1989

824734
Algo
82m/4W

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: MOK-89-1

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: ALGO OPTION
PROJECT NUMBER: 239
CLAIM NUMBER: OK 1
LOCATION: OK 1 CLAIM

PLOTTING COORDS GRID:
NORTH:
EAST:
ELEV:

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

COLLAR DIP: -87° 0' 0"
LENGTH OF THE HOLE: 499.00m
START DEPTH: 0.00m
FINAL DEPTH: 499.00m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 227° 0' 0"

DATE STARTED: 0, 0
DATE COMPLETED: 0, 0
DATE LOGGED: September 3, 1989

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

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

CONTRACTOR: LECLERC
CASING: LEFT IN HOLE
CORE STORAGE: SAM EX CAMP

PURPOSE:

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
30.50	-	-88° 0'	ACID	OK		-	-	-	-	-	
70.10	-	-87° 0'	ACID	OK		-	-	-	-	-	
128.30	-	-87° 0'	ACID	OK		-	-	-	-	-	
181.70	-	-82° 0'	ACID	OK		-	-	-	-	-	
219.50	-	-82° 0'	ACID	OK		-	-	-	-	-	
276.10	-	-81° 0'	ACID	OK		-	-	-	-	-	
298.70	-	-78° 0'	ACID	OK		-	-	-	-	-	
349.70	-	-78° 0'	ACID	OK		-	-	-	-	-	
395.30	-	-78° 0'	ACID	OK		-	-	-	-	-	
434.90	-	-75° 0'	ACID	OK		-	-	-	-	-	
489.80	-	-71° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 2.80	«CASING»					
2.80 TO 128.20	«MAFICS»	Dark green. Fine to med. grained. A very competent series of mafic flows with hornblende and feldspar phenos.				Very complex lithology due to alteration and structural overprints.
		FOLIATION	45			
		┤2.8-18.5├ «hbl. pheric flows» very dark green with 70% chl. mtx.		10% qcv. and qcs. hematitic stains on fractures. Weakly carbonitized.	Trace pyrite in qcv.	
		┤18.5-43.8├«mt» weakly laminated mafic ash tuffs.		Bleaching and silica flooding common in and near faults. Hematite stianing common.	2-3% late qcv.	┤18.5-26.6├ «fault bx» rehealed.
		┤43.8-55.9├ «ser mt» Moderately sericitized. Possible chloritic fiamme. Very finely laminated layers of chlorite, sericite and minor pyrite. Qtz. flasers common.		«25% pervasive ser» 10% late qcv.	«5-7% fine bands py.»	┤48.0-48.5├ «flt. gouge» ┤55.0-56.0├ «flt. gouge»
		FOLIATION	45			
		┤55.9-59.0├ «mt» Dark green chloritic. Vitro clastic textures.				Absence of porphyry.
		┤59.0-128.2├ «mafic flows» Feldsparpheric. (25%) dark green chloritic mtx.		┤65.1-67.5├ «bleached» ┤69.5-73.7├ «hem stain»	66.5-67.0 coarse 1-2cm pyrite porphyro blasts.	Bleaching associated with late qtz. veins. Gradational contact with lower arg.
128.20 TO 166.40	«ARG + GRITS»	Black to grey/green. Fine to med. grained. Finely laminated argillites and grits. Qtz. clasts well rounded in grits with moderately chloritic matrix indicative of possible epiclastic origins. Bedding parallel to foliation.		Strong silicification in grits near bull qtz. veins.		
		FOLIATION	45			
		┤128.2-130.4├ finely laminated «arg. + wacke.» 129.8 sequence fines upward. Tops up.				Extreme limb of structure by bedding cleavage angles.
		┤130.4-142.0├ «grits» Bleached and silicified.		┤139.2-140.2├ «bull qv.»	«1-2% coarse grained py.»	
		┤142.0-151.1├ «arg. + wacke.» Argillites and lesser wackes finely laminated.			2-5% coarse grained py.	
		┤151.1-153.1├ «fat» Felsic ash tuff. Finely laminated minor qtz. porphyroclasts. Buff colour.		«30% ser.» defines foliation.	5% med. grained py.	Gradational contact at top. Abrupt at base.
		FOLIATION	65			
		┤153.1-166.4├ «arg. + wacke.»		153.1-160.6 20% qv.		┤155.9-159.1├ «broken core-flt.» slicken sides-graphitic.
166.40 TO 184.60	«QFP»	Green to grey. Med. grained. Moderately competent, but foliated. Qtz.-eyes (10%) clear, 2mm. Feldspar phenos, anhedral (<1mm), roughly 25%. Green limestone matrix due to sericite.		Moderate (~30%) sericite. Late qtz. veins give significant silica overprint	Trace pyrite.	Gradational upper contact. Sheared basal contact.
		FOLIATION	75			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
184.60 TO 189.50	«RHY»	Grey. Fine grained. Grey, highly sheared parallel to foliation, giving a phacoidal or fragmental texture. Qtz. eyes or augens common >70% Si02.		Moderate (<30%) white sericite.	⌊184.6-183⌋ «diss. gn., sph., cpy.» assoc. with qs. ⌊186.8-186.9⌋ «mssx» 1% gn., 70% py. ⌊189.2-189.5⌋ «diss. sx.» trace gn. sph with qdv's.	Gradational or transitional basal contact.
189.50 TO 191.70	«ARG»	Black. Fine grained. Very black, massive arg.			2-3% py. bands.	
191.70 TO 217.90	«RHY»	Grey. Fine grained. Strongly sheared rhyolite.		Strong white with lesser green ser.	«10-15% diss. py.» occurs as clots minor py. veins.	⌊194.9-208.0⌋ «flt. gouge» ⌊208.0-217.9⌋ «flt. bx.» partially healed.
217.90 TO 227.40	«FXT»	Pale green. Med. grained. Felsparpheric and rich in qtz. shards or eyes strong foliation.		Pervasive lime sericite. «5% fuchsite»	«5-10% diss. py.» clotty.	Possibly dacitic in composition.
227.40 TO 313.00	«I AT»	Light green. Fine grained, moderately homogenous ash tuff. Strongly foliated, and pyritic.		Strong pervasive sericite (>50%). Minor carbonate and feldspar porphyroblasts.	«10-15% py. clots» and bands. ⌊242.4-242.5⌋ «gn. in qdv.» ⌊251.2-252.8⌋ «gn. in qdv.» ⌊256.1-256.8⌋ «gn., sph. in qdv.»	Increase in py. content towards base.
313.00 TO 361.00	«MT + MLT»	Green. Fine to coarse grained. Finely laminated ash tuffs and coarser (8mm) flattened lapilli (possibly sed. clasts?) in a chloritic and sericitic matrix. ⌊336.3-336.4⌋ «cinnabar» as rims around qtz.augens ⌊352.5-361.0⌋ «50% qv.»		Pervasive sericite intervals common dolomitization around qdv's also common	«5% diss. py.»	Very difficult lithology due to alt. overprints. Similar to g.s.p.
361.00 TO 394.90	«I LT + MLT»	Light to dark green. Fine grained. Interbedded and strongly altered. Flattened lapilli (?) gives potted texture. Chloritic background.		Pervasive sericite.	1-2% py. clots and bands.	Strong alteration overprints. Similar to g.s.p.
394.90 TO 402.10	«QP»	Lime green. Coarse grained. Quartz porphyry. Large (3.8mm) qtz. eyes in a green sericitic matrix minor (<1mm) feldspar phenos.		Strong sericite alteration.		
402.10 TO 444.80	«PY IT»	Lt. green. Fine grained. Stongly sericitic and pyritic. Fine bands of sericite. Well foliated.			«py. veins» 10-20% py. clots and bands	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
444.80 TO 492.00	«MLT»	Dark green. Fine grained. Extremely stretched small lapilli (<1cm) in a dark chloritic mtx. FOLIATION	65	Variable amts. of ser. assoc. with qdv. qds.	«cpy in qdv's» over large intervals. Most sx's assoc. with veins.	
492.00 TO 499.00	«I T»	Light green. Fine grianed. Strongly sericitic, finely laminated. END OF HOLE.		>50% sericite.	«10% py. bands»	Gradational contact.

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	COMMENTS
BCD21661	175.00	176.20	1.20						14	41	23	.7	1	
BCD21662	176.20	177.70	1.50						11	28	10	.6	2	
BCD21663	177.70	178.90	1.20						13	27	11	.3	1	
BCD21664	178.90	180.40	1.50						11	17	7	.4	9	
BCD21665	180.40	181.70	1.30						12	13	8	.2	10	
BCD21667	184.70	185.70	1.00	.075	1.33	.40	5.9	.21						
BCD21668	185.90	186.70	0.80						14	455	340	2.4	29	
BCD21669	186.70	187.00	0.30	.008	.26	.09	1.9	.03						
BCD21670	187.00	188.50	1.50						11	1450	855	8.1	42	
BCD21671	188.50	190.00	1.50						6	2210	715	5.0	22	
BCD21672	192.90	194.40	1.50						8	1125	805	1.1	24	
BCD21673	194.40	195.80	1.40						98	647	535	1.2	16	
BCD21674	195.80	197.60	1.50						286	1240	590	0.8	11	
BCD21675	197.60	199.10	1.50						154	447	235	1.1	22	
BCD21676	199.10	200.60	1.50						87	1545	655	1.3	15	
BCD21677	202.90	204.40	1.50						62	128	44	0.5	18	
BCD21678	204.40	205.90	1.50						21	346	137	1.0	19	
BCD21681	207.30	208.80	1.50						29	1060	171	0.8	11	
BCD21682	208.80	210.30	1.50						58	947	215	1.1	15	
BCD21683	230.30	231.80	1.50						73	2345	146	.9	14	
BCD21685	244.80	246.50	1.50						76	635	73	.9	11	
BCD21686	251.10	252.50	1.40						53	335	87	1.0	9	
BCD21687	252.80	252.90	0.50	.058	.18	.11	23.8	.26						
BCD21688	256.10	256.60	0.50	.011	.14	.06	1.4	.04						
BCD21695	410.70	412.30	1.60						20	120	30	.7	13	
BCD21696	421.10	422.60	1.50						85	74	32	1.0	27	
BCD21697	430.00	430.20	0.20						27	42	13	.5	1	
BCD21699	436.60	438.00	1.40						80	70	38	1.2	11	

Sample	From (m)	To (m)	Length (m)	SIO2 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE2O3 %	MNO2 %	TIO2 %	P2O5 %	S %	BAT %	TOT %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	BA PPM	SB PPM
BCD21651	5.70	8.40	2.70	50.94	16.67	5.65	3.39	3.57	3.30	7.10	.14	.61	.2	.08	.110	91.75	33	79	32	1.6	5	1	154	
BCD21652	36.10	39.10	3.00	53.01	18.43	2.76	2.56	5.89	1.97	6.11	.08	.54	.12	.09	.115	91.69	18	72	36	1.2	10	34	180	
BCD21653	50.60	53.60	3.00	52.56	15.91	4.92	2.19	.69	4.43	7.30	.13	.61	.17	1.65	.115	90.68	48	85	44	1.2	5	18	91	
BCD21654	69.50	72.50	3.00	44.32	19.75	7.28	2.133.	2.10	3.78	9.18	.11	.73	.22	.07	.090	89.77	115	92	18	1.2	5	1	65	
BCD21655	82.10	85.10	3.00	45.33	18.46	5.54	4.22	1.95	2.80	9.55	.14	.71	.21	.06	.070	89.02	11	102	33	.9	5	1	43	
BCD21656	103.40	106.40	3.00	45.92	18.76	7.26	3.32	3.51	1.73	8.34	.13	.68	.22	.04	.060	89.99	54	77	30	.9	5	1	38	
BCD21657	124.70	127.70	3.00	49.28	18.65	4.95	2.71	4.45	1.01	10.00	.18	.73	.20	.08	.085	92.13	54	93	22	.9	10	1	48	
BCD21658	136.40	139.40	3.00	61.23	17.08	2.30	1.90	6.49	.57	5.22	.11	.34	.11	.04	.045	95.43	9	87	24	.91	5	1	35	
BCD21659	149.90	153.10	3.20	43.87	18.72	6.20	2.15	2.58	3.07	8.19	.21	.70	.20	.24	.195	86.34	50	73	20	1.1	5	19	85	
BCD21660	172.50	175.00	2.50	67.15	15.26	1.23	1.96	2.05	3.71	2.15	.06	.13	.10	.17	.150	94.10	6	34	22	.8	5	1	100	
BCD21666	181.70	184.60	2.90	68.36	15.22	1.33	1.52	3.58	2.97	1.77	.05	.12	.08	.43	.335	95.77	5	131	5	.6	5	1	176	
BCD21679	210.10	213.10	3.00	66.10	14.97	2.10	1.70	1.02	3.92	3.01	.14	.31	.09	1.74	.100	95.20	21	169	93	1.0	10	10	85	
BCD21680	220.00	223.00	3.00	51.94	14.48	3.22	4.56	1.73	3.53	6.51	.27	.65	.17	3.35	.070	90.48	48	456	169	1.9	10	10	63	
BCD21684	236.10	239.10	3.00	51.66	15.16	3.76	4.40	.77	3.65	7.19	.13	.74	.18	3.20	.060	90.91	24	120	53	1.1	5	6	62	
BCD21689	260.30	263.30	3.00	63.62	14.31	3.01	2.10	.81	3.48	3.71	.12	.35	.12	.25	.040	91.94	66	74	26	1.1	5	21	44	
BCD21690	292.80	295.80	3.00	52.44	16.59	5.36	2.39	1.20	3.36	5.32	.14	.92	.17	1.60	.055	89.56	15	57	25	1.1	5	15	50	
BCD21691	315.50	318.50	3.00	51.91	18.56	6.08	1.85	3.12	3.83	5.91	.09	1.05	.18	.42	.070	93.07	13	71	19	.9	5	1	64	
BCD21692	332.80	335.80	3.00	50.20	18.04	5.89	1.79	3.02	3.65	5.72	.09	1.02	.18	.03	.070	89.71	86	58	28	1.0	5	4	56	
BCD21693	378.80	381.60	2.80	48.17	17.28	6.91	2.29	1.98	4.04	5.91	.12	.83	.19	.46	.065	88.25	82	36	23	1.1	10	16	67	
BCD21694	397.70	401.70	4.00	63.04	13.72	4.41	2.01	.59	3.67	3.04	.08	.27	.17	.15	.045	91.15	6	28	19	1.0	5	16	27	
BCD21698	433.60	436.60	3.00	55.08	16.42	2.65	1.29	1.47	4.08	8.35	.04	.89	.12	6.80	.045	97.25	52	65	16	.8	10	20	31	
BCD21700	471.70	472.30	0.60	53.26	17.24	4.04	1.50	3.99	3.48	6.88	.11	1.17	.15	.55	.060	92.43	130	46	19	1.0	5	10	53	
BCD21701	495.60	498.60	3.00	60.44	14.49	4.13	2.10	.46	4.06	4.33	.10	.67	.14	.49	.050	91.48	11	30	25	.9	5	6	39	

MINNOVA INC.

DRILL HOLE RECORD

HOLE NUMBER: MOK-89-2 | IMPERIAL UNITS: | METRIC UNITS: X

PROJECT NAME: ALGO OPTION	PLOTTING COORDS GRID: OK 1 GRID	ALTERNATE COORDS GRID:	COLLAR DIP: -89° 0' 0"
PROJECT NUMBER: 339	NORTH: 620.00N	NORTH: 0+ 0	LENGTH OF THE HOLE: 399.90m
CLAIM NUMBER: OK 1	EAST: 800.00E	EAST: 0+ 0	START DEPTH: 0.00m
LOCATION: BARRIERE	ELEV: 847.00	ELEV: 0.00	FINAL DEPTH: 399.90m

COLLAR GRID AZIMUTH: 180° 0' 0"   COLLAR ASTRONOMIC AZIMUTH: 227° 0' 0"

DATE STARTED: 0, 0	COLLAR SURVEY: NO	PULSE EM SURVEY: NO	CONTRACTOR: LECLERC
DATE COMPLETED: 0, 0	MULTISHOT SURVEY: NO	PLUGGED: NO	CASING: LIH
DATE LOGGED: September 18, 1989	RQD LOG: NO	HOLE SIZE: NQ	CORE STORAGE: SAM EX CAMP

PURPOSE: STRATIGRAPHIC HOLE IN HOMESTAKE SCHIST PACKAGE

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
148.10	-	-83° 0'	ACID	OK		-	-	-	-	-	
190.80	-	-82° 0'	ACID	OK		-	-	-	-	-	
242.60	-	-81° 0'	ACID	OK		-	-	-	-	-	
279.10	-	-74° 0'	ACID	OK		-	-	-	-	-	
328.23	-	-71° 0'	ACID	OK		-	-	-	-	-	
367.10	-	-71° 0'	ACID	OK		-	-	-	-	-	
399.90	-	-71° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 4.00	«CSG»					
4.00 TO 86.80	«MAFIC VOLCS»	Colour: dark green Grain Size: medium A massive porphyritic section of flows and tuffs variable amount sof bleaching and sericite alteration				Euhedral nature of porphyry indicates porphyroblastic overprint -ankeritic
		foliation	60			
		┤4.0-28.7├ «MLT» -mafic lapilli tuffs -lighter green porphyritic clasts in a dark chloritic mtx		┤4.0-28.7├ «10% QV» -10% quartz vein with bleached haloes		
		┤28.7-34.9├ «FLT BX» -mainly rehealed, minor gouge		┤28.7-34.9├ «STRG. BLEACHING»	┤28.7-34.9├ «HEMATITIC»	
		┤34.9-61.3├ «M FLOWS» -massive, chloritic, porphyritic				
		┤61.3-66.7├ «ALT M FLOWS»		┤61.3-66.7├ «SERICITIC»		
		┤67.7-72.0├ «M FLOWS» -same as above				
		┤72.0-77.8├ «FLT BX» -partially healed, QV and QDV's		-sericitic matrix		mafic frags
		┤77.8-86.8├ «ALT M FLOWS»		-bleached and hematitic		
		foliation	45			
86.80 TO 147.20	«FLT ZONE»	Colour: lime to dark green Grain Size: Extremely high angle fault breccia/gouge zone. Rehealed breccias indicate reactivation				
		┤86.8-119.9├ «FLT'D M FLOWS» -rehealed BX		-strong bleaching and sericite, minor		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		⟨119.9-133.6⟩ «FLT GDGE» -chloritic ghosts with felsic intervals 126.2 shearing 131.1 S or C foliation ⟨133.6-142.4⟩ «FLT'D M FLOWS» -bx'd, chloritic very fine grained ⟨142.4-147.2⟩ «FLT GDGE»	85 40	QDV -hematitic staining -strong sericite -sericitic matrix -sericitic	⟨119.9-133.6⟩ «TR GN SPH» -in QV	
147.20 TO 169.10	«FLT'D QFP»	Colour: light green Grain Size: medium -strongly sheared, feldsparpheric, gougy foliation	40	« >50% ser mtx»	«5-7% py clots» -5-7% pyrite clots parallel to fol'n	
169.10 TO 211.50	«FLT'D PY, RHY»	Colour: grey Grain Size: fine Strongly sheared felsics dominated by white sericite which defines foliation foliation ⟨188.3-192.3⟩ «ALT SEDS?» -in fault, local graphitic gouge with possible bleched grits and args -35% QV ⟨192.3-199.4⟩ «RHY» ⟨199.4-203.1⟩ «QV STKWK» -65% QV, possible sed (in part) host ⟨203.1-203.6⟩ «ARG IN FLT» ⟨203.6-211.5⟩ «RHY»	65	«WHITE SERICITE» ⟨199.4-203.1⟩ «EXTREME ALT'N»	⟨169.9-170.0⟩ «f.g. GN SPH, 2% TOT» -in QDV ⟨171.3-171.5⟩ «DISS GN» -in late QV -15% clots py ⟨198.8-199.0⟩ «SMPY» ⟨202.8-203.0⟩ «TR GN, CPY» -in QV ⟨203.6-211.5⟩ «TR GN»	very cherty

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					-15% pyrite clots	
211.50 TO 241.40	«FAT»	Colour: grey to green Grain Size: fine Felsic ash tuffs, strongly pyritic and sericite, finely laminated and phacoidal sections alternating QTZ-SER bands foliation |220.0-221.5| «FLT GDGE» 237.0 m shearing	65 20	«>40% white and green ser» ->40% white and green sericite	«15% py diss and clots parallel to foliation» -15% disseminated pyrite and clots parallel to foliation	Transitional contact into chloritic facies at base
241.40 TO 309.60	«IAT» INTERMED. ASH TUFFS	Colour: green Grain Size: fine Moderately chloritic fine graned, and competent; shearing is not as prolific as above although strong, pervasive Qtz dolomite veinlets may increase competency; Qtz-Dol alteration gives "blotchy" texture |303.8-306.0| «FAT?» -dominant qtz-ser v.f.g. |306.0-309.6| «FLT BX + QV»		«wk (<20%) SER» -weak, <20% sericite -silica flooding common next to late (c.a. parallel) QD veins	«5-10% PY BANDS» «TR GN, CPY» -5-10% pyrite bands -parallel to foliation -trace gn, cpy common in QDV's -py blebs 10% |304.0-304.1| «GN SPH, STRING»	Possibly an altered IAT faulted contact
309.60 TO 399.90	«MT»	Colour: dark green Grain Size: fine Strongly chloritic, minor laminations, blotchy chlorite may be fine lapilli foliation |309.6-342.5| «VERY CHLORITIC» |342.5-351.9| «DOLMT» -dolomite strongly altered	65	-moderate pervasive qtz dolomite minor rust brown sericite -pervasive qtz dol string, tr fuchsite, rusty and green sericite = 25% minor chlorite	|309.6-342.5| «TR GN, CPY» -with QDV string |342.5-351.9| «7% clotty py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		┤351.9-390.8├ «MT»		-variably altered (ser, dol)	-5-10% py bands parallel to foliation	
		┤390.8-399.9├ «MLT» -chloritic lapilli in a sericite mtx		-variably altered		G.S.P.!! transitional upper contact
	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	COMMENTS
21708	121.90	123.40	1.50						2	18	14	.5	2	
21711	166.40	167.90	1.50						3	33	17	.6	5	
21712	169.10	170.60	1.50	.002	.96	.20	1.2	.01						
21713	170.60	172.10	1.50						44	2125	695	1.6	2	
21714	175.10	176.60	1.50						49	5155	154	.7	1	
21716	181.10	182.30	1.20						29	211	114	.5	1	
21717	185.30	186.80	1.50						18	441	243	.6	5	
21718	191.30	192.80	1.50						33	218	72	.6	2	
21719	198.00	199.50	1.50						17	745	310	1.3	6	
21720	199.50	200.70	1.20						14	230	117	.7	4	
21721	202.90	203.30	0.40	.014	.13	.06	2.0	.01						
21722	208.10	209.60	1.50						46	2905	1380	1.7	15	
21723	209.60	211.00	1.40						38	1730	940	1.2	3	
21725	220.10	221.00	0.90						11	157	84	.6	2	
21726	225.00	226.50	1.50						27	196	147	.8	6	
21734	232.80	234.30	1.50						54	1575	33	1.8	2	
21732	303.40	304.90	1.50						146	4205	1050	.9	2	

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	COMMENTS
21708	121.90	123.40	1.50						2	18	14	.5	2	
21711	166.40	167.90	1.50						3	33	17	.6	5	
21712	169.10	170.60	1.50	.002	.96	.20	1.2	.01						
21713	170.60	172.10	1.50						44	2125	695	1.6	2	
21714	175.10	176.60	1.50						49	5155	154	.7	1	
21716	181.10	182.30	1.20						29	211	114	.5	1	
21717	185.30	186.80	1.50						18	441	243	.6	5	
21718	191.30	192.80	1.50						33	218	72	.6	2	
21719	198.00	199.50	1.50						17	745	310	1.3	6	
21720	199.50	200.70	1.20						14	230	117	.7	4	
21721	202.90	203.30	0.40	.014	.13	.06	2.0	.01						
21722	208.10	209.60	1.50						46	2905	1380	1.7	15	
21723	209.60	211.00	1.40						38	1730	940	1.2	3	
21725	220.10	221.00	0.90						11	157	84	.6	2	
21726	225.00	226.50	1.50						27	196	147	.8	6	
21734	232.80	234.30	1.50						54	1575	33	1.8	2	
21732	303.40	304.90	1.50						146	4205	1050	.9	2	

Sample	From (m)	To (m)	Length (m)	SIO2 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE2O3 %	MNO2 %	TIO2 %	P2O5 %	S %	BAT %	TOT %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	BA PPM	SB PPM
BCD21702	7.20	9.90	2.70																					
BCD21703	24.10	27.10	3.00																					
BCD21704	52.90	55.90	3.00																					
BCD21705	62.60	65.60	3.00																					
BCD21706	97.80	100.80	3.00																					
BCD21707	113.10	116.10	3.00																					
BCD21709	136.90	139.90	3.00																					
BCD21710	147.20	150.20	3.00																					
BCD21714	175.10	176.60	1.50																					
BCD21715	178.10	181.10	3.00																					
BCD21724	213.70	216.70	3.00																					
BCD21727	230.80	233.80	3.00																					
BCD21728	246.60	249.60	3.00																					
BCD21729	264.10	267.10	3.00																					
BCD21730	286.20	289.20	3.00																					
BCD21731	300.40	303.40	3.00																					
BCD21733	317.80	320.70	3.10																					
BCD21735	344.60	347.60	3.00																					
BCD21736	370.80	373.80	3.00																					
BCD21737	394.00	397.00	3.00																					

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: ALGO OPTION
PROJECT NUMBER: 339
CLAIM NUMBER: OK 1
LOCATION: BARRIERE

PLOTTING COORDS GRID: OK1 GRID
NORTH: 625.00N
EAST: 900.00E
ELEV: 910.00

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

COLLAR DIP: -89° 0' 0"
LENGTH OF THE HOLE: 400.00m
START DEPTH: 0.00m
FINAL DEPTH: 400.00m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 227° 0' 0"

DATE STARTED: 0, 0
DATE COMPLETED: 0, 0
DATE LOGGED: September 22, 1989

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

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

CONTRACTOR: LECLERC
CASING: LIH
CORE STORAGE: SAM EX CAMP

PURPOSE: STATIGRAPHIC HOLE IN HOMESTAKE SCHIST PACKAGE.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
30.50	-	-89° 0'	ACID	OK		-	-	-	-	-	
60.90	-	-85° 0'	ACID	OK		-	-	-	-	-	
142.00	-	-82° 0'	ACID	OK		-	-	-	-	-	
193.80	-	-76° 0'	ACID	OK		-	-	-	-	-	
245.60	-	-76° 0'	ACID	OK		-	-	-	-	-	
361.80	-	-70° 0'	ACID	OK		-	-	-	-	-	
399.90	-	-69° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 2.20	«CASING»					
2.20 TO 121.40	«MAFIC FLOW»	Colour: dark green Grain Size: medium A very competant and homogenous unit; strong porphyroblastic overprint (10% - 1mm); chloritic matrix ┤43.0-47.0├ «FLT» -brecciated interval sericite matrix ┤51.6-56.5├ «FLT BX» -silicified ┤56.5-60.2├ «FLT GDGE» ┤73.4-75.6├ «FLT BX» -rehealed ser mtx. ┤102.4-106.4├ «FLT ZONE» -sericitic matrix - light green ┤117.8-121.4├ «FLT BX» -rehealed shearing	0	-bleaching and silification common near faults -limonitic staining -porphyroblastic ankerite -sericitic and limonitic, tr fuchsite -wide bleached halo, minor hem. stain ┤89.9-93.2├ «BLEACHING» ┤102.4-106.4├ «SER BLCH'G» -hematite staining -bleached	-manganese stains ┤56.5-60.2├ «2-3% PY BANDS»	
121.40 TO 131.30	«FLT ZONE»	Colour: Grain Size: Many different lithologies in a fault package ┤121.4-121.8├ «FLT'D CHT» ┤123.8-124.3├ «FLT'D RHY»		-graphitic	┤123.8-124.3├ «1-2% m.g. PY»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		┤124.6-124.7├ «FLT'D ARG»		-graphitic		
		┤125.3-125.6├ «FLT'D ALT ARG» -grey ┤125.6-129.1├ «FLT'D QFP» ┤129.1-129.3├ «FLT'D SED BX» -chert and arg frags		-grey sericite ┤125.6-129.1├ «STRG. SER»	-tr pyrite -1-2% diss. pyrite	similar to 86 series DDH
		┤129.3-131.3├ «FLT'D ANK PHYL» -ankeritic phyllite shearing @	35	-ankeritic "stain"		
131.30 TO 185.60	«MT» MAFIC TUFFS	Colour: green Grain Size: fine Finely laminated layers of chlorite and sericite and feldspar laths, moderately homogenous		«10% QDV» -10% QDV -minor sericite halos around veins	-porphyroblastic -pyrite 1-2%, 2-6 mm -pressure shadows	
		┤149.6-168.4├ «ALT MT»		┤149.6-168.4├ «SERICITE INCR»	-2-3% py bands	FLT at 163.0-163.8
		┤181.4-183.8├ «ALT MT»		┤181.4-183.8├ «SER INCR»		Traces, ghosts of primary lithology
		┤183.8-185.6├ «FLT BX» -semi rehealed, strongly rotated foliations in fragments				Late post foliation faulting
185.60 TO 252.40	«MT + MLT»	Colour: Grain Size: Finely interbedded and laminated intervals dark green chloritic matrix with strong FP; porphyroblastic overprint (10-15%, 1-4 mm) Very competant section		-weakly carbonitized with sericite envelopes near veins -10% QV and QCS generally parallel to foliation and c.a.		
		┤204.5-206.5├ «MLT» -2-4 cm flattened lapilli		┤204.5-206.5├ «HEM STAIN» -dark red bands		
		┤209.6-209.9├ «FLT GOUGE»		-sericitic yellow		
		┤222.7-222.9├ «FLT BX + GDGE»				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		shearing @	50			
		⟨245.6-252.4⟩ «ALT MT»		⟨245.6-252.4⟩ «STRONG SER»		
252.40 TO 276.00	«FLT ZONE»	Colour: Grain Size: Many lithologies in a fault package				Strongly bleached host rocks, dominantly QFP's?
		⟨252.4-253.3⟩ «FLT GDGE»				
		⟨253.3-256.3⟩ «ALT ARG» -well laminated grey, minor cherty lam foliation	75	⟨253.3-256.3⟩ «5% GREY SER» -20% fine QS -trace rust ser sim to mut	⟨253.6-253.7⟩ «1-2% TOT GN SPH» in QV	graphitic gouge
		⟨256.3-261.0⟩ «QV STKWK» -bull qtz-dol veins in QFP?		-strong silica flooding	256.3-256.8 -tr gn sph in qv	
					⟨257.4-258.4⟩ «SIL FLOOD 1% SPH»	
					⟨259.3-260.2⟩ «5% SPH, 2% GN» -in quartz vein	-blackjack
					⟨260.2-261.0⟩ «1% SPH» -in QV	
		⟨261.0-266.5⟩ «SIL QFP» -very competant, grey, 10% QV		⟨261.0-266.5⟩ «BLEACHED»	-5% disseminated pyrite	
		⟨266.5-267.2⟩ «FLT GDGE»		-sericitic gouge		
		⟨267.2-271.6⟩ «RHY» -well laminated, grey fragmental - phacoidal text sheared		-grey sericite in partings, tr fuchsite		
		⟨271.6-276.0⟩ «FLT GOUGE» -strongly pyritic		-sericitic	⟨271.6-276.0⟩ «10% PY, TR SPH»	dark grey intervals similar to mut

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
276.00 TO 280.70	«FAT»	Colour: lime green Grain Size: fine Very finely laminated QSS; alternating qtz and ser lam; sericitic partings spotted text due to py clots foliation	75	-lime sericite -10% qv - cross cut	«10% clotty, diss py» 10% clotty, disseminated pyrite	tr fuchsite
280.70 TO 283.70	«FLT ZONE»	Colour: Grain Size: ┤280.7-282.4├ «PY GDGE» -pyritic gouge, dark grey, sim to mut ┤282.4-283.7├ «SER GOUGE»				
283.70 TO 316.30	«PY IAT»	Colour: grey green Grain Size: fine Finely laminated ash tuffs; moderately sheared; mainly alternating sericite and lesser py bands; 5 mm laminae; 10% late qtz veins; 5% QDV		«3-4% FUCHSITE» -3-4% Fuchsite -lime and rust colour sericite	«10% PY BANDS + DISS» -10% py bands and diss -lessens towards base	┤289.9-290.3├ «FLT GDGE» -grey pyritic -transitional basal contact
316.30 TO 375.50	«MT»	Colour: green Grain Size: fine Laminated (<2mm), chloritic tuffs, homogenous and competant; minor FP porphyroblasts; 5% QDV foliation @ ┤325.6-328.6├ «ACT MT» -lime green ┤334.9-337.9├ «ALT MT» ┤355.0-357.0├ «ALT MT»	75	-weak ser haloes near QDV's -strong ser -strong ser	«2-5% diss. py» -2-5% disseminated pyrite	Fault contact at base poss FAT? transitional contact same as above

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					-5% pyrite	same as above
375.50 TO 400.00	«MLT+MT»	Colour: green to yellow Grain Size: fine Variably altered; faint lapilli in top half of interval grade into fine laminated ash tuffs; 2% QDV		«STRONG SER» -strong pervasive sericite	-2-5% diss py	similar to G.S.P. but not as distinct lapilli outlines
	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		COMMENTS
21744	127.40	128.90	1.50						53	1665	84	.9	2		
21750	253.30	254.80	1.50						20	88	80	1.5	4		
21751	256.10	256.80	0.70	.008	.06	.08	1.5	.01							
21752	256.80	257.50	0.70	.003	.21	.02	.3	.02							
21753	257.50	258.50	1.00	.004	.02	.01	.8	.01							
21738	259.40	260.20	0.80	.043	3.67	.87	12.1	.21							
21754	259.50	260.30	0.80	.001	.01	.01	1.2	.01							
21755	260.30	261.00	0.70	.001	.01	.01	.2	.01							
21756	261.00	261.50	0.50						231	3050	1510	2.4	13		
21757	261.50	263.00	1.50						50	5140	2650	2.2	4		
21759	274.00	275.00	1.00						23	2230	765	1.2	1		
21760	280.70	282.20	1.50						5	25	19	1.9	1		

Sample	From (m)	To (m)	Length (m)	SIO2 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE2O3 %	MNO2 %	TIO2 %	P2O5 %	S %	BAT %	TOT %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPM	BA PPM	SB PPM
BCD21739	16.00	19.00	3.00																					
BCD21740	34.10	37.10	3.00																					
BCD21741	65.80	68.80	3.00																					
BCD21742	95.70	98.70	3.00																					
BCD21743	117.20	120.20	3.00																					
BCD21745	131.60	134.60	3.00																					
BCD21746	154.30	157.30	3.00																					
BCD21747	192.50	195.50	3.00																					
BCD21748	198.50	201.50	3.00																					
BCD21749	228.80	231.80	3.00																					
BCD21758	268.40	271.40	3.00																					
BCD21761	287.60	300.60	13.00																					
BCD21762	320.70	323.70	3.00																					
BCD21763	325.30	328.00	2.70																					
BCD21764	357.40	360.40	3.00																					
BCD21765	380.40	383.40	3.00																					
BCD21766	393.40	396.40	3.00																					