

DIAMOND DRILLING

TOWNSHIP: HALKIRK & FARRINGTON TWP.

REPORT NO:64

WORK PERFORMED FOR: Minnova Inc.

RECORDED HOLDER: Same as Above [xx]
: Other []

<u>Claim No.</u>	<u>Hole No.</u>	<u>Footage</u>	<u>Date</u>	<u>Note</u>
K 777334 & K 777338	BL-01	124m 257m	Feb/87	(1)
K 777337	BL-02	501m	Mar-Apr/87	(1)
K 777337 K 777338	BL-03	310m 158m	Apr/87	(1)
K 830403	ML-05	174m	May/87	(1)

17 24 m

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: BL-01
PROJECT NAME: SNELL BAY
CLAIM NUMBER: K777334/K777338
LOCATION: BLISS LAKE

ALTERNATE COORDS GRID: SNELL BAY
NORTH: 1400.005
EAST: 12800.00E
ELEV: .
PLOTING COORDS GRID: SNELL BAY
NORTH: 1400.005
EAST: 12800.00E
ELEV: .

IMPERIAL UNITS: X
METRIC UNITS: X
COLLAR DIP: -43° 0' 0"
LENGTH OF THE HOLE: 391.00m
START DEPTH: 0.00m
FINAL DEPTH: 391.00m

DATE STARTED: February 11, 1987
DATE COMPLETED: February 21, 1987
DATE LOGGED: February 21, 1987

CONTRACTOR: St. Lambert
CASTING: 12 M left intact
CORE STORAGE: Robinson's Landing

PULSE EM SURVEY: YES
PLUGGED: YES
HOLE SIZE: 80

COLLAR AZIMUTH: 340° 0' 0"
COLLAR AZIMUTH GRID: . . .

PURPOSE: To test Bliss Lake south zone at 300m vertical

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
50.00	-	-62° 0'	ACID	OK		-	-	-	-	-	-
100.00	-	-60° 0'	ACID	OK		-	-	-	-	-	-
150.00	-	-59° 0'	ACID	OK		-	-	-	-	-	-
200.00	-	-57° 0'	ACID	OK	Double etch	-	-	-	-	-	-
250.00	-	-55° 0'	ACID	OK	Slight double etch	-	-	-	-	-	-
300.00	-	-53° 0'	ACID	OK		-	-	-	-	-	-
350.00	-	-52° 0'	ACID	OK		-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Frank B. Burt

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	SAMPLE # TO CM	ALTERATION	MINERALISATION	REMARKS
0.00 TO 12.00	OVERBURDEN (CASING)	Predominantly silt and sand (MUD), last 3m sand, gravel and a few boulders				
12.00 TO 40.00	PERV ALT FELSIC (ALT FELSP)	Heterogeneous zone-variations in colour, hardness, foliation, fragment size and shape, alteration and grain size are almost a continuous thru zone Brecciated qtz to siliceous frags in a fgr to mgr pervasively altered matrix #12.0-21.0# 4BX Greeny-grey brecciated unit, intensely foliated 2... to 50 to 75% siliceous am to cm scale irregular frags to in a fgr sericite-chlorite matrix, hard fragments, soft matrix #45 Zones of blocky cores: 14.2-14.9, 17.0-17.5, 19.0-19.6 #21.0-23.0 Brecciated-60-70% angular to rounded am to cm scale grey felsic frags in a fgr light beige matrix, mottled appearance and very hard #23.0-30.5 10-25% subrounded fgr grey felsic frags and irregular shaped blmy qtz blotches in a mgr greeny-grey matrix #30.5-39.0# 4BX Brecciated, 40% angular fgr grey felsic frags (remnants) in a mgr light greeny-grey sericitized matrix #39.0-40.0 fgr massive light green hard felsic, blurred mottled appearance #37.4-3cm wide qtz vein @ #65 Sharp lower contact@	10 45 80 65	Strong sericite weak to moderate chlorite #12.0-21.0# 4STRONG SERICITES Strong sericite, moderate chlorite #21.0-21.2 Small (1cm silvery specs(1-22), very soft and searable, Moly? Trace diss py #23.0-30.5# 4STRONG CHLORITES Strong chlorite, moderate sericite #30.5-39.0# 4STRONG SERICITES Strong sericite Spotty weak chlorite #40.0-44.0# 4VERY STRONG CHLORITES Very strong chlorite.	All sub units blend into one another, variations on the same theme Is this fault induced breccia?	
40.00 TO 44.00	ALTERED GRANITIC (ALT MGP)	Dark green fgr to mgr massive and very soft, gradational contacts			Trace py on fracture surfaces	Likely not a separate unit, just a more chloritic phase of felsic
44.00 TO 47.80	ALTERED RHYOLITE (ALT FELSP)	Light greeny-grey fgr to mgr and very hard 25% grey qtz veining and blotching, blurred mottled look at base of unit, basal fragments?				

HINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

HOLE NUMBER: BL-01

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	ALTERATION	MINERALISATION	REMARKS
47.80 TO 50.20	TRANSITION ZONE Alternating zones of intensely altered mgr-fgr massive dark green mafic and light grey quite hard mottled felsic, width of zones range from 0.1m to 1.0m	Very strong to spotty chlorite		Is this intercalating of mafic and felsic material or alteration?
50.20 TO 57.20	ALTERED MAFIC Dark green, massive and fgr to mgr Qtz and brown chlorite(biotite?) stringers on a cm scale parallel to CA Diffuse contacts	Strong to moderate chlorite	Stringers contain 25% py	
57.20 TO 66.60	ALTERED BRECCIAS 57.2-61.5 Chloritized flow breccia (felsic), 25-50% angular dark grey fragments set in a mgr chloritic matrix, dark green colour similar to underlying mafic and grades upwards into grey felsic breccia 61.5-64.0 Sericitized flow breccia (felsic), 50% grey siliceous subrounded fragments in a fgr soft matrix, overall light grey and blocky Ice rounded grey spots at 62.8m 64.0-66.6 Massive mgr and hard (felsic flow), diffuse contact with overlying mafic	57.2-61.5 STRONG CHLORITE Strong chlorite Strong sericite in matrix Weak to moderate sericite		May be intrusive breccia, think it's all the same rock type, just differentially altered.
66.60 TO 89.30	MAFIC Fgr to mgr massive, hard to soft (fresh to altered) Cut by 5 to 10% erratically oriented m to cm scale Qtz-carbonate veinlets, minor stringer epidote, local blocky fracture parallel to CA, chlorite stringers and disc py associated with fracturing 89.2-89.3 Contact zone marked by irregular 1 to 2cm light grey frags in a fgr intermediate matrix	Local strong blotchy chlorite gives faintly mottled appearance		
89.30 TO 94.80	RHYOLITE Grey fgr massive and hard, local very blocky fracture in every direction to CA			
94.80 TO 97.00	FAULT ZONE Light grey brecciated felsic frags in a soft grey sericitic matrix, core very blocky 96.3-96.9 0.5-1.0cm dark grey, hard round spots	94.80-97.0 STRONG SERICITE Strong sericite.	For cm scale py blebs associated with axis of fault	Don't look like frags

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DRILL HOLE RECORD

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HOLE NUMBER: BL-01

KINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
97.00 TO 108.50	RHYOLITE TO MAFIC	Grey fgr massive and hard, locally very soft Gradational contact with overlying mafic flow (chlorite increasing)		Narrow stringer sericite(talceous)		
108.50 TO 187.90	PERV ALT TO MAFIC ALT MA	Green fgr, locally agr generally massive but well foliated near lower contact @ For the most part very soft(altered) with local meter scale silicified zones, very hard. Mottled light-dark green. Minor <1% erratically oriented cm scale qtz-carb veining.	45	1108.5-187.91 STRONG CHLORITE Very strong to massive chlorite with exception of silicified zones.		Impression of basal flow breccia overlain by massive flow
108.5-112.0		Dark green fgr and well foliated near base @ Gradually becoming more massive to 112a. Minor 1-2cm carbonate veining.	45	Very strong chlorite		
112.0-137.0		Overall brecciated(fragmental) accentuated by massive stringer to spitchy network chlorite.		Very strong chlorite 112a.7-127.04 40ALHs Clusters of semi-rounded(ellipsoidal) soft 3mm spots, possibly anhedral cordierite (DHLH?)		Flow breccia?
137.0-137.2		20cm wide grey-white qtz vein @	70		Zz splashy cpy Zz bleby po	
137.2-140.2		Discontinuous intermittent sulphide stringers in massive chlorite, stringers at various angles to CA.		Very strong chlorite	1137.2-140.21 c22 Py, 13 Po, 1r cpy Overall-Zz stringer py 13 bleby po trace cpy splashes	
140.2-162.0		Green fgr to agr, locally bleached and hard. Locally sydeoidal, 12cm scale carbonate veinlets.		Weak to moderate chlorite		
162.0-170.5		Dark green fgr and massive, local zones up to 0.5m containing 30% irregular to sub-rounded qtz aegys.		Very strong chlorite, local massive chlorite	Trace cpy associated with 13 as scale po stringers, trace diss py	
170.5-172.7		Pseudo-fragmental defines a foliation subparallel to CA, 10-15% round to ellipsoidal grey spots, 20% chalky white qtz-carb? in top 20cm.		Very strong chlorite		
172.7-187.9		Intensely chloritized mafic, parallel alignment of qtz clots and chlorite define a foliation @ ...	30	Very strong chlorite		

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MIMNOVA INC.
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	HANDS: TO CA:	ALTERATION	MINERALISATION	REMARKS
187.90 TO 188.40	DP DYKE OP DYKE	Lower contact obscured by broken core. Grey fgr hard and massive, containing 15% 1 to 5mm semi-reabsorbed Qtz phenos. Sharp contact at 188.4.			3% fgr diss py	
188.40 TO 190.00	PERV ALT MAFIC ALT Maf	Dark green fgr soft amygdaloidal mafic and well foliated. Overall 5% subrounded 2mm to 15% amygdules, locally up to 15% 187.8-190.0 5-10% irregular sugary Qtz-carb veining	60	188.4-190.0 ± MASSIVE CHLORITE Very strong (massive) chlorite	188.4-190.0 ± 5% Py + Po Overall 3% py + po stringers on a mm scale. 189.2-189.5 7 to 10% narrow 1 to 3mm py + po stringers, 5% py, 2% po.	
190.00 TO 191.10	OP DYKE OP DYK	Grey fgr hard porphyritic dyke, 5% 2mm to 1cm semi-reabsorbed white Qtz phenos, sharp contacts			1 to 2% fgr diss py	
191.10 TO 218.00	PERV ALT MAFIC ALT Maf	Dark green fgr soft and amygdaloidal Well foliated. Breaks readily along foliation planes (silver dollar chlorite) 191.1-199.2 White barren Qtz vein, upper and lower contacts. Mini-scale S folds noted on surface of sam core	50	191.1-218.0 ± VERY STRONG CHLORITE Very strong chlorite to chlorite schist	Overall 1 to 2% py stringers parallel to foliation, minor diss to bleby py, minor po, trace cpy	Totally blitzed! with well developed py stringer mineralization
218.00 TO 219.6		209.6-3mm wide zigzagging cpy stringer, mini cpy stockwork				
219.6 TO 221.3		211.3-212.2 Blocky core, broken parallel to foliation. Contains discontinuous bluish Qtz chunks (veins)	60		209.6-207.0 ± 5% Py 5 to 8% mm scale py stringers (beds?) and diss py trains parallel foliation at 50 degrees to CA, trace po.	Possible fault zone
221.3 TO 223.9		213.6-213.9 40% 2mm to 3cm subrounded elongated ayns (frags?)			217.7-218.0 5% 2 to 3mm euhedral py cubes together with elongated py blebs in trains para- llel to foliation @ 45 degrees to CA	May be off-shoot of fault zone

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	TABLE: TO CAI	ALTERATION	MINERALIZATION	REMARKS
218.00 TO 219.10	FELSIC DYKE (FELS DY)	Grey-green mgr massive and hard, 10Z 2m to 1cm irregular shaped dark green-black mafic phenocrysts set in a mgr siliceous matrix, 5Z m to cm scale white-grey qtz veins irregularly oriented. Sharp contact at 219.1 @	60	Weak to moderate chlorite		
219.10 TO 244.10	PERV ALT MAFIC (CHL SHST)	Dark green fgr soft and well foliated @ minor m scale qtz veining parallel to locally amygdaloidal, qtz-carb and bluey qtz augs	45	219.1-244.1 (CHLORITE SCHIST) Very strong to massive silver dollar chlorite	219.1-244.1 (3Z Py) 2 to 5Z m scale stringer py plus fgr to cgr cubic py, minor po stringers associated with py, trace cpy	
219.1 TO 227.4		Dark green fgr chlorite schist, well foliated @ 2 to 5Z chalky white subrounded qtz-carb augs 2 to 3Z m to cm scale qtz-carb veins parallel to foliation.	45	Very strong chlorite	Trace to 1Z stringer py, trace po, trace cpy	
227.4 TO 241.9		Dark green fgr very soft and well foliated @ Pitted texture-50Z 2m round pits (rough surface)	45	Very strong chlorite	227.4-227.6 8Z m scale po stringers parallel to foliation	
241.9 TO 244.1		Dark green fgr very soft and well foliated @ Pitted texture-50Z 2m round pits (rough surface)	45	Very strong chlorite	3 to 5Z 1 to 5m fgr py and po strgs	
244.1 TO 248.0	OP DYKE (OP DY)	Blueish-grey mgr massive and hard, 75Z violet-blue 2 to 3m subrounded BE's in a fgr relatively soft green groundmass. Sharp irregular contact at 248.0.	50	Moderate chlorite	241.9-244.1 (12Z BANDED Py) 10 to 15Z fgr to mgr py bands and trains (stringers?) parallel foliation, minor po	Interpillow pyritic sediment or stringers?
248.0 TO 274.50	PERV ALT MAFIC (ALT MA)	Dark green fgr amygdaloidal massive to locally foliated @ Locally up to 10Z 2 to 3m blue subrounded qtz amygdules	60	248.0-252.0 (STRONG CHLORITE) Strong chlorite		Predominantly altered with local windows of fresh mafic
252.0 TO 256.9		Pseudo-banded appearance defined by alternating grey felsic and pyritic bands @	60		3Z 2m to 1cm fgr to cgr py bands (stringers) plus bleby py clusters	
256.9 TO 257.6		5 narrow 2m to 1cm wide pillow selvages			Trace stringer po 5 to 10Z bleby py in trains parallel to foliation	
257.6 TO 302					257.6-302 cgr subhedral py	

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
258.4-265.1	Fresh green-grey mgr massive mafic, locally foliated		Moderate chlorite	<1% bleby diss py	
260.3-260.5	OP Dykelet, sharp lower and upper contacts θ 30 20% 3m to 5m round white qtz phenocrysts 5% qtz-carb veining parallel to dyke contacts				
261.3- 0.5	ca qtz-carb veinlet containing fgr agt				
262.4- 0.5ca	py-agt stringer				
264.5-265.5	10 to 50% 1 to 2m irregular white specks				
265.5-273.2	(INTERPILLION PY BEDDIMENT) Dark green fgr and well foliated θ 60 Local intense py mineralization gives a banded appearance, 1 to 2% erratically oriented 2m to 1ca qtz-carb veinlets		265.5-273.2 STRONG CHLORITE Strong chlorite.	265.5-274.5 4% Py's Overall 3-5% banded to stringery fgr py, minor agt Ice to 10ca zones contain up to 50% fgr to mgr py mainly as diss trains para- llel to foliation	Interpillow sediment!
271.5-273.2	(MAFIC FRAGMENTALS) Local 30 cm wide fragmental zones Best example-at 273m 40% 1 to 3cm flattened dark green frags defining a foliation θ 60		271.5-273.2 STRONG CHLORITE Strong chlorite	265.5-267.5 48% Py's Highest py concentrations-3 to 10% 2 to 5% cgr diss py	Flow top breccia?
274.50 TO 276.50	Sharp contact at 274.5 θ Grey massive and hard containing 30% 3 to 4m subrounded white qtz phenos and 3% 1m to 1ca anhedral mafic phenos(altered to chlorite) 275.0- 2 to 3ca wide qtz-carb-Kspar(pinkish) vein θ 55 Sharp contact at 276.5 θ 50				
276.50 TO 287.70	Dark locally light green, fgr massive to foliated θ Argyroloidal- locally up to 15% 5m to 1ca subrounded aynags 10ca wide interpillow py + agt beds- overall 5 to 10% sediment		Weak to strong chlorite	276.5-287.0 4% BEDDED Py's 3 to 5% bedded and diss py 281.0-287.0 4% SMS 10% bleby-globular py in 10 cm wide beds, these beds contain 60 to 75% fgr to mgr py plus 10 to 20% agt Beds are orientated 60 degrees to CA	Fringe SMS very similar to IMCD- py and agt in chlorite Considered massive sulphide beds, very conductive

MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

HOLE NUMBER: BL-01

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	SAMPLE ID TO CAI	ALTERATION	MINERALISATION	REMARKS
287.70 TO 289.50	OP DYKE Sharp contact at 287.7 @ Grey massive and hard containing 25% 3 to 5mm rounded white qtz phenos and 2 to 5% chloritized mafic xenoliths(phenos) Sharp contact at 289.5 @	70		IZ fgr diss py	
289.50 TO 292.40	INT-MAFIC Brey-green fgr moderately soft and well foliated @ Alternating m to co scale qtz veins and chloritized zones give a pseudo-banded appearance.	45	Moderate chlorite	Dm-5 co stringer zone of fgr to cgr py, 10 cm from top of unit	Possibly xenolith of mafic volcanic within dyke?
292.40 TO 298.70	FELSIC Sharp contact at 292.4 @ Fgr massive and very hard, 102 2mm to 1cm round to tabular chaly white, soft phenos- retrograded feldspar?, 2 to 3% 1 to 3mm biotite phenos Minor m scale carbonate veinlets Sharp contact at 298.7 @	70			Chaly white phenos look like aysgs but think it's a dyke (good intrusive contacts)
298.70 TO 326.80	ALTERED Brem fgr massive to foliated @ Alternating hard massive to soft foliated Locally amygdaloidal, up to 5% 3mm to 1cm bluish qtz aysgs More altered (chlorite) zones marked by 10% (1mm) chaly white speckles. 314.0-314.2 Pseudo-frags (likely just patchy alteration). 317.5-321.0 Fresh to silicified mafic, hard. 322.5-322.5@ CHALCOSTITES Hyaloclastite, m to co scale irregular frags in chlorite	60	3298.7-326.8@ Moderate to strong patchy chlorite.	<IZ py and py plus po stringers and blebs, stringers generally parallel to foliation	
326.80 TO 327.60	TUFF Dark green to grey and well banded @ 20-30% bluish-grey qtz veining Near base of unit m scale beds are folded	70		327.1-327.2 Stringer py and po, plus trace m scale brown sphalerite bands(stringers), trace diss sphalerite 327.2-327.6@ MASSIVE SULPHIDES 50 to 60% fgr py aligned in m scale bands (beds) @ 70 degrees to CA Trace fgr light brown sphalerite	Very conductive

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DRILL HOLE RECORD

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MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
327.60 TO 342.30	QUARTZ PORPHYRY (QP)	Blue-green agr massive and hard containing 50 to 75% 2 to 5mm subrounded blue OE's in a fgr moderately chloritic matrix, 5 to 10% white qtz veins from 1cm to 10 cm wide oriented at 30 to 90 degrees to CA.		Moderate chlorite as stringers and in matrix	Trace diss py	
336.4-336.6		Blocky core.				
342.30 TO 345.60	INT-FELSIC DYKE (FELS DY)	Sharp but irregular contact at 342.3. Massive fgr to mgr and hard containing 15% m to cm scale white to grey irregularly oriented qtz veins, minor round to ellipsoidal qtz blotches.				
345.60 TO 354.40	FAULT ZONE (FAULT)	Obscured contact at 345.6. Intensely sheared and brecciated fault rock Shearing at 0 to 30 degrees to CA 30 to 40% brecciated, boudinaged, disorientated white to grey qtz veins in a fgr chloritic matrix Locally silicified (hard) matrix Hint of OE's (one observed)		345.6-354.4 STRONG CHLORITE Strong chlorite		
352.9-354.1		Grey-green fgr massive hard BP dyke containing 10% 3 to 5 mm rounded semi-reabsorbed grey qtz phenocrysts				
354.1-354.4		Brecciated fault zone, shearing sub-parallel to CA (very similar to above description)				
354.40 TO 364.10	INT PORPH DYKE (PORPH DY)	Sharp contact at 354.4. Grey agr massive and hard, somewhat sp texture 10% 2 to 3mm biotite phenos Bluish qtz phenos in a fgr to mgr biotitic-chloritic matrix, hint of aegys??	60	354.4-364.1 WEAK BIOTITE 25% biotite		Small irregular qtz blotches could be relict OE's?
364.10 TO 381.00	OE'D RHYOLITE (OE'D RHYO)	Grey to dark green vfg massive and hard, trace 1mm round blue OE's, trace aegydolites. 1% 1mm to 3cm erratically oriented qtz veining.		364.1-381.0 WEAK CHLORITE Incipient chlorite.	Trace diss py.	Good OE'D Rhyolite as opposed to BP.
374.5-375.2		30% 2 to 3mm subrounded aegys (frothy).				

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DRILL HOLE RECORD

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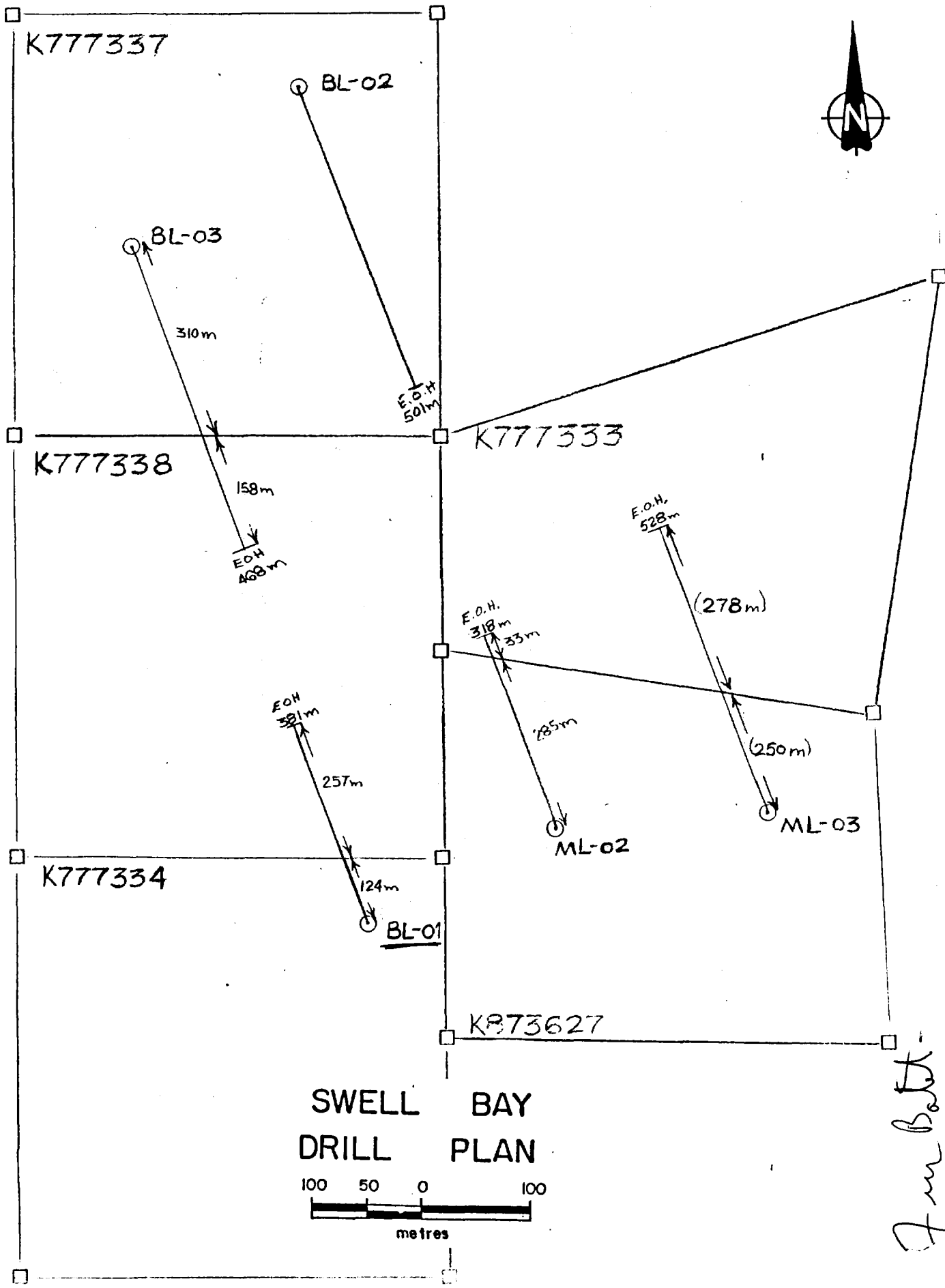
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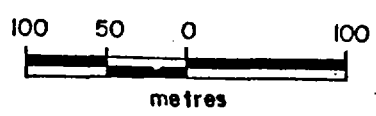
MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM	ROCK	TEXTURE AND STRUCTURE	SAMPLE	ALTERATION	MINERALISATION	REMARKS
TO	TYPE		1 TO CAI			
381.00	E.O.H.					
TO						
381.00						



SWELL BAY
DRILL PLAN



From Bostick

K 777 334

K 777 338

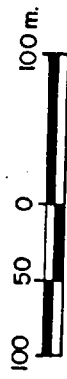
BI-01

(124 m)

(257 m)

100 ft
188 m

SWELL BAY DRILL SECTION



HOLE NUMBER: BL-02

KIMMOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CR	ALTERATION	MINERALISATION	REMARKS
0.00	OVERBURDEN	Silt, sand and mud (no boulders)				
27.50	OE'D	Grey to greenish-grey, hard, massive and fgr to locally agr, 1 to 5l (mm round blue OE's		Very weak incipient chlorite		
239.10	OE'D RHYO	Local 0.1 to 1 meter sections containing 5l an to cm scale irregular shaped qtz-carb anags		Locally 5 to 10% (mm biotite flakes		
32.8-33.7		Drill induced blocky fracture				
34.8-35.3		Foggy-blotchy bleaching				
36.05-36.15		Two 0.5 to 1cm biotite + agt stringers @	20 to 45			
42.4		no scale flow banding				
45.0-46.0		Blotchy irregular bleaching				
51.0-51.2		Silicified-vfg grey OE'd Rhyo				
51.2-51.4		Mgr green and well foliated @	45			Zone may represent contact between two OE'd flows with narrow shear zone
51.4-51.7		See as section 51.0-51.2				
54.3-58.0		Mgr OE'd Rhyo, 10-20% mafic (biotite), xls and irregular patches		Weak to moderate, incipient chlorite and biotite		
59.2-59.4		Pseudo-brecciated-containing very irregular mafic frags in a grey siliceous matrix, locally 10% irregular to rounded qtz-carb anags (biotites)				
61.5-63.3		10% irregular shaped bleached patches				
70.4-70.6						

HOLE NUMBER: BL-02

PROJECT NAME: SHELL BAY
PROJECT NUMBER: PM397
CLAY# NUMBER: #777337
LOCATION: BLISS LAKE

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS:

METRIC UNITS: X

PLOTTING COORDS GRID: SHELL BAY
NORTH: 622.005
EAST: 13000.00E
ELEV:

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

COLLAR DIP: -56° 0' 0"
LENGTH OF THE HOLE: 501.00m
START DEPTH: 0.00m
FINAL DEPTH: 501.00m

COLLAR AZIMUTH GRID: 180° 0' 0"

COLLAR ASTROMIC AZIMUTH: 160° 0' 0"

DATE STARTED: March 19, 1987
DATE COMPLETED: April 1, 1987
DATE LOGGED: April 1, 1987

COLLAR SURVEY: MO
MULTISHOT SURVEY: MO
RSD LOG: MO

PULSE EH SURVEY: YES
PLUGGED: YES
HOLE SIZE: 89

CONTRACTOR: St. Lambert
CASING: 28.5m left intact
CORE STORAGE: Robinson's Landing

PURPOSE: To test Bliss Lake North Zone and 20 channel EMS7 conductor at a vertical depth of 300 meters

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
27.00	-	56° 0'	ACID	OK	-	-	-	-	-	-	-
100.00	-	55° 0'	ACID	OK	-	-	-	-	-	-	-
150.00	-	55° 0'	ACID	OK	-	-	-	-	-	-	-
200.00	-	54° 0'	ACID	OK	-	-	-	-	-	-	-
250.00	-	53° 0'	ACID	OK	-	-	-	-	-	-	-
300.00	-	51° 0'	ACID	OK	-	-	-	-	-	-	-
350.00	-	48° 0'	ACID	OK	-	-	-	-	-	-	-
400.00	-	47° 0'	ACID	OK	-	-	-	-	-	-	-
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Frank B. Ball

HOLE NUMBER: BL-02

KINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	(ANGLE) TO CA	ALTERATION	MINERALISATION	REMARKS
		Silicified breccia, angular lca to 3cm, host QE'd frags in fgr silica cement				
		Gradational contact at 70.4, sharp irregular contact at 70.6 @	90			
		71.4-72.4				
		Mgr biotitic QE'd Rhyo cut by lca to 10cm wide qtz veining.				
		Locally pseudo banded @	45			
		72.4-85.3				Weak incipient chlorite
		Massive fgr hard, grey QE'd Rhyo				
		3-5Z lca blue QE's				
		3Z lca to 3cm subrounded qtz-carb spots (anys?)				
		Locally up to 5Z biotite? xlls				
		83.5-83.8				
		Blocky broken core				
		Fracture parallel to CA	0			
		85.3-86.3				
		Blocky fractured core				
		85.8-86.3				
		Silicified breccia-almost hyaloclastic looking				
		qf frags in siliceous cement				
		87.0-88.0				
		Moderately sheared (foliated) @	35			
		with silice injection				
		89.0-106.4				Weak incipient chlorite +/- biotite
		Massive grey fgr to mgr QE'd Rhyo with a splotchy bleached to blurred and mottled on a ce scale				
		Minor m scale qtz-carb veinlets				
		106.4-107.7				
		Silicified (intrusive) breccia-ce scale, sub-rounded to angular QE'd Rhyo frags in a fgr white siliceous matrix, 50Z frags and 50Z siliceous cement				
		116.0-116.7				
		Silicification of QE'd Rhyo giving pseudo-hemorrhoidal texture				
		Locally alignment of spherulite? (lumps)				
		Defined foliation @	15			

HOLE NUMBER: BL-02

DRILL HOLE RECORD

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HOLE NUMBER: BL-02

MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	DIP ANGLE TO CAI	ALTERATION	MINERALISATION	REMARKS
116.7-125.5		Very heterogeneous section, silicified, mottled, brecciated Qe'd Rhyo Ca scale angular host in fgr beige-locally red-dish-silica cement Qe's in both host and cement At 122.5 red mineral does not look like hematite (Realgar??)		Moderate incipient biotite		
125.5-130.5		Massive to weakly foliated Qe'd Rhyo Local pseudo-spherulitic texture foliation θ	65	Weak incipient chlorite		
130.5-131.6		Lumpy-hemorrhoidal, spherulitic texture 50-75% 5ca to 2ca siliceous white-grey, sub-rounded to irregular blotches (variolites) Lumps have a dark grey core and white rim Trace to 11 3ca to 2ca rounded qtz anags.				Similar but not quite hemorrhoidal texture
131.6-145.9		Fgr massive to weakly foliated Qe'd Rhyo, 5-10% 1ca blue round Qe's Local 10's of cm scale sections of mini pseudo-spherulitics		Weak incipient chlorite		
145.5-198.0		Very heterogeneous unit, alternating hard 10ca to 1a to 3a zones of: 1) fgr massive grey, weakly foliated θ Qe'd Rhyo 2) Lumpy pseudo-hemorrhoidal spherulitic zones containing 50% subrounded to globular 0.5 to 5ca siliceous blotches, locally crudely aligned defining a foliation θ	45		Tr. diss fgr py	Preferential silicification and devitrification of Qe'd Rhyo?
		These irregular spherulites (variolites) have a grey siliceous core and rim -some are well formed, others are very irregular 3) Silicified breccia zones containing 50% 0.5ca to 5ca Qe' frags in fgr grey siliceous cement. Both frags and cement Qe'd, but concentrations of Qe's greater in frags	45	Local weak carbonate		Litho taken of hem-spherulitic zone (mostly spherulitic and br)

HOLE NUMBER: BL-02

KINHOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
241.90 TO 343.50	QUARTZ PORPHYRY ep's	Dark grey-green fgr massive and very hard containing 10 to locally 30% 1-2mm subrounded BE's. Trace Qtz-carb aaygs? Trace aa scale Qtz-carb stringers 253.5-254.4 Rice-crispy spherulitic texture 255.5-256.0 Rice crispy spherulitic texture 264.9 - 3cm wide dark grey-black mafic dyket 268.1-269.5 Mafic dyke containing trace to 1% BE's, sharp contact at 268.1 @ Sharp contact at 269.5 @ 269.5-343.5 Massive fg hard gray QP containing 20% 1-2mm subrounded to angular blue BE's - minor gray to white Qtz veining @ 265.5 3cm wide white Qtz vein Approx. 294.0-306.0 Minor aa to ca scale black stringers, some are moderately magnetic (minor magnetite) 312.0-313.5 Felsic dyke, vfg hard siliceous aphanitic dyke Light green, cut by minor aa scale Qtz-carb vein. Sharp contact at 312.0 @ Sharp contact at 313.5 @ Ca scale MA stringers (dyketlets) 1-2% noted within 3 to 4 meters of MA dyke		Weak incipient chlorite.	Trace py associated with aa stringers of Qtz and carb and locally as disseminations. 265.1 Trace stringer py Trace stringer py Trace dyke to discontinuous stringer py - py associated with Qtz veining - locally 10% diss py on fracture surfaces 5% bleby diss py 337.0 to 337.5 Massive stringers to bleby py Trace stringer py and po	Some QP material may be incorporated into dyke or may be just alteration but contacts indicate intrusive nature.
343.50 TO 351.00	MAFIC DYKE (end)	Fgr massive dark greeny gray and moderately soft. Very irregular sharp contact at 343.5 and sharp contact at 351.0 @ Cut by 2-3% 1 to 3mm Qtz-carb veinlets Some assimilation of QP with margins of dyke	85	Moderate chlorite		Could be flow but nothing to indicate so (ie: no aaygs). Plus sharp contacts indicate dyke rock.

HOLE NUMBER: BL-02

DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ALTERATION	MINERALISATION	REMARKS
		-locally frags crudely aligned sub-parallel to CA			
		Contacts between these different phases of DE'd Rhyo range from sharp to gradational. Massive for DE'd Rhyo tends to become foliated as approach contact with silicified or lumpy (pseudo-spherulitic) phases. Locally pseudo-banded θ 30			
		Sharp contact between two phases at 193.1a θ 30			185.0 to 188.0 check geochem - massive DE'd Rhyo
		At approx. 198.0 silicified bx and lumpy hercynitic dying out			
		Approx. 198.0-204.7			
		5cm to cm scale rounded to angular, qtz-carb asyngules within fgr DE'd phase			
		204.8-205.1			
		Well defined lumpy hercynitic phase			
		At 206.5 - 2-3cm wide discontinuous stringer of ep and ogt (moderately magnetic)			
		212.0-212.4			
		pseudo rice-crispy texture			
		At 218.9 - 1-2cm wide chloritic stringer containing mm to cm scale grey DE'd frags (mini bx)			
		235.5-236.3			
		Pseudo-spherulitic, rice-crispy texture, 70% am spherulitic			
		At 238.5 DE'd Rhyo becoming foliated, as approach fault intensity of foliation increasing			
		Foliation θ			
		35			
239.10	FAULT	Intensely foliated and sheared fault zone	Very strong chlorite		
TO	239.10	Contact at 239.1 θ			
241.90		239.1-239.7			
		Broken blocky core sheared θ			
		239.7-241.9			
		Sheared subparallel to CA θ			
		Irregular qtz fragments in chloritic matrix			
		241.7-241.9			
		Sheared chlorite aud, contact at 241.9 θ			
		15			

DATE: 1-July-1987

MIMNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: BL-02

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	(ANGLE) TO CAI	ALTERATION	MINERALISATION	REMARKS
351.00 TO 393.60	BE'D RHYOLITE #BE'D RHYO	Fgr to mgr greeny-grey and massive containing 5 to locally 20% 1-3mm blue QE's 351.0-351.3 Pseudo to spherulitic texture, irregular shaped 3-4mm spherulites. 353.2-353.6 Dark greeny black mafic dyke, sharp contact at 353.2 a..... Sharp irregular contact at 353.6 376.9-377.0 White qtz vein Contact at 376.9 a..... Contact at 377.0 a..... 20% inclusions of BP host 378.9-381.5 Cgr phase of QE'd Rhyo or cgr felsic dyke -60 to 75% 3-5mm irregular shaped grey-blueish qtz xils in a fgr green (chloritic) matrix -2 to 5% 1-2mm blue QE's Sharp contact at 378.9 a..... Sharp contact at 381.5 a..... 381.5-393.6 Fgr to mgr greeny-grey massive to locally foliated a..... Local pseudo spherulitic texture, 11 0.5cm to 5cm blue-grey qtz veining, minor mm scale carbonate veinlets, minor <11 cm scale fgr light green stringers a..... Trace to 1/2 mm scale emerald green stringers also associated with qtz-carb stringers Approx. 393.0-393.6 Intense mini-lobular pseudo-spherulitic texture	Weak to moderate incipient chlorite (biotite?) 65 65 80	Moderate interstitial chlorite Trace diss py. Trace fgr light brown-beige sphalerite associated with QE'd inclusions	Sharp contacts infer dyke What is emerald green mineral (Fluorite?) Hard to tell which are dykes and which is host but get impression fgr intermediate-heatitic zones are dykes Heatite appears associated with fgr intermediate dykes	
393.60 TO 401.20	DYKE SHARN #DY SH	Alternating on a 10cm to 2 meter scale, fgr to light green, quite hard massive intermediate dykes locally containing 1-3% (1mm blue qtz xils (QE's) and cgr silicified BP (locally pseudo spherulitic textures). Visible 2-3mm feldspar xils Intense orange-red heatite? possibly k spar staining at contacts and as small blotches and mm scale stringers within the fgr intermediate	45 30	Weak to moderate incipient chlorite		

HOLE NUMBER: BL-02

MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
	<p>dyes</p> <p>QP zones contain on scale emerald green (Fluor) stringers and stringer networks</p> <p>Qtz and qtz-carb zones commonly bordered by emerald green mineral white qtz-carb stringers and blotches in int dyke rimed by hematite</p> <p>Contacts between two rock types are very sharp</p> <p>394.2-394.3</p> <p>Narrow brecciated zone within fgr intermediate dyke, very strong hematite, 0.5cm to 2cm dark fgr green frags in a lighter green fgr matrix</p>	60			Emerald green fluorite stringer associated with qp.
401.20 TO 420.90	<p>QE'D RHYOLITE</p> <p>Bluesy-grey to grey-green vfg to almost cpr, 5% 1-2mm subrounded QE's, relatively heterogeneous unit</p> <p>401.2-407.0</p> <p>Mottled almost pseudo spherulitic texture</p> <p>409.5-410.2</p> <p>Cpr QP dyke, 302, 2-3cm subrounded blue QE's, 20% sub-euhedral white-pink feldspar zils.</p> <p>410.2-420.9</p> <p>Fgr QE'd Rhyo containing 5% 0.5 to 1cm scale grey qtz veins generally</p> <p>75</p> <p>At 412.8 - 2mm pink qnts in vfg soft ca wide chloritic stringer next to qtz vein.</p> <p>At 418.8 - 5cm wide irregular ep blotches.</p>			<p>395.6</p> <p>2-3cm wide white qtz vein contains 20% fgr blotchy py, vein contacts marked by green (Fluorite?).</p> <p>408.5</p> <p>on scale cpy and py and tourmaline stringers.</p> <p>410.1-410.2</p> <p>5% fgr brown sphalerite and 5% diss py in blue-grey qtz vein</p> <p>Minor (1% fgr diss clusters of py</p>	
420.90 TO 432.70	<p>MFIC FLOW</p> <p>Dark green fgr to agr and massive (no visible feldspars). Fgr first meter and last meter, remaining central portion agr locally with an alligator belly texture</p> <p>Local white speckle dusting, cut by 5% qtz-carb veins, at various angles to CA, frequently veins offset by minor faults</p>			<p>Trace diss py.</p> <p>Weak to moderate chlorite.</p> <p>Local strong chlorite.</p>	

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DRILL HOLE RECORD

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HOLE NUMBER: BL-02

MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE: TO CR	ALTERATION	MINERALISATION	REMARKS
		Fairly sharp contacts.				
432.70	QZ'D TO: RHYOLITE	Massive fgr grey containing SZ, 1mm to 3mm blue QZ's, locally 30-40%, 2mm QZ's		Weak incipient chlorite	Trace to 1Z diss and stringer py	
442.10	QZ'D RHYOL	Minor cm scale qtz veining			At approx. 434.5 - two 1mm wide sphalerite stringers Trace diss fgr sphalerite	
442.10	ALTERED TO: MAFIC	Wgr dark green to black massive to foliated to locally banded, cut by SZ, locally up to 15Z, cm scale erratically oriented qtz-carb stringers		Moderate chlorite locally strong.	At 442.1 - mm wide carbonate veinlet containing core of brown sphalerite	No visible feldspar
441.80	MAFIC					
442.0-443.0		Fault shear zone shearing θ	60	Very strong chlorite.	Trace to 1Z diss sphalerite	
443.0-446.0		Dark green to black, fgr and well foliated to banded θ	50	Moderate chlorite.	1Z diss to bleby py and po - mostly py	
445.3-445.6		Light grey and black mm to cm scale banding θ	45	Weak chlorite	Trace diss py Trace fgr diss sphal	
446.0-461.8		Fgr green hard, massive aefic, SZ irregular bleached spots.				
445.5-454.9		10Z, 1-3mm pink gnts.				
457.5		3-4mm subhedral pink gnts				
459.0		1r-2mm pink gnts.				
459.0						
459.0-460.5						
459.0-460.5						
459.0-460.5						
459.0-460.5						

HOLE NUMBER: BL-02

DRILL HOLE RECORD

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HOLE NUMBER: BL-02

MINNOVA INC.
DRILL HOLE RECORD

DATE: 1-July-1987

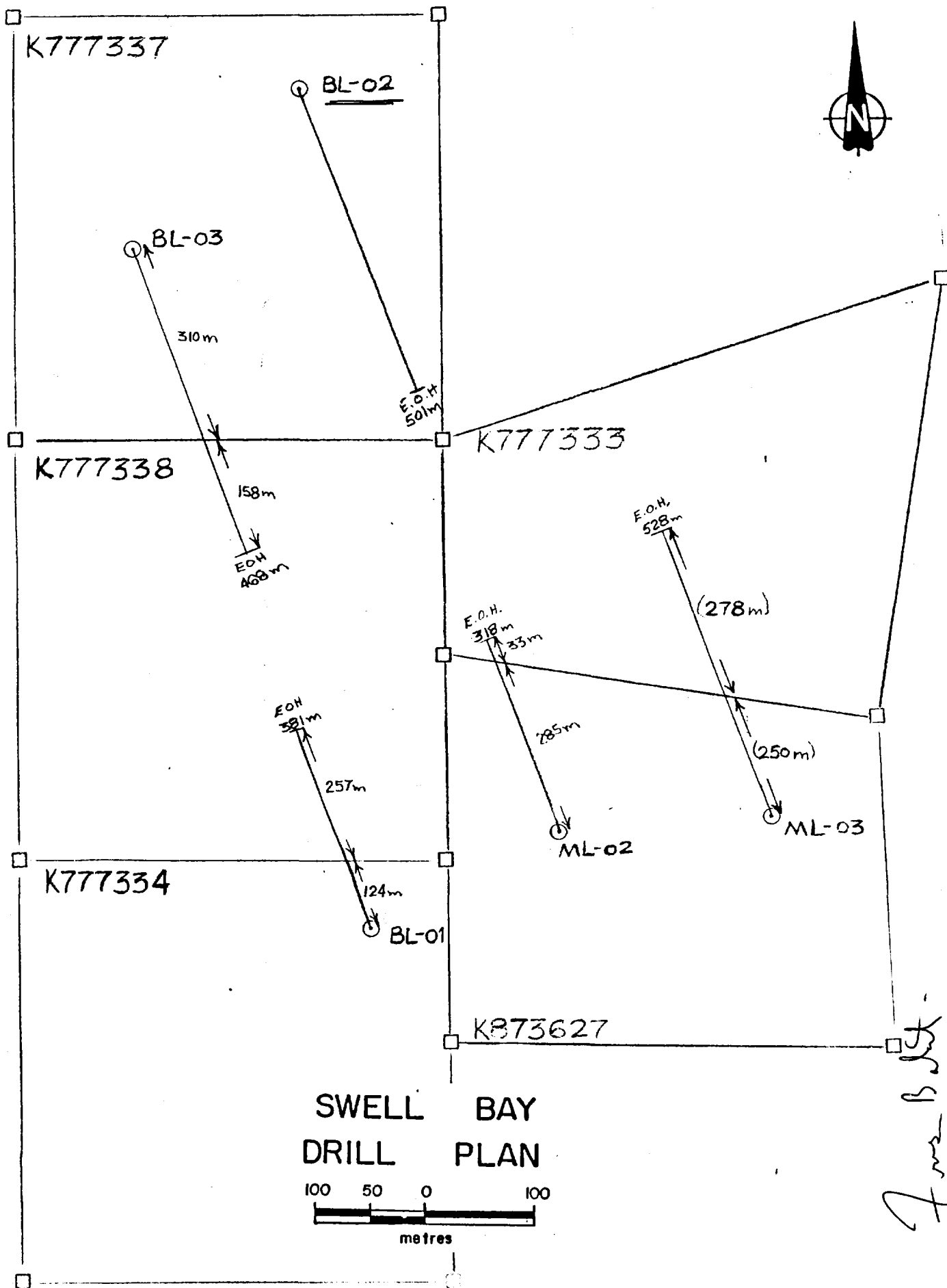
FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
461.00 TO 501.00	SPHERULITIC RHYOLITE	Grey fgr-gr massive, hard rice crispy textured spherulitic rhyolite. Tr an to ca scale qtz-carb veinlets. Can't put finger on exact contact-gradational. In last few meters core has a tendency to fracture sub-parallel 10-20 to CA when litho sampling.		Weak incipient to moderate inter-spherulitic chlorite.		Trace stringer to bleby py and po.
501.00 TO 501.00	E.D.H.					

HOLE NUMBER: BL-02

DRILL HOLE RECORD

LOGGED BY: Brian Neilson

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SWELL BAY
 DRILL PLAN

100 50 0 100
 metres

Area B Ltd.

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
0.00 TO 2.00	OVERBURDEN Boulders and sand				
2.00 TO 141.60	Qe'D RHYOLITE Qe'D RHYD Hard grey-green fgr and massive, locally weakly asyngonaloidal, 1-2Z 1mm to 3cm subrounded to irregular qtz-carb blotches (anagoules) Locally weakly foliated. Locally up to 5Z 2mm to 1cm long (length to width ratio 5:1) dark green mafic clots (frags) aligned	50 30	Weak incipient chlorite		
11.0-11.5	Local weak bleaching, local 10cm section of drill induced blocky core				
33.3-33.8	Pseudo-spherulitic rice-crispy texture				
44.9-45.1	Mgr QP-QPP hard and massive				
45.1-45.3	Breccia, irregular, blocky, angular fragments in fine scale black hard stockwork				
45	Sharp upper and lower contacts	45			Narrow fault zone? -no shearing, just brecciation
45.3-54.0	Fgr Qe'D rhyolite, massive dark grey, 5Z 1mm blue Qe's. At 45.3m 2cmx2cm qtz-carb blotches 25% 1-3mm mafic spots		Weak incipient chlorite		
53.0-53.3	1-5mm subrounded to very irregular grey qtz blotches (spherulites?) in fgr mafic (chloritic matrix) matrix exhibits a white dusting.				
54.0-80.0	The occasional blue 1mm Qe encased in irregular (aeobold)qtz blob Rice-crispy spherulitic texture, 50-80Z 1-5mm grey to locally bleached white spherulites in fgr hard grey matrix		Weak incipient chlorite		
63.1-64.0	Locally ie: 63.1-64.0 Larger more irregular white spherulites. Locally spherulite alignment defines a foliation	50		Minor (1Z diss and stringer py ass. with fractures	

HOLE NUMBER: BL-03
 PROJECT NAME: SHELL BAY
 PROJECT NUMBER: 397
 CLAIM NUMBER: K777337/K777338
 LOCATION: BLISS LAKE
 ALTERNATE COORDS GRID: SHELL BAY
 NORTH: 720.005
 EAST: 12800.00E
 ELEV:
 COLLAR AZIMUTH GRID: 180° 0' 16"
 COLLAR AZIMUTH: 160° 0' 0"

DATE STARTED: April 2, 1987
 DATE COMPLETED: April 10, 1987
 DATE LOGGED: April 10, 1987
 COLLAR SURVEY: NO
 MULTISHOT SURVEY: NO
 RRD LOG: NO

PURPOSE:
 IMPERIAL UNITS: METRIC UNITS: X
 CONTRACTOR: ST. LAMBERT
 CASING: 2.7 meters
 CORE STORAGE: ROBINSON'S LANDING

MINNOVA INC.
 DRILL HOLE RECORD

Depth (a)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (a)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
3.00	-	53° 0'	ACID	OK		-	-	-	-	-	-
50.00	-	53° 0'	ACID	OK		-	-	-	-	-	-
100.00	-	52° 0'	ACID	OK		-	-	-	-	-	-
150.00	-	51° 0'	ACID	OK		-	-	-	-	-	-
200.00	-	50° 0'	ACID	OK		-	-	-	-	-	-
250.00	-	48° 0'	ACID	OK		-	-	-	-	-	-
300.00	-	46° 0'	ACID	OK		-	-	-	-	-	-
350.00	-	45° 0'	ACID	OK		-	-	-	-	-	-
400.00	-	42° 0'	ACID	OK		-	-	-	-	-	-
450.00	-	40° 0'	ACID	OK		-	-	-	-	-	-
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DRILL HOLE RECORD
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HOLE NUMBER: BL-03
 MINNOVA INC.
 DRILL HOLE RECORD

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Brian Nelson

HOLE NUMBER: BL-03

MINNOVA INC.
DRILL HOLE RECORD

DATE: 2-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CH	ALTERATION	MINERALISATION	REMARKS
		74.3-74.7	35			
		Cgr QP-QFP dyke, sharp contact at 74.3.....				
		Gradational contact at 74.7 over 5cm				
		74.7-80.0				
		Alternating 30cm to 1m zones of spherulitic and non-spherulitic Qe'd rhyo				
		Minor amoeboid cm scale Qtz and minor carb blotches				
		80.0-141.6				
		Fgr Qe'd Rhyolite, massive SZ subrounded tan blue Qe's.			Local trace diss to stringer py.	
		81.9-82.2				
		Cgr QFP, gradational contact.				
		50Z 2-3mm subrounded blue Qe's, SZ 2-3mm anhedral felds zills.				Contacts not sharp. Could be dyke but think just more Qtz rich phase of Qe'd Rhyo.
		82.4-82.6				
		Same as 81.9-82.2.				
		82.9-83.8				
		Same as 81.9-82.2.				
		86.4-86.8				
		Siliceous-slushy Qe'd Rhyo-QFP, 5-10Z rounded 2-3mm blue plus 2-5%, 2-3mm anhedral felds zills in grey-white cgr siliceous matrix plus 20% very irregular mafic clots or matrix (soft chlorite).		Weak chlorite.	Trace diss py.	Looks granitic (intrusive).
		87.5-89.9 & 90.05-90.3				
		Same as 86.4-86.8.				
		At 116.0 to 4cm wide chlorite shear zone.....	60	Strong chlorite.	1-2Z diss stringer py.	
		25Z Qtz-carb component parallel to shearing.				
141.60	INT. TO FELSIC DYKE	Dark grey to greenish, vgr, massive and very hard. Trace (hard to find), blue m Qe's.		Weak incipient chlorite, strong (soft) on fractures.	1-2Z diss to bleby to discontinuous stringer py.	May not be dyke but instead Qe depleted slightly pyritic contact between Qe'd Rhyolite and QP flows or QP intrusive (144.4-215.0) and this is the chill margin.
144.40	FELSIC DYKE	SZ erratically orientated mm scale to hairline white Qtz-carb veinlets.				
		Contact at 141.6 marked by 5cm wide brecciated Qtz vein (Qe's). Contact zone.....	30			
		Sharp contact at 144.4 zone.....	60			

HOLE NUMBER: BL-03

DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	TABLE # TO CAI	ALTERATION	MINERALISATION	REMARKS
144.40 TO 215.00	QUARTZ PORPHYRY	Massive and dark grey fgr and hard containing 20% 1-2mm angular to subrounded, deep violet blue OE's in greenish-grey fgr matrix. OE's very inconsistent in shape and size, some look cubic to hexagonal.		Weak incipient chlorite.	Trace diss py.	Exactly same as OP unit in BI-02. Two OE'd flows. OE'd Rhyo flow then into OP flow (very distinct).
		157.8-158.1		Moderate stringer chlorite.		
		Narrow zone of OP but by cm scale qtz veining and an scale chlorite stringers, deeper green colour.				
		At 179.8		Moderate chlorite.	10% fgr diss py. 5% fgr light brown sphalerite? Trace stringer cpy?	
		5cm wide banded chlorite pyritic shear, 2-3cm wide boudinage qtz-carb veinlet parallel to shearing ϕ	45			
		200.7			5% diss py.	
		1cm wide py-biotitic (chlorite) stringer ϕ	60			
		201.3 same as 200.7.				
		203.7 same as 200.7.				
		206.8-207.9				
		Sharp contact at 206.8 ϕ	15			
		Medium green fgr intermediate dyke containing 5-10% biotite flakes and clusters up to 2mm.				
		Sharp contact at 207.9 ϕ	55			
		212.7				
		2-3cm wide mafic xeno-intrusive or alteration spot, soft dark green almost black.				
215.00 TO 218.30	INT TO FELSIC DYKE	Greeny-grey vgr and massive. Sharp contact at 215.0 qtz-carb? contact ϕ	45	Weak incipient chlorite.	Trace to 1% fgr diss py.	Looks exactly same as unit from 141.6 to 144.4 ... CONTACT ZONE.
	FELS DYK	Minor mm to cm scale ((3% qtz-carb veinlets, one vein contains greenish mineral (fluorite?). One has pinkish specs (hematite?). Sharp contact ϕ	60			
218.30 TO 247.00	SPHERULITIC OE'D RHYO	Massive grey fgr to agr, erratic (not consistent) spherulitic rice-crispy to cauliflower texture. Alternate zones from 1 to a few meters with or without spherulites, 1-3% 1mm blue OE's.		Weak incipient chlorite.		
	OE RHYO	228.5-230.8 ϕ QFP DYK				Definitely looks intrusive.
		Massive light grey to pinky-blue cgr QFP dyke local hematite-kspar staining.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO EA	ALTERATION	MINERALISATION	REMARKS
		Both upper and lower contacts gradational, 40% relict qtz phenos (2-5mm). 20% relict 2-5mm feldspar phenos.				
235.4-236.5	QFP DYK	Massive QFP dyke very similar to section 228.5 to 230.8.				
242.0-247.0		No spherulites, 1-3% OE's, locally, 5% dusting of (tan white speckles, fg, massive and hard.				
244.9-245.0 & 245.2-245.3		Light grey qtz-ep? veins - brecciated looking.				
247.00 TO 306.30	CAULFLOWER TO SPHERULITIC RHYOLITE & RHYD	Grey, massive, agr. containing 80% pseudo rice-crispy, more like mini-cauliflower spherulites. 1% tan blue OE's. Spherulites average from 2-5mm some very irregular shaped. Locally define a foliation a..... 60		Weak-moderate inter-cauliflower chlorite.		
252.3		Mini-stockwork of green hairline stringers act? flour?				
255.0-256.0	QFP DYK	Massive pinky-blue, agr QFP dyke, pink staining likely hematite. Sharp contact at 255.0 a..... 70 Gradational contact at 256.0.				
262.1-263.2	QFP DYK	QFP dyke similar to 255.0 to 256.0, gradational contact over 10cm at 262.1. Fairly sharp contact at 256.0 but can't get angle to EA ... somewhat blending of QFP and cauliflower Rhyolite.			Trace small (tan blabby py.	
289.0-291.0		3-5% large up to 1cm x 5cm irregular qtz-carb blotches.				
At approximately 306.0		observed 1-2mm tabular feldspar sills.				
300.9-301.1		Spherulitic texture disappears at approximately 300m to end of unit, just for OE'd Rhyolite.		Weak incipient chlorite.		

FROM TO ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE: TO CA:	ALTERATION	MINERALISATION	REMARKS
306.30 DE'D TO ANORTHOSITE	Mafic dyke, vgr dark green, massive, hard and fresh cut by 5% scale Qtz-carb veinlets. Sharp upper and lower contacts @.....	45	Weak chlorite.		
316.50 ANORTHOSITE	Mafic dyke, sharp contact at 302.9 @ vgr dark green, massive and hard, but by 5-10% scale Qtz-carb veinlets (veinlets very randomly oriented). 304.8-305.0 With pseudo fragments, dark green in lighter green groundmass sub-parallel to CA. Almost a discontinuous flow banded appearance. Sharp contact at 305.0 @	45	Weak chlorite.		Brecciation near contact?
306.30 DE'D TO ANORTHOSITE	Gr beige to greyish, hard and massive. 60-70% (feldspar), 10% of xils have good xil form either cubic or tabular.	30			Sharp contacts and grain size point to intrusive unit. Doesn't look like alteration phenomena.
316.50 ANORTHOSITE	Feldspathic xils set in a fgr dark grey matrix often containing 1-2mm rounded blue DE's. Sharp contact at 306.3 @ Sharp contact at 316.5 @ Minor (1% mm to cm scale Qtz and Qtz-carb veining)	30 40			
307.3-307.6	Inclusion of rhyolite or siliceous mafic dyke < 1% Qtz-carb veining. Sharp contact @	80			Looks later than a north - crosscuts.
316.50 DE'D TO RHYOLITE	Breemy-grey fgr and relatively hard, containing 2-3% lam subrounded blue DE's. 1% mm scale randomly oriented Qtz-carb veinlets.		Moderate incipient chlorite.	Overall trace diss py and po. 321.0 2-3mm wide po stringers at 45 to CA. 1-2% fgr diss py. Trace light brown sphalerite associated with Qtz-carb stringers.	
332.20 DE'D RHYOLITE	Felsic dyke light green, fgr, hard and massive. 3% randomly oriented mm scale Qtz-carb veinlets. Sharp contact at 325.3 @ Sharp contact at 326.8 @	80 80			
328.7-328.9	Felsic dykelet, hard light green, massive with 5% (1mm white speckles).				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CR	ALTERATION	MINERALISATION	REMARKS
332.20 TO 336.40	CHLORITIC TO BEDDED SEDIMENT & SULPHIDES SEDIMENT	Grey to green to black, fgr well foliated, to banded to bedded. Three above mentioned fabrics @ Sharp contact at 332.2 @ Locally pseudo-brecciated to brecciated. Mineralization of three types: 1) Massive Sulphide Beds 2) Stringers and Veinlets 3) Fgr Disseminations	60 65		332.2-336.4 @ 80% Pb, 125pph, 110cpy Overall 8-10% py 1-2% py 1% sphalerite 1% cpy At 332.2 2-3cm wide massive sulphide bed containing: 15% fgr brown sphalerite 35% fgr py 10% po 2-3% cpy 28% felsic host	Inter-bed'd Rhyo flow sulphides.
332.22-334.20		Foliated fgr green to grey with local 10cm bx zones. Fairly heterogeneous mixture of felsic host, chlorite alteration and bleby, diss and stringers sulphides. Bedding contacts @	60	Local dark green vgr chlorite.	5% bleby to stringer po 1% fgr brown shalerite, mostly associated with po 1% diss py 1% cpy	
334.2-334.3					334.2-334.3 @ 80% Pb, 3% Cpy Massive po bed 80% fgr po 3% cpy 15-20% host	
334.3-334.55					334.3-334.55 Banded po 25% m to cm scale bands of fgr po 75% dark gray hard host	
334.55-334.70					334.55-334.70 @ 75% Pb Massive po bed 75% fgr po 2-3% stringers cpy mostly at approximately 334.70.	
334.70-336.4		Banded light and dark (fgr) on a cm scale @ Locally up to 20% small mm sub to anhedral white-pinkish xlla (gnt?).	50		2% bleby po 1% diss py tr fgr brown sphalerite tr cpy	
336.2-336.4		Intensely sheared contact zone containing 20% brecciated siliceous fragments in fgr chloritic groundmass. Shearing and contact @	60	Strong chlorite.		

HOLE NUMBER: BL-03

MINNOVA INC.
DRILL HOLE RECORD

DATE: 2-July-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	DIP ANGLE TO CR	ALTERATION	MINERALISATION	REMARKS
336.40 TO 376.40	DE'D RHYOLITE (DE'D RHYD)	Grey-green fgr massive and hard, containing 2 to 5% 1-2mm rounded blue QE's. Sharp contact at 376.4	60	336.4-376.4 CHL Strong chlorite decreasing to weak down hole thru zone.	1% fgr diss to an stringer brown sphalerite in first meter of unit.	
376.40 TO 393.00	FELSIC ASH TO TUFF (FELS SED)	Light to dark grey fgr, very hard and bedded (banded from an to ca to 10cm scale. Some sections up to a few meters with no obvious bedding. Bedding generally 0. Locally bedding folded. Cut by 5% an scale irregular qtz-carb veinlets. Numerous mini-faults offsetting bedding. Mini-faults marked by an wide qtz-carb stringers. Faulting generally at 90 to bedding.	60			
376.4-377.1		Well foliated 0	67		1-2% fgr diss py tr fgr diss py	
385.9-386.1		Brocky conchoidal fracture with hematite staining on fracture.				
391.9		2-3m by 1-2cm qtz-carb tension gashes 0	70	391.0-393.0 STB CHL Moderate to strong chlorite.		
393.0		Sharp contact at 393.0 0	80			
393.0 TO 415.90	FELSIC FLOW (FELS FL)	Grey, fgr, massive to weakly foliated 0 marked by fractures. Local speckled texture, 30% (1mm white speckles over 2-3 meters. Unit consistently fractured 0	60 to 90	Weak to moderate incipient chlorite-strong chlorite on fracture surfaces. Generally chlorite increasing down-hole.		Locally unit body mafic - may have intercalated mafic.
412.0-415.9		Average length of core with no fracture 5-10cm (0 RFD factor).		412.0-415.9 CHL Chlorite component increasing (alteration increasing towards contact).		
393.4-393.5		2% an scale qtz-carb veinlets 1-2% ca white qtz/-ep veins.				
393.4-393.5		Vfgr grey siliceous vein (inclusion of overlying				

HOLE NUMBER: BL-03

DRILL HOLE RECORD

LOGGED BY: BRIAN NELSON

PAGE: 8

HOLE NUMBER: BL-03

MIMNOVA INC.
DRILL HOLE RECORD

DATE: 2-July-1987

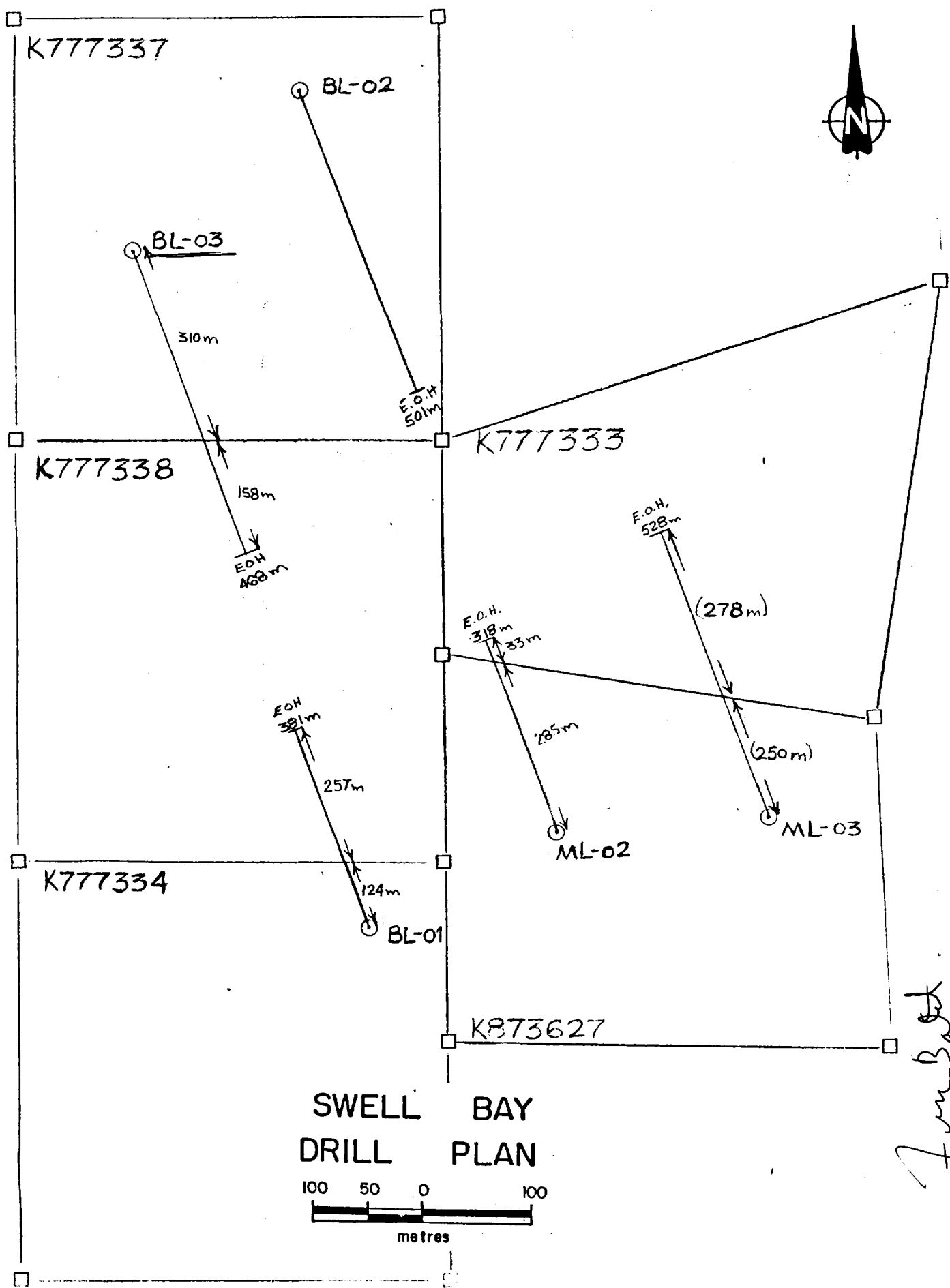
FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALISATION	REMARKS
415.90 TO 417.40	EXHALITE EXH	Brey to greenish banded sulphide sediment. 415.9-416.0 Bedded chert, grey, vgr and well bedded on m to cm scale, bedding and upper and lower contacts @ 45 416.0-416.5 Brey to green well foliated @ Locally fragmental looking. Frags (cm scale) aligned parallel to foliation.	35	Moderate chlorite.	1Z diss py (fgr). 416.5-417.1 @ SMS 5Z vgr diss brown sphalerite 5Z fgr diss py 10Z fgr po tr cpy	
417.1-417.4	MAFIC VOLCANIC MA	Dark, fgr, fresh to silicified mafic (hard). Weakly amygdaloidal, 1-2Z 1-3cm subrounded white qtz-carb amygdules usually in 10-20cm wide zones containing up to 10% amygdules. 5Z m scale erratically orientated qtz-carb veinlets.	45	Moderate chlorite.	417.1-417.4 @ MS 5Z fgr chocolate brown sphalerite 5Z bleby to splashy cpy 25Z fgr to mgr diss py 45Z fgr po	
417.40 TO 456.50	MAFIC VOLCANIC MA	Dark, fgr, fresh to silicified mafic (hard). Weakly amygdaloidal, 1-2Z 1-3cm subrounded white qtz-carb amygdules usually in 10-20cm wide zones containing up to 10% amygdules. 5Z m scale erratically orientated qtz-carb veinlets.	45	Moderate chlorite only in mafic portion.	3Z bleby to stringer (m to cm) scale po.	
456.50 TO 457.00	SEDIMENT (EXHALITE) EXH	Alternate m to cm fgr light grey (felsic) to cherty beds and 1cm wide darker grey-green sulphide rich mafic beds. At 456.5 2-3cm wide grey chert bed. Bedding @ Contact at 456.6 @ Contact at 457.0 @ Overall 65% felsic beds, 35% sulphide mafic beds, possible gnts?	60 45 60	Moderate chlorite only in mafic portion.	456.5-457.0 @ Pz, tr sph, tr cpy 7Z diss to bleby po tr diss sphalerite tr cpy? possibly small mgf xils	Cherty exhalite atop S Rhyo.

KIMNOVA INC.
DRILL HOLE RECORD

DATE: 2-July-1987

HOLE NUMBER: BL-03

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	HANDLE: ITO CAI	ALTERATION	MINERALISATION	REMARKS
457.00	SPHERULITIC	Greeny-grey de'd and locally spherulitic.		457.0-468.0f eHDS CHL		
TO	RHYOLITE	5X 1-3mm blue DE's.		Weak to moderate chlorite in massive zones, moderate to strong in bx zones.	IX bleby to stringer po.	Set general impression of S. Rhyo. Near top of unit (uphole) may have mixing of S Rhyo with mafic component.
468.00	eS RHYO E.D.H.	Locally 15Z 1-3mm chalky white ansgs. < 1X 2-3mm qtz ansgs. Alternating 1 to 2 meter zones of hyaloclastic S rhyo bx and massive rice-crispy S rhyo.				
		468.1-459.0f eHYALO		2-3Z bleby po in bx zones.		Contact flow top-bottom breccia. Could be equivalent of perlitic S Rhyo but more altered - hyaloclastic bluey-grey rhyo frags in mafic frag-like matrix.
		Hyaloclastic breccia, 50Z wispy mafic, 50Z wispy felsic. Frags crudely aligned to define foliation	60			
		Locally up to 10-15Z 1-2mm silky white gnt in bx zones. At approximately 467 meters good rice-crispy S Rhyo texture.				



SWELL BAY
DRILL PLAN

100 50 0 100
metres

From Bath

K 777338

K 777337

BL-03

(310m)

(158m)

EDH
468m

SWELL BAY DRILL SECTION



For Bored

HOLE NUMBER: NL-05

RINNOVA INC.
DRILL HOLE RECORD

PROJECT NAME: SHELL BAY
PROJECT NUMBER: PM399
CLAIM NUMBER: K-830403
LOCATION: BLISS LAKE

ALTERNATE COORDS GRID: SHELL BAY
NORTH: 400.005
EAST: 12600.00E
ELEV: 10.00

IMPERIAL UNITS: I

COLLAR DIPS: -49° 0' 0"
LENGTH OF THE HOLE: 174.00m
START DEPTH: 0.00m
FINAL DEPTH: 174.00m

METRIC UNITS: I

COLLAR AZIMUTH GRID: 340° 0' 0"
COLLAR AZIMUTH: 340° 0' 0"

DATE STARTED: May 4, 1987
DATE COMPLETED: May 6th, 1987
DATE LOGGED: May 28, 1987

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
ROD LOG: NO

CONTRACTOR: ST. LAMBERT DRILLING
CASINGS: left intact
CORE STORAGE: ROBINSON'S LANDING

PURPOSE: Test 19 channel EM-37 anomaly at top of LIOP at a vertical depth of 100m, related Na2027n anomalies

DIRECTIONAL DATA: and input anomaly.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
50.00	-	-49° 0'	AC19	OK		-	-	-	-	-	-
100.00	-	-49° 0'	AC19	OK		-	-	-	-	-	-
171.00	-	-46° 0'	AC19	OK		-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
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Tim B. B. B.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE: (TO CA)	ALTERATION	MINERALISATION	REMARKS
83.6-83.7		Grey Qtz vein containing 5% brown mineral - Fe carb?				
87.5-88.2	4LAMP DYK	Lamprophyre Dyke - agr, green and massive, Qtz porphyritic - 2% angular to subrounded 0.5m Qtz phenocrysts, 3-5% dark green 1 to 3mm mafic phenos				
89.9-90.1		White Qtz vein plus minor carbonate on margins, 30% of vein composed of included felsic host.				
94.8-95.0				94.8-95.0 BLEACHED + GNT Bleached zone containing 5% mm scale MA xlls and 2% ca scale anhedral red zlls (gnt).		
95.6-97.3	4LAMP DYK	Lamprophyre Dyke - Green, massive, agr dyke containing 5% 2 to 5mm anhedral mafic phenocrysts. Sharp upper and lower contacts	45	97.5-98.0 BLEACHED Intensely bleached felsic, very hard and no visible BES, 10% ca scale subhedral red garnets.		
98.7-99.4		Same as section 97.5-98.0.		97.5-102.3 BLEACHED + ZL GNT Bleached 0.5m zones containing 5 to 10% gnt.		
101.7 to 102.3		Similar to section 97.5-98.0.				At 105.1 1-ca scale bleby Py + agt? (very magnetic).
105.2-106.1	4LAMP DYK	Lamprophyre Dyke - green, massive, agr - mafic porphyritic dyke containing 25% mm to ca scale anhedral mafic phenocrysts.		106.5-107.0 BLEACHED + 50% GNT Hard bleached felsic containing 5 to 10% 2 to 5mm sub to anhedral red gnt.		
				107.0-107.3 10% 1mm blue BES.		
				40% 1 to 2cm sub-angular lighter grey spots, bleaching or alteration effect.		

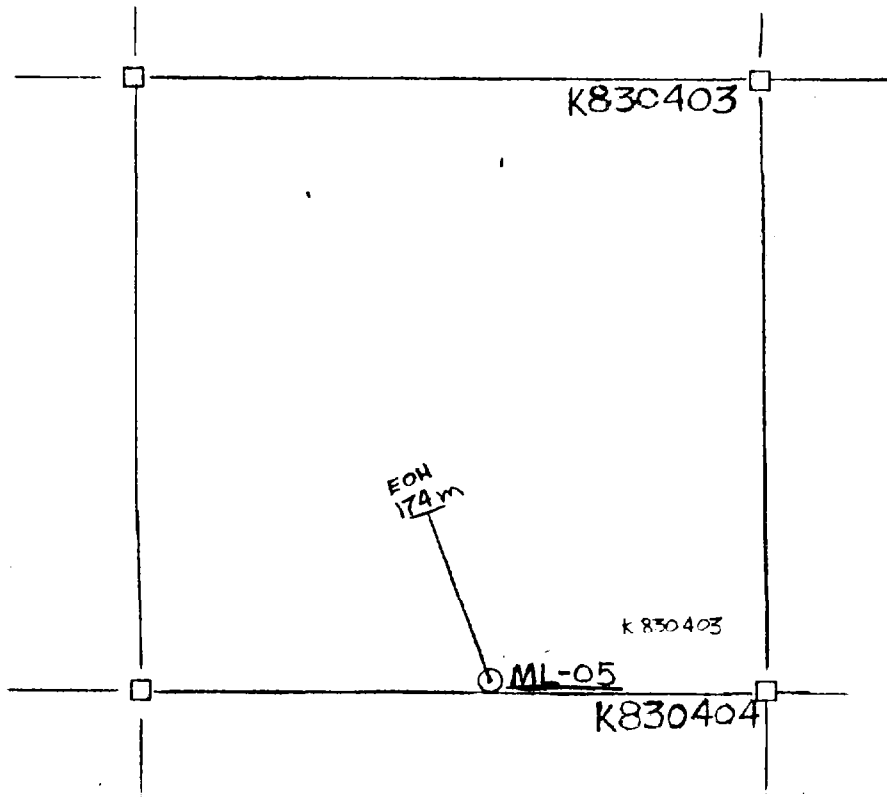
FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	SAMPLE: 1 TO 2	ALTERATION	MINERALISATION	REMARKS
107.5-117.5		Massive for BE'd Rhyolite, 5cc to 0.5 meter.		Bleached zones containing 5 to 10% gnt	Overall 1 to 2% m to ca scale bleby Py. Locally up to 10% in 10cc zones.	
117.5-119.8	BRECCIA	Flow breccia? Fgr to mgr light to dark grey with a crude fabric a 45 Lighter grey very hard aphanitic component Locally resembles resnant brecciated felsic bedding. Overall 50% of each component. 3% m to ca scale anhedral to subhedral gnts.			Overall 3% Po + minor Py as blebs and discontinuous stringers.	Is this the conductor? Good conductor over a few cm along veinlets (OHM-Meter off scale).
119.8-122.7	TUFFACEOUS TO ETRHALITE	Fgr to mgr dark green and relatively soft, banded to well bedded on a m to ca scale a 50 to 60 Locally 10 to 15% erratically oriented m scale qtz-carb veinlets. Bedding (banding defined by alternate dark green (chloritic) beds and light grey cherty beds. Locally bedding folded or kinked.			ETR-IZ SPH Trace diss Py. Overall trace fgr sphalerite as disseminations and as narrow < 1mm beds	
122.7-131.6		Not good example of sediment, if bedded it's on a 10cc to meter scale, green (chloritic), locally dusted with 10 to 20% < 1mm white spots - at 122.7 1 to 3% m blue BES.			At 119.9 Finer brown sphalerite associated with 1-2mm wide Py stringer.	Is this part of sediment or altered BE'd Rhyo. Thick ill-defined beds as opposed to overlying well developed m to ca scale beds. Sediment proper may not start till 122.7 meters.
131.6-132.9		Falsic Dyke - flow? Grey fgr to mgr hard with hint of brecciation. Both contacts parallel to bedding.			IZ fgr diss Py.	Contacts do not indicate crosscutting dyke.
132.9-147.2		Same as 131.6-132.9 but also contains m scale fluorite veinlets.				
147.2-147.7						
154.20	BE	Grey hard and generally massive. Foliated in first 3 meters a 55 A few tiny visible BES ((12). Amygdaloidal with locally very frothy sections i.e. 161.3 to 161.6 - 50% rounded bluey grey 2 to 5mm qtz xlls. Very minor hematite staining.		Moderate to very weak chlorite as mve downhole through unit.		

HOLE NUMBER: ML-05

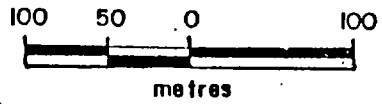
HIMMATA INC.
DRILL HOLE RECORD

DATE: 16-September-1987

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ALTERATION	MINERALISATION	REMARKS
		From 162.0 meters down hole unit becomes very massive and hard, and peppered with 15% very irregular shaped biotite xlls.			
		164.2-165.21 CLAMP DYK Lamprophyre dyke. Hgr green massive dyke containing 20% subangular 2 to 5mm mafic phenocrysts. Sharp but irregular upper and lower contact.			
		168.0-169.0 Spotted texture - 25% coarse scale bleached haloes surrounding mafic xlls.			
		End of Hole.			Trace diss Py.



SWELL BAY
DRILL PLAN



For info



Name and Postal Address of Recorded Holder
MINNOVA Inc. T-556
SUITE 3970, P. O. BOX 91, COMMERCE COURT WEST, TORONTO, ONTARIO M5L 1C7

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed 19,511.0 17,797.28	Mining Claim			Mining Claim			Mining Claim		
	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.
for Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input type="checkbox"/> Power Stripping <input checked="" type="checkbox"/> Diamond or other Core drilling BQ <input type="checkbox"/> Land Survey	K	629441	60	K	629449	60	K	670221	60
		629442	60		629450	60		670222	60
		629443	60					670223	60
		629444	60		629476	60			
		629445	60		629477	60		670225	60
		629446	60		629478	60		670226	60
		629447	60		629479	60		670227	60
		629448	60					670228	60

All the work was performed on Mining Claim(s): K629137, 629172, K670225, K 695823, 695828, K777322, ~~777325~~

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

*K777333, 777334, 777337, 777338, K 812837, 812844, 812846, 812847, 812848, K 830403
 K 844958, K 846559, K 851617, 8511618, 8511619, K 862225, K 863634, K 873627

WORK PERFORMED BY: ST. LAMBERT DRILLING CO. LTD., P.O. BOX 473, VALLEYFIELD, QUEBEC J6S 4V7
DURING THE PERIOD: JANUARY 19th, 1987 to AUGUST 7th, 1987

DRILL HOLE NUMBERS, DATES AND FOOTAGE/METERS DRILLED ARE LISTED ON A SEPARATE PAGE:

TOTAL METERS/FEET DRILLED ~~19,529.12~~ **17,797.28** Feet ~~5951~~ **5426** Meters x 3.28)

~~TO BE USED FOR THIS SUBMISSION~~ ~~19,511.0~~
~~RETAINED FOR FUTURE SUBMISSION~~ ~~17.3~~ Feet

KENORA MINING DIV.
RECEIVED
JAN 15 1988

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES
RESEARCH OFFICE
JAN 29 1988
RECEIVED

Date of Report: **JANUARY 12, 1988**
 Recorded Holder or Agent (Signature): *Frank Balint*

Certification Verifying ~~19,529.12~~ **17,797.28**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
FRANK BALINT c/o MINNOVA Inc. 2606 VICTORIA AVENUE, EAST, THUNDER BAY, ONTARIO

P7C 1E7 Date Certified: **JANUARY 12, 1988** Certified by (Signature): *Frank Balint*

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes		

JANUARY 12th, 1988

- MINNOVA Inc.

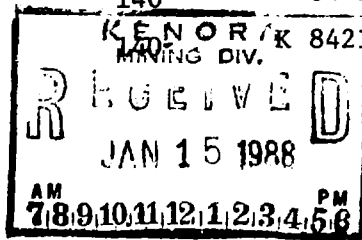
LICENCE T-556

DIAMOND DRILLING ASSESSMENT FARRINGTON

TOWNSHIP etal

CLAIM LIST cont'd

<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>
K 670229	60 .	K 695831	60 .	K 812846	140 .
670230	60 .	695832	60 .	812847	140 .
670231	60 .	695833	60 .	812848	140 .
K 670232	60 .	K 695834	60 .	812849	140 .
				K 812850	140 .
K 670384	60 .	K 751312	100 .	812851	140 .
670385	60 .	751313	100 .	812852	140 .
670386	60 .	751314	100 .	812853	140 .
670387	60 .	751315	100 .	812854	140 .
670388	60 .	751316	100 .	812855	140 .
670389	60 .	751317	100 .	K 812856	140 .
K 670390	60 .	751318	100 .		
670391	60 .	K 751319	100 .		
670392	60 .			K 835126	122 . 80
670393	60 .	K 777322	100 .	835127	122 . 80
670394	60 .	777323	100 .	835128	122 . 80
K 670395	60 .	777324	100 .	835129	122 . 80
		777325	100 .	K 835130	122 . 80
K 695817	60 .	K 777326	100 .	835131	122 . 80
695818	60 .			835132	122 . 80
695819	60 .	K 812834	140 .	835133	122 . 80
K 695820	60 .	812835	140 .	835134	122 . 80
695821	60 .	812836	140 .	835135	122 . 80
695822	60 .	812837	140 .	835136	122 . 80
695823	60 .	812838	140 .	835137	122 . 80
695824	60 .	812839	140 .	K 835138	122 . 80
695825	60 .	K 812840	140 .		
695826	60 .	812841	140 .		
695827	60 .	812842	140 .	K 842194	140 .
695828	60 .	812843	140 .	842195	140 .
695829	60 .	812844	140 .	842196	140 .
K 695830	60 .	812845	140 .	K 842197	140 .



...../

JANUARY 12th, 1988

MINNOVA Inc.

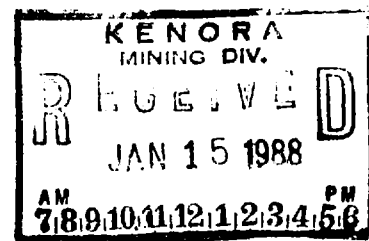
LICENCE T-556

DIAMOND DRILLING ASSESSMENT - FARRINGTON

TOWNSHIP etal

<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>	<u>CLAIM NUMBER</u>	<u>DAYS</u>
K 842198	140 .	K 855206	140 .	K 939783	122 80
842199	140 .	855207	140 .	939784	122 80
K 842200	140 .	855208	140 .	K 939785	122 80
		855209	140 .		
K 844955	140 .	855210	140 .	K 939787	122 80
844956	140 .	855211	140 .	939788	122 80
844957	140 .	855212	140 .	939789	122 80
K 844958	140 .	855213	140 .	K 939790	122 80
		855214	140 .	939791	122 80
K 846551	122 80	K 855215	140 .	939792	122 80
				939793	122 80
K 846559	140 .	K 862220	122 81	939794	122 80
K 846560	140 .	862221	122 81	K 939795	122 80
		862222	122 81		
K 851617	140 .	862223	122 81	K 939798	122 80
851618	140 .	862224	122 81	K 939799	122 80
851619	140 .	862225	122 81		
K 851620	140 .	K 862226	122 81	K 965521	122 80
				965522	122 80
K 854776	180 .	K 863608	110 .	965523	122 80
854777	180 .	K 863609	110 .	965524	122 80
854778	180 .			965525	122 80
854779	180 .	K 863627	101.8 .	K 965526	122 80
K 854780	180 .				80.48
854781	180 .	K 863634	140 .		
K 854782	180 .				
		K 939128	122 .		
K 855201	140 .	939129	122 .		
855202	140 .	K 939130	122 .		
855203	140 .	K 939131	122 .		
855204	140 .				
K 855205	140 .				

TOTAL 179 CLAIMS



MINNOVA

January 12th, 1988

LICENCE #T-556

Minnova Inc.
 Mining Innovation
 2606 Victoria Avenue East
 Thunder Bay, Ontario
 P7C 1E7
 Telephone (807) 623-1511
 Telecopier (807) 623-7019

List of Diamond Drill Holes, Drilling Dates, Claims Numbers and Meters Drilled for drilling submission of January 12th, 1988

<u>HOLE NUMBER</u>	<u>CLAIM NUMBER(S)</u>	<u>DRILLING DATES</u>	<u>METERS DRILLED</u>
BL-01 ✓	K777334/K777338	Feb. 11 - 21, 1987	381 ✓
BL-02 ✓	K777337	Mar. 19 - Apr. 1, 1987	501 ✓
BL-03 ✓	K777337/K777338	Apr. 2 - 10, 1987	468 ✓
ML-02 ✓	K873627/K777333	Jan. 9 - 15, 1987	318 ✓
ML-03 ✓	K873627/K777333	Jan. 24 - Feb. 10, 1987	528
ML-05 ✓	K830403	May 4 - 6, 1987	174 ✓
ML-06 ✓	K846559	July 7 - 9, 1987	171 ✓
ML-07	K863634	July 9 - 10, 1987	144 ✓
SR-01 ✓	K812844/K812846	June 10 - 15, 1987	210 ✓
SR-02 ✓	K812847	June 15 - 20, 1987	321 ✓
SR-03 ✓	K812848/K851619	June 26 - 29, 1987	204 ✓
SR-04 ✓	K812837	June 30 - July 2, 1987	216 ✓
BR-01 ✓	K851618	June 20 - 25th, 1987	252 ✓
BR-02 ✓	K851618	August 1 - 7th, 1987	312 ✓
HS-01 ✓	K629137	May 25 - 26, 1987	48 ✓
HS-02 ✓	K629137	May 26 - 27, 1987	36 ✓
HS-03 ✓	K777325	May 27 - June 4, 1987	348 ✓
HS-04 ✓	K695823/777322	June 4 - 10th, 1987	306 ✓
HS-05 ✓	K695827	July 3 - 7th, 1987	178 ✓
HS-06 ✓	K862225/FF4261	July 12 - 18th, 1987	187 ✓
Portion used for assessment on claim K862225 only			
Hole length 349.7 meters			
HS-07 ✓	K670225	July 20 - 24th, 1987	423 ✓
HS-08 ✓	K629173/K629172	July 24 - 31st, 1987	228

TOTAL 5,954 Meters

5,954 Meters x 3.28 = 19,529.12 Feet/Days

To be used for this submission 19,511.8 Feet/Days

