827206

1990 Exploration Program
Fording Coal Lease
Mt. Sicker Property

Victoria Mining Division
NTS 92 B/13W
48° 59' N Lat. 123° 51' W Long.

Minnova Inc.
Vancouver, B.C.

G. S. Wells
November 15, 1990

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Report on the 1990 Exploration Program
Fording Coal Lease

1. Introduction

This report summarizes the 1990 exploration program on the Fording Coal Lease area which encompasses part of Minnova's Mt. Sicker property. Six diamond drill holes totalling 1198.65 meters tested geological and geophysical targets on the north slopes of Mt. Sicker. The cost of this program is estimated at $87,102.61.

a. Location and Access

The Mt. Sicker property is located 40 km and 10 km north of Victoria and Duncan respectively (Figure 1). An extensive system of logging roads from the Island Highway provides excellent access to the property. Topographic relief is moderate with elevations ranging from 150 to 700 metres above sea level. Mt. Sicker is covered by a mixed forest of Douglas Fir, hemlock, alder and cedar which has been selectively clear cut over the last ten years.

b. Property Status

Minnova's Mt. Sicker property is presently comprised of three contiguous options and Minnova claims for a total of 207 units. The Fording Coal base metal lease area covers precious mineral claims optioned from Peppa Resources and Postuk-Fulton (Figure 2).

c. History

Two former producers - the Lenora and Tyee mines occur on the Mt. Sicker property. These deposits were discovered in 1898 and were largely mined out by 1909, although they were worked periodically until 1947. A total of 300,000 tons of ore with an

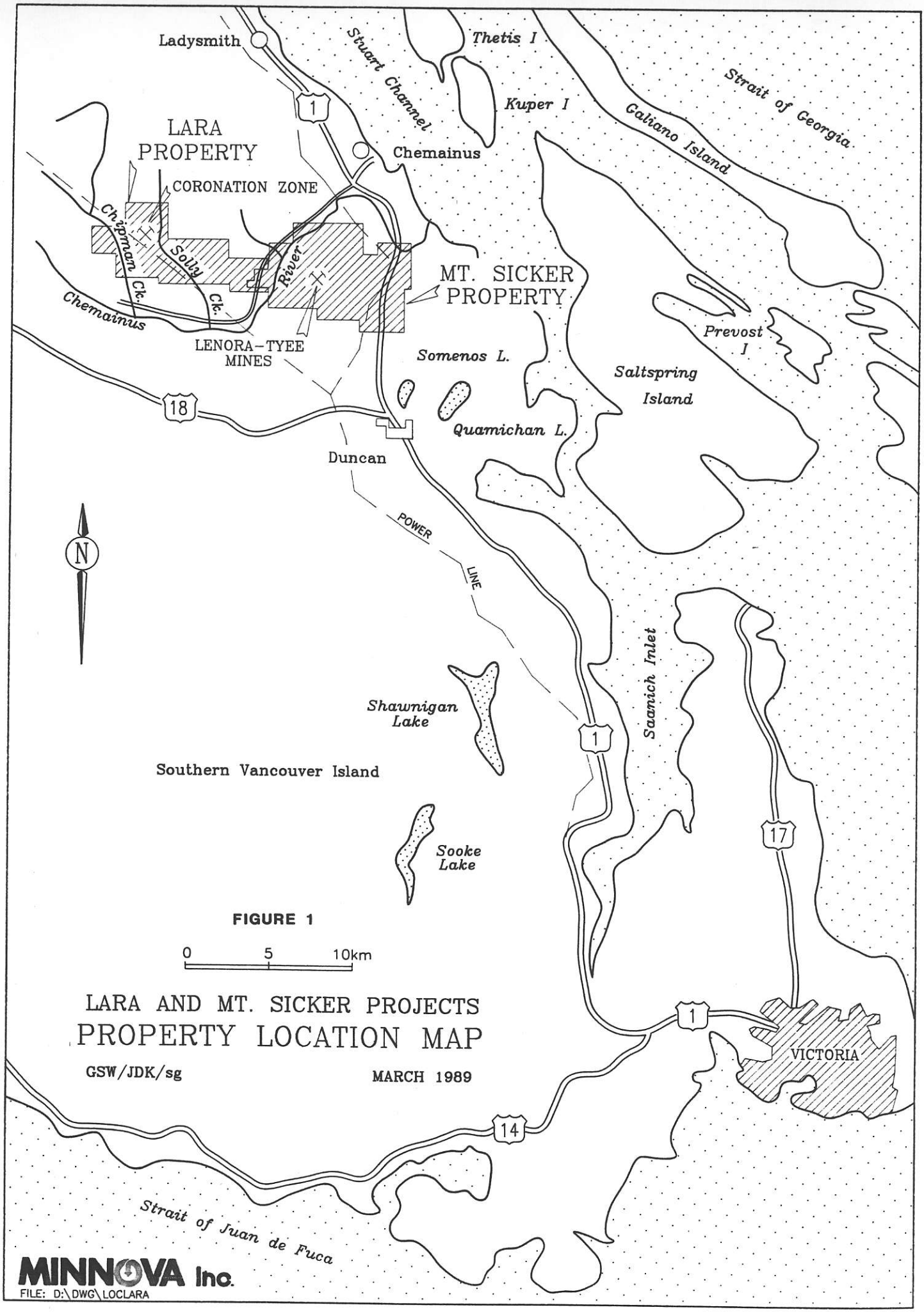

FIGURE 1

LARA AND MT. SICKER PROJECTS

PROPERTY LOCATION MAP

GSW/JDK/sg

MARCH 1989

MINNOVA Inc.

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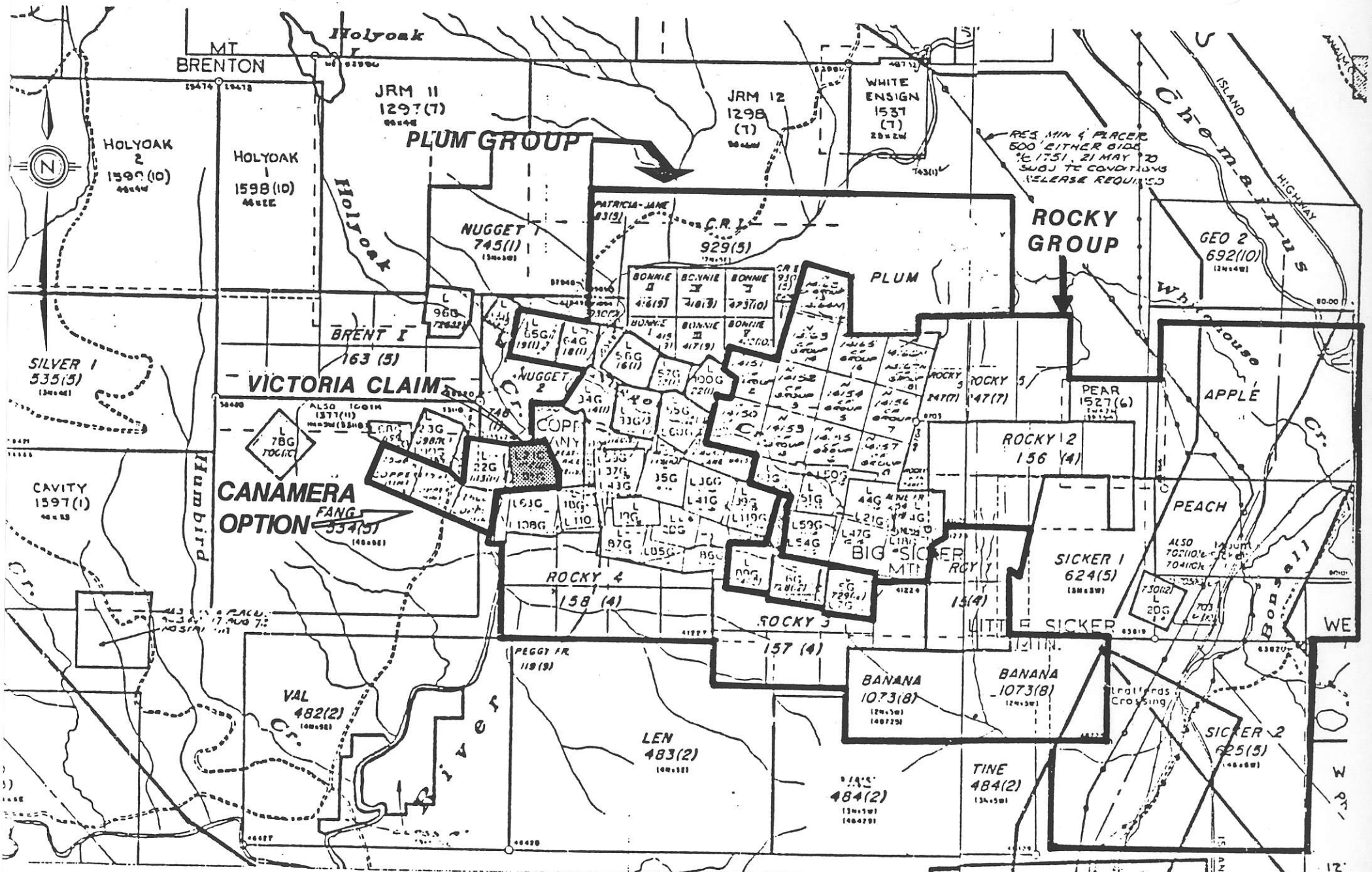

MT. SICKER PROPERTY

CLAIM MAP

MINNOVA

FIGURE 2

The structure of the Mt. Sicker property is dominated by a large, asymmetric, west-northwesterly trending, shallow west-plunging anticline. The fold axis is interpreted to lie 300 meters north of the Lenora-Tyee deposits. The axial plane of the anticline is reflected by a pervasive moderately to intensely developed, vertically dipping foliation. Small drag folds associated with the Mt. Sicker anticline occur at NE Copper and Lenora-Tyee.

Numerous mineralized occurrences are present on the Mt. Sicker property. Except for the former orebodies, most of the mineralization consists of disseminated and stringer sulphide zones which are thought to be an expression of a synvolcanic hydrothermal system.

The baritic and polymetallic massive sulphides that are found at the Lenora-Tyee mines are intimately associated with cherty and graphitic argillites. Several other pyritic and argillite horizons have been recognized elsewhere on the property (i.e. Postuk-Fulton, Gabriel, NE Copper; Figure 3) and are interpreted as being exhalative horizons marking a period during which sulphide deposition was occurring.

3. Work Completed

Six diamond drill holes totalling 1198.65 meters were completed on the Fording Coal lease area in 1990. Detailed drill logs are presented in Appendix I and hole locations are shown in Figure 3.

Lithogeochemical samples were taken routinely throughout the holes and analysed for major and trace elements (SiO_2, TiO_2, Al_2O_3, CaO, Na_2O, K_2O, MgO, Fe_2O_3, Pb, Ba, Cu, Zn, Sb, As, Au) using ICP and atomic absorption techniques of Min-En Laboratories in N. Vancouver. Mineralized sections were analysed for Cu, Pb, Zn, Ag, Au and Ba.

4. Drill Hole Results

Hole MTS-82 tested an IP anomaly associated with the Gabriel horizon in an area of Na_2O depletion. The IP anomaly is due to pyritic argillites which have low metal contents and these horizons are underlain by intensely sodium depleted QP tuffs.

Hole MTS-84 and MTS-85 tested the Postuk-Fulton pyritic chert horizon beneath the flat-lying B.C. Tel diorite. Hole MTS-84 intersected an 81.5 meter thick unit of chloritic ash, tuff and cherts that marks the contact between relatively unaltered andesitic tuffs and altered QP tuffs. This unit has anomalous zinc values (250-300 ppm) and low Na_2O (<1%). No significant sulphide zones were intersected. Hole MTS-85 was a deep test of the PF horizon, 100 meters east of any previous drill hole. A diorite plug was intersected before the PF horizon was encountered and consequently the down-dip potential of this horizon is limited.

Hole MTS-88, 94 and 95 tested the strike extent and potential of pyritic chert horizons and copper-rich (≈ 2% Cu) massive pyrite exposed at the Fortuna adit (Figure 3). In particular, hole MTS-88 tested coincident copper and DEEPEM anomalies 250 meters to the east of the Fortuna adit. The hole collared in strongly chloritic andesite ash with abundant (10-15%) pyrite-chalcopyrite stringers. A thin pyritic chert occurs within this zone but no economically significant sulphide zones were encountered. Holes MTS-94 and 95 were drilled down-dip of the Fortuna adit and 250 meters west of the Fortuna adit respectively. Both holes were abandoned before reaching the pyritic chert horizon due to the presence of a major fault zone (Fortuna Fault).

5. Conclusions

Minnova's 1990 exploration program on the Fording Coal lease area involved diamond drill testing of specific mineralized horizons, geophysical and geochemical targets in the Gabriel, Postuk-Fulton and Fortuna adit areas. Although pyritic argillites or cherts were intersecteed in all three areas, no zones of economic mineralization have been defined. Consequently the potential for discovering a near-surface massive sulphide zone on the north slope of Mt. Sicker is considered to be low.

6. Itemized Cost Statement

1. Contract Costs

a.	Frontier Drilling Ltd. (6 holes; 1198.65 m)	$70,423.36
b.	Ellison Excavating (drill site and road work)	2,420.00

2. Salaries

P. Baxter	20 days @ $300/day	6,000.00
G. S. Wells	5 days @ $350/day	1,750.00
R. Knight	20 days @ $120/day	2,400.00

3. Field Expenses

Truck	20 days @ $50/day	1,000.00
Food/Accomodation (GSW, PB)	23 days @ $40/day	920.00

4. Analyses of Drill Core 2189.25

Total $87,102.61

7. References

Massey, N. W. D., Friday, S. J., 1988: Geology of the Alberni-Nanaimo Lakes Area, Vancouver Island, BCDM 1988 Summary of Geological Field Work, p. 61-74.

Müller, J. E., 1980: The Paleozoic Sicker Group of Vancouver Island, B.C., GSC paper 79-30, 22 p.

Gibson, H. L., 1987: 1986 Diamond Drill Programme on the Fording Coal Lease, Mt. Sicker Property, internal Minnova report.

Wells, G. S., 1988: 1987 Exploration Program, Fording Coal Lease, Mt. Sicker Property, internal Minnova report.

Wells, G. S., 1989: 1988 Exploration Program, Fording Coal Lease, Mt. Sicker Property, internal Minnova report.

Wells, G. S., 1990: 1989 Exploration Program, Fording Coal Lease, Mt. Sicker Property, internal Minnova report.

Appendix I

Diamond Drill Logs

1990 Program

HOLE NUMBER: MTS-82

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: BONNIE V
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 737.00N
EAST: 576.00E
ELEV: 365.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 212.40m
START DEPTH: 0.00m
FINAL DEPTH: 212.40m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 180° 0' 0"

DATE STARTED: April 9, 1990
DATE COMPLETED: April 11, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING
CASING: 6.7 m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST IP ANOMALY ASSOCIATED WITH GABRIEL HORIZON AND AREA OF NA2O DEPLETION

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
24.40	-	-43° 0'	ACID	OK		-	-	-	-	-	
212.40	-	-41° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.70	«OB»					
6.70 TO 14.45	Felsic Tuff Ash, Argillite «F TUFF,ASH ,ARG»	Colour: Light to medium grey Grain Size: Fine grained Predominantly felsic volcanics with thin beds of argillite Detailed breakdown of unit as follows: 6.7 - 7.6m Felsic Tuff. Slightly coarser appearance than rest of unit. Rare flattened felsic fragments. Weakly foliated 7.6 - 8.05m Argillite. Laminated to thinly bedded. Layering generally distorted. Small scale fault and folding of argillite at 7.8m 8.05 - 10.00m Felsic Tuff, Ash. Indistinct felsic tuff with finer thinly bedded ashes. 9.1 - 10.0m Rock taking on a greener colouration, patchy, wispy green mica. 5cm argillite layer @ 9.2m 9.7m Gougy core 10.0 - 11.0m Argillite. Thinly bedded/laminated at 65 deg to core axis 11.0 - 14.45m Felsic Tuff, Ash. 11.0 - 11.3m Thinly bedded, distorted ashes. 11.9m Gougy core 11.9 - 14.45m Greenish colouration to core, rare green mica 13.75 - 14.0m Fault gouge 14.0m Lower contact truncated bedding in ashes below fault.	75	Weak to moderately sericitic	6.7 - 7.0m Occassional <0.5cm siliceous pyrite stringers. 7.6 - 8.05m <1-1% pyrite 10.0 - 11.0m 5-7% fine pyrite disseminated and as 1mm laminations. 12.85 - 13.75m 3-4% pyrite disseminated, 1mm siliceous stringers and patches	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
14.45 TO 16.70	Argillite «ARG»	Colour: Dark grey Grain Size: Fine grained Fairly massive, very poorly bedded. More well developed bedding below 16.2m where bedding swings from 30-75 deg to core axis			14.6 - 14.6m Occassional 1-3mm pyrite laminations - often folded, brecciated Rest of unit <1-1% pyrite	
16.70 TO 23.50	Felsic Tuff «F TUFF»	Colour: Light green Grain Size: Fine grained Weakly foliated, aphyric 17.5 - 18.8m Folded and distorted foliations 22.3 - 22.7m Darker green, more like and andesite ash Foliations: 18.8m 19.4m 21.8m 5cm grey fault gouge @	 40 58 60	Weakly sericitic, weak to moderately abundant quartz veining	18.3 - 18.8m 3-5% pyrite as narrow stringers stretched out along foliation. Rest of unit <1% pyrite with patchy siliceous narrow pyrite stringers	
23.50 TO 40.85	Felsic Tuff «F TUFF»	Colour: Light grey Grain Size: Fine grained Weakly foliated, aphyric, very similar to previous unit but light grey in colour. Foliations: 26.0m 29.6m 33.0m 38.9m 39.3 - 40.85m Slightly darker grey colour, minor argillite component to rock	 30 55 50 45	Weakly sericitic, lacks quartz veining of previous unit Sulfide bearing intervals slightly more altered in appearance	<1-1% pyrite disseminated and rare stringers except as follows: 28.7 - 30.55m 1-2% pyrite as wispy narrow stringers and fine disseminations 32.5 - 34.1m 1-2% pyrite as above 37.3 - 39.1m 3-4% pyrite as above	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Lower contact:	50			
40.85 TO 49.00	Argillite «ARG»	Colour: Dark grey, black Grain Size: Fine grained Fairly well bedded/laminated often distorted, folded. Layering possibly transposed. Graphitic partings Layering/foliations: 41.0m 44.3m 45.7m 46.5 - 48.25m Felsic Tuff	 50 55 55		Argillite layer generally sulfide poor (<1% pyrite). However, there exists occassion 1mm-1cm siliceous layers of semi-massive very fine grained syngenetic pyrite. These layers too are also pinched and distorted.	
49.00 TO 53.00	Muddy Ash, Argillite «MUDDY ASH, ARG»	Colour: Silver green, dark grey Grain Size: Fine grained Weakly foliated, sericitic silver green muddy ash with screens of argillite as follows: 49.6-49.65m 49.8-49.9m 50.55-50.7m 51.15-51.35m 51.75-52.05m 52.77-53.0m 51.15m 51.25m More felsic appearance to ash from 49.0-49.6m and 51.55-51.75m	 48 48		Fine sulfide laminations in argillites	
53.00 TO 68.75	Felsic Ash, Tuff «F ASH,TUFF »	Colour: Light grey green Grain Size: Fine grained Fine poorly bedded ash and fine aphyric tuff. Weakly foliated 55.2 - 55.7m Intermediate Dyke? or Sediment? Medium green, fine grained weakly foliated, sharp lower contact Thin screens of silver grey ash with minor calcite streaks Layering: 57.25m 66.7 - 68.75m Finely brecciated with a creamy dolomitic? stockwork Foliations: 64.0m 66.1m	 55 40 60 45	Weak to moderately sericitic	<1% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
68.75 TO 89.55	Argillite «ARG»	Colour: Dark grey, black Grain Size: Fine grained Well laminated/thinly bedded, graphitic partings, cherty, calcareous. Layering often distorted and folded. Bedding possibly transposed - difficult to trace individual beds around the core. Bedding/Layering: 68.75-73.2m from 35 to 45 73.2-74.0m from 0 to 10 74.4m 35 75.3m 20 76.1-76.6m Brecciated Zone 77.0m 38 77.3m 50 77.45-77.7m 15 77.9-80.3m from 30 to 40 80.3-81.1m from 0 to 15 81.1-83.1m from 20 to 30 83.1-83.25m 80 83.25-83.65m from 0 to 10 83.9m 40 84.3m 30 84.7m 50 84.8-85.0m from 0 to 15 85.0-86.0m 30 86.0-86.2m Folded 86.2-89.4m from 20 to 40 86.7m 20 88.0m 42 88.4m 25 89.2m 42 89.4 - 89.55m Felsic Tuff Sharp lower contact 37		Fairly abundant 1-3mm wide semi massive syngenetic pyrite laminations.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
89.55 TO 94.80	Mafic Dyke «M DYKE»	Colour: Medium to dark green Grain Size: Fine grained Massive with some patchy streaky wispy calcite. Minor 2-3% leucoxene. Red hematite fracture coatings. 93.85-94.15m Screen of distorted laminated felsic ash				
94.80 TO 96.70	Felsic Ash «F ASH»	Colour: Medium green Grain Size: Fine grained Moderately foliated, no apparent bedding, folded foliations. Aphyric. Weak gouge development. 96.4 - 96.7m Mafic Dyke.		Moderate sericitic.	NIL	
96.70 TO 97.40	«FAULT»	Colour: Light green Fault gouge, brecciated core 97.4m	50			
97.40 TO 105.05	Felsic Ash, Cherty Ash, Argillite «F ASH, CHT ASH, ARG»	Colour: Light grey, tan green, dark grey Grain Size: Fine grained Laminated to thinly beddded grey felsic ashes, cherty ashes mixed with tan green. Streaky, weakly calcareous sericitic ash/muds. 101.45 - 103.5m Predominantly green sericitic ash 103.5 - 104.55m Argillite and argillaceous ash. 104.55 - 104.8m QP Tuff 104.8 - 105.05m Argillite Bedding/Layering: 98.7m 99.2m 101.1m 103.2m 104.0m 104.3m	 32 25 35 45 48 45	Moderately sericitic	Overall <1% pyrite however there are fairly numerous 1-2cm and up to 10cm zones of 5-10% pyrite and possible trace sphalerite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
105.05 TO 212.40	QP Tuff, Lapilli Tuff «QP TUFF, L AP TUFF»	Colour: Light green, light grey, streaky Grain Size: Fine grained 4-5% 1-2mm and up to 4-5mm subrounded to subangular quartz eyes. Weakly foliated.		Weakly sericitic. Zones of greater alteration as follows:	<1% pyrite	
		114.7 - 114.85m Tan grey felsic ash, unit lacking quartz eyes Layering	38		114.7 - 114.85m 7-10% very fine disseminated pyrite	
		114.85 - 115.32m Intermediate? Ash. Medium green fine grained, fine dark green chlorite wisps. This unit grades into material similar to 114.7-114.85m from 115.32-115.4m			114.85 - 115.32m No sulfides. 115.32 - 115.4m 7-10% pyrite 118.1 - 118.23m Sulfide stringer, parallel to foliation. 70-80% pyrite. <1% sphalerite mainly along upper margin.	
		Between 124.0 and 125.5m Begin to see occassional green chloritic wisps = pumice fragments				
		126.7 - 128.1m Foliated, chloritic fine feldspar phyric dark green andesite dyke				
		Below 128.1m Begin to see indistinct grey QP fragments. Rock takes on a streaky light green grey annd streaky tan appearance. Rare quartz eyes up to 7-8mm. Quartz eye content decreasing to 2-4%.		133.2 - 152.2m Moderately sericitic	129.1m 1-2mm wide sphalerite with trace chalcopyrite stringer	Below 128.1m Unit very similar to QP fragmental in the Lara Randy Zone.
		150.0 - 150.7m Ground-milled core, weak gouge development.		155.8 - 212.4m Moderately sericitic.	156.5m 1-2% disseminated pyrite and occassional <0.5cm stringer	
		159.9 - 160.6m Marroon grey mudstone/ash Layering/Foliation:	38		159.9 - 160.6m 3-4% pyrite 163.3m <0.5cm pyrite-sphalerite parallel to foliation	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					170.35m 2cm quartz vein, trace galena-sphalerite	
					172.3 - 172.4m 5-7% pyrite, <1-1% sphalerite, siliceous stringer mineralization	
		175.55 - 175.9m Silver grey, sericitic ash. Rare wisps of stringery metallic mineral = stibnite??				
		179.6 - 180.2m Irregular mafic dyking.				
		194.7 - 196.65m Mafic Dyke. Streaky calcite, fine grained.				
		197.2 - 198.15m Mafic Dyke.				
					200.35m 5cm siliceous stringer. 1-2% sphalerite, 5-7% pyrite	
					200.35 - 200.9m 3-5% pyrite, trace sphalerite	
		212.1 - 212.4m Moderately developed fault gouge				
	E.O.H.	END OF HOLE				

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13908	7.60	8.05	0.45						69	62	32	2.1	4	98	55		
13909	10.00	11.00	1.00						76	103	41	2.3	11	199	51		
13910	14.40	16.70	2.30						34	39	30	0.6	25	50	89		
13911	18.25	18.80	0.55						10	26	22	0.5	31	63	109		
13912	39.70	41.00	1.30						17	51	22	1.0	1	13	142		
13913	41.00	42.50	1.50						54	75	33	2.2	6	176	112		
13914	42.50	44.00	1.50						69	112	33	2.1	4	92	121		
13915	44.00	45.00	1.00						73	80	31	2.1	15	25	105		
13916	45.00	46.50	1.50						69	99	32	2.0	10	68	83		
13917	46.50	48.25	1.75						14	74	21	0.8	2	1	137		
13918	48.25	49.00	0.75						67	84	26	1.4	6	21	95		
13919	49.00	50.30	1.30						52	92	23	1.4	19	1	96		
13920	50.30	51.55	1.25						42	94	31	1.3	1	1	124		
13921	51.55	53.00	1.45						51	54	34	1.4	12	28	92		
13922	68.75	70.30	1.55						49	67	31	0.7	9	37	105		
13923	70.30	71.80	1.50						57	108	40	1.1	26	85	89		
13924	71.80	73.30	1.50						65	78	43	1.5	2	90	112		
13925	73.30	74.80	1.50						58	98	40	1.9	16	92	125		
13976	74.80	76.30	1.50						45	94	38	1.7	11	73	172		
13977	76.30	77.80	1.50						6	186	19	1.2	10	28	20		
13978	77.80	79.50	1.70						50	77	35	1.3	12	64	120		
13979	79.50	81.00	1.50						60	85	26	0.9	3	50	126		
13980	81.00	82.50	1.50						62	52	30	1.3	5	54	105		
13981	82.50	84.00	1.50						71	75	33	1.9	16	89	93		
13982	84.00	85.50	1.50						68	71	26	1.1	2	80	78		
13983	85.50	87.00	1.50						59	82	29	1.0	11	197	74		
13984	87.00	88.25	1.25						65	58	34	0.7	8	118	83		
13985	88.25	89.55	1.30						51	63	26	0.9	2	35	72		
13735	97.40	98.40	1.00						45	59	43	1.6	2				
13736	98.40	99.40	1.00						33	36	36	2.4	24				
13737	99.40	100.40	1.00						62	52	64	1.7	16				
13738	100.40	101.45	1.05						57	43	41	1.6	15				
13739	101.45	102.45	1.00						60	68	58	1.5	76				
13740	102.45	103.50	1.05						91	78	80	1.7	28				
13741	103.50	104.55	1.05						40	42	61	1.5	9				
13742	104.55	105.05	0.50						51	57	50	1.3	4				
13743	114.70	115.45	0.75						28	113	42	1.7	58				
13744	118.05	118.25	0.20						281	915	3350	7.1	411				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16883	8.05	10.00	1.95	68	13.89	2.43	1.27	0.25	2.82	4.16	0.2	0.4	0.06	15	36	33	2	5	34	1			95.31	49	1.55
16884	29.40	32.40	3.00	71.75	13.65	1.99	1.05	0.39	2.45	3.04	0.15	0.36	0.135	8	33	33	1.3	5	24	1			96.45	104	1.27
16885	62.50	65.50	3.00	64.05	13.34	4.98	1.78	0.77	1.65	3.62	0.15	0.36	0.08	15	43	26	1.2	5	10	1			91.41	68	0.16
13736	98.40	99.40	1.00	64.99	10.61	5.9	2.48	0.02	1.95	5.44	0.27	0.36	0.055	38	37	39	2.1	20	72	2			94.58	47	1.96
16886	121.00	124.00	3.00	70.92	12.31	3.26	1.1	0.12	2.89	2.52	0.16	0.23	0.065	7	31	21	1.2	5	14	1			94.36	108	0.42
16887	147.00	150.00	3.00	76.96	13.26	0.13	0.25	0.14	3	2.03	0.01	0.21	0.07	7	39	21	1.6	5	9	1			97.71	68	1.41
16888	182.00	185.00	3.00	69.98	13.71	2.36	1.23	0.16	3.07	2.41	0.17	0.26	0.095	10	27	23	1.1	5	7	1			94.87	59	1.01
16889	206.30	209.40	3.10	70.31	14.22	3.08	0.88	0.22	2.7	2.69	0.09	0.27	0.095	8	36	24	1.2	5	12	1			96.33	74	1.44

HOLE NUMBER: MTS-84

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS:
METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: QUEEN BEE
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 244.00N
EAST: 230.00E
ELEV: 496.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 243.50m
START DEPTH: 0.00m
FINAL DEPTH: 243.50m

COLLAR GRID AZIMUTH: 166° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 166° 0' 0"

DATE STARTED: April 13, 1990
DATE COMPLETED: April 15, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: YES
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING
CASING: 23.5 m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST THE POSTUK-FULTON HORIZON UP DIP OF MTS-9

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
66.40	-	-44° 0'	ACID	OK		-	-	-	-	-	
108.80	-	-46° 0'	ACID	OK		-	-	-	-	-	
157.60	-	-44° 0'	ACID	OK		-	-	-	-	-	
197.20	-	-46° 0'	ACID	OK		-	-	-	-	-	
237.40	173° 0'	-47° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 23.50	«OB»					
23.50 TO 146.25	Andesitic to Mafic Tuff, Lapilli Tuff «AND-M TUFF , LAP TUFF»	Colour: Dark green Grain Size: Fine grained Massive. Up to 7% epidotized feldspars Patchy uralitized pyroxenes? Hematitic fracture coatings and veinlets 32.2 - 33.4m 0.5cm x 4cm frags or brecciated layers of dark grey magnetic material. Weak layering at 38-55 degrees 37.75m Beginning of fragmental appearance 37.75 - 41.9m Creamy grey hematitic rounded 2x4cm mafic fragments 41.9 - 44.4m Dark grey magnetic fragments 53.6 - 56.9m Indistinct fine grained dark green rounded fragments in a slightly coarser dark green groundmass. <1-1% epidotized feldspars Below 56.9m some <50cm patches with 15-20% feldspars 71.9 - 75.0m Maroon grey siliceous tuff, seds, strongly brecciated. 72.4 - 75.15m Possible dyke or more massive tuff. Layering at 73.15m at 68 deg 76.75 - 82.8m and 86.4 - 90.8m Blotchy to streaky cream green dark green mafic fragmental. Lighter creamy green fragments in a darker green fine grained groundmass. Patchy 30cm feldspar phyric zones = possible fragments From 82.8 - 86.4m Fairly massive leucoxene		Patchy strong epidotization with diffuse boundaries to patches 26.9 - 30.0m Bleached zone with white carbonate veining showing multiple pulses to veining 45.4 - 53.6m Abundant 10cm - 80cm epidote patches with hematite veinlets and up to 20% round 2mm quartz grains = amygdules? Epidote patches = large fragments 60.0 - 76.5m Moderately abundant calcite quartz veining	<1% disseminated pyrite and rare <1cm pyritic veinlets and patches 53.6 - 56.9m 1-2% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		phyric interval = mafic dyke. Some weak foliated patches. 90.8 - 108.3m Very fine speckled tuff. Medium to dark green abundant <1-1mm white specks Weak patchy streaky appearance from <1cmx5cm mafic fragments. Some creamy green fragmental zones similar to 76.75 - 90.8m. White specks continue off and on to end of unit. Foliation: 93.0m 50 101.7m 45 108.3 - 127.1m Similar to above interval but this interval also contains 1-8mm white accretionary lapilli, smaller grains may also be feldspars. Some white fragments up to 1.5cm. 118.85 - 119.3m Medium grey, fine grained felsic dyke 121.8 - 123.0m Large block of amygdaloidal andesite flow with up to 5mm round siliceous amygdules. 127.2 - 146.25m Fragmental with large blocks of epidotized amygdaloidal andesite 139.2 - 140.7m Ashier/tuffaceous interval crudely layered at 55 deg to core axis Massive grey green dykes +/- white 1-2mm feldspar laths from 132.25 - 133.2m and 140.7 - 142.3m		127.2 - 145.7m Strong pervasive epidotization. Minor hematite along fracture surfaces	127.2 - 145.0m 1-3% brassy pyrite, coarsely disseminated and coarse patches. 139.2 - 140.7m 7-10% very fine disseminated pyrite	
146.25 TO 151.00	Mafic Tuff «M TUFF»	Colour: Dark Green Fine grained, foliated chloritic tuff, occassional chert fragments and felsic screens. 147.4 - 148.85m Chert fragments, sericitic felsic ash and chloritic mafic ash Foliation: 146.4m 55 147.0m 45 147.3m 55		Moderate to strongly chloritic	3-5% pyrite, <1% chalcopyrite finely disseminated parallel to foliation and as fine cross cutting veinlets. 147.25 - 147.7m 7-10% pyrite, fine grained parallel to foliation	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
151.00 TO 157.80	FP Felsic Dyke «FEL DYKE»	Colour: Medium grey Grain Size: Fine grained Up to 5% 1-2mm white feldspar crystals Strong siliceous appearance Massive Screen of mafic tuff from 155.9 - 157.6m		Patchy lighter grey bleaching		
157.80 TO 161.80	Chert, Minor Chloritic Ash «CHERT»	Colour: Light to medium grey Grain Size: Aphanitic Massive chert, no bedding developed Weak brecciation with fine white silica stockwork 157.8 - 158.2m Chloritic mafic tuff			<1% pyrite and chalcopyrite as <2cm chlorite stringers and veinlets	
161.80 TO 165.80	«MAFIC TUFF »	Colour: Dark green Grain size: Fine grained Fine chloritic mafic tuff with occassional <0.5cm chert fragments. Rare chert frags up to 2cm. Weakly foliated. Towards end of unit <1cm flattened dark green fragments. Foliation	60	Moderate to strongly chloritic	1-3% fine grained disseminated pyrite	
165.80 TO 172.50	Felsic Dyke «FEL DYKE»	Colour: Medium grey green Grain Size: Fine grained Massive strong siliceous appearance Up to 10% grey indistinct feldspar crystals Hematitic fracture coatings				
172.50 TO 187.20	Mafic Tuff, Ash «M TUFF, ASH»	Colour: Dark grey green Grain size: Fine grained Moderately foliated, no bedding developed, aphyric Rare 0.3cmx3cm stretched flattened siliceous pyritic fragments. Possible stretched and flattened chalcopyrite fragments (1mmx1cm) with chlorite halos around 182.6m Sulfides could also be stretched pockets or stretched and boudined veinlets.		Moderate to strongly chloritic	<1-2% pyrite, <1% chalcopyrite disseminated and rare stringer/ veinlets	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		178.9m 2x5cm round green felsic fragment Foliations: 176.0m 182.6m 185.8m Lower contact:	 55 50 55 55		184.55 - 185.55m 3% pyrite, <1-1% chalcopyrite disseminated parallel to foliation	
187.20 TO 192.40	Felsic Dyke «F DYKE»	Colour: Medium grey Grain Size: Fine grained Massive, siliceous 2-3% white feldspar crystals. Hematite fracture surfaces. 12cm upper chill margin unit contact at 55 degrees chill margin contact 40 degrees				
192.40 TO 201.30	Mafic Ash «M ASH»	Colour: Dark green Grain Size: Fine grained Weak to moderately foliated, aphyric, very rare round quartz eyes <1cm flattened chert fragments within 1m of lower contact Foliations: 192.7m 195.0m 200.7m	 55 30 65	Moderate to strongly chloritic 194.2 - 199.3m Weak narrow white wormy quartz veining	192.4 - 196.5m 2-3% pyrite disseminated and as <0.5cm boudined siliceous veinlets parallel to foliation, 193.05-193.15m Sulfide stringer 5% pyrite, <1% chalcopyrite 196.5 - 199.3m 203% pyrite and trace chalcopyrite and sphalerite as before but base metals occurring as narrow veinlets and as disseminations within and along margins of quartz veins	
201.30 TO 203.15	Volcanic Seds, Chert «VOLC SEDS, CHT»	Colour: Medium grey Grain Size: Fine grained First 30cm poorly bedded chert, possible bedding at 75 deg to core axis Rest of unit very fine grained seds? some fine grained quartz/siliceous grains			7-10% pyrite, trace chalcopyrite disseminated and as very narrow siliceous veinlets parallel to foliation.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Foliation: 202.0m	70			
203.15 TO 209.50	Mafic Lapilli Tuff «M LAP TUFF »	Colour: Streak dark green, medium green Strong streak appearance from indistinct stretched and flattened green fragments of chert, seds, mafic tuff Layering/Foliation: 203.6m 205.2m 207.5m 207.7m	 65 60 50 45	Strongly chloritic	3-5% pyrite disseminated and as narrow veinlets parallel to foliation. Trace chalcopyrite within stringers.	
209.50 TO 220.80	Mafic Ash, Tuff «M ASH, TUF F»	Colour: Dark green Grain Size: Fine grained Moderately foliated, no apparant bedding. Fine grained very little distinctive textures. Patchy streaky fragmental from 216.7-220.8m Lower contact = bedding	 55	Strongly chloritic	4-5% disseminated pyrite, trace chalcopyrite. Areas of greater sulfides as follows: 212.55 - 213.85m 5-7% pyrite. Includes 213.15-213.4m 15-20% coarse brassy pyrite = stringer pyrite 218.7 - 218.8m Massive pyrite. Coarse grained brassy stringer pyrite. 218.8 - 220.8m 5-7% pyrite	
220.80 TO 225.00	Volcanic Seds, Fragmental, Chert «VOLC SEDS, CHERT»	colour: Medium grey Grain Size: Fine grained Poorly bedded grey chert and ash from 220.8-221.35 Bedding 221.35 - 225.0m Streaky grey, very weak maroon grey. Streaky appearance from flattened stretched 2mmx up to 5cm and larger grey fragments. Unit possibly a fragmental mafic tuff with a chert layer separating this unit from previous unit. This unit somewhat different due to colour.	 65	Moderately chloritic	10-12% pyrite <1cm siliceous stringers and disseminations parallel to layering/foliation.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Layering/foliation: 221.8m 223.6m	60 65			
225.00 TO 227.80	Andesitic Mafic Tuff «AND-M TUFF»	Colour: Dark to medium green Grain Size: Fine grained 225.0 - 226.0m Dark green chloritic mafic tuff with rare stretched fragments 226.0 - 227.8m More medium green andesite tuff, patchy streaky fragmental appearance		Moderately chloritic	225.0 - 227.4m 4-5% pyrite, trace chalcopyrite disseminated and narrow stringers parallel to foliation	
227.80 TO 243.50	«QP TUFF»	Colour: Light grey Grain Size: Fine grained 1-3% 1-3mm rounded quartz eyes. Weak to moderately foliated. Below 237.4m unit taking on a coarser foliated and granular texture = QP Lithic tuff Foliations: 229.1m 233.2m 242.0m END OF HOLE	 65 70 65	Weakly sericitic but does have an altered appearance	228.1 - 234.15m Weak pyrite stringer zone with <1cm siliceous pyrite stringers, trace chalcopyrite within stringers. Best stringers from 229.2-230.25m and 230.7-231.25m Remainder of unit 2-3% fine disseminated pyrite and occassional <1cm pyrite stringers.	

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13758	139.20	140.70	1.50						85	340	1400	3.2	22				
13759	184.70	185.70	1.00						4050	322	93	3	18				
13760	195.00	196.50	1.50						351	390	46	1.9	3				
13761	196.50	197.90	1.40						1400	4600	74	2.3	12				
13762	197.90	199.30	1.40						370	2430	55	2.4	1				
13763	201.30	202.15	0.85						150	265	27	1.8	39		1850		
13764	202.15	203.15	1.00						51	173	28	1.5	38				
13765	203.15	204.65	1.50						33	285	25	1.2	3				
13766	212.55	213.85	1.30						261	180	60	1.5	22				
13767	218.55	218.95	0.40						920	207	42	2.5	102				
13768	220.80	221.35	0.55						268	81	25	1	19				
13769	221.35	222.60	1.25						57	117	35	1.5	52		1100		
13770	222.60	223.80	1.20						630	174	31	1.4	37				
13771	223.80	225.00	1.20						281	143	29	2.1	31				
13772	229.20	230.25	1.05						483	30	5	1	30				
13773	230.25	231.25	1.00						221	57	8	0.9	1				
13774	231.25	232.70	1.45						63	34	3	0.8	10				
13775	232.70	234.15	1.45						200	39	6	1.2	11				
AVE.	196.50	199.30	2.80						885.00	3515.0	64.500	2.35	6.5000				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16897	23.50	26.50	3.00	52.65	18	6.02	3.22	6.08	0.24	6.93	0.16	0.62	0.035	33	70	20	1.6	5	1	1			94.5	235	0.14
16898	53.90	56.90	3.00	49.94	19.58	2.33	4.65	2.99	4.32	9.57	0.1	0.97	0.095	40	61	13	2.5	5	1	1			95.46	69	0.76
16899	87.20	90.20	3.00	50.68	21.34	5.27	3.28	1.42	2.61	8.96	0.14	1.03	0.115	61	43	17	2	5	1	1			95.11	91	0.01
16900	117.00	120.00	3.00	47.9	21.16	4.59	3.45	2.64	3.01	8.29	0.15	0.96	0.1	25	90	24	2.2	5	6	1			92.43	86	0.01
16901	148.85	151.00	2.15	47.32	14.95	0.52	11.15	0.04	0.48	14.6	0.77	0.81	0.03	989	335	66	2	10	1	1			93.46	33	2.6
16902	178.40	181.40	3.00	44.32	18.21	0.66	12.59	0.88	0.9	12.23	0.65	0.84	0.045	354	262	15	1.4	10	1	1			92.08	55	0.61
13765	203.15	204.65	1.50	43.73	18.27	0.84	9.42	0.1	2.6	13.33	0.58	1.29	0.12	31	251	17	1	5	1	1			95.85	105	5.27
16903	218.95	220.80	1.85	39.42	19.56	0.6	10.74	0.07	2.33	15.22	0.41	1.37	0.095	77	182	15	1.5	10	1	1			95.74	116	5.61
16904	234.40	237.40	3.00	71.26	13.74	0.1	2.31	0.22	3.51	4.2	0.06	0.27	0.155	407	51	31	1.7	5	28	2			97.74	184	1.85

HOLE NUMBER: MTS-85

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 2
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 347.00N
EAST: 380.00E
ELEV: 440.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 350.80m
START DEPTH: 0.00m
FINAL DEPTH: 350.80m

COLLAR GRID AZIMUTH: 160° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 160° 0' 0"

DATE STARTED: April 15, 1990
DATE COMPLETED: April 21, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING LTD.
CASING: 23.1m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST POSTUK-FULTON HORIZON 150m EAST OF MTS-26.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
36.60	-	-49° 0'	ACID	OK		-	-	-	-	-	
68.60	-	-49° 0'	ACID	OK		-	-	-	-	-	
139.30	-	-49° 0'	ACID	OK		-	-	-	-	-	
175.30	-	-49° 0'	ACID	OK		-	-	-	-	-	
227.70	-	-49° 0'	ACID	OK		-	-	-	-	-	
267.30	-	-47° 0'	ACID	OK		-	-	-	-	-	
300.50	-	-47° 0'	ACID	OK		-	-	-	-	-	
328.90	-	-46° 0'	ACID	OK		-	-	-	-	-	
350.80	-	-46° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.20	«OB»					
15.20 TO 115.40	«I TUFF LIT HIC TUFF» Intermed. Tuff, Lithic Tuff	Colour: med. grey Grain Size: fine Weakly foliated, up to 10% 1-2 mm siliceous translucent grains some may be fsp grains. Patchy, coarser granular texture in areas of greater lithic grain abundance where lithics are up to 5 mm; magnetite occurs from top of hole to 63 m 75.4-78.4 -silvery grey green ashier interval, streaky calcite, distorted foliations 79.15-82.9 Felsic Tuff -light green, f.g. weakly foliated, very weak, fine streaky appearance 85.1 -5 cm fault gouge 87.0-102.4 -streaky creamy green, intermed lithic tuff, patchy, up to 5% very weakly epidotized feldspars, streaky creamy light green indistinct fragments; are well outlined frags of chert and creamy green tuff up to 2 cm x 5 cm 89.2-89.4 -fault gouge 103.6-104.8 Mafic Dyke -med green, f.g., fine calcite microveinlets, fine disseminated magnetite, fairly massive 104.8-113.2 -intermediate tuff <1% lithics 111.8-115.4 -fault zone; poor recovery, rubbly core, patchy zones of well developed fault gouge		Nil and as micro fractures	trace diss. pyrite; <1% - 1% diss. magnetite. Rare magnetite-rich frags	Foliation 88 m 60 99 m 40 103.0 m 50 109 m 50

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		113.2-115.4 -lighter green, more felsic in appearance				
115.40 TO 129.40	«M DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Weakly foliated; enhanced by streaky carbonate veinlets parallel to foliation 122.0-126.6 -disseminated magnetite, moderately magnetite foliations: 117.5 122.6 128.0	 45 40 50	Moderately chloritic		Foliated Sicker Dyke
129.40 TO 139.90	«I TUFF» Intermed. Tuff	Colour: light to med. green Grain Size: fine 129.4-135.45 -intermediate tuff similar to previous unit with <1-1% siliceous lithic grains; very fine white microlites -occasional well outlined felsic fragments, med. green becoming light green 130.8-135.45 135.45-136.0 -light grey coloration, felsic tuff or bleached intermed. 136.0-139.9 -intermediate tuff with patchy, light grey bleaching		-weakly sericitic; weak bleaching giving the core a lighter green colour and more felsic appearance 135.45-136.0 -possible intense bleaching and mod silicification of intermed. tuff giving more felsic appearance	-trace pyrite 135.45-136.0 -2-3% pyrite, disseminated 137.7-137.9 -15% pyrite stringery mineralization 137.9-139.9 -<1 - 1% diss. pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
139.90 TO 145.80	«F LAP TUFF » Felsic Lapilli Tuff	Colour: light grey green Grain Size: fine 5-10% indistinct grey, 1-2 mm siliceous grains - possible feldspars; indistinctly outlined grey 2x5 cm siliceous fragments in a granular lithic groundmass This unit may be the same as the Intermediate lithic tuff but bleaching and silicification has given rock the felsic appearance		Weakly sericitic	2-3% pyrite diss and thin discontinuous wisps parallel to weak foliation; locally 5-7% pyrite over 10 cm	
145.80 TO 151.40	«I LITH TUF F» Intermed. Lithic Tuff	Colour: med. green Grain Size: fine 3-5% indistinct siliceous, 1-2 mm lithic granules; weakly foliated Same rock type as previous Intermediate lithic tuffs			2% diss pyrite	
151.40 TO 157.30	«M. DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Massive, minor carbonate veining trace hematite along fracture surfaces				
157.30 TO 170.70	«I TUFF»	Colour: streaky med green grey Grain Size: fine Intermediate tuff and lithic tuff as described previously; this interval characterized by patchy and streaky bleaching possibly due to proximity to diorite intrusive.		Patchy bleaching as 40-60 cm patchy and as <0.5 cm streaks parallel to weak foliation	Nil	
170.70 TO 274.15	«DIORITE»	Colour: dark green and speckled white and green Grain Size: fine to coarse Massive fine grained aphyric upper contact becoming slightly coarser grained at 176.4 m		Patchy quartz carbonate to chlorite veining		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		196.9 -diorite becoming coarse grained and equigranular feldspar and hornblende -coarse, equigranular diorite mixed with numerous zones of fine grained aphyric diorite; weak to moderate magnetic throughout 264.0-270.5 -up to 4 mm leucoxene crystals 269.2-274.15 -very fine dark green chill margin, occasional screens of grey pyritic felsic material (possible dyke) described in next unit			252.5 and 253.1 -1 cm wide hematite stibnite veinlets	
274.15 TO 279.50	«FEL DYKE» Felsic Dyke	Colour: grey green Grain Size: fine Massive, strongly siliceous, strongly magnetic up to 7% disseminated magnetite; very indistinct mottled grey texture or siliceous grains Med green intermediate dykes as follows 274.9-275.3 277.2-277.9			2-3% pyrite as disseminated <5 mm patches, aggregates	Int. dyke intruding into lower unit
279.50 TO 285.00	«INT DYKE» Intermed. Dyke	Colour: med. green Grain Size: fine Massive, fine grained intergrown grey siliceous and med. green material, too fine for any mineral I.D.; weak - mod. magnetic 279.5-280.4 -microdiorite; 20-30% <1 mm euhedral white fsp laths Contacts 279.5 m 280.4 m 285.0 m	 75 50 30		<1% diss. pyrite	Intermed. Dyke intruding into lower unit

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
285.00 TO 302.75	Felsic Int. Dyke? Sil. Lithic Tuff? Sil. Dior. «F DYKE,TUF F?»	Colour: mottled grey green Grain Size: fine Indistinctly outlined creamy grey 1-5 mm siliceous grains - patches = fsp? in a fine green ground mass; mod - strongly magnetic with up to 5% magnetite within groundmass 298.7-299.6 -coarse grained equigranular diorite -gradational contacts -sharp irregular lower contact		Strongly silicified occasional 0.5 cm epidote patches intergrown within groundmass weak chlorite within groundmass	3-4% pyrite as dissem. patches and aggregates 296.45-296.6 -pyrite chalcopyrite stringer, 5% py 1% chalcopyrite	Possibly dyke based on massive siliceous nature but pyrite content not usually seen in dykes
302.75 TO 350.80	«DIORITE» Diorite	Colour: dark green Grain Size: fine to coarse 302.7-308.2 -fine grained, weakly magnetic diorite with patchy indistinct fsp phenocrysts 308.2 -diorite becoming coarser grained, equigranular, mod. to strongly magnetic; up to 7% diss. magnetite; patchy finer grained intervals		318.9-319.3 -quartz vein with a 20-30 cm bleached halo 320.6-322.6 -lighter green bleached zone assoc.	317.2-317.44 -3-5% coarse brassy py with minor qtz veining 317.8-318.0 -2-3 mm pyrite veinlets 320.6 -10 cm with <1% py and tr. cpy in qtz	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				with fault zone	vein	
					320.8-320.9 -1-2 mm x-cutting py veinlets	
		321.1 -1 cm fault gouge	55			
		321.6-321.95 -fault breccia including fragments pyrite and qtz veins			321.5-321.95 -2-3% pyrite within fault zone	
		321.6 fault	30		322.4-322.6 -5% 2-4 mm pyrite veinlets	
	E.O.H.					

HOLE NUMBER: MTS-85 | ASSAY SHEET | DATE: 13-November-1990

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %		COMMENTS
	0.00	0.00	0.00															

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16905	22.80	25.80	3.00	60.8	17.51	2.44	1.42	4.5	3.08	4.78	0.13	0.31	0.095	7	48	16	0.5	10	5	1			95.25	102	0.01
16906	56.10	59.10	3.00	61.63	16.1	3.41	1.11	4.2	2.27	5.36	0.11	0.44	0.045	9	49	17	0.7	10	13	1			94.92	80	0.06
16907	92.00	95.00	3.00	64.08	16.67	3.24	1.88	3.92	1.13	3.88	0.07	0.39	0.07	12	58	16	0.8	5	16	1			95.46	73	0.01
16908	141.40	144.40	3.00	59.52	18.26	2.69	0.94	5.42	2.28	3.64	0.07	0.47	0.07	13	19	13	0.5	5	19	1			95.27	78	1.73
16909	287.70	290.70	3.00	64.33	12.24	2.3	0.73	3.68	1	9.76	0.09	0.72	0.045	276	42	15	0.5	5	31	1			97.1	83	2.09

HOLE NUMBER: MTS-88

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: ROCKY 6 FR
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 61.00S
EAST: 2050.00E
ELEV: 565.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 171.30m
START DEPTH: 0.00m
FINAL DEPTH: 171.30m

COLLAR GRID AZIMUTH: 200° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 200° 0' 0"

DATE STARTED: April 25, 1990
DATE COMPLETED: April 26, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING LTD.
CASING: 21.30m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST CHERTS ANDESITE/FELSIC CONTACT, DIGHEM/DEEPEMANOMALY AND ZONE OF Zn ENRICHMENT AND Na2O

DIRECTIONAL DATA: DEPLETION AT NE COPPER.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
40.20	-	-49° 0'	ACID	OK	
105.80	-	-48° 0'	ACID	OK	
171.30	-	-48° 0'	ACID	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 21.30	«OB»					
21.30 TO 51.25	«AND ASH py-cp STRINGERS» Andesite Ash, tuff py-cpy stringers	Colour: dark green Grain Size: fine Moderately foliated, fine to coarse ash, rare wispy grey fragments; pronounced alteration and mineralization 34.6-36.45 -intermediate ash: medium green, f.g., abundant <0.5 mm creamy microlites, moderately chloritic 36.45-36.55 -Chert: medium grey, poorly bedded, bedding defined by 1 mm laminations of very fine grained syngenetic pyrite, coarse grained stringer pyrite also present foliations 23.0 29.5 35.0 41.7 42.4 48.0 50.88-51.25 -Mafic dyke contact 51.25	 70 65 55 55 50 65 65	Strongly chloritic, more intense chlorite in areas of abundant sulfide stringers	7-15% sulfide content, mainly pyrite with <1-1% chalcopyrite, as disseminated grains, 1-5 mm blebs, and 0.5-2.5 cm wide py-cp stringers parallel to foliation; minor x-cutting stringers 21.3-29.7 -7% py, <1% cpy mainly as fine disseminations 29.7 -stringer py-cpy increases with zones of greater stringer mineralization from 36.55-38.45 and 39.75-42.1	Soft core, patchy poor recovery

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
51.25 TO 53.40	Felsic Tuff «F TUFF»	Colour: light grey green Grain Size: fine Weakly foliated, aphyric, patchy irregular chlorite clots		Moderately sercite; weak chlorite	5% fine disseminated pyrite, occasional siliceous 1-3 cm, coarse brassy py stringers	
53.40 TO 56.40	Diorite «DIOR»	Colour: medium green Grain Size: fine 1-2%, 1-2 mm fsp phenocrysts, fine aphyric groundmass with very weak calcite veinlets				
56.40 TO 58.85	«CHT, QP TUFF» Chert, QP Tuff	Colour: medium green Grain Size: fine Massive, fine grained chert; no distinct bedding except for rare <1-1 mm laminations of very fine grained pyrite bedding 56.9 58.6 57.35-58.25 -QP Tuff	 85 85		5% very fine grained disseminated py., rare laminations of very fine pyrite defining bedding; rare 1-2 cm chloritic coarse, brassy py stringers	
58.85 TO 61.65	«F LAP TUFF» Felsic Lapilli Tuff	Colour: light - medium grey green Grain Size: Pervasive light grey, med. green streaky appearance; felsic fragments greater than 1x5 cm to less than 0.2x2.0 cm; green sericite/chlorite groundmass; cherty fragments in first 50 cm 60.0-60.1 60.1 61.65 -Fault gouge from/at				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
61.65 TO 62.90	«FP DYKE» Intermed. FP Dyke	Colour: med. grey Grain Size: fine Massive, up to 5%, 1-2 mm, white fsp crystals		Nil	Nil	
62.90 TO 72.60	«QP TUFF»	Colour: light grey green Grain Size: fine Weakly foliated, fine speckled appearance from indistinct green, 1-2 mm grains and up to 5% 1-3 mm round quartz eyes 62.9-64.1 -Andesite Ash: dark green, f.g., weakly foliated moderately chloritic, 3-4% diss. pyrite 64.8-65.4 Mafic Dyke contacts 64.8 65.4 foliations 68.8	 40 30 55	62.9-70.6 -weakly sericitic; negligible alteration below 70.6 m	3% disseminated pyrite, rare <0.5 cm - 1 cm coarse brassy py stringers; trace chalcopyrite with coarse brassy py	
72.60 TO 90.80	«QP LAP. TUFF» QP Lapilli Tuff	Colour: mottled light grey, med green Grain Size: fine QP tuff similar to previous unit but with <1x3 cm med-dark green fragments; groundmass supported subangular - subrounded fragments; fairly massive 75.6-76.1 -Mafic Dyke 88.3-90.05 90.35-90.8 -dark green, f.g. contacts 88.3 90.35	 50 45	Patchy weak sericite	2-4% disseminated pyrite; trace diss. chalcopyrite intergrown with pyrite 74.3-77.1 -occasional <1 - 1.5 cm wide coarse py chalcopyrite stringers	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		90.8	30			
90.80 TO 95.80	«QP TUFF»	Colour: light geen Grain Size: fine 2-3% , 1-3 mm round and elliptical quartz eyes; heavily foliated		Negligible; rare barren white quartz veining	1-2% diss pyrite; trace chalcopyrite	
95.80 TO 111.80	«QFP TUFF»	Colour: light - med. grey Grain Size: fine to medium 2-4%, 1-3 mm round qtz eyes and 5-7% + up to 10% 1-2 mm grey and white fsp crystals; some white fsp crystal retain fairly good euhedral shape; grey grains generally more rounded (felsic lithic granules?) 99.1-99.2 -Fault zone: rubbly gougy core 109.75-111.45 -Intermediate FP Dyke: 5% white fsp, massive 111.45-111.8 -Pyritic Tuff?: medium grey, massive, f.g., 1-2% 1 mm tan grains possible leucoxene		Nil	1% diss. pyrite 111.45-111.8 -7-8% very fine grained disseminated pyrite	
111.80 TO 171.30	«QP LAP TUFF» QP Lapilli Tuff	Colour: mottled creamy grey, dark green Grain Size: fine to medium Massive to weakly foliated; pervasive mottled texture of a creamy grey groundmass with up to 25 -30% chloritic fragments; some chloritic frags have sharp outlines others appear more like irregular patches Groundmass supported, frags mainly in the 1-2 cm range with minimal flattening/stretching; occasional indistinct creamy grey felsic frags evident in intervals where groundmass is greener and weakly sericitic/chloritic; more so below 140 m		Chlorite alteration of frags or possible patchy alteration 153.1-171.3	2-4% diss. pyrite, trace chalcopyrite Rare 1-3 cm coarse brassy pyrite stringers	

HOLE NUMBER: MTS-88

MINNOVA INC.
DRILL HOLE RECORD

DATE: 13-November-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				-patchy moderate to strong bleaching over core widths of 20-50 cm		
					168.95-169.25 -chlorite pyrite stringer; intense chlorite, minor qtz 20% pyrite; possible shearing along stringer giving pyrite a wispy layered look	
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13790	29.10	31.10	2.00						110	134	29	2	10				
13791	31.10	32.30	1.20						50	148	25	2.1	5				
13792	32.30	34.60	2.30						800	137	28	1.8	5				
13793	34.60	36.35	1.75						1385	152	19	1.6	5		790		
13794	36.35	36.65	0.30						485	163	23	1.6	5		200		
13795	36.65	38.45	1.80						162	200	40	2.2	10		10		
13796	38.45	39.75	1.30						840	127	17	1.5	5		820		
13797	39.75	40.90	1.15						890	187	25	2	5		100		
13798	40.90	42.10	1.20						3500	180	25	2.2	10				
13799	42.10	43.60	1.50	.077				1.60	733	134	5	1.6	1350		69		
13800	48.60	49.70	1.10	.160				0.97	1330	174	23	2.2	980				
13851	49.70	50.85	1.15						820	140	30	1.9	235				
13852	56.40	57.35	0.95						83	50	13	0.8	40		280		
13853	57.35	58.25	0.90						65	53	12	0.9	15		1270		
13854	58.25	58.85	0.60						33	277	10	0.6	40		250		
13855	111.45	111.80	0.35	.005				61.0	37	62	12	4.6	5000				
13856	168.95	169.25	0.30	.320				7.56	2600	318	26	4.3	10000				
AVE.	31.10	42.10	11.00						1006.9	160.34	26.127	1.8900	6.3636		240.14		
ALT.AVG.	48.60	50.85	2.25						1069.3	156.62	26.578	2.05	599.22				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16951	23.50	25.90	2.40	46.04	17.28	0.45	9.02	1.04	1.4	14.67	0.48	1.23	0.04	218	93	6	0.9	5	1	1			95.02	29	3.14
13799	42.10	43.60	1.50	40.23	17.51	0.15	9.43	0.07	1.84	18.50	0.47	1.25	0.075	733	134	5	1.6	1350	1	1			95.27	69	5.43
16952	59.40	61.40	2.00	57.9	17.59	0.35	2.48	0.19	4.57	8.82	0.06	0.43	0.205	231	10	16	0.7	5	24	1			98.75	91	5.92
16953	66.70	69.70	3.00	70.99	14.07	0.27	0.99	0.2	3.89	4.93	0.03	0.26	0.185	397	1	10	0.5	5	15	1			98.9	104	2.97
16954	84.40	87.50	3.10	71.67	12.29	0.78	1.36	0.26	3.13	5.47	0.05	0.21	0.165	242	10	18	0.6	5	17	1			98.04	118	2.53
16955	114.00	117.00	3.00	71.11	13.29	0.17	1.81	0.9	2.82	5.48	0.06	0.22	0.125	37	11	13	0.5	5	20	1			97.79	105	1.71
16956	148.10	151.10	3.00	69.41	14.34	0.34	1.43	4.06	1.7	4.85	0.07	0.24	0.08	284	40	17	0.7	5	22	1			97.81	82	1.17

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: MTS-94

IMPERIAL UNITS:
METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 7
LOCATION: NTS 92 B/13W

PLOTTING COORDS GRID: MTS
NORTH: 70.00N
EAST: 1800.00E
ELEV: 530.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 85.95m
START DEPTH: 0.00m
FINAL DEPTH: 85.95m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 180° 0' 0"

DATE STARTED: May 6, 1990
DATE COMPLETED: May 9, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: YES
HOLE SIZE: NQ

CONTRACTOR: Frontier Drilling Ltd.
CASING: 34.1 m
CORE STORAGE: Chemainus

PURPOSE: Test Andesite/Felsic contact below Fortuna adit and 400 m east of MTS-89

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
23.20	-	-71° 0'	ACID	OK		-	-	-	-	-	
49.40	-	-73° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 9.10	«OB»					
9.10 TO 14.00	«F TUFF» Felsic Tuff	Colour: brown, light grey Grain Size: fine Weakly foliated, parallel to core axis, strong surface oxidation giving brown discoloration; <1%, 1 mm quartz eyes -10 cm fault gouge at lower contact				Poor recovery, rubbly core
14.00 TO 24.90	Andesite Tuff «AND TUFF»	Colour: med green, brown green Grain Size: fine Weak - moderate foliated from 0-50 deg to c.a.; strong brown discoloration from surface oxidation 20.2 -fault gouge 21.2-24.9 (approx) -Fault zone, very rubbly core, very poor recovery some fault gouge recovered		Weakly chloritic, strong surface oxidation, brown discoloration 21.2-24.9 -quartz carbonate veining and bleaching of core		Rubbly core, poor recovery
24.90 TO 34.10	«NO CORE»					
34.10 TO 63.40	«M DYKE» Mafic Dyke	Colour medium to dark green Grain Size: fine Massive but very blocky and rubbly recovery?, hematitic fracture continues 34.1-35.4 -fault gouge, brown iron staining, <40% recovery 36.3-41.2 -weakly magnetic; 2-3% epidotized grains = fsp? 47.0-48.0		Weak quartz carbonate veining, patchy weak epidote; patchy bleaching from 53.0-55.5 and 60.0-63.4	Trace pyrite	continuation of fault zone

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-brecciated core and fault gouge 48.0-63.4 -leucoxene phyric 55.1-63.4 -very rubbly, questionable recovery, some fault gouge recovered -Fault gouge at lower contact; lower contact in rubble and gouge; contact possibly shallow to core axis				
63.40 TO 80.90	FELSIC TUFF «F TUFF»	Colour: creamy light grey, light green Grain Size: fine 63.4-71.9 -Fault zone: rubbly busted core, fault gouge, strongly bleached 71.9-80.9 -lighter green coloration, patchy bleaching and brecciation in zones of veining; patchy weak foliaton parallel to core axis. -better core recovery, occasional rubble-gouge zones -faulted lower contact 10-15 deg. to c.a.		Abundant quartz carbonate veining and associated bleaching of core	Trace pyrite	Felsic Tuff unlike felsics seen in the NE copper footwall
80.90 TO 85.95	«I TUFF» Intermed. Lithic Tuff E.O.H.	Colour: med. green Grain Size: fine to medium Granular texture from <1 - 1.5 mm, grey siliceous grains, some = fsp in a finer green groundmass rubbly core -Hole abandoned		Nil	tr py	MTS-94 drilled into a fault structure and did not encounter the NE copper stratigraphy; hole is in the footwall (west) of the Fortuna Fault

HOLE NUMBER: MTS-94

ASSAY SHEET

DATE: 13-November-1990

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %		COMMENTS
	0.00	0.00	0.00															

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16969	75.00	78.00	3.00	63.55	13.86	4.99	0.87	4.08	1.66	3.2	0.07	0.41	0.055	167	23	11	0.6	5	20	1			93.52	51	0.59

HOLE NUMBER: MTS-95

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 5
LOCATION: NTS 92 B/13W

PLOTTING COORDS GRID: MTS
NORTH: 50.00N
EAST: 1538.00E
ELEV: 544.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 134.70m
START DEPTH: 0.00m
FINAL DEPTH: 134.70m

COLLAR GRID AZIMUTH: 190° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 190° 0' 0"

DATE STARTED: May 9, 1990
DATE COMPLETED: May 11, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: Frontier Drilling Ltd.
CASING: 12.8 m
CORE STORAGE: Chemainus

PURPOSE: To test for the NE Copper stratigraphy west of theFortuna Fault

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
27.40	-	-44° 0'	ACID	OK		-	-	-	-	-	
82.30	-	-43° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 12.80	«OB»					OK on surface, soft rock; casing to 12.8 m
12.80 TO 30.00	«F ASH,TUFF » Felsic Ash/ Tuff	Colour: med grey Grain Size: fine ash Weakly foliated to massive, very fine grained, aphyric with rare 1 mm quartz eyes, weak brecciated texture, weak silicfied appearance; patchy moderate foliation Distinctive fine grained, massive texture with weak brecciation defining foliation foliation 17.6 40 20.8 42 25.3 -contact between stronger foliated zone and massive grey zone parallel to foliation at 42 -rubbly lower contact		Weakly silicified, patchy, weak sericite in stronger foliated area	1-2% fine, disseminated hematite	
30.00 TO 41.40	«F TUFF» Felsic Tuff	Colour: med. to light green Grain Size: fine ash Weak to coarsely foliated, fine granular texture at top of interval with fine siliceous grains and occasional mm qtz eyes in a sericitic ground-mass; down hole loose granular texture becoming coarser foliated with a streaky light green, med green wispy coloration 39.8-41.4 -rubbly core, minor gouge foliations 33.3 30 34.8 30 -distorted foliations below 36.3 m		Weakly sericitic	Trace pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
41.40 TO 65.40	«F TUFF, FAULT» Felsic Tuff Fault Zone	Colour: light green, brown green Grain Size: fine Rubbly, broken core, strong brown surface oxidation coloration; brecciated and gougy zones throughout Host rock, fine grained, felsic tuff similar to previous unit as well fine grained aphyric tuff 63.1-64.9 -QP Tuff within fault zone 64.9-65.4 -Intermediate Andesitic Tuff: med-dark green, fine grained, brecciated with 10 cm fault gouge at lower contact Fault zone ends at 65.4 m but INT-AND unit continue to 66.1 m		Patchy brecciated quartz veining throughout		
65.40 TO 76.75	«Q(F)P LITH TUFF»	Colour: light green, grey green Grain Size: fine to medium 66.1-76.75 -INT-And tuff, f.g., aphyric 66.1-76.75 -strong granular texture from 3-5% locally 10% 2-3 mm subrounded-subangular quartz eyes and abundant semi-translucent to light grey, 2-3 mm granules some which could be fsp and others lithic granular -Calcareous pressure shadows to larger qtz eyes and granules -fine grained aphanitic ground mass 66.1-68.2 -occasional 2-3 mm x 4-5 cm grey felsic fragment; long direction of fragment parallel to foliation foliations 67.0 69.6	 20 35	66.1-71.5 -weak to moderate sericite 66.1-69.1 -moderate quartz-carbonate veining	Nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		74.3 -lower contact not recovered	38	69.1-71.8 -weak brownish discoloration, iron staining/oxidation		
76.75 TO 83.20	«QPF TUFF»	Colour: speckle white and light green Grain Size: fine to medium 2-3% and up to 5% quartz eyes and 7-10% white, broken, 1-3 mm feldspar crystals; weakly foliated 76.75-77.05 -finer grained crystal poor, crystal content increasing downhole with sharp increase in fsp content below 78 m foliation	 45	Weak sericite	Nil	-Top up hole?
83.20 TO 94.85	«QP TUFF»	Colour: light grey Grain Size: fine to medium 4-5% and locally 7-10%, 1-3 mm subangular to sub-rounded shattered quartz eyes with calcite pressure shadows; patchy streaky pseudofragmental appearance -Definite felsic fragments from 86.95-87.2 (pinkish QP frags <1-2 cm) and 92.35-93.0 (wispy tan 0.5 x 2-3 mm frags) 93.0-94.85 -fine, ashier appearance, quartz eyes, finer grained less abundant -5 cm weak gradational zone into lower unit contact 65-70 deg foliations 86.6 92.8	 55 55	Weak sericite	Nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
94.85 TO 105.85	«AND ASH» Andesite Ash	Colour: dark green Grain Size: fine Very fine ash to fine granular tuff with numerous 5-20 cm zones of 2-8 mm round epidote balls, epidotized grains; contacts of epidote zones and dark green ash defining bedding Bedding 98.2 99.1 100.8 101.6 102.8 Foliation 104.0	 72 53 70 60 65 50	Moderately chloritic, patchy strong chlorite, patchy intense epidote; complete epidotization of 2-8 mm round balls, finer grains and indistinct layers Patchy weak quartz calcite veining 97.5-97.7 -quartz rhodochrosite-calcite veining 103.5-105.85 -increased quartz-calcite veinlets; calcite becoming more pervasive throughout rock	Nil	
105.85 TO 127.50	«AND TUFF» Andesite Crystal Tuff, Lap Tuff	Colour: pale green Grain Size: fine 105.85-110.25 -Andesite crystal Tuff, Lapilli Tuff; abundant epidotized grains (fsp) and irregular and rounded patched (fragments) Sharp lower contact	 45	105.85-110.25 -moderate - strong epidote; occasional qtz-calcite veining 110.25 - -intense epidote destroying earlier primary textures	107.1-108.1 -<1% combined pyrite chalcopyrite as disseminated patches and wisps 108.7 -1 cm wide coarse brassy py stringer at 25 deg to 5% chalcopyrite 108.2-108.85 -1-2% finely disseminated chalcopyrite 1-2% pyrite Below 108.85 -rare <1 cm blebs and wisps of intergrown pyrite and chalcopyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
127.50 TO 134.70	«M DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Weakly foliated accented by abundant wispy calcite calcite contents sharply declines below 130.2 m Fine aphyric rock, streaky green wisps which look like fragments below 130.75 m but no definite contact with overlying rock 131.4-132.8 -rubbly core recovery 132.8-134.7 -Fault zone, quartz-carbonate-chlorite veining; only rounded pebble of core recovered Foliations 128.3 132.6	 45 60	127.5-130.1 -pervasive calcite	Nil	132.8-134.7 -Fault zone; cannot get to bottom, tricone ahead, cannot get back to bottom to core again; hole abandoned
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13906	106.70	108.20	1.50						3600	140	28	3.6	15				
13907	108.20	108.85	0.65						13600	219	25	9	50				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16970	18.60	21.60	3.00	71.49	14.62	1.4	0.4	4.57	1.72	2.52	0.04	0.24	0.055	66	18	5	0.1	5	1	1			97.19	52	0.03
16971	71.50	74.50	3.00	67.85	15	3.16	1.97	1.94	2.23	1.84	0.03	0.2	0.07	7	6	10	0.1	5	10	1			94.43	38	0.04
16972	89.30	92.30	3.00	68.33	15.52	2.2	2.22	3.02	2.07	1.9	0.03	0.21	0.06	6	13	14	0.3	5	8	1			95.69	42	0.03
16973	99.70	102.70	3.00	48.92	17.78	5.54	4.45	1.68	4.68	9.98	0.15	0.85	0.07	52	52	18	1.9	5	12	2			94.41	106	0.06
16974	118.00	121.00	3.00	41.56	17.85	18.92	4.12	0.18	0.5	9.52	0.26	0.77	0.015	24	17	13	1.6	5	22	1			94.13	9	0.08
16975	128.00	130.00	2.00	43.38	16.84	10.03	3.03	0.11	4.14	9.1	0.22	0.76	0.05	203	370	21	1.6	5	27	2			88.27	53	0.25

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 23.50	«OB»					
23.50 TO 146.25	Andesitic to Mafic Tuff, Lapilli Tuff «AND-M TUFF , LAP TUFF»	Colour: Dark green Grain Size: Fine grained Massive. Up to 7% epidotized feldspars Patchy uralitized pyroxenes? Hematitic fracture coatings and veinlets 32.2 - 33.4m 0.5cm x 4cm frags or brecciated layers of dark grey magnetic material. Weak layering at 38-55 degrees 37.75m Beginning of fragmental appearance 37.75 - 41.9m Creamy grey hematitic rounded 2x4cm mafic fragments 41.9 - 44.4m Dark grey magnetic fragments 53.6 - 56.9m Indistinct fine grained dark green rounded fragments in a slightly coarser dark green groundmass. <1-1% epidotized feldspars Below 56.9m some <50cm patches with 15-20% feldspars 71.9 - 75.0m Maroon grey siliceous tuff, seds, strongly brecciated. 72.4 - 75.15m Possible dyke or more massive tuff. Layering at 73.15m at 68 deg 76.75 - 82.8m and 86.4 - 90.8m Blotchy to streaky cream green dark green mafic fragmental. Lighter creamy green fragments in a darker green fine grained groundmass. Patchy 30cm feldspar phyric zones = possible fragments From 82.8 - 86.4m Fairly massive leucoxene		Patchy strong epidotization with diffuse boundaries to patches 26.9 - 30.0m Bleached zone with white carbonate veining showing multiple pulses to veining 45.4 - 53.6m Abundant 10cm - 80cm epidote patches with hematite veinlets and up to 20% round 2mm quartz grains = amygdules? Epidote patches = large fragments 60.0 - 76.5m Moderately abundant calcite quartz veining	<1% disseminated pyrite and rare <1cm pyritic veinlets and patches 53.6 - 56.9m 1-2% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		phyric interval = mafic dyke. Some weak foliated patches. 90.8 - 108.3m Very fine speckled tuff. Medium to dark green abundant <1-1mm white specks Weak patchy streaky appearance from <1cmx5cm mafic fragments. Some creamy green fragmental zones similar to 76.75 - 90.8m. White specks continue off and on to end of unit. Foliation: 93.0m 50 101.7m 45 108.3 - 127.1m Similar to above interval but this interval also contains 1-8mm white accretionary lapilli, smaller grains may also be feldspars. Some white fragments up to 1.5cm. 118.85 - 119.3m Medium grey, fine grained felsic dyke 121.8 - 123.0m Large block of amygdaloidal andesite flow with up to 5mm round siliceous amygdules. 127.2 - 146.25m Fragmental with large blocks of epidotized amygdaloidal andesite 139.2 - 140.7m Ashier/tuffaceous interval crudely layered at 55 deg to core axis Massive grey green dykes +/- white 1-2mm feldspar laths from 132.25 - 133.2m and 140.7 - 142.3m		127.2 - 145.7m Strong pervasive epidotization. Minor hematite along fracture surfaces	127.2 - 145.0m 1-3% brassy pyrite, coarsely disseminated and coarse patches. 139.2 - 140.7m 7-10% very fine disseminated pyrite	
146.25 TO 151.00	Mafic Tuff «M TUFF»	Colour: Dark Green Fine grained, foliated chloritic tuff, occassional chert fragments and felsic screens. 147.4 - 148.85m Chert fragments, sericitic felsic ash and chloritic mafic ash Foliation: 146.4m 55 147.0m 45 147.3m 55		Moderate to strongly chloritic	3-5% pyrite, <1% chalcopyrite finely disseminated parallel to foliation and as fine cross cutting veinlets. 147.25 - 147.7m 7-10% pyrite, fine grained parallel to foliation	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
151.00 TO 157.80	FP Felsic Dyke «FEL DYKE»	Colour: Medium grey Grain Size: Fine grained Up to 5% 1-2mm white feldspar crystals Strong siliceous appearance Massive Screen of mafic tuff from 155.9 - 157.6m		Patchy lighter grey bleaching		
157.80 TO 161.80	Chert, Minor Chloritic Ash «CHERT»	Colour: Light to medium grey Grain Size: Aphanitic Massive chert, no bedding developed Weak brecciation with fine white silica stockwork 157.8 - 158.2m Chloritic mafic tuff			<1% pyrite and chalcopyrite as <2cm chlorite stringers and veinlets	
161.80 TO 165.80	«MAFIC TUFF »	Colour: Dark green Grain size: Fine grained Fine chloritic mafic tuff with occassional <0.5cm chert fragments. Rare chert frags up to 2cm. Weakly foliated. Towards end of unit <1cm flattened dark green fragments. Foliation	60	Moderate to strongly chloritic	1-3% fine grained disseminated pyrite	
165.80 TO 172.50	Felsic Dyke «FEL DYKE»	Colour: Medium grey green Grain Size: Fine grained Massive strong siliceous appearance Up to 10% grey indistinct feldspar crystals Hematitic fracture coatings				
172.50 TO 187.20	Mafic Tuff, Ash «M TUFF, ASH»	Colour: Dark grey green Grain size: Fine grained Moderately foliated, no bedding developed, aphyric Rare 0.3cmx3cm stretched flattened siliceous pyritic fragments. Possible stretched and flattened chalcopyrite fragments (1mmx1cm) with chlorite halos around 182.6m Sulfides could also be stretched pockets or stretched and boudined veinlets.		Moderate to strongly chloritic	<1-2% pyrite, <1% chalcopyrite disseminated and rare stringer/ veinlets	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		178.9m 2x5cm round green felsic fragment Foliations: 176.0m 182.6m 185.8m Lower contact:	 55 50 55 55		184.55 - 185.55m 3% pyrite, <1-1% chalcopyrite disseminated parallel to foliation	
187.20 TO 192.40	Felsic Dyke «F DYKE»	Colour: Medium grey Grain Size: Fine grained Massive, siliceous 2-3% white feldspar crystals. Hematite fracture surfaces. 12cm upper chill margin unit contact at 55 degrees chill margin contact 40 degrees				
192.40 TO 201.30	Mafic Ash «M ASH»	Colour: Dark green Grain Size: Fine grained Weak to moderately foliated, aphyric, very rare round quartz eyes <1cm flattened chert fragments within 1m of lower contact Foliations: 192.7m 195.0m 200.7m	 55 30 65	Moderate to strongly chloritic 194.2 - 199.3m Weak narrow white wormy quartz veining	192.4 - 196.5m 2-3% pyrite disseminated and as <0.5cm boudined siliceous veinlets parallel to foliation, 193.05-193.15m Sulfide stringer 5% pyrite, <1% chalcopyrite 196.5 - 199.3m 203% pyrite and trace chalcopyrite and sphalerite as before but base metals occurring as narrow veinlets and as disseminations within and along margins of quartz veins	
201.30 TO 203.15	Volcanic Seds, Chert «VOLC SEDS, CHT»	Colour: Medium grey Grain Size: Fine grained First 30cm poorly bedded chert, possible bedding at 75 deg to core axis Rest of unit very fine grained seds? some fine grained quartz/siliceous grains			7-10% pyrite, trace chalcopyrite disseminated and as very narrow siliceous veinlets parallel to foliation.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Foliation: 202.0m	70			
203.15 TO 209.50	Mafic Lapilli Tuff «M LAP TUFF »	Colour: Streak dark green, medium green Strong streak appearance from indistinct stretched and flattened green fragments of chert, seds, mafic tuff Layering/Foliation: 203.6m 205.2m 207.5m 207.7m	 65 60 50 45	Strongly chloritic	3-5% pyrite disseminated and as narrow veinlets parallel to foliation. Trace chalcopyrite within stringers.	
209.50 TO 220.80	Mafic Ash, Tuff «M ASH, TUF F»	Colour: Dark green Grain Size: Fine grained Moderately foliated, no apparant bedding. Fine grained very little distinctive textures. Patchy streaky fragmental from 216.7-220.8m Lower contact = bedding	 55	Strongly chloritic	4-5% disseminated pyrite, trace chalcopyrite. Areas of greater sulfides as follows: 212.55 - 213.85m 5-7% pyrite. Includes 213.15-213.4m 15-20% coarse brassy pyrite = stringer pyrite 218.7 - 218.8m Massive pyrite. Coarse grained brassy stringer pyrite. 218.8 - 220.8m 5-7% pyrite	
220.80 TO 225.00	Volcanic Seds, Fragmental, Chert «VOLC SEDS, CHERT»	colour: Medium grey Grain Size: Fine grained Poorly bedded grey chert and ash from 220.8-221.35 Bedding 221.35 - 225.0m Streaky grey, very weak maroon grey. Streaky appearance from flattened stretched 2mmx up to 5cm and larger grey fragments. Unit possibly a fragmental mafic tuff with a chert layer separating this unit from previous unit. This unit somewhat different due to colour.	 65	Moderately chloritic	10-12% pyrite <1cm siliceous stringers and disseminations parallel to layering/foliation.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Layering/foliation: 221.8m 223.6m	60 65			
225.00 TO 227.80	Andesitic Mafic Tuff «AND-M TUFF»	Colour: Dark to medium green Grain Size: Fine grained 225.0 - 226.0m Dark green chloritic mafic tuff with rare stretched fragments 226.0 - 227.8m More medium green andesite tuff, patchy streaky fragmental appearance		Moderately chloritic	225.0 - 227.4m 4-5% pyrite, trace chalcopyrite disseminated and narrow stringers parallel to foliation	
227.80 TO 243.50	«QP TUFF»	Colour: Light grey Grain Size: Fine grained 1-3% 1-3mm rounded quartz eyes. Weak to moderately foliated. Below 237.4m unit taking on a coarser foliated and granular texture = QP Lithic tuff Foliations: 229.1m 233.2m 242.0m END OF HOLE	 65 70 65	Weakly sericitic but does have an altered appearance	228.1 - 234.15m Weak pyrite stringer zone with <1cm siliceous pyrite stringers, trace chalcopyrite within stringers. Best stringers from 229.2-230.25m and 230.7-231.25m Remainder of unit 2-3% fine disseminated pyrite and occassional <1cm pyrite stringers.	

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13758	139.20	140.70	1.50						85	340	1400	3.2	22				
13759	184.70	185.70	1.00						4050	322	93	3	18				
13760	195.00	196.50	1.50						351	390	46	1.9	3				
13761	196.50	197.90	1.40						1400	4600	74	2.3	12				
13762	197.90	199.30	1.40						370	2430	55	2.4	1				
13763	201.30	202.15	0.85						150	265	27	1.8	39		1850		
13764	202.15	203.15	1.00						51	173	28	1.5	38				
13765	203.15	204.65	1.50						33	285	25	1.2	3				
13766	212.55	213.85	1.30						261	180	60	1.5	22				
13767	218.55	218.95	0.40						920	207	42	2.5	102				
13768	220.80	221.35	0.55						268	81	25	1	19				
13769	221.35	222.60	1.25						57	117	35	1.5	52		1100		
13770	222.60	223.80	1.20						630	174	31	1.4	37				
13771	223.80	225.00	1.20						281	143	29	2.1	31				
13772	229.20	230.25	1.05						483	30	5	1	30				
13773	230.25	231.25	1.00						221	57	8	0.9	1				
13774	231.25	232.70	1.45						63	34	3	0.8	10				
13775	232.70	234.15	1.45						200	39	6	1.2	11				
AVE.	196.50	199.30	2.80						885.00	3515.0	64.500	2.35	6.5000				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16897	23.50	26.50	3.00	52.65	18	6.02	3.22	6.08	0.24	6.93	0.16	0.62	0.035	33	70	20	1.6	5	1	1			94.5	235	0.14
16898	53.90	56.90	3.00	49.94	19.58	2.33	4.65	2.99	4.32	9.57	0.1	0.97	0.095	40	61	13	2.5	5	1	1			95.46	69	0.76
16899	87.20	90.20	3.00	50.68	21.34	5.27	3.28	1.42	2.61	8.96	0.14	1.03	0.115	61	43	17	2	5	1	1			95.11	91	0.01
16900	117.00	120.00	3.00	47.9	21.16	4.59	3.45	2.64	3.01	8.29	0.15	0.96	0.1	25	90	24	2.2	5	6	1			92.43	86	0.01
16901	148.85	151.00	2.15	47.32	14.95	0.52	11.15	0.04	0.48	14.6	0.77	0.81	0.03	989	335	66	2	10	1	1			93.46	33	2.6
16902	178.40	181.40	3.00	44.32	18.21	0.66	12.59	0.88	0.9	12.23	0.65	0.84	0.045	354	262	15	1.4	10	1	1			92.08	55	0.61
13765	203.15	204.65	1.50	43.73	18.27	0.84	9.42	0.1	2.6	13.33	0.58	1.29	0.12	31	251	17	1	5	1	1			95.85	105	5.27
16903	218.95	220.80	1.85	39.42	19.56	0.6	10.74	0.07	2.33	15.22	0.41	1.37	0.095	77	182	15	1.5	10	1	1			95.74	116	5.61
16904	234.40	237.40	3.00	71.26	13.74	0.1	2.31	0.22	3.51	4.2	0.06	0.27	0.155	407	51	31	1.7	5	28	2			97.74	184	1.85

HOLE NUMBER: MTS-85

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 2
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 347.00N
EAST: 380.00E
ELEV: 440.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 350.80m
START DEPTH: 0.00m
FINAL DEPTH: 350.80m

COLLAR GRID AZIMUTH: 160° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 160° 0' 0"

DATE STARTED: April 15, 1990
DATE COMPLETED: April 21, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING LTD.
CASING: 23.1m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST POSTUK-FULTON HORIZON 150m EAST OF MTS-26.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
36.60	-	-49° 0'	ACID	OK		-	-	-	-	-	
68.60	-	-49° 0'	ACID	OK		-	-	-	-	-	
139.30	-	-49° 0'	ACID	OK		-	-	-	-	-	
175.30	-	-49° 0'	ACID	OK		-	-	-	-	-	
227.70	-	-49° 0'	ACID	OK		-	-	-	-	-	
267.30	-	-47° 0'	ACID	OK		-	-	-	-	-	
300.50	-	-47° 0'	ACID	OK		-	-	-	-	-	
328.90	-	-46° 0'	ACID	OK		-	-	-	-	-	
350.80	-	-46° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.20	«OB»					
15.20 TO 115.40	«I TUFF LIT HIC TUFF» Intermed. Tuff, Lithic Tuff	Colour: med. grey Grain Size: fine Weakly foliated, up to 10% 1-2 mm siliceous translucent grains some may be fsp grains. Patchy, coarser granular texture in areas of greater lithic grain abundance where lithics are up to 5 mm; magnetite occurs from top of hole to 63 m 75.4-78.4 -silvery grey green ashier interval, streaky calcite, distorted foliations 79.15-82.9 Felsic Tuff -light green, f.g. weakly foliated, very weak, fine streaky appearance 85.1 -5 cm fault gouge 87.0-102.4 -streaky creamy green, intermed lithic tuff, patchy, up to 5% very weakly epidotized feldspars, streaky creamy light green indistinct fragments; are well outlined frags of chert and creamy green tuff up to 2 cm x 5 cm 89.2-89.4 -fault gouge 103.6-104.8 Mafic Dyke -med green, f.g., fine calcite microveinlets, fine disseminated magnetite, fairly massive 104.8-113.2 -intermediate tuff <1% lithics 111.8-115.4 -fault zone; poor recovery, rubbly core, patchy zones of well developed fault gouge		Nil and as micro fractures	trace diss. pyrite; <1% - 1% diss. magnetite. Rare magnetite-rich frags	Foliation 88 m 60 99 m 40 103.0 m 50 109 m 50

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		113.2-115.4 -lighter green, more felsic in appearance				
115.40 TO 129.40	«M DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Weakly foliated; enhanced by streaky carbonate veinlets parallel to foliation 122.0-126.6 -disseminated magnetite, moderately magnetite foliations: 117.5 122.6 128.0	 45 40 50	Moderately chloritic		Foliated Sicker Dyke
129.40 TO 139.90	«I TUFF» Intermed. Tuff	Colour: light to med. green Grain Size: fine 129.4-135.45 -intermediate tuff similar to previous unit with <1-1% siliceous lithic grains; very fine white microlites -occasional well outlined felsic fragments, med. green becoming light green 130.8-135.45 135.45-136.0 -light grey coloration, felsic tuff or bleached intermed. 136.0-139.9 -intermediate tuff with patchy, light grey bleaching		-weakly sericitic; weak bleaching giving the core a lighter green colour and more felsic appearance 135.45-136.0 -possible intense bleaching and mod silicification of intermed. tuff giving more felsic appearance	-trace pyrite 135.45-136.0 -2-3% pyrite, disseminated 137.7-137.9 -15% pyrite stringery mineralization 137.9-139.9 -<1 - 1% diss. pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
139.90 TO 145.80	«F LAP TUFF » Felsic Lapilli Tuff	Colour: light grey green Grain Size: fine 5-10% indistinct grey, 1-2 mm siliceous grains - possible feldspars; indistinctly outlined grey 2x5 cm siliceous fragments in a granular lithic groundmass This unit may be the same as the Intermediate lithic tuff but bleaching and silicification has given rock the felsic appearance		Weakly sericitic	2-3% pyrite diss and thin discontinuous wisps parallel to weak foliation; locally 5-7% pyrite over 10 cm	
145.80 TO 151.40	«I LITH TUF F» Intermed. Lithic Tuff	Colour: med. green Grain Size: fine 3-5% indistinct siliceous, 1-2 mm lithic granules; weakly foliated Same rock type as previous Intermediate lithic tuffs			2% diss pyrite	
151.40 TO 157.30	«M. DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Massive, minor carbonate veining trace hematite along fracture surfaces				
157.30 TO 170.70	«I TUFF»	Colour: streaky med green grey Grain Size: fine Intermediate tuff and lithic tuff as described previously; this interval characterized by patchy and streaky bleaching possibly due to proximity to diorite intrusive.		Patchy bleaching as 40-60 cm patchy and as <0.5 cm streaks parallel to weak foliation	Nil	
170.70 TO 274.15	«DIORITE»	Colour: dark green and speckled white and green Grain Size: fine to coarse Massive fine grained aphyric upper contact becoming slightly coarser grained at 176.4 m		Patchy quartz carbonate to chlorite veining		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		196.9 -diorite becoming coarse grained and equigranular feldspar and hornblende -coarse, equigranular diorite mixed with numerous zones of fine grained aphyric diorite; weak to moderate magnetic throughout 264.0-270.5 -up to 4 mm leucoxene crystals 269.2-274.15 -very fine dark green chill margin, occasional screens of grey pyritic felsic material (possible dyke) described in next unit			252.5 and 253.1 -1 cm wide hematite stibnite veinlets	
274.15 TO 279.50	«FEL DYKE» Felsic Dyke	Colour: grey green Grain Size: fine Massive, strongly siliceous, strongly magnetic up to 7% disseminated magnetite; very indistinct mottled grey texture or siliceous grains Med green intermediate dykes as follows 274.9-275.3 277.2-277.9			2-3% pyrite as disseminated <5 mm patches, aggregates	Int. dyke intruding into lower unit
279.50 TO 285.00	«INT DYKE» Intermed. Dyke	Colour: med. green Grain Size: fine Massive, fine grained intergrown grey siliceous and med. green material, too fine for any mineral I.D.; weak - mod. magnetic 279.5-280.4 -microdiorite; 20-30% <1 mm euhedral white fsp laths Contacts 279.5 m 280.4 m 285.0 m	 75 50 30		<1% diss. pyrite	Intermed. Dyke intruding into lower unit

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
285.00 TO 302.75	Felsic Int. Dyke? Sil. Lithic Tuff? Sil. Dior. «F DYKE,TUFF?»	Colour: mottled grey green Grain Size: fine Indistinctly outlined creamy grey 1-5 mm siliceous grains - patches = fsp? in a fine green ground mass; mod - strongly magnetic with up to 5% magnetite within groundmass 298.7-299.6 -coarse grained equigranular diorite -gradational contacts -sharp irregular lower contact		Strongly silicified occasional 0.5 cm epidote patches intergrown within groundmass weak chlorite within groundmass	3-4% pyrite as dissem. patches and aggregates 296.45-296.6 -pyrite chalcopyrite stringer, 5% py 1% chalcopyrite	Possibly dyke based on massive siliceous nature but pyrite content not usually seen in dykes
302.75 TO 350.80	«DIORITE» Diorite	Colour: dark green Grain Size: fine to coarse 302.7-308.2 -fine grained, weakly magnetic diorite with patchy indistinct fsp phenocrysts 308.2 -diorite becoming coarser grained, equigranular, mod. to strongly magnetic; up to 7% diss. magnetite; patchy finer grained intervals		318.9-319.3 -quartz vein with a 20-30 cm bleached halo 320.6-322.6 -lighter green bleached zone assoc.	317.2-317.44 -3-5% coarse brassy py with minor qtz veining 317.8-318.0 -2-3 mm pyrite veinlets 320.6 -10 cm with <1% py and tr. cpy in qtz	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				with fault zone	vein	
					320.8-320.9 -1-2 mm x-cutting py veinlets	
		321.1 -1 cm fault gouge	55			
		321.6-321.95 -fault breccia including fragments pyrite and qtz veins			321.5-321.95 -2-3% pyrite within fault zone	
		321.6 fault	30		322.4-322.6 -5% 2-4 mm pyrite veinlets	
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %		COMMENTS
	0.00	0.00	0.00															

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16905	22.80	25.80	3.00	60.8	17.51	2.44	1.42	4.5	3.08	4.78	0.13	0.31	0.095	7	48	16	0.5	10	5	1			95.25	102	0.01
16906	56.10	59.10	3.00	61.63	16.1	3.41	1.11	4.2	2.27	5.36	0.11	0.44	0.045	9	49	17	0.7	10	13	1			94.92	80	0.06
16907	92.00	95.00	3.00	64.08	16.67	3.24	1.88	3.92	1.13	3.88	0.07	0.39	0.07	12	58	16	0.8	5	16	1			95.46	73	0.01
16908	141.40	144.40	3.00	59.52	18.26	2.69	0.94	5.42	2.28	3.64	0.07	0.47	0.07	13	19	13	0.5	5	19	1			95.27	78	1.73
16909	287.70	290.70	3.00	64.33	12.24	2.3	0.73	3.68	1	9.76	0.09	0.72	0.045	276	42	15	0.5	5	31	1			97.1	83	2.09

HOLE NUMBER: MTS-88

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: ROCKY 6 FR
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MTS
NORTH: 61.00S
EAST: 2050.00E
ELEV: 565.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 171.30m
START DEPTH: 0.00m
FINAL DEPTH: 171.30m

COLLAR GRID AZIMUTH: 200° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 200° 0' 0"

DATE STARTED: April 25, 1990
DATE COMPLETED: April 26, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: FRONTIER DRILLING LTD.
CASING: 21.30m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST CHERTS ANDESITE/FELSIC CONTACT, DIGHEM/DEEPEMANOMALY AND ZONE OF Zn ENRICHMENT AND Na2O

DIRECTIONAL DATA: DEPLETION AT NE COPPER.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
40.20	-	-49° 0'	ACID	OK	
105.80	-	-48° 0'	ACID	OK	
171.30	-	-48° 0'	ACID	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 21.30	«OB»					
21.30 TO 51.25	«AND ASH py-cp STRIN GERS» Andesite Ash, tuff py-cpy stringers	Colour: dark green Grain Size: fine Moderately foliated, fine to coarse ash, rare wispy grey fragments; pronounced alteration and mineralization		Strongly chloritic, more intense chlorite in areas of abundant sulfide stringers	7-15% sulfide content, mainly pyrite with <1-1% chalcopyrite, as disseminated grains, 1-5 mm blebs, and 0.5-2.5 cm wide py-cp stringers parallel to foliation; minor x-cutting stringers 21.3-29.7 -7% py, <1% cpy mainly as fine disseminations 29.7 -stringer py-cpy increases with zones of greater stringer mineralization from 36.55-38.45 and 39.75-42.1	Soft core, patchy poor recovery
		34.6-36.45 -intermediate ash: medium green, f.g., abundant <0.5 mm creamy microlites, moderately chloritic				
		36.45-36.55 -Chert: medium grey, poorly bedded, bedding defined by 1 mm laminations of very fine grained syngenetic pyrite, coarse grained stringer pyrite also present				
		foliations				
		23.0	70			
		29.5	65			
		35.0	55			
		41.7	55			
		42.4	50			
		48.0	65			
		50.88-51.25 -Mafic dyke				
		contact				
		51.25	65			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
51.25 TO 53.40	Felsic Tuff «F TUFF»	Colour: light grey green Grain Size: fine Weakly foliated, aphyric, patchy irregular chlorite clots		Moderately sercite; weak chlorite	5% fine disseminated pyrite, occasional siliceous 1-3 cm, coarse brassy py stringers	
53.40 TO 56.40	Diorite «DIOR»	Colour: medium green Grain Size: fine 1-2%, 1-2 mm fsp phenocrysts, fine aphyric groundmass with very weak calcite veinlets				
56.40 TO 58.85	«CHT, QP TUFF» Chert, QP Tuff	Colour: medium green Grain Size: fine Massive, fine grained chert; no distinct bedding except for rare <1-1 mm laminations of very fine grained pyrite bedding 56.9 58.6 57.35-58.25 -QP Tuff	 85 85		5% very fine grained disseminated py., rare laminations of very fine pyrite defining bedding; rare 1-2 cm chloritic coarse, brassy py stringers	
58.85 TO 61.65	«F LAP TUFF» Felsic Lapilli Tuff	Colour: light - medium grey green Grain Size: Pervasive light grey, med. green streaky appearance; felsic fragments greater than 1x5 cm to less than 0.2x2.0 cm; green sericite/chlorite groundmass; cherty fragments in first 50 cm 60.0-60.1 60.1 61.65 -Fault gouge from/at				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
61.65 TO 62.90	«FP DYKE» Intermed. FP Dyke	Colour: med. grey Grain Size: fine Massive, up to 5%, 1-2 mm, white fsp crystals		Nil	Nil	
62.90 TO 72.60	«QP TUFF»	Colour: light grey green Grain Size: fine Weakly foliated, fine speckled appearance from indistinct green, 1-2 mm grains and up to 5% 1-3 mm round quartz eyes 62.9-64.1 -Andesite Ash: dark green, f.g., weakly foliated moderately chloritic, 3-4% diss. pyrite 64.8-65.4 Mafic Dyke contacts 64.8 65.4 foliations 68.8	 40 30 55	 62.9-70.6 -weakly sericitic; negligible alteration below 70.6 m	3% disseminated pyrite, rare <0.5 cm - 1 cm coarse brassy py stringers; trace chalcopyrite with coarse brassy py	
72.60 TO 90.80	«QP LAP. TUFF» QP Lapilli Tuff	Colour: mottled light grey, med green Grain Size: fine QP tuff similar to previous unit but with <1x3 cm med-dark green fragments; groundmass supported subangular - subrounded fragments; fairly massive 75.6-76.1 -Mafic Dyke 88.3-90.05 90.35-90.8 -dark green, f.g. contacts 88.3 90.35	 50 45	Patchy weak sericite	2-4% disseminated pyrite; trace diss. chalcopyrite intergrown with pyrite 74.3-77.1 -occasional <1 - 1.5 cm wide coarse py chalcopyrite stringers	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		90.8	30			
90.80 TO 95.80	«QP TUFF»	Colour: light geen Grain Size: fine 2-3% , 1-3 mm round and elliptical quartz eyes; heavily foliated		Negligible; rare barren white quartz veining	1-2% diss pyrite; trace chalcopyrite	
95.80 TO 111.80	«QFP TUFF»	Colour: light - med. grey Grain Size: fine to medium 2-4%, 1-3 mm round qtz eyes and 5-7% + up to 10% 1-2 mm grey and white fsp crystals; some white fsp crystal retain fairly good euhedral shape; grey grains generally more rounded (felsic lithic granules?) 99.1-99.2 -Fault zone: rubbly gougy core 109.75-111.45 -Intermediate FP Dyke: 5% white fsp, massive 111.45-111.8 -Pyritic Tuff?: medium grey, massive, f.g., 1-2% 1 mm tan grains possible leucoxene		Nil	1% diss. pyrite 111.45-111.8 -7-8% very fine grained disseminated pyrite	
111.80 TO 171.30	«QP LAP TUFF» QP Lapilli Tuff	Colour: mottled creamy grey, dark green Grain Size: fine to medium Massive to weakly foliated; pervasive mottled texture of a creamy grey groundmass with up to 25 -30% chloritic fragments; some chloritic frags have sharp outlines others appear more like irregular patches Groundmass supported, frags mainly in the 1-2 cm range with minimal flattening/stretching; occasional indistinct creamy grey felsic frags evident in intervals where groundmass is greener and weakly sericitic/chloritic; more so below 140 m		Chlorite alteration of frags or possible patchy alteration 153.1-171.3	2-4% diss. pyrite, trace chalcopyrite Rare 1-3 cm coarse brassy pyrite stringers	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				-patchy moderate to strong bleaching over core widths of 20-50 cm		
					168.95-169.25 -chlorite pyrite stringer; intense chlorite, minor qtz 20% pyrite; possible shearing along stringer giving pyrite a wispy layered look	
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %	COMMENTS
13790	29.10	31.10	2.00						110	134	29	2	10				
13791	31.10	32.30	1.20						50	148	25	2.1	5				
13792	32.30	34.60	2.30						800	137	28	1.8	5				
13793	34.60	36.35	1.75						1385	152	19	1.6	5		790		
13794	36.35	36.65	0.30						485	163	23	1.6	5		200		
13795	36.65	38.45	1.80						162	200	40	2.2	10		10		
13796	38.45	39.75	1.30						840	127	17	1.5	5		820		
13797	39.75	40.90	1.15						890	187	25	2	5		100		
13798	40.90	42.10	1.20						3500	180	25	2.2	10				
13799	42.10	43.60	1.50	.077				1.60	733	134	5	1.6	1350		69		
13800	48.60	49.70	1.10	.160				0.97	1330	174	23	2.2	980				
13851	49.70	50.85	1.15						820	140	30	1.9	235				
13852	56.40	57.35	0.95						83	50	13	0.8	40		280		
13853	57.35	58.25	0.90						65	53	12	0.9	15		1270		
13854	58.25	58.85	0.60						33	277	10	0.6	40		250		
13855	111.45	111.80	0.35	.005				61.0	37	62	12	4.6	5000				
13856	168.95	169.25	0.30	.320				7.56	2600	318	26	4.3	10000				
AVE.	31.10	42.10	11.00						1006.9	160.34	26.127	1.8900	6.3636		240.14		
ALT.AVG.	48.60	50.85	2.25						1069.3	156.62	26.578	2.05	599.22				

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16951	23.50	25.90	2.40	46.04	17.28	0.45	9.02	1.04	1.4	14.67	0.48	1.23	0.04	218	93	6	0.9	5	1	1			95.02	29	3.14
13799	42.10	43.60	1.50	40.23	17.51	0.15	9.43	0.07	1.84	18.50	0.47	1.25	0.075	733	134	5	1.6	1350	1	1			95.27	69	5.43
16952	59.40	61.40	2.00	57.9	17.59	0.35	2.48	0.19	4.57	8.82	0.06	0.43	0.205	231	10	16	0.7	5	24	1			98.75	91	5.92
16953	66.70	69.70	3.00	70.99	14.07	0.27	0.99	0.2	3.89	4.93	0.03	0.26	0.185	397	1	10	0.5	5	15	1			98.9	104	2.97
16954	84.40	87.50	3.10	71.67	12.29	0.78	1.36	0.26	3.13	5.47	0.05	0.21	0.165	242	10	18	0.6	5	17	1			98.04	118	2.53
16955	114.00	117.00	3.00	71.11	13.29	0.17	1.81	0.9	2.82	5.48	0.06	0.22	0.125	37	11	13	0.5	5	20	1			97.79	105	1.71
16956	148.10	151.10	3.00	69.41	14.34	0.34	1.43	4.06	1.7	4.85	0.07	0.24	0.08	284	40	17	0.7	5	22	1			97.81	82	1.17

MINNOVA INC.

DRILL HOLE RECORD

HOLE NUMBER: MTS-94 | IMPERIAL UNITS: | METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 7
LOCATION: NTS 92 B/13W

PLOTTING COORDS GRID: MTS
NORTH: 70.00N
EAST: 1800.00E
ELEV: 530.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 85.95m
START DEPTH: 0.00m
FINAL DEPTH: 85.95m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 180° 0' 0"

DATE STARTED: May 6, 1990
DATE COMPLETED: May 9, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: YES
HOLE SIZE: NQ

CONTRACTOR: Frontier Drilling Ltd.
CASING: 34.1 m
CORE STORAGE: Chemainus

PURPOSE: Test Andesite/Felsic contact below Fortuna adit and 400 m east of MTS-89

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
23.20	-	-71° 0'	ACID	OK		-	-	-	-	-	
49.40	-	-73° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 9.10	«OB»					
9.10 TO 14.00	«F TUFF» Felsic Tuff	Colour: brown, light grey Grain Size: fine Weakly foliated, parallel to core axis, strong surface oxidation giving brown discoloration; <1%, 1 mm quartz eyes -10 cm fault gouge at lower contact				Poor recovery, rubbly core
14.00 TO 24.90	Andesite Tuff «AND TUFF»	Colour: med green, brown green Grain Size: fine Weak - moderate foliated from 0-50 deg to c.a.; strong brown discoloration from surface oxidation 20.2 -fault gouge 21.2-24.9 (approx) -Fault zone, very rubbly core, very poor recovery some fault gouge recovered		Weakly chloritic, strong surface oxidation, brown discoloration 21.2-24.9 -quartz carbonate veining and bleaching of core		Rubbly core, poor recovery
24.90 TO 34.10	«NO CORE»					
34.10 TO 63.40	«M DYKE» Mafic Dyke	Colour medium to dark green Grain Size: fine Massive but very blocky and rubbly recovery?, hematitic fracture continues 34.1-35.4 -fault gouge, brown iron staining, <40% recovery 36.3-41.2 -weakly magnetic; 2-3% epidotized grains = fsp? 47.0-48.0		Weak quartz carbonate veining, patchy weak epidote; patchy bleaching from 53.0-55.5 and 60.0-63.4	Trace pyrite	continuation of fault zone

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-brecciated core and fault gouge 48.0-63.4 -leucoxene phyric 55.1-63.4 -very rubbly, questionable recovery, some fault gouge recovered -Fault gouge at lower contact; lower contact in rubble and gouge; contact possibly shallow to core axis				
63.40 TO 80.90	FELSIC TUFF «F TUFF»	Colour: creamy light grey, light green Grain Size: fine 63.4-71.9 -Fault zone: rubbly busted core, fault gouge, strongly bleached 71.9-80.9 -lighter green coloration, patchy bleaching and brecciation in zones of veining; patchy weak foliaton parallel to core axis. -better core recovery, occasional rubble-gouge zones -faulted lower contact 10-15 deg. to c.a.		Abundant quartz carbonate veining and associated bleaching of core	Trace pyrite	Felsic Tuff unlike felsics seen in the NE copper footwall
80.90 TO 85.95	«I TUFF» Intermed. Lithic Tuff	Colour: med. green Grain Size: fine to medium Granular texture from <1 - 1.5 mm, grey siliceous grains, some = fsp in a finer green groundmass rubbly core		Nil	tr py	
	E.O.H.	-Hole abandoned				MTS-94 drilled into a fault structure and did not encounter the NE copper stratigraphy; hole is in the footwall (west) of the Fortuna Fault

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %		COMMENTS
	0.00	0.00	0.00															

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16969	75.00	78.00	3.00	63.55	13.86	4.99	0.87	4.08	1.66	3.2	0.07	0.41	0.055	167	23	11	0.6	5	20	1			93.52	51	0.59

HOLE NUMBER: MTS-95

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SIC
PROJECT NUMBER: 205
CLAIM NUMBER: CF GROUP 5
LOCATION: NTS 92 B/13W

PLOTTING COORDS GRID: MTS
NORTH: 50.00N
EAST: 1538.00E
ELEV: 544.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 0.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 134.70m
START DEPTH: 0.00m
FINAL DEPTH: 134.70m

COLLAR GRID AZIMUTH: 190° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 190° 0' 0"

DATE STARTED: May 9, 1990
DATE COMPLETED: May 11, 1990
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: Frontier Drilling Ltd.
CASING: 12.8 m
CORE STORAGE: Chemainus

PURPOSE: To test for the NE Copper stratigraphy west of theFortuna Fault

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
27.40	-	-44° 0'	ACID	OK		-	-	-	-	-	
82.30	-	-43° 0'	ACID	OK		-	-	-	-	-	
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LOGGED BY: P. Baxter

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 12.80	«OB»					OK on surface, soft rock; casing to 12.8 m
12.80 TO 30.00	«F ASH,TUFF » Felsic Ash/ Tuff	Colour: med grey Grain Size: fine ash Weakly foliated to massive, very fine grained, aphyric with rare 1 mm quartz eyes, weak brecciated texture, weak silicfied appearance; patchy moderate foliation Distinctive fine grained, massive texture with weak brecciation defining foliation foliation 17.6 — 40 20.8 — 42 25.3 -contact between stronger foliated zone and massive grey zone parallel to foliation at — 42 -rubbly lower contact		Weakly silicified, patchy, weak sericite in stronger foliated area	1-2% fine, disseminated hematite	
30.00 TO 41.40	«F TUFF» Felsic Tuff	Colour: med. to light green Grain Size: fine ash Weak to coarsely foliated, fine granular texture at top of interval with fine siliceous grains and occasional mm qtz eyes in a sericitic ground-mass; down hole loose granular texture becoming coarser foliated with a streaky light green, med green wispy coloration 39.8-41.4 -rubbly core, minor gouge foliations 33.3 — 30 34.8 — 30 -distorted foliations below 36.3 m		Weakly sericitic	Trace pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
41.40 TO 65.40	«F TUFF, FAULT» Felsic Tuff Fault Zone	Colour: light green, brown green Grain Size: fine Rubbly, broken core, strong brown surface oxidation coloration; brecciated and gougy zones throughout Host rock, fine grained, felsic tuff similar to previous unit as well fine grained aphyric tuff 63.1-64.9 -QP Tuff within fault zone 64.9-65.4 -Intermediate Andesitic Tuff: med-dark green, fine grained, brecciated with 10 cm fault gouge at lower contact Fault zone ends at 65.4 m but INT-AND unit continue to 66.1 m		Patchy brecciated quartz veining throughout		
65.40 TO 76.75	«Q(F)P LITH TUFF»	Colour: light green, grey green Grain Size: fine to medium 66.1-76.75 -INT-And tuff, f.g., aphyric 66.1-76.75 -strong granular texture from 3-5% locally 10% 2-3 mm subrounded-subangular quartz eyes and abundant semi-translucent to light grey, 2-3 mm granules some which could be fsp and others lithic granular -Calcareous pressure shadows to larger qtz eyes and granules -fine grained aphanitic ground mass 66.1-68.2 -occasional 2-3 mm x 4-5 cm grey felsic fragment; long direction of fragment parallel to foliation foliations 67.0 69.6	 20 35	66.1-71.5 -weak to moderate sericite 66.1-69.1 -moderate quartz-carbonate veining	Nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		74.3 -lower contact not recovered	38	69.1-71.8 -weak brownish discoloration, iron staining/oxidation		
76.75 TO 83.20	«QPF TUFF»	Colour: speckle white and light green Grain Size: fine to medium 2-3% and up to 5% quartz eyes and 7-10% white, broken, 1-3 mm feldspar crystals; weakly foliated 76.75-77.05 -finer grained crystal poor, crystal content increasing downhole with sharp increase in fsp content below 78 m foliation	 45	Weak sericite	Nil	-Top up hole?
83.20 TO 94.85	«QP TUFF»	Colour: light grey Grain Size: fine to medium 4-5% and locally 7-10%, 1-3 mm subangular to sub-rounded shattered quartz eyes with calcite pressure shadows; patchy streaky pseudofragmental appearance -Definite felsic fragments from 86.95-87.2 (pinkish QP frags <1-2 cm) and 92.35-93.0 (wispy tan 0.5 x 2-3 mm frags) 93.0-94.85 -fine, ashier appearance, quartz eyes, finer grained less abundant -5 cm weak gradational zone into lower unit contact 65-70 deg foliations 86.6 92.8	 55 55	Weak sericite	Nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
94.85 TO 105.85	«AND ASH» Andesite Ash	Colour: dark green Grain Size: fine Very fine ash to fine granular tuff with numerous 5-20 cm zones of 2-8 mm round epidote balls, epidotized grains; contacts of epidote zones and dark green ash defining bedding Bedding 98.2 99.1 100.8 101.6 102.8 Foliation 104.0	 72 53 70 60 65 50	Moderately chloritic, patchy strong chlorite, patchy intense epidote; complete epidotization of 2-8 mm round balls, finer grains and indistinct layers Patchy weak quartz calcite veining 97.5-97.7 -quartz rhodochrosite-calcite veining 103.5-105.85 -increased quartz-calcite veinlets; calcite becoming more pervasive throughout rock	Nil	
105.85 TO 127.50	«AND TUFF» Andesite Crystal Tuff, Lap Tuff	Colour: pale green Grain Size: fine 105.85-110.25 -Andesite crystal Tuff, Lapilli Tuff; abundant epidotized grains (fsp) and irregular and rounded patched (fragments) Sharp lower contact	 45	105.85-110.25 -moderate - strong epidote; occasional qtz-calcite veining 110.25 - -intense epidote destroying earlier primary textures	107.1-108.1 -<1% combined pyrite chalcopyrite as disseminated patches and wisps 108.7 -1 cm wide coarse brassy py stringer at 25 deg to 5% chalcopyrite 108.2-108.85 -1-2% finely disseminated chalcopyrite 1-2% pyrite Below 108.85 -rare <1 cm blebs and wisps of intergrown pyrite and chalcopyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
127.50 TO 134.70	«M DYKE» Mafic Dyke	Colour: dark green Grain Size: fine Weakly foliated accented by abundant wispy calcite calcite contents sharply declines below 130.2 m Fine aphyric rock, streaky green wisps which look like fragments below 130.75 m but no definite contact with overlying rock 131.4-132.8 -rubbly core recovery 132.8-134.7 -Fault zone, quartz-carbonate-chlorite veining; only rounded pebble of core recovered Foliations 128.3 132.6	 45 60	 127.5-130.1 -pervasive calcite	 Nil	 132.8-134.7 -Fault zone; cannot get to bottom, tricone ahead, cannot get back to bottom to core again; hole abandoned
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS Cu %	Zn %	Pb %	Ag g/t	Au g/t	GEOCHEMICAL Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Ba ppm	Ba %		COMMENTS
13906	106.70	108.20	1.50						3600	140	28	3.6	15					
13907	108.20	108.85	0.65						13600	219	25	9	50					

Sample	From (m)	To (m)	Length (m)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO2 %	TiO2 %	Ba %	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb	As ppm	Sb ppm	Sr %	Zr %	Tot %	GBa ppm	S %
16970	18.60	21.60	3.00	71.49	14.62	1.4	0.4	4.57	1.72	2.52	0.04	0.24	0.055	66	18	5	0.1	5	1	1			97.19	52	0.03
16971	71.50	74.50	3.00	67.85	15	3.16	1.97	1.94	2.23	1.84	0.03	0.2	0.07	7	6	10	0.1	5	10	1			94.43	38	0.04
16972	89.30	92.30	3.00	68.33	15.52	2.2	2.22	3.02	2.07	1.9	0.03	0.21	0.06	6	13	14	0.3	5	8	1			95.69	42	0.03
16973	99.70	102.70	3.00	48.92	17.78	5.54	4.45	1.68	4.68	9.98	0.15	0.85	0.07	52	52	18	1.9	5	12	2			94.41	106	0.06
16974	118.00	121.00	3.00	41.56	17.85	18.92	4.12	0.18	0.5	9.52	0.26	0.77	0.015	24	17	13	1.6	5	22	1			94.13	9	0.08
16975	128.00	130.00	2.00	43.38	16.84	10.03	3.03	0.11	4.14	9.1	0.22	0.76	0.05	203	370	21	1.6	5	27	2			88.27	53	0.25

LEGEND

CRETACEOUS

- 4 — Nanaimo Group Sediments
- 3 — Diorite Intrusions(age unknown)

PALEOZOIC
SICKER GROUP

- 2 — Rhyolitic-Dacitic Volcanics
- 1 — Andesitic Volcanics
- Mineralized chert, ash argillite (mine package)

SYMBOLS

- Shaft/old workings
- Bedding
- Anticline
- Syncline
- Fording Coal Lease Boundary
- ⊙ MTS-87 — Drill Hole Collar Location
- IP Chargeability Anomaly
- IP Survey December 1987
- MNC BASE METAL LEASE BOUNDARY

RIVER
CHEMAINUS
POSTUK-FULTON CEPPA RESOURCES
Postuk-Fulton
QUEEN BEE
BELLE
NUGGET
CREEK
FAULT
MORLEY-JAYNE
KEY CITY
MINE FAULT
TYEE
Lenora-Tyee
RICHARD III
TONY
XL
DONALD
HERBERT
DOUBTFUL FR.
THELMA FR.
YANKEE
FAULT
Gabriel
CF GROUP 17
CF GROUP 18
CF GROUP 7
CF GROUP 8
FORTUNA ADIT
Northeast Copper
FORTUNA FAULT
ESTELLE
BLUEBELL
COPPER
FAULT
NORTHEAST
WESTHOLME
NELLENA
ROCKY 6 FR
ROCKY 5
ROCKY 2
FORDING COAL LEASE
(South Boundary)
MTS-82 MTS-83 MTS-87 MTS-86 MTS-28 MTS-85 MTS-84 MTS-26 MTS-25 MTS-44 MTS-29 MTS-58,59 MTS-60 MTS-23 MTS-19 MTS-22 MTS-20 MTS-18 MTS-21 MTS-55,56 MTS-57 MTS-52 MTS-78 MTS-38 MTS-50 MTS-24 MTS-37 MTS-35 MTS-30 MTS-74 MTS-75,80 MTS-77 MTS-79 MTS-76 MTS-72 MTS-73 MTS-43 MTS-27 MTS-47 MTS-48 MTS-31 MTS-61 MTS-62 MTS-63 MTS-65 MTS-64 MTS-81 MTS-94 MTS-95 MTS-88 MTS-32 MTS40 MTS-39 MTS-42 CM-9 CM-8 CM-7 CM-10

LOCATION MAP
VANCOUVER ISLAND
CHEMAINUS
SALTSPRING ISLAND
DUNCAN
SCALE: 1:250,000

MINNOVA Inc.

MT. SICKER PROPERTY

GENERALIZED GEOLOGY + DRILL HOLE LOCATIONS

0 50 100 200 300 400 500 m
SCALE: 1:5000

NOVEMBER 1990		FIG. NO.
DRAWN BY: FLG/GSW	REVISED JAN. 1989	3
DATE: DEC. 1986	N.T.S. 92 B/13	