5,769.34
 2,050.00 1250

\$ 32,973.09 31578.09 9%

CORPORATION FALCONBRIDGE COPPER

VENDOR NAME		INVOICE NUMBER OR DATE	CURRENCY 1. CAN 2. U.S.	T. L.
F. BOISVENU DIAMOND DRILLING		# 870504	1	
ACCOUNT CODE			AMOUNT	CR
GENERAL LEDGER	DETAIL	EXPLORATION PROJECTS		X
705810	600	31216	32973.09	
				^
				^
				^
				^
				^

Approved conditional to GSW comments AD.

Moving

<u>Date</u>	<u>Memo</u>	<u>Man hrs</u>	<u>Drill hrs</u>	<u>Tractor hrs</u>
May 25	Move in and set up in excess of agreed hours	8 0	4 0	0 <i>move to first set up</i>
26	Make road for new set up	0	0	4
27	Move in and set up in excess of agreed hours	6	3	0 CH-2
28	Move in and set up in excess of agreed hours	18 12	8 6	4 CH-3
31	Move in and set up in excess of agreed hours	10 5	5 2.5	5
		<u>40 23</u>	<u>20</u>	<u>13</u>
23	40.0 man hours @ \$24.00 per hour		\$ 960.00	552.00
11.5	20.0 drill hours @ \$22.00 per hour		440.00	252.00
	13.0 tractor hours @ \$55.00 per hour		<u>715.00</u>	
			<u>\$ 2,115.00</u>	1520

Materials

<u>Quan.</u>	<u>Desc.</u>	<u>Price</u>		
1	NW button bit @	837.40	each	\$ 837.40 CH-1
2	NW tricone bits @	250.00	each	500.00 CH-1
3	NW casing shoes @	350.96	each	1,052.88
17	10' lengths of NW casing @	142.31	each	2,419.27
1	3' length of NW casing @	60.99	each	60.99
1	2' length of NW casing @	40.66	each	40.66
20	Bags of quickgel @	12.00	each	240.00 CH-1
				<u>5,151.20</u>
Add:	12% overhead charge			618.14
				<u>\$ 5,769.34</u>

Mobilization

Mobilization of drill	\$1,250.00
Mobilization of tractor	<u>-800.00</u>

mobilization charge = \$1250

\$2,050.00
1250

Drilling

<u>Hole#</u>	<u>Size</u>	<u>Angle</u>	<u>From</u>	<u>To</u>	<u>Meters</u>	<u>Rate</u>	<u>Amount</u>
CC1	NQ	-45 deg.	37.8	175.6✓	137.8	\$56.25	\$ 7,751.25 CM-1
CM2	NQ	-45 deg.	0.0	193.8✓	193.8	56.25	10,901.25
CM3	NQ	-45 deg.	0.0	50.6✓	50.6	56.25	2,846.25
					<u>382.2</u>		<u>\$ 21,498.75</u>

Drilling overburden

<u>Date</u>	<u>Memo</u>	<u>Man hrs</u>	<u>Drill hrs</u>
May 25	Running casing 0 to 24.4 meters	30	15 CM-1
26	Running casing 24.38 to 37.8 meters	<u>14</u>	<u>7</u> CM-1
		<u>44</u>	<u>22</u>
	44 man hours @ \$24.00 per hour		\$ 1,056.00
	22 drill hours @ \$22.00 per hour		<u>484.00</u>
			<u>\$ 1,540.00</u> CM-1

Appendix I:

Drill Logs

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
65.70 TO 66.40	AND TUFF (POSS DYKE?)	M-dark green Vf-f Moderate foliated, rel. homogeneous and aphyric F. tuff. Fol'n Poss a dyke, but no chills noted	30	W/W-M Chl'z	2-3% very fine grained diss py	Litho BCD# 6399 65.7 - 68.7 (excludes 66.4-66.6)
66.40 TO 66.10	CHERTY DAC TUFF	Light grey Aph-very fine grained Crudely banded, weakly foliated cherty dac tuff. Has 2-4mm thick laminations, contorted. Layering	45	VW Ser 2	2% diss. f.g. py.	Poss a bleached quartz-veined equivalent of the and T.
66.60 TO 69.00	AND/AND-DAC TUFF	Medium-light green Vf-f Moderately foliated, rel. homogeneous And/And-Dac tuff aphyric. Foliation	30	W-M chl'z M <1mm calc. veinlets	1-3% py dissen.	
69.00 TO 80.40	DAC & RHYODAC TUFF/CX TUFF	Light grey with green tinge VG-F mx, f cx Moderately foliated, homogen. looking Dac tuff and rhyodac quartz eye cx t. Foliation (15-35) Top ctc. 20-25 Dac tuff very light grey, trace 2% <<1mm qtz eyes. Loc up to 2% FP phenos but not typical of interval	20 20	Tr-W Ser'z Loc M ser'z at 74.8 - 75.2m	1.5% py F6 mainly as dissen., ave 2% py	
80.40 TO 80.90	FAULT/SHEAR	Light grey Fine grained. S. foliated/sheared, minor gouge in Dac FP aphyric tuff Top ctc Bot ctc	70 40	M ser'z TH-0 W bleached +/- clay W-M quartz +/- calc veins	3% diss. fine grained py	Bot ctc marked by quartz +/- calc. vein
80.90 TO 86.60	RHYODAC-DAC F. TUFF & CX TUFF	Light grey - sl green VF-F grained Moderately foliated, rel. homog. looking rhyodac-dac tuff/cx tuff. Foliation Fine <<1-1mm quartz eyes <1-3%, loc FP 2% <<1mm phenos	40	W/W-M ser'z	2-5% F6 diss py TH-0	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
86.55 TO 87.10	FAULT	Light green & m. grey & white F-mx, fine-coarse fragments. Sheared/brecciated zone, strongly sheared cataclastic section. Has pseudo-banded texture, prob. Dac compn. Bot ctc Top ctc Shear 45-80	50 45 75	S ser'z +/- chl'z Calc as 1cm lenses (5%)	5-8% py fine grained as dissn. & discontinuous stringers	Note greyish bands/seams in fault are not carbonaceous. Geochem: BCD#6351 86.55 - 87.10 m 5-8% py
87.10 TO 92.35	DAC-RHYODAC T/CX T STRINGER ZONE	Pale-light green & whitish grey VF-mx, F-CX M-s. Foliated +/- sheared Dac and F. tuff/F CX tuff 2-3% (1mm quartz eyes loc 5% (1mm FP No visible laminations Stringers appear bounded internally in the thick veins or subparallel veins.		S Ser'z +/- Chl'z M bleached (?) W-I quartz +/- py veins as continuous (1-40 cm veins, + discont. irregular narrow <2cm veins. The thickest stringers (40 cm) are actually a series of subparallel veins with remnant lenses (boudined)? of tuff, i.e., 87-35 - 88.25 qtz (see py section)	5-25% py as dissn/stringers i.e., 87.10 - 87.25m: 3-5% py, diss. 87.35 - 88.25m: 20% py as patches + stringers in quartz vein c/a 30-45 89.00m: 2cm, qtz-py (20%) c/a 30 90.10m: 8 mm, qtz-py (20%) c/a 30 90.30 - 91.15: series of 1cm qtz-py Veins subpar c/a 40 degrees, note large patches of py 2 x 2cm pseudo lenses (boudined?) 91.70m: 1 cm, 10% py, c/a 35 92.10m: 2 mm, 50% py, c/a 40-45 Background of 5% diss py TH-0 tuffs.	Geochem: BCHD 6352 87.10 - 88.25m Geochem: BCD#6353 88.25 - 89.25m Geochem: BCD#6354 90.30 - 91.15m Litho: BCD#6400 89.25 - 90.30 Geochem: BCD#6355 91.15 - 92.35m
92.35 TO 104.60	RHYODAC F. TUFF & QE CX TUFF +/- FP	Very light grey-green, locally silvery VF MX, F. CX W-M foliated, rel. homogeneous looking Dac-Rhyodac tuff with variable qtz-eye and FP phenocryst content. Quartz eyes 3-5%, <1-1mm, FP phenos <1-3%, <1mm Fol'n	35	VW-W ser'z W - Calc +/- quartz veins (1-2mm Thick.	2-5% py fg as dissen. & minor str., i.e., 94.0m, qtz-py, 5mm c/a 35 degrees	Note: Shears at 97.20 - 97.40 m and 102.40 - 102.60
104.60 TO 118.00	SILICEOUS TUFF with QTZ EYES & interlayers FP PHYRIC BANDS	White-lt. grey with m green bands, v fine-med cx aph-vf mx W. foliated, mod. banded Dac-rhyodac siliceous tuff (cherty tuff) w/Dac FP phyrlic interbands Bands & Fol'n (35-40) Individual siliceous tuff bands (95%) range 4 mm - 10 cm, aver. 3cm whereas FP phyrlic bands/layers (5%) are 2-20 mm, ave 5mm.	35	Tr VW ser'z Poss. silif'n as bands (?), but many have qtz eyes Loc w sel EP'z of FP phenos	2-3% py as FG dissemination, locally up to 5% diss. py	Note bands locally distorted, pseudomott led texture Interval defined by distinctness of banding. Litho BCD# 3951 108.00 - 111.00

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
		Quartz eyes 1-3% <1-1mm mainly in rhyodac bands. FP phenos locally in bands 3-5% FP 1mm.				
118.00 TO 123.30	RHYODAC QTZ EYE CX - TUFF	Light grey - SL green Aph-VF MX. F - CX Weakly foliated, locally banded rhyodac qtz eye CX tuff. 3-8%, ave 5% qtz eyes <1-1mm Fol'n (25-40)	30	VW Ser'z. Loc patchy Silicified (?) mottled sections, pseudobanded	1-3% diss. py.	
123.30 TO 128.40	DAC- RHYODAC SILICIFIED QTZ EYE + FP PYRIC TUFF	Lt., green with vlt. grey mottled patches/bands VF-F mx, F-M CX Weakly foliated, crudely banded tex. due to poss patchy silicification in Dac-Rhyodac qtz eye CX tuffs (+/- FP phenos). Qtz eyes 2-3%, <1mm FP phenos loc @ 124.0 - 126.0 3-5% FP 1-1 mm Fol'n 30-40 (silica bands/patches irregular)	30	Tr - VW ser. Patchy elongate bands parallel foliation, style of silic'n ? Poss. devitrif'n texture, but unlikely as this is a good tuff with variations in phenocryst type and content	1-5% py disse, ave 3-5% py	Note: qtz eyes in patchy bands. Poss. not as silicif'n but rather compositioning as suggested by AJD.
128.40 TO 130.20	FAULT BLOCKY SECTION	Light green F mx. F-M Fault w/local narrow gouge planes, otherwise sheared and broken up core in above Dac-rhyodac CX tuff Top CTC 40-50 Gouge Bot CTC	40 20 15	W-M Ser'z, loc S ser w/clay along 5mm gouge planes	1-3% F6 diss py	
130.20 TO 134.50	DAC SILICIFIED? QTZ EYE - FP PHYRIC TUFF	Light grey-green VF - mx. F-M cx VW foliated, crudely banded (due to alteration), similar to above Dac qtz-FP phyric tuffs. Qtz eyes 1-5% ave. 1-2%, <1-1mm. FP loc up to 5% <<1mm. Silica bands/patches	30	TR - VW Ser'z As above, irregular patches/bands of mottled silica W-M 1-2 mm Calc +/- qtz veinlets	3-5% py as F6 dissn'	Note possible lapilli size frags. (3-5 mm) although difficult to be seen due to alt'n.

HOLE NUMBER: CM-1

ASSAY SHEET

DATE: 7-December-1987

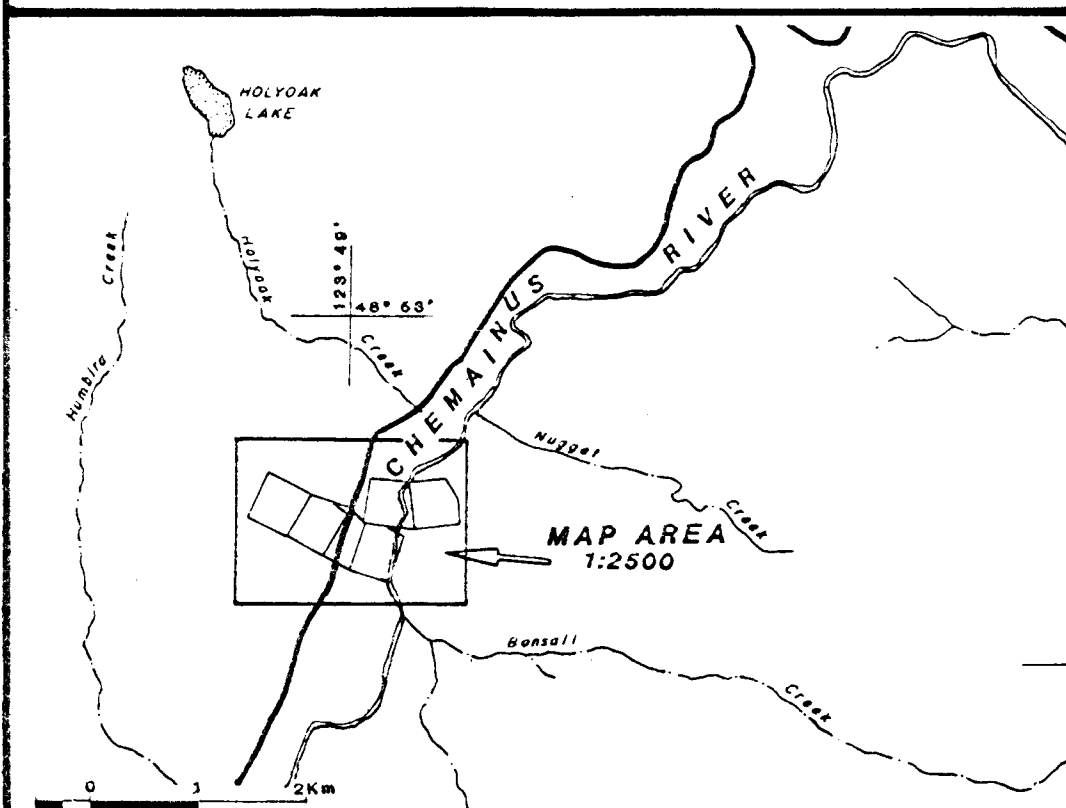
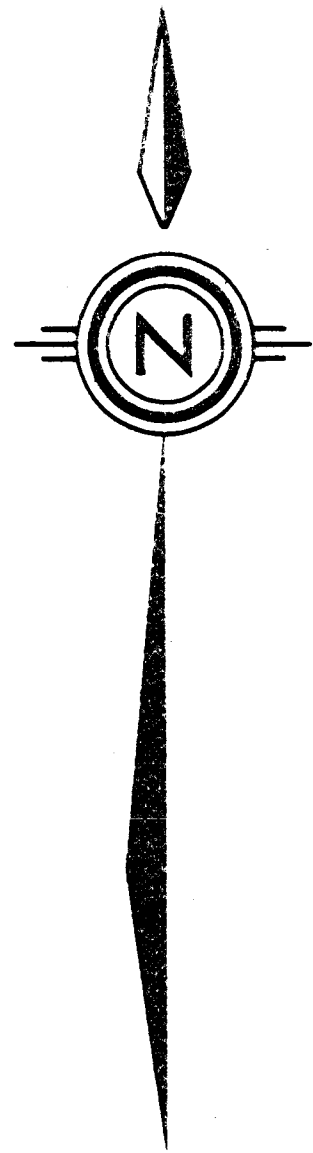
Sample	From (m)	To (m)	Length (m)	GEOCHEMICAL				COMMENTS
				Cu ppm	Zn ppm	Ag ppm	Au ppb	
6351	86.55	87.10	0.55	34	32	1.2	10	
6352	87.10	88.25	1.15	54	17	1.0	30	
6353	88.25	89.25	1.00	22	37	0.9	5	
6354	89.25	91.15	1.90	32	16	1.2	5	
6355	91.15	92.35	1.20	12	36	1.0	5	

HOLE NUMBER: CM-1

ASSAY SHEET

PAGE: 7

Sample	From (m)	To (m)	Length (m)	SI02 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE0 %	MNO %	TIO2 %	BA %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	SB PPB	SR %	ZR %	TOTAL %
6398	41.55	44.55	3.00	71.59	14.48	1.36	1.85	0.36	3.30	2.84	0.08	.30	.121	13	30	10	0.8	15	5	1	.009	.01	96.3
6399	65.70	68.70	3.00	58.3	17.97	1.02	4.55	3.49	1.69	7.69	.22	.66	.046	68	72	4	1.0	10	10	1	.005	.01	95.65
6400	89.25	90.30	1.05	70.56	12.54	1.10	2.43	0.19	2.8	5.83	.09	.29	.088	6	37	6	0.8	5	9	1	.006	.01	95.95
3951	108.00	111.00	3.00	71.54	12.77	2.52	1.56	2.25	1.92	2.04	.08	.14	.117	8	14	4	0.7	5	4	1	.005	.01	94.96
3952	136.00	139.00	3.00	69.64	14.73	0.49	2.85	2.20	3.84	.13	.32	.117	.26	32	9	0.7	10	2	1	.005	.01	96.98	
3954	157.50	159.00	1.50	68.06	14.79	0.76	2.10	4.38	1.62	3.89	.13	.32	.085	15	47	9	0.9	5	7	2	.005	.01	96.15
3953	163.00	166.00	3.00	67.92	14.44	1.02	2.27	4.23	1.36	3.47	.15	.29	.066	34	46	10	1.0	5	8	1	.005	.01	95.26

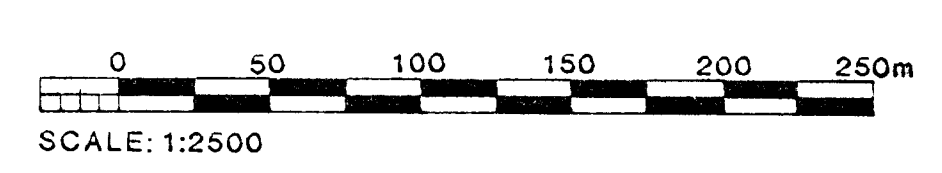


GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,871

MINNOVA Inc.
CANAMERA OPTION

- 1987 -
DRILL HOLE LOCATIONS



N.T.S. 92B/13	MAP:
DRAWN BY: GW/dm	FIG 3
DATE: NOV. 1987	