LARA-
Solly Claim
Project Number 242
Hole Number: 89-228 to 89-258

827710 092B/13

HOLE NUMBER: 89-228

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10323.00N
EAST: 9980.00W
ELEV: 666.00

ALTERNATE COORDS GRID:
NORTH: 103+23N
EAST: 99+80W
ELEV: 666.00

COLLAR DIP: -63° 0' 0"
LENGTH OF THE HOLE: 333.50m
START DEPTH: 0.00m
FINAL DEPTH: 333.50m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 18, 1989
DATE COMPLETED: April 23, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: Frontier Drilling
CASING: 3.0 m
CORE STORAGE: 9398 Trans. Canada Hwy.

PURPOSE: To test the easterly extent of a high grade ore shoot intersected by holes 203 and 199

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	-	-62° 0'	ACID	OK		-	-	-	-	-	
76.20	-	-61° 0'	ACID	OK		-	-	-	-	-	
152.40	-	-59° 0'	ACID	OK		-	-	-	-	-	
240.80	-	-56° 0'	ACID	OK		-	-	-	-	-	
320.30	-	-58° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.00	OVERBURDEN «OB»					
3.00 TO 40.60	FELSIC ASH, TUFF «F ASH, TUFF»	Colour: light grey Grain Size: f.gr. -weakly foliated, patchy moderate foliation foliation 5.7 m foliation 16.0 m -generally featureless, rare < 2cm greenish stretched fragments and 3-4mm siliceous felsic fragments. -Thin interbeds as follows of medium green intermediate tuff with up to 5-7% mm epidote grains = feldspors. 14.4 - 15.25 fault 14.4 20 cm fault gauge at top of interval. 17.2 - 19.8 contact 19.8 -Rubbly core, fault gouge and poor recovery from 20.0 - 26.5 25.8 5 cm cherty ash. Some fine bedding at 45 to core axis. 26.5 - 30.2 Triconed, no core. foliation 32.4 m 39.5-40.6 laminated cherty ash and chert bedding 40.3	 55 50 35 50 45 50	«W-M ser» weak to moderately sericitic. Moderately altered appearance.	«2-3% py» 2-3% and locally 5% pyrite disseminated and as 1-3mm wide wisps, veinlets parallel to foliation.	
40.60 TO 114.20	ANDESITE TUFF, ASH «AND TUFF, ASH»	colour: dark green grain: f.gr. bedding: 41.4 -Fine grained ashes, some aphanitic interbedded with coarser tuffs some with mm greenish white feldspar specks, 1-2 mm weakly epidotized feldspars and <1 cm epidotized fragments. -Top of unit thin felsic interbeds as follows. bedding: 43.1 43.0-45.5 some mixing with andesite ashes 44.1 - 44.2 mixing with dark grey pyritic mud 50.25 - 52.1 Felsic tuff 56.9 - 57.35 Felsic tuff	 50 40	«W - M, Chl, wep» Weak to patchy moderate chlorite, weak epidote as altered feldspars and fragments.	«<1 - 1% py tr cpy» Overall <1-1% pyrite and trace chalcopyrite. Zones of significant sulfide concentrations as follows.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		46.15 - 46.4 minor black argillaceous groundmass. 52.1 - 52.3 Fine ashes distorted and folded. bedding: 58.3 74.7 - 83.8 up to 10% epidotized feldspars, fragments and epidote patches 92.7 - 103.3 coarser granular texture. Fine mm siliceous grains in groundmass, occassional <2 cm epidotized fragments. 98.0 - 102.5 5% epidotized fragments averaging <2 cm, but up to 4cm Below 103.3 - 114.2 increasing frequency of crystal rich zones as lower contact approached. Gradutional lower contact.	45	47.0 - 47.2 and 47.3 - 47.5 Barren white quartz vein. 52.3 - 52.4 Quartz vein ┤71.7 - 74.3├«Qtz Vn»	52.3 - 52.4 20% coarse, brassy pyrite 3% chalcopyrite. 57.6 - 58.3: 5-7% disseminated coarse pyrite, <1% chalcopyrite. 62.3 4cm 60% coarse, brassy py. 66.8 - 68.1 2-3% diss pyrite includes 4 cm of massive pyrite at 68.0 m ┤71.7 - 74.3├«15py, <1% cpy» Overall 15% py, <1% cpy. High sulfide zones as follows: 71.7 - 72.0 20% py 72.15 - 72.4 30% py <1% cpy 72.8 - 73.1 30% py <1% cpy 73.6 - 73.7 70% pyrite	
114.20 TO 220.00	ANDESITE LAPILLI TUFF, TUFF «AND LAP T, TUFF»	colour: dark green grain: m-c gr. Massive 10 - 20% and locally 40% total of epidotized 1-3 mm grains=feldspar and <1 cm epidotized fragments in a finer grained groundmass ┤136.7 - 141.21├«ARG» 136.7 - 141.2 Distinctive argillite component to		«M ep» Moderate epidote as altered feldspars and fragments. 123.9 - 124.05 massive white quartz vein. 137.8 - 138.3 Quartz chlorite veining.	«<1% py, cpy» <1% pyrite and chalcopyrite localized as <1 cm stringers and disseminatrans. <1% diss chalcopyrite <1% chalcopyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		groundmass with andesite lapilli. 139.95 - 141.2 greatest argillite component to groundmass, occassional 2-4mm laminations at very fine syngenetic pyriter.			139.95 - 141.2«2-3% py» 2-3% very fine disseminated pyrite, and thin fine pyrite laminations.	
		141.2 - 176.0 Dyke swarm of Felsic Dykes. Massive, light grey, rounded <5mm bluish white quartz eyes, up to 5% green epidotized feldspars. Individual dykes as follows. 141.0 - 141.1 141.35 - 141.85 144.0 - 145.9 147.2 - 150.0				
		152.4 - 152.55 contact: 152.55	45			
		153.6 - 153.75 155.4 - 155.65 158.6 - 161.35 162.1 - 163.2 168.1 - 170.7 173.3 - 170.7 Dykes continue down hole, but least abundant.				
		145.9 - 147.2 Felsic Tuff weakly foliated, up to 5% epidotized grain/fragments in a felsic groundmass. Distinctively different from surrounding dykes. 158.6 - 158.8 gougy brecciated core.			145.9 - 147.2, 2-3% diss. pyrite	
		71.6 - 173.3 getting 1-2 cm felsic fragments in a andesitic matrix		168.1 - 169. 1 Qtz chlorite veining	167.0 - 168.1«3-5% py» 3-5 % diss pyrite 172.2 - 173.3«2-4% py» 2-4% diss pyrite aligned parallel to foliation	
		176.0-183.0 abundant >2cm epidote fragments /patches, largest frag = 7cm gougy core 183.0 - 183.1			176.0 - 183.0 1-2% diss pyrites trace chalcopyrite.	
		183.6 - 185.8 mixing of andesite and felsic material. Felsic fragments in a more felsic looking groundmass			183.6-185.8 5-7% pyrite, disseminated and forming poor stock work.	
		187.0 - 193.7 Felsic Dyke: massive, light grey, fine brecciated appearance. 197.5 - 197.8 Felsic dyke 198.2 Wispy flowing appearance to groundmass at 40 to core axis = bedding? 198.5 - 200.2 Felsic Dyke 200.2 - 201.3 Mafic Dyke			187.0 - 189.9 1-2% disseminated pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		201.5 - 212.2 Felsic Dyke with <0.5 m screens of andesite, Epidotized fsp, blue-white qtz grains. 215, 4-215, 6 felsic dyke 218.8 - 221.6 Hematitic fracture coatings and <1mm veinlets. Faulted lower contact 40 cm of fault gouge. fault:	35		215.6 - 218.0 2% diss pyrite	
220.00 TO 237.35	FELSIC TUFF QP «F TUFF,QP»	colour: light grey, green - grey grain: fi.gr. -weakly foliated -1-3% rounded, shattered 1-3 mm quartz eyes, weak white speckled appearance caused by 1-2 mm calcareous grains. 220.0 - 223.0 Fault zone, gougy core. 224.8 10cm core 226.4 - 226.8 kinked and folded foliations foliation: 229.0 222.0 - 223.0 fault zone, gougy core 224.8 10 cm gouge 226.4 - 226.8 kinked and folded foliations	45	«W-M ser» weak to moderately sericitic. 235.1 - 236.2 Quartz vein. Massive white x-cutting, chlorite/sericite veinlets, minor carbonate 236.65 - 237.2 Quartz vein.	222.5 - 225.3 «2-3% py» 2-3% fine pyrite as <1cm laminations/ veinlets localized as zones up to 15cm wide. Within narrow zones pyrite = 20% with a siliceous groundmass. 235.1 - 236.2 trace pyrite Two, 5mm pyrite veinlets between qtz veins 236.65 - 237.2 trace pyrite	222.5 - 225.3 possible hangingwall zone.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
237.35 TO 237.60	PYRITIC FELSIC TUFF «F TUFF,PY»	colour: dark grey grain: fi. gr. Gougy brecciated appearance, weak fragmental appearance. Fine siliceous felsic grains.		«W ser»	«7% py, <1% cpy, tr sp» 7% pyrite, <1% chalcopyrite and trace sphalerite finely disseminate in small clots and veinlets. Most sulfides in first 10 cm.	Possible Coronation Zone
237.60 TO 243.10	FELSIC TUFF «F TUFF»	colour: light grey grain: fi.gr. -weakly foliated -same rock unit as above Coronation? zone. 241.3 10 cm fault gouge		«W ser»	trace pyrite	
243.10 TO 251.60	FELSIC FLOW? TUFF? «F FLOW, TUFF»	colour: light grey grain: fi. gr Very massive, strung pervasive silicified appearance. Up to 5% 1-3 mm light green sericitized grains and locally 1-2% 2-3 mm darker green chlorite clots Weakly brecciated with fine white quartz-calcite veinlets. 2 cm fault gouge along lower contact contact: 251.6	40	«S sil» strongly siliceous	«tr py, cpy» Trace pyrite and chalcopyrite as 1mm veinlets at 248.1 and 250.5.	
251.60 TO 271.30	DIORITE «DIOR»	colour: dark green grain: f-m gr. Massive, weaklyy equigranular patchy finer grainedd phases calcareous and weakly sheared Occasional patches with 5-7% brownish leucoxene. 227.2 - 270.5 feldspar porphyritic, up to 10% whitish ragged feldspar 270.5 - 271.3 fine grained margin. Very rubbly lower contact				
271.30 TO 333.50	FELSIC DOME, FLOW «F FLOW-FW»	colour: light-med grey grain: f. gr. foliation: 275.4 -Massive, patchy, very weak foliation -Prvasive silicified appearance -Distinctive appearance due to bluish white quartz eyes/vesicles up to 1 cm and 3-4% 2-3 mm	45	«M - S sil» moderate to strongly siliceous, probably a primary feature.	tr sphalerite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		clear shattered rounded quartz eyes. Occassional patches with rounded 2-5 mm epidote aggregates Rubbly core 293.4 - 293.8 300.4 - 300.7 Mafic dyke, dark green, fine grained, weakly foliated 310.9 10 cm gougy core 312.8 10 cm gougy milled core 322.0 - 325.0 Mafic dyke; dark green, brown, very gougy core parallel to core axis.		306.4 - 306.6 Quartz vein	281.9 m 6 cm zone with 1% fine red disseminated sphalerite associated with a zone of epidote aggregation. <1% pyrite. 321.7 trace disseminated red sphalerite. 327.3 - 327.5 trace red disseminated sphalerite associated with epidote aggregates.	33.5 m up hole caving, cannot reach caving, cannot reach bottom, hole abandoned.

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
12738	57.60	58.30	0.70	1490		70	1.6	25											0.0			
12739	71.70	73.10	1.40	2500		51	1.2	5											0.0			
12740	73.10	74.30	1.20	550		49	1.4	5											0.0			
12741	139.95	141.20	1.25	242		84	0.8	5											0.0			
12742	167.00	168.10	1.10	16		151	1.0	5											0.0			
12743	172.20	173.30	1.10	20		50	1.0	5											0.0			
12744	183.60	184.70	1.10	332		48	0.8	5											0.0			
12745	184.70	185.80	1.10	90		40	0.8	5											0.0			
12746	222.50	223.90	1.40	58		151	1.8	5											0.0			
12747	223.90	225.30	1.40	17		52	0.5	5											0.0			
12748	235.10	236.20	1.10	3		10	0.2	5											0.0			
12749	236.20	237.35	1.15	7		18	0.3	5											0.0			
12750	237.35	237.60	0.25	1950		4650	30.0	825	3100										0.0			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11552	7.00	9.90	2.90	15.99	0.298	0.12	3.82	3.01	4.61	0.12	1.76	0.12	65.68		0.36		1.24	97.12	1.1	9	172	23	47	4	113	5
11553	47.20	50.20	3.00	13.53	0.027	12.41	10.61	0.79	4.79	0.19	1.5	0.2	42.09		1.57		0.3	88.03	1.6	3	29	137	54	1	137	5
11554	86.60	89.60	3.00	17.34	0.096	2.29	7.88	0.94	6.28	0.31	4.26	0.17	54.66		0.65		0.96	95.82	1	1	100	215	59	5	156	5
11555	125.00	128.00	3.00	16.74	0.006	6.57	9.58	0.05	7.38	0.36	2.5	0.15	49.94		0.59		0.16	94.04	0.9	1	28	77	64	5	145	5
11556	155.60	158.60	3.00	17.25	0.024	7.04	8.04	0.41	4.59	0.22	4.42	0.23	49.16		0.68		0.3	92.36	0.8	10	141	77	46	5	85	5
11557	193.70	196.70	3.00	16	0.034	10.38	10.89	0.28	4.74	0.21	0.87	0.19	50.05		0.64		0.28	94.57	0.8	6	244	11	55	4	72	5
11558	226.00	229.00	3.00	15.49	0.095	2.21	2.27	4.41	2.06	0.03	1.95	0.05	66.39		0.3		1.04	96.3	0.2	20	141	12	21	1	37	5
11559	247.80	250.80	3.00	15.34	0.09	2.01	2.24	5.53	1.04	0.05	2.7	0.01	67.81		0.22		0.26	97.29	0.2	22	77	14	16	1	29	5
11560	283.50	286.50	3.00	14.48	0.098	3.29	2.84	5.54	0.9	0.09	1.34	0.02	68.01		0.19		0.7	97.49	0.3	13	60	65	14	1	1155	5
11561	318.00	321.00	3.00	15.17	0.095	1.64	1.78	4.07	0.92	0.06	3.97	0.01	69.71		0.2		0.08	97.7	0.4	12	62	11	16	1	251	5

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-229

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: 92 B 13W

PLOTTING COORDS GRID: MINE
NORTH: 10154.00N
EAST: 10375.00W
ELEV: 622.00

ALTERNATE COORDS GRID: MINE
NORTH: 101+54N
EAST: 103+75W
ELEV: 622.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 152.10m
START DEPTH: 0.00m
FINAL DEPTH: 152.10m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 20, 1989
DATE COMPLETED: April 21, 1989
DATE LOGGED: April 21, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 21.95m
CORE STORAGE: 9398 TRANS CANADA/CHEMAIN

PURPOSE: TEST NEAR SURFACE TRACE OF PLUNGE ASSOCIATED WITH THE DDH 203, 199 TREND.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
91.44	-	-47° 0'	ACID	OK		-	-	-	-	-	
152.10	-	-46° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 21.90	«OB»					
21.90 TO 30.41	Rhyolite «QP TUFF»	colour: med. grey grain: fi-med.gr. -thickly bedded -moderately foliated -5-10% quartz eyes to 2 mm -10% white to ghosty feldspar crystals to 1/2 mm these are locally clay altered. -interval contains numerous argillite laminee/ bedding 23.20m 23.94m 25.50m 25.92m 26.35m -possible tuffaceous dyke material 26.70m between 23.6-23.64m and 27.2+27.31m, 27.96m contact angle at 27.20m,30; 27.31m 38 29.99m -30.19m to 30.32m, interval becomes silicified and contains minor chert. -30.35 to 30.38m, Argillite interbed 30.38m -30.45 to 30.49m, Argillite band, tops 30.45m up hole; this band contains 10 to 15 felsic fragments to 3mm.	55 50 55 55 46 38 54 40 50 40	appears unaltered	«1% disseminated pyrite»	from 26.90 to 22.50m, moderate to strongly oxoidized. These dykes usually appear proximal to the Coronation Zone or are in the Zone
30.41 TO 30.58	«CORONATION ZONE»	colour: med grey grain: fi.gr -thinly bedded; weakly foliated		silicified	3-5% fine grained pyrite, trace tetrahedrite, possible trace sphalevite.	
30.58 TO 44.28	Feldspar Porphry «FP-FW»	colour: light to med. grey grain: med. gr. -thickly bedded, weakly foliated; 10-15% white to ghosty to rarely clay altered feldspar crystals to 3mm, some crystals are silicified. The interval also contains 5-10% quartz eyes to 2mm, lovally the interval becomes greyish green in colour; the interval may contain 10% med. green fragments to 4mm. -strong gouge and shear zone between «Fault» 36.96m + 37.13m. -between 39.37 + 39.60m interval possibly contains		-patchy bleaching; fragments, but no change in composition, these are up to 10cm in size and contitute 5-10% of the interval, boundaries are sharp; locally siliceous.	-locally up to 1% pyrite, but generally <1% pyrite for the entire interval	Footwall Formation

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		60% argillaceous material with 3-5% fine grained pyrite, this interval also has 10% felsic fragments to 2mm. -«Shear» 39.37 + 39.60m -41.00m to 44.28m the bleached fragments are no longer present. But there are now 5% Rhyolite Dust to Ash fragments, light to med. grey in colour, angular to sub-rounded to 5cm				
44.28 TO 44.80	«ARGILLITE»	colour: black grain: fi.gr. 44.28m -thinly bedded 44.58m	45 50	Upper 10 cm very siliceous possibly cherty.		
44.80 TO 50.09	Feldspar Porphyry «RHY FP»	colour: light grey grain: fi. gr. -moderate to thickly bedded, weakly foliated; 10-15% white to ghosty feldspar crystals to 3mm; also contains 5% Rhyolite dust to Ash fragments to 6cm in size; very similiar to interval between 41.00 + 44.28. -between 46.50m _ 48.85m is a Rhyolite lithic tuff with 5-10% white to ghosty to clay altered feldspar crystals to 1mm. -«Shear» between 48.60m and 48.79m -between 48.79m and 49.79m there are 15-20% feldspars to 3mmand 10% quartz eyes to 3mm; -«Shear» between 50.02 + 50.09m		local bleaching (not fragments)	-between 46.05m +46.50m 1% pyrite + possible trace tetvahedrite. -entire interval contains <1% pyrite.	
50.09 TO 52.04	Rhyolite crystal tuff «RHY XT»	colour: light grey grain: fi.-med. gr. -moderately bedded, moderately foliated; 10% white to ghosty feldspar crystals to 1 1/2 mm, <5% quartz eyes to 1mm; rare green fragments to 1mm towards base of unit. -«Shear» between 50.44 and 50.53m abundant gouge -Interbedded FP between 51.15 + 51.39m			<1% pyrite; pyrite stringer at 51.30m	
52.04 TO 53.63	Rhyolite «QP TUFF»	colour: light greenish-grey grain: coarse grained -moderately bedded, massive; weakly foliated, massive; 15% quartz eyes to 1.3cm, 10 to 15% ghosty; white feldspar crystal to 3mm; -«Shear» between 52.04 - 52.36m			<1% pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-«Shear» between 52.74 - 52.76m -«Shear» between 53.12 - 53.35m -between 53.35 and 53.40m siliceous, argillaceous fine grained felsic unit, sheaved. -«Shear» between 53.40 - 53.63m, abundant gouge.				
53.63 TO 58.98	«DIOR»	colour: green grain: coarse gr. Karmutsen -«Shear» between 58.96 - 58.98m, abundant gouge.				
58.98 TO 68.92	Rhyolite, lithic, tuff «QP LITH T»	colour: li.-med. grey grain: med. to coarse gr. -thickly bedded, massive; weakly foliated, massive; 10 to 15% quartz eyes to 4mm; <5% feldspar crystals to 1mm, 1% light to med. green lithic fragments to 1mm. -«Shear» 59.80 - 59.86m this is sheaved diorite -«Shear» 64.74 - 64.78m -«Shear» 68.40 - 68.92			<1% pyrite	Dome?
68.92 TO 69.66	Rhyolite Ash Tuff «RHY ASH, TUFF»	colour: med. grey-green grain: fi. med gr. -moderately bedded; moderately foliated; 10% white to ghosty feldspar crystal to 1/4 mm -possible diorite between 69.40 - 69.66m		strangly calcareous	<1% pryrite	
69.66 TO 81.74	Rhyolite Lithic to Lapilli tuff «RHYLT-LaT»	colour: med. grey green, wk green cast grain: coarse gr. -thickly bedded, massive; weakly foliated, massive; 5-10% quartz eyes to 4mm; 5% white to ghosty feldspar crystals to 1/2 mm; 10-15% med. green grey lithic fragments to 3min; rare bleached rhyolite fragments to 4cm; 1-2% ghosty rhyolite fragments (appear to be a fine grained version of the principle unit) to 2cm; 2% white felsic fragments to 3mm; locally up to 2% dark green lithic fragments - 2 mm. -«Shear» 69.66 - 70.21m -«Shear» 70.48 - 70.51m -«Shear» 71.22 - 71.26m -«Shear» 72.68 - 72.11m -possible large bleached felsic fragment t=between 75.33 - 75.45m -«Shear» 78.18 - 78.30m		locally siliceous	<1% pyrite	Footwall foundation

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-possible sheaved diorite between 78.18 - 78.30m -weak mafic component to the unit between 78.88 - 78.96m				
81.74 TO 81.83	«ARGILLITE»	colour: dark green -contains 50% felsic fragments to 2 1/2cm; <1% Argillite fragments CAB at: 81.74m	50			
81.83 TO 89.65	Rhyolite «QP TUFF»	colour: very light to light grey grain: med - coarse gr. CAB at: 89.65m -massive bedded; massive foliated; 5 to locally 10% white to ghosty to silicified feldspar crystals from <1mm to 3mm; 10% - 20% quartz eyes to 4mm; very fine grained matrix to the unit. 87.50 - 87.90m possible bleached white felsic fragments to 3cm 88.95 - 89.65 the unit contains 25% feldspar crystals to 3mm: 5-10% quartz crystals to 1mm.	40	locally siliceous	<1% pyrite	Possible Dome or Flow Appears to be 2 phases of quartz eyes
89.65 TO 97.13	Rhyolite lithic to lapilli tuff «RHYLT-LaT»	colour: med grey, weak green cast grain: med - coarse gr. -massive bedded; massive foliated; 5-10% white to ghosty to silicified feldspar crystal from <1/4mm to 1/2mm; 5-10% quartz crystals to 1/2 mm; 10% quartz eyes to 3mm, rare to 9mm; locally up to 5% med. green lithic fragments to 2mm; 15% white felsic fragments to 17 cm (quartz eye Rhyolite). Rare Rhyolite Ash fragments to 3cm -«Shear» 96.21 - 96.22m		locally siliceous; felsic lapilli bleached and silicified unit becomes bleached between 94.43 - 97.13m	<1% pyrite	
97.13 TO 110.54	Rhyolite lithic crystal tuff «RHY LXT»	colour: light to med. grey grain: fi. med. gr. -massive bedded; weak to massive foliated; 5-10% white to ghosty feldspar crystl to 1/2 mm; 10% quartz eyes fromm 1mm to 3mm; 5% to 10% quartz crystals and grains to 1/2 mm; possibly 2-5% med. grey felsic fragments to 3mm; possible 2-5% weakly siliceous white felsic fragments to 3mm; may contain 1-2% med. green lithic fragments to 1mm.		-minor chlorite development on foliation surfaces and along micro fractures -this interval appears to become more siliceous towards the base	<1% pyrite	Theres not a sharp, well defined contact with the lower unit.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
110.54 TO 119.57	Quartz eye Rhyolite, crystal lithic tuff «RHY XLT»	colour: very light grey grain: med. gr. -massive bedded, weak, massive foliated; 5-10% white to ghosty to clay altered feldspar crystals from <1/4mm to 1/2mm; 5-10% quartz crystals or grains to 1/2 mm; 10% quartz eyes <1mm to 3mm; <5% quartz eyes from 3mm to 1 cm; <1% light to med. green lithic fragments to 1mm; 1-2% light grey felsic fragments to 3cm, these have very -faint outlines but very distinctive. -between 111.64 - 112.20, possible Sicker Age mafic dyke		Pervasive silicification -minor quartz carborate cross-cutting veins. -minor chloritic smears on foliation planes. -abundant biotite development stongly carbonatized.	<1% pyrite	Possible two generations of Quartz eyes.
119.57 TO 130.88	Rhyolite crystal lithic tuff «RHY XLT»	colour: greenish-grey grain: fi. med. gr. CAB at: 119.57m -thin to thickly bedded, moderately foliated; contains what appears to be 15% feldspar grains to 1mm (these are locally broken); 5-10% white felsic fragments angular to rounded to 3mm; 2-3% med. dark green fragments to 1mm, (generally flattened) 5% (?) quartz grains <1mm; «Shear» 120.80 - 120.83 between 120.18 - 120.80m the interval is more Andesitic in composition between 120.80 - 128.20m the interval is more felsic looking in composition between 128.20 - 130.15m the interval is strongly felsic in composition and may even represent a crystal tuff interbed. betwen 130.15 - 130.88m the interval appears to be more Andesitic in Composition, there is a large felsic fragment of the underlying unit between 131.62 - 131.70m CAB at: 128.20m	42 50	Well developed sevicite and chlorite on foliation planes		-This unit may represent re-worked felsic and andesitic volcanics.
130.88 TO 140.95	Quartz-eye Rhyolite lithic to lapilli tuff «RHYLT-LaT»	colour: ligh greyish green grain: med. coarse gr -massive bedded; weak to massive foliated; 10% white to ghosty feldspar crystals to 1/2 mm. 10% quartz eyes from 1mm to 5mm, 1-2% 5-9mm, 5% quartz crystals to 1/2 mm; 2-3% chert fragments to 3 cm sub-rounded to sub-rounded; a 4cm felsic fragment occurs at 133.30m (this fragment appears internally folded) -Chert interbeds between 133.40 - 133.42m 134.75 - 134.80m 136.04 - 136.13m		-generally siliceous	<1% pyrite; rare otrute stringers	Healed fault bbetween 134.75 - 134.77.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		139.04 - 139.21m 140.70 - 140.95m -the upper contact of the chert interbed between 140.70 and 140.95 is contoured and fractured.				
140.95 TO 144.17	Quartz eye Rhyolite «QP»	colour: very light grey grain: med gr. -massive bedded; moderately foliated; 5-10% white to ghosty feldspar crystal - 1/2mm; 5% Quartz grains to 1/2mm; 5-10% white felsic fragments to 2mm; 15% quartz eyes from 5mm - 1 cm. -possible reworked volcanic between 141.22 - 141.48 or a healed fault structure		silicified.	<1% pyrite	
144.17 TO 144.32	«CHERT»	colour: light grey				Interval contains 40% quartz veining.
144.32 TO 144.64	«ARGILLITE»	144.32 - 144.49m 70% chert and 30% argillite 144.49 - 144.60m Argillite CAB at: 144.49 144.60 - 144.64, 10% Argillite, 20% chert, 70% Rhyolite.	50			
144.64 TO 152.10	«NANAIMO»	144.64 - 144.71;reworked volcanics in a mudstone with Argillite fragments (Argillite fragments are folded) -144.71 - 14.81; Volcanic Sandstone CAB at: 144.81m -144.81 - 152.10m; black fine grained siltstone. «Fault» 149.37 - 149.42 «Fault» 149.62 - 149.67	83		Numerous carbonate veins.	
152.10 TO 152.10	EOH					

				ESTIMA	ASSAYS										GEOCHEMICAL							COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		
	0.00	0.00	0.00																0.0			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11576	23.00	26.00	3.00	14.17	0.082	2.29	1.71	3.66	1.09	0.04	2.79	0.01	69.56		0.2		0.14	95.74	0.4	26	91	24	54	1	77	5
11577	34.00	37.00	3.00	15.44	0.087	1.18	1.71	2.52	0.85	0.03	4.8	0.02	69.28		0.23		0.1	96.23	0.2	31	103	6	14	1	22	5
11578	65.00	68.00	3.00	14	0.067	2.67	1.97	3.11	0.82	0.05	3.45	0.01	70.13		0.19		0.08	96.53	0.2	37	88	8	15	1	19	5
11579	98.00	101.00	3.00	13.89	0.053	1.69	2.17	3.52	0.97	0.07	2.64	0.01	70.88		0.18		0.13	96.21	0.3	32	77	9	15	1	29	5
11580	131.00	134.00	3.00	13.35	0.08	2.65	2.21	3.48	1.02	0.08	1.92	0.01	70.7		0.18		0.07	95.74	0.4	18	112	10	19	1	21	5

HOLE NUMBER: 89-230

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: 92 B 13W

PLOTTING COORDS GRID: MINE
NORTH: 10178.75N
EAST: 10325.00W
ELEV: 624.00

ALTERNATE COORDS GRID: MINE
NORTH: 101+78N
EAST: 103+25W
ELEV: 624.00

COLLAR DIP: -57° 0' 0"
LENGTH OF THE HOLE: 116.10m
START DEPTH: 0.00m
FINAL DEPTH: 116.10m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 21, 1989
DATE COMPLETED: April 22, 1989
DATE LOGGED: April 23, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 15.85M
CORE STORAGE: 9398 TRANS CANADA HIGHWAY

PURPOSE: DEFINITION HOLE TO BETTER DELINEATE AN INDICATED HIGH GRADE MASSIVE SULPHIDE TREND INTERSECTED BY

DIRECTIONAL DATA: DDH'S 203 AND 199

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
116.10	-	-54° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 14.50	«OB»					
14.50 TO 38.10	RHYOLITE CRYSTAL LITHIC TUFF «RHY XLT»	colour: med. grey grain: fi.-med. gr. CAF at 19.40m -Thickly bedded, moderately foliated 5-10% white to ghosty feldspar crystals; 15-20% quartz crystals to 1/4mm; 5-10% quartz eyes to 1mm; possible 5-10% white felsic fragments to 2mm. «Fault» 14.50 - 14.55m; gouge «Shear» 14.85 - 14.95m «Fault» 15.31 - 15.32m; gouge CAB at 15.38 -Augillite between 15.32 - 15.38, contains 15% white felsic fragments. «Shear» 18.95 - 20.40m «Shear» 20.70 - 20.80m -Diorite (Sicker?) between 19.69m and 19.73m; -Possible Diorite (Sicker?) or reworked volcanics between 19.96 + 20.05m -Abundant Argillite laminations between 21.81 - 21.97 CAB at 21.81m «Shear» 23.70 - 24.23m strong foliation highly contourted. «Fault» 24.02 - 25.64m abundant gouge, very poor recovery. «Shear» 27.14 - 27.30m core broken, foliations highly contourted. «Shear» 29,10 - 29.60m minor gouge zones. «Fault» 30.46 - 31.40 abundant gouge zones, very poor recovery. «Shear» 31.40 - 32.60m «Fault» 32.60 - 33.00m 100% gouge	24 55 84		<1% disseminated, patchy fine grained pyrite. -minor pyrite laminations between 23.66 - 23.67m	
38.10 TO 42.19	RHYOLITE QUARTZ EYE LITHIC CRYSTAL TUFF «QP LITH T»	colour:med. dark grey grain: med. gr. -thickly bedded massive; weakly foliated to massive; 10% Quartz eyes 1mm to 3mm; 5-10% predominately ghosty feldspar crystals <1/2mm; 5-10% quartz crystals <1/2mm; groundmass is very fine grained to aphanitic and siliceous CAB at 42.19m	60	Weakly silicified	<1% disseminated pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
42.19 TO 43.12	«CORONATION ZONE»	- CAB at 42.36m -between 42.19 - 42.39m, muddy argillite horizon -between 42.39 - 42.75m; fine grained rhyolite ash. CAB at 42.91m -between 42.75 - 43.12m; 60% reworked volcanic, mudstone (42.75 - 42.91m) -between 42.91 - 42.95m, predominately argillite with 50% felsic fragments. -between 42.95 - 43.12m predominately fine grained rhyolite ash, contains a 2cm wide buff coloured dyke.	70 59	weakly silicified	2-3% disseminated pyrite 10 + 15% laminated fine grained pyrite <1% light brown sphalerite; <1% coarse grained chalcopyrite, proximal with quartz vein; trace galena; trace tetrahedrite. <1% pyrite	bedded highly contourted and folded. -minor folded quartz veining bedding is highly contourted at base of unit
43.12 TO 44.50	FELDSPAR PORPHYRY «FP»	colour: med. grey grain: med. - coarse gr. -thick to massive bedded, weakly foliated, 15% white to ghosty to siliceous feldspar crystals. 5-10% quartz crystals <1/2mm; possibly 5-10% med. to dark grey felsic fragments to 3mm; <2% light to med. green lithic fragments to 1mm. «Fault»between 43.12 - 43.19m predominately gouge «Shear» between 43.62 - 43.70m		-weakly silicified	-<1% disseminated pyrite	
44.50 TO 50.10	RHYOLITE QUARTZ EYE LITH TUFF «QP LITH T»	colour: light to med grey grain: med. gr. -thick bedded; weakly foliated; 10% white to ghosty and rare clay altered feldspar crystals to 1 1/2mm locally to 2mm; 5% to possibly 10% quartz grains to 1/2mm; 5-10% med. grey felsic fragments to 2mm; 10-20% QUartz eyes from 1mm to 3mm; «Fault» 44.50 - 44.66m; abundant gouge «Shear» 48.05 - 48.17m between 48.80 - 49.03m is a highly siliceous, "cherty" interbed «Shear» between 49.40 - 49.43m «Chert» between 49.82 - 50.10m CAB at 49.82m	30	-at 49.50mm a 3cm x 4mm felsic fragment.	<1% disseminated pyrite	very similar to unit immediately above Coronation Zone.
50.10 TO 51.13	RHYOLITE ASH TO FINE GRAINED CRYSTAL LITH TUFF «RHY ASH,	colour: med grey grain: fi.gr. -moderately bedded, moderately foliated, possible 10-15% white to ghosty feldspar crystals <1/2mm; 5-10% quartz eyes <1mm; 10% med. grey lithic fragments to 1mm		-<1% disseminated fine grained pyrite.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	XLT»	«Fault» between 50.10 - 50.15m predominately gouge -at 51.13m, minor argill. laminee CAB at 51.13m	12			
51.13 TO 57.16	RHYOLITE CRYSTAL TUFF «RHY XLT»	colour: med. grey grain: med. gr. -thick bedded, massive; weakly foliated; 15-20% white to ghosty feldspar crystals to 1 1/2mm; <5% quartz eyes to 1mm;; 5-10% quartz grainms to 1/2mm 10% med. grey felsic fragments to 1 1/2mm. -betweeen 57.12 - 57.16m strongly «Sheared», minor gouge, also contains 15-20% argillite.			<1% disseminated fine grained pyrite.	
57.16 TO 61.95	FELDSPAR PORPHRY «FP»	colour: med. grey grain: med. - coarse gr. -thick to massive bedded; moderately foliated; 25% white to ghosty feldspar crystals; 5% quartz eyes to 2mm; 1% light to med. green lithic fragments to 2 1/2mm; «Fault» 57.16 - 57.18m gouge «Shear» 58.35 - 58.36m gouge slip «Shear» 59.75 - 60.00m «Sheared» 60.88 - 61.95m, strong shear, may locally have contained minor chert interbeds.			<1% disseminated pyrite	-entire unit is weaklyy sheared.
61.95 TO 62.95	QUARTZ EYE RHYOLITE «QFP»	colour: ligh grey, wk green cast grain: coarse gr. -thickly bedded, massive; weakly foliated massive 10-15% white and silicified feldspar crystals to 3mm; 25-30% quartz eyes to 1mm; 1% med to dark green lithic fragments to 3mm.		Silicified, bleached.	<1% disseminated pyrite.	very similar to dome units
62.95 TO 63.80	RHYOLITE CRYSTAL TUFF «RHY XT»	colour: light ot med. grey wk green cast grain: med. gr. -moderately bedded; moderately foliated; 15-20% feldspar crystal to 1 1/2mm; 10% quartz grains to 1mm; <5% quartz eyes to 2mm; possible 10% med. grey felsic fragments to 2mm; 63.45 - 63.58m a pssible QER fragment, very sim. to that interval between 61.95 - 62.95m		weakly silicified	<1% disseminated pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
63.80 TO 64.40	RHYOLITE QUARTZ EYE LITH TUFF «RHY QEXLT»	colour: dark grey grain: fi.-med. gr. -moderately bedded; massive; weakly foliated; massive; 20% quartz eyes to 2mm; 5-10% feldspar crystals to 1/2mm; 5-10% quartz grains to 1/2mm; groundmass is very fine grained.		-silicified	<1% fine grained pyrite.	
64.40 TO 65.13	QUARTZ EYE RHYOLITE LAPILLLI TUFF «QP LAP T»	colour: med. grey grain: coarse gr. -massive bedded; massive foliated; 10% white to ghosty to silicified feldspar crystals to 3mm; 20% quartz eyes from 1mm to 4mm; 10% quartz crystals and grains to 1/2mm; 5-10% dark grey felsic fragments to 4mm; contains a 4cm bleached felsic fragment.		minor epidote patched, and minor epidote altered feldspars	<1% disseminated fine grained pyrite.	
65.13 TO 65.79	RHYOLITE QUARTZ EYE LITH CRYST. TUFF «QP LITH T»	colour: dark grey grain: fi. - med. gr. -moderately bedded; massive; weakly foliated; massive; 20% quartz eyes to 3mm; 5-10% white to ghosty to clay altered feldspar crystals to 1/2mm 10% quartz grains to 1/2mm		-weakly silicified	<1% fine grained pyrite.	-Very similar to the interval between 63.80 - 64.40m
65.79 TO 116.10	RHYOLITE DOME «QFP-FW»	-massive bedded ;massive; weakly foliated massive; 15-20% quartz eyes to 1cm; 5-10% white to silicified feldspar crystal; 5% quartz crystals and grains to 1mm, 5-10% light green lithic fragments to 3mm; 2% dark green black lithic fragments to 4mm (there are actually sericite); -Possible Diorite Dyke between 66.35 - 66.45m -locally contains 5-10% white felsic fragments to 9cm (rare) -minor shear at 68.70m 70.80m «Shear» 71.00m to 71.10m -between 75.30 - 75.42m minor diorite dykes -minor shear at 97.00m «Shear» 97.05 - 97./10m abundant gouge «Gabbro» 97.10 - 102.13m -unit is moderately sheared btw. 102.03 - 104.57m		-Silicified; local epidote alteration patches and fragments/	<1% disseminated pyrite.	
116.10 TO 116.10	EOH					

				ESTIMA	ASSAYS										GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
12751	41.00	42.19	1.19	10	33	56	0.3	15											0.0		
12752	42.19	42.39	0.20	423	107	520	5.6	450											0.0		
12753	42.39	42.75	0.36	840	300	1480	14.6	3100							0.108	3.71			34.0		
12754	42.75	43.12	0.37	185	30	285	1.9	75											0.0		
12755	43.12	44.10	0.98	21	15	52	0.2	10											0.0		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11581	33.20	36.20	3.00	14.58	0.1	1.85	2.22	3.92	0.88	0.05	3.55	0.01	69.26		0.2		0.28	96.92	0.5	26	191	8	27	1	125	5
11582	70.00	73.00	3.00	13.75	0.08	2.04	2.04	5.03	0.88	0.05	2.59	0.01	70.79		0.18		0.06	97.5	0.3	19	51	4	12	1	23	5
11583	111.90	114.90	3.00	16.46	0.094	1.36	2.36	3.86	1.7	0.05	2.87	0.01	66.89		0.22		0.06	95.93	0.4	27	83	10	20	1	30	5

HOLE NUMBER: 89-231

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10203.00N
EAST: 10200.00W
ELEV: 630.50

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 630.50

COLLAR DIP: -65° 0' 0"
LENGTH OF THE HOLE: 166.73m
START DEPTH: 0.00m
FINAL DEPTH: 166.73m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 22, 1989
DATE COMPLETED: April 24, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 6.70m
CORE STORAGE: CHEMAINUS

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
61.96	-	-63° 0'	ACID	OK		-	-	-	-	-	
166.73	-	-62° 0'	ACID	OK		-	-	-	-	-	
134.00	206° 0'	-62° 0'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.70	«OB»					
6.70 TO 49.10	Andesite Lapilli Tuff «AND LAP T»	Colour: Medium to dark green Grain size: Medium to coarse grained Thickly bedded; moderately foliated; 15% white to ghosty to epidote altered feldspar crystals to 2mm <5% white to weakly epidote altered felsic fragments to 3mm; 10% to 15% medium to dark green lithic fragments to 3mm; 5% to locally 10% epidote altered lithic fragments to 6mm; 2-3% 6mm to 3cm.		Moderately carbonatized.	<1% disseminated, patchy fine to medium grained pyrite.	
		«Rhy LT-XLT» interbed between 9.60m and 10.20m. «Arg» 11.27m to 11.35m; very finely bedded to varved.			2-3% disseminated, patchy fine to medium grained pyrite.	Core is very rubbly through this section.
		«Shear» 10.50m to 12.00m				
		«Rhy LT-XLT» Rhyolite lithic to crystal lithic tuff between 12.00m and 13.90m; strongly «sheared» in this interval with minor gouge seams.			3% disseminated, laminated, patchy fine to medium grained pyrite.	Foliation is highly contourted.
		«Fault» 14.60m to 15.90m				Gouge.
		«Fault» 16.30 to 16.55m «Shear» 17.30 to 17.40m				
		«QFP Dyke» Quartz feldspar porphyry dyke between 21.15m and 22.50m.				
		Quartz feldspar porphyry dyke between 23.55 and 23.75m; also between 23.30m and 23.40m.				
		«Shear» between 28.30m and 28.40m.				
		«QFP Dyke» Quartz feldspar porphyry dyke between 29.10m and 33.60m.				
		«And Ash» Andesite ash tuff with very minor argillite laminations between 35.20m and 36.50m. (between 35.82m and 36.20m the interval is predominately felsic argillaceous lamination).				
		CAB at 35.86m	32			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		«Rhy Ash» Rhyolite ash between 36.50m and 39.70m. CAB at 39.70m	39			
		«Fault» between 38.86 and 38.95m. «Fault» between 39.10 and 39.25m. «Fault» between 39.72 and 39.78m. «Fault» between 40.15 and 41.60m.				100% gouge. Very gougy and very poor recovery.
		Between 43.89m and 44.93m there is a strong argillaceous component to the andesite, abundant laminations to very thin interbeds to a strong component in the matrix. CAB at 44.40m 44.60m	 29 34			
		«Fault» between 44.50 and 47.70m. «Fault» 47.50m to 49.10m.				This interval is intensly sheared with abundant gouge. 95% gouge.
49.10 TO 62.06	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Very light grey; weak green cast from 49.95m to 52.00m. Grain size: Medium grained				
		Thickly bedded; moderately foliated; 15% white to ghosty to clay altered feldspar crystals to 1.5mm; 5% to 10% quartz crystals and grains to 1/2mm; 5% quartz eyes to 1mm; from 49.10m to 52.00m 5% to locally 10% light green to greenish grey lithic fragments to 2mm.		Weakly bleached, locally.	<1% finely disseminated fine grained pyrite.	
		«Fault» 49.10m and 49.95m. «Fault» 50.41m to 50.42m.				95% gouge. Gouge slip.
		«Shear» 52.00m to 52.20m.				Minor gouge.
		Minor argillite lamination at 51.11m. CAF at 52.50m	42			
		Gouge slip at 53.69m.				
		Annealed fault zone between 53.80m and 53.83m.				
		«Shear» 58.10m to 59.50m.		Weakly silicified between 60.10 and 62.00m.	Between 60.10m and 62.00m 1% disseminated, and stringers of fine to	Highly contourted foliation minor gouge development.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Possible buff coloured felsic dyke between 62.25m and 62.36m. Minor shear and gouge between 59.70 and 62.00m. Between 62.00m and 62.06m is an argillite band containing 10% felsic fragments.			medium grained pyrite.	
62.06 TO 90.40	Rhyolite Quartz Eye Crystal Lithic Tuff «QFP LT»	Colour: Medium grey Grain size: Medium grained Thick bedded; moderately foliated; 5% to locally 10% white to ghosty to clay altered feldspar crystals to 1mm; 5% to 10% quartz crystals and grains to 1/2mm; possible 5% white to light grey felsic frags to 2mm; rare to 7mm. Between 62.06m and 63.00m numerous disrupted argillite laminations; rare lamination between 63.00m and 65.00m. CAB at 63.45m 64.82m Minor shear at 64.60m. «Shear» 83.10 to 83.15m. Minor shear between 90.03 and 90.40m.	42 30		<1% disseminated pyrite.	
90.40 TO 93.61	«CORONATION ZONE»	Colour: Very light grey Grain size: Medium grained Rhyolite quartz eye crystal lithic tuff, 10% quartz eyes to 2mm; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/2mm; 5% to 10% quartz crystals and/or grains to 1/4mm. «Shear» 90.40 to 90.45m with minor gouge. «Shear» 91.95m to 92.41m possible disrupted argillite laminations also in this interval.		Bleached, locally strongly silicified. Between 90.94 and 91.95m minor carbonate bands to 1.5cm.	BCD #12757 Between 90.40 to 90.94m (quartz vein between 90.40 to 90.70m) <1% pyrite, trace sphalerite and galena, trace calcopyrite and tetrahedrite in the quartz vein. BCD #12758 Between 90.94 and 91.95m; 1% to 2% disseminated, weakly laminated fine to medium grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					BCD #12759 Between 91.95 and 92.41m; 1-2% disseminated patchy fine to medium grained pyrite; trace sphalerite. BCD #12760 Between 92.41 and 92.90m (50% quartz vein) 5% pyrite, 1% sphalerite, <1% chalcopyrite, trace galena; trace tetrahedrite. BCD #12761 Between 92.90 and 93.61m 50% fine to medium grained pyrite, 1% sphalerite, trace chalcopyrite, trace galena, 1/4 to 1/2% tetrahedrite.	
93.61 TO 100.65	Quartz Eye Crystal Lithic Tuff «QFP XLT»	Colour: Medium grey Grain size: Medium grained Thickly bedded; moderately foliated; 5% to 10% white to ghosty feldspar crystals to 1/2mm; 5% quartz crystals and grains to 1/4mm. «Diorite» Sicker Age; dark green to black, fine to very fine grained, well foliated between 94.60 and 95.70m, and 97.00 to 98.80m.		Strongly carbonated.	<1% disseminated fine grained pyrite.	Sample #BCD 12762 from 93.61 to 94.60m. Sample #BCD 12763 from 98.80 to 99.67m. Sample #BCD 12764 from 99.67 to 100.65m
100.65 TO 106.81	«CORONATION ZONE»	Colour: Very light grey Grain size: Medium grained Rhyolite quartz eye crystal lithic tuff; 10% to 15% quartz eyes to 2mm; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/2mm; 10% quartz crystals and/or shards to 1/4mm.		Silicified, bleached.	100.65 to 101.01m; contains a massive sulphide band between 100.90m to 101.01m; overall the interval contains 5% light brown sphalerite, 10% to 15% pyrite, <1% galena, <1% chalcopyrite, 1% tetrahedrite, 15% carbonate. 101.01m to 101.51m; 3-5% pyrite, trace sphalerite; trace tetrahedrite; possible dyke or mudstone (buff coloured) from 101.05m and 101.10m; gouge slip between 101.32 and 101.33m. 101.51m to 102.11m; 3% disseminated,	Sample #BCD 12765 should have a good Au/Ag kick. Sample #BCD 12766 Sample #BCD 12767

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					patchy, cross-cutting fine to medium grained pyrite, trace disseminated sphalerite and tetrahedrite.	
		Shear 102.88m to 102.93m.			102.11m to 102.93m; 1% to 2% disseminated, cross-cutting fine to medium grain pyrite.	Sample #BCD 12768
		From 103.23m to 103.28m; possible 80% buff coloured mudstone? From 103.28m to 103.55m 60% buff coloured mudstone? or very fine grained dyke material; also contains 15% medium to dark green lithic fragments to 2mm; abundant fine grained sericite development. From 103.55m to 103.63m possible minor gabbroic section? From 103.63m to 103.70m; 30% to 40% light brown buff coloured material. From 103.70m to 103.73m predominately argillite that contains 10% to 15% white felsic fragments. From 103.73m to to 103.78m quartz vein. CAB at 103.73m	70	Light brown muddy sections may be an alteration due to the possible gabbro between 103.63 and 103.70m.	102.93m to 103.78m; 5% disseminated laminated, patchy fine to medium grained pyrite; possible trace sphalerite, chalcopyrite, tetrahedrite; the chalcopyrite and tetrahedrite are most common along microfractures (especially around 103.25m).	Sample #BCD 12769
		103.78m to 104.88m; interval contains 10% light greenish grey lithic fragments to 3mm.			103.78m to 104.88m; <1% disseminated and cross-cutting fine grained pyrite, minor trace tetrahedrite.	Sample #BCD 12770
					104.88m to 105.77m; 1% disseminated fine grained pyrite; trace tetrahedrite associated with minor quartz veining.	Sample #BCD 12771
					105.77m to 106.51m; <1% disseminated and cross-cutting fine grained pyrite, also trace chalcopyrite and tetrahedrite associated with it.	Sample #BCD 12772
					106.51m to 106.81m; generally contains <1% pyrite; between 106.78 to 106.81m massive sphalerite with trace galena, chalcopyrite and tetrahedrite band.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
106.81 TO 107.09	Feldspar Porphyry «FP»	Colour: Light grey, weak green cast. Grain size: Medium to coarse grained Thick to moderately bedded; moderately foliated; 20-25% white to ghosty to clay altered feldspar crystals to 2.5mm; 10% quartz eyes to 3mm. CAB at 107.09m 5% to 10% quartz crystals or grains to 1/4mm; possible 5% white felsic fragments to 4mm; possible 10% medium grey (weak greenish cast) felsic fragments to 4mm.	48		<1% disseminated patchy fine grained pyrite, also along microfractures.	This interval contains abundant argillite lamination, especially toward the base.
107.09 TO 107.96	«ARGILLITE»	Colour: Black Grain size: Fine grained Very thin to thin bedded; moderately foliated. CAB at 107.96m	75		Rare laminations fo fine grained pyrite	
107.96 TO 111.48	Quartz Eye Crystal Lithic Tuff «QFP LT»	Colour: Light grey; weak green cast Grain size: Medium grained Thickly bedded; weakly to moderately foliated; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/4mm; 5% to 10% medium grey lithic fragments to 2mm; <5% light green lithic fragments to 1mm; 1% chert fragments to 3cm. «Shear» 111.40 to 111.43m.			<1% disseminated fine grained pyrite.	
111.48 TO 139.19	«GABBRO»	Karmutsen; coarse to fine grained phases.				
139.19 TO 140.60	Quartz Eye Rhyolite «QFP»	Colour: Very light to light grey Grain size: Medium to coarse grained Moderately bedded; moderately to strongly foliated 5% to 10% white to ghosty feldspar crystal to 1mm; 5% to 10% quartz grains to 1/2mm. «Shear» 139.19m to 139.24m abundant gouge. «Fault» 140.18m to 140.30m abundant gouge.		Siliceous	<1% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
140.60 TO 154.18	Quartz Eye Crystal Lithic Tuff «QFP XLT»	Colour: Dark grey Grain size: Medium grained Thick bedded; massive; moderately foliated; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/4mm; 15% quartz eyes to 2mm; 10% quartz crystals and grains to 1/2mm; 10% dark grey felsic fragments to 2mm, rare to 6mm; may contain minor andesite (diorite? XLT) fragments to 3cm; 10% dark grey green lithic fragments to 1.5mm Between 143.09m and 143.30m possible fine grained diorite (Sicker). Between 149.70m and 149.85m possible fine grained diorite (Sicker). Between 150.24m and 150.32m possible fine grained diorite (Sicker). Between 151.18m and 151.24m possible fine grained diorite (Sicker). Between 152.14m and 152.34m possible fine grained diorite (Sicker). Between 153.84m and 153.96m possible fine grained diorite (Sicker).		Weak to moderately calcareous; weakly silicified. Strongly carbonatized Strangly carbonatized Strongly carbonatized Strongly carbonatized Strongly carbonatized Strongly carbonatized Between 153.96m and 154.18m the interval.is silicified..	<1% disseminated fine grained pyrite.	
154.18 TO 158.82	«GABBRO»	Colour: Medium to dark green Grain size: Medium to coarse grained Interval is very fine grained at upper contact.		Strongly carbonatized on upper margin.		
158.82 TO 166.73	Rhyolite Quartz Eye Crystal Lithic Tuff «QFP XLT»	Colour: Dark grey Grain size: Medium grained Thick bedded; massive; weak to moderately foliated 5% to locally 10% white to ghosty feldspar crystal to 1.5mm; 10% quartz crystals to 1/2mm; 5% to locally 10% light to medium green lithic fragments to 1mm; <1% dark green black lithic fragments? to 1mm. The interval locally becomes coarse grained but has no distinctive boundries, gradational. At 161.20m minor diorite patch with minor trace chalcopyrite on the margins.		Weakly calcareous and weakly silicified Strongly silicified between 158.82m and 159.03m.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Between 165.20m to 166.73m core is very rubbly with rare gouge seams.			No well developed footwall formations in this hole.	Feldspar porphyry or dome.

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
12756	12.00	13.90	1.90	22	132	150	1.0	5											0.0		
12757	90.40	90.94	0.54	113	72	142	1.9	400											0.0		
12758	90.94	91.95	1.01	46	37	34	1.0	1080							0.035	1.2			11.0		
12759	91.95	92.41	0.46	144	142	144	3.4	2150							0.064	2.2			20.2		
12760	92.41	92.90	0.49	168	1390	1560	9.3	1670							0.053	1.83			16.7		
12761	92.90	93.61	0.71	790	5500	7500	68.4	640					2	68.4	0.019	0.64			18.4		
12762	93.61	94.60	0.99	13	23	48	0.8	425											0.0		
12763	98.80	99.67	0.87	19	17	37	0.4	5											0.0		
12764	99.67	100.65	0.98	4	9	15	0.2	5											0.0		
12765	100.65	101.01	0.36	1990	25200	41250	261.0	2310					7.61	261	0.067	2.31			68.3		
12766	101.01	101.51	0.50	52	25	220	2.3	185											0.0		
12767	101.51	102.11	0.60	12	8	26	1.0	225											0.0		
12768	102.11	102.93	0.82	33	74	177	1.7	1200							0.035	1.2			11.0		
12769	102.93	103.78	0.85	386	28	150	5.5	2300							0.07	2.4			22.0		
12770	103.78	104.88	1.10	17	5	33	0.2	100											0.0		
12771	104.88	105.77	0.89	8	10	50	0.3	80											0.0		
12772	105.77	106.51	0.74	103	5	43	0.8	120											0.0		
12773	106.51	106.81	0.30	735	1240	6500	6.0	800											0.0		
ALT.AVG.	90.40	93.61	3.21	254.50	1472.8	1952.2	17.67	1111.7													
AVE.	100.65	106.81	6.16	231.70	1552.6	2810.2	16.99	731.83													

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11584	23.50	26.50	3.00	15.63	0.019	7.99	8.68	0.46	4.32	0.22	2.47	0.15	53.95		0.54		0.07	94.49	1	1	37	41	41	2	73	5
11585	54.70	57.70	3.00	13.07	0.11	2.49	1.97	3.22	1.84	0.03	2.66	0.02	69.29		0.19		0.37	95.26	0.8	7	110	10	20	1	21	5
11586	145.39	148.39	3.00	14.27	0.069	2.96	3.38	2.3	1.2	0.09	4.03	0.04	67.42		0.34		0.06	96.16	0.4	7	91	13	15	1	34	5

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10236.00N
EAST: 9900.00W
ELEV: 655.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 655.00

COLLAR DIP: -52° 0' 0"
LENGTH OF THE HOLE: 197.20m
START DEPTH: 0.00m
FINAL DEPTH: 197.20m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 23, 1989
DATE COMPLETED: April 25, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 50.2 m
CORE STORAGE: 9398 TCH CHEMAINUS

PURPOSE: TO TEST EASTERLY EXTENT OF HIGH GRADE ZONE A

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
48.80	-	-52° 0'	ACID	OK		-	-	-	-	-	
70.10	-	-52° 0'	ACID	OK		-	-	-	-	-	
148.40	-	-52° 0'	ACID	OK		-	-	-	-	-	
190.50	-	-51° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 50.20	Overburden «OB»					
50.20 TO 101.90	Felsic Tuff, Fault Zone «F TUFF, FAULT»	Colour: Light grey Grain size: Fine grained -Gougy, sheared, and milled felsic tuff. -Abundant fault gouge containing small felsic and quartz fragments, siliceous pyritic and massive pyrite fragments up to 6cm. Rare quartz eyes. -Occassion <15cm mafic dykes. 80.0 4cm of black argillaceous gougy wisps. 81.2 - 90.7 Very altered appearance weak patchy grey mottling, weak pseudobreccia texture with a fine dark pyrite and silica stockwork. 89.6 foliation 90.7 - 91.3 Feldspar phyric, speckled appearance, 10% indistinct white feldspars. 92.6 - 101.9 Good coring, no fault zones, weakly foliated tuff <1% quartz eyes.	55	«W Ser» Weakly sericitic, strong clay fault gouge overprint. 81.2 - 90.7 Moderately siliceous. 91.3 - 92.6 quartz veining, interval very rubbly and broken.	«2-3% py, tr gn» 2-3% pyrite as pyritic fragments, occassional <1cm stringers, crystalline and crushed. Trace galena in some pyrite stringers. 55.5 - 55.65 70% massive fine pyrite. 81.2 - 89.3 3-4% pyrite as fine dark siliceous stockwork and minor fine disseminations. 89.3 - 90.7 «20% py» 20% fine pyrite as <2cm siliceous laminations with up to 40% pyrite, parallel to foliation. 91.3 - 92.6 2-3% pyrite. Last 10cm very siliceous, cherty inclusions with 25% very fine syngenetic pyrite. Trace sphalerite in quartz vein.	Numerous zones of rubbly core. 91.3 - 92.6 Very poor recovery.
101.90 TO 122.20	Felsic Tuff, QFP «F TUFF, QFP»	Colour: Light grey Grain size: Fine to medium grained -Weakly to moderately sheared mainly below 110m, pervasive granular texture. -1-3% rounded <1-2mm shattered quartz eyes, up to 7% 1-3mm clay +/- carbonate altered white feldspars. -Groundmass strong clay alteration. -Numerous gougy shear planes and <50cm gouge zones 115.3 - 117.45 Felsic ash, cherty ash, minor		«S Clay, M Ser» Strong clay alteration of groundmass and feldspars, moderately sericitic.	«<1% py» <1% disseminated pyrite. Zones with greater sulfides as siliceous stringers as follows: 109.95 - 111.0 3% pyrite trace sphalerite. Best sulfides in last 40cm 115.3 - 117.45 1-2% disseminated	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		chert. Light grey, strong gouge developed in first 40cm. Patchy distorted cherty ash laminations, minor FP and QP zones <30cm. 117.45 - 117.75 Mafic dyke: medium green, fine grained, abundant calcite disseminated and veinlets parallel to weak foliation/shearing. 117.45 contact 117.6 shearing	 35 35		pyrite. 115.9 1cm band of 40% pyrite. 119.3 - 120.1 1-2% pyrite 120.1 - 122.2 «5-7% py» 5-7% disseminated pyrite within grey siliceous patches and stringers.	
122.20 TO 123.60	Felsic Ash «F ASH»	Colour: Light grey Grain size: Fine grained -Fine grained ashes, very weak distorted bedding towards base of unit. Silicified appearance.		«M Sil» Moderately silicified. Minor quartz carbonate veining.	«3-4% py» Overall 3-4% fine disseminated pyrite. Includes 8cm interval of fine wispy laminated pyrite. Fine pyrite also in quartz veins as massive aggregate.	Coronation zone?
123.60 TO 125.30	FP, Felsic Tuff «F TUFF, FP»	Colour: Whitish grey Grain size: Fine grained -Fine speckled appearance of white clay/carbonate altered felspar crystals in a soft clay sericite groundmass.		«M-S Ser» moderate to strong sericite.	«7-10% py» 7-10% finely disseminated pyrite.	
125.30 TO 126.30	Mafic Ash «M ASH»	Colour: Medium green Grain size: Fine grained -Massive, brecciated appearance with calcite gashes. -Patchy mixing with felsic ash material. -Last 10cm very fine black partings possible argillite wisps.		«M Chl/Ser» Moderate chlorite/sericite alteration.	«2-3 py» 2-3% pyrite as <1mm wide cross-cutting veinlets and fine disseminations.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
126.30 TO 150.50	FP, Felsic Crystal Tuff «F TUFF, FP»	Colour: Pale green Grain size: Fine grained 3-7% and locally 15% white anhedral-subhedral 1-3mm feldspar cyrstals. 1% quartz eyes towards end of interval. -Fairly competent core, minor gouge developed below 144m. 146.3 - 146.5 Mafic dyke.		«W Ser, ep» Weakly sericitic, patchy very weak epidote/sericite alteration of feldspars.	Trace pyrite	Is not as altered as previous FP units.
150.50 TO 191.70	QFP, Crystal Tuff «QFP TUFF»	Colour: Greenish grey Grain size: Fine grained -Massive, weak pervasive silicified appearance. 2-4% anhedral to subhedral, white, 1-3mm feldspar crystals and 1-2% 2-5mm rounded quartz eyes in a fine grained siliceous groundmass. -Occassional fragmental zones with <1cm fine grained felsic fragments. 158.6 to approx. 185m Numerous zones of moderate to strong gouge development. Core milled granular appearance, some primary = lithic tuff, some due to shearing or faulting. Unit losing the silicified look. -Occassional finer grained QP, QFP units.		«W Sil, Ser» Weakly silicified, weakly sericitic.	Trace pyrite locallized along fracture planes. Weak malachite staining at 158.0m.	
191.70 TO 197.20	Felsic Ash, Tuff «F ASH, TUFF»	Colour: Medium greenish grey Grain size: Aphanitic to fine grained -Weakly foliated. -Rare <1cm grey silicified felsic or chert fragments. -Occassion 2-4mm dark green chlorite wisps. 196.6 foliation	45	«M Ser» Moderately sericitic, fairly altered appearance.	«2% py» 2% dark fine pyrite disseminated and as <1mm wide wisp roughly parallel to foliation.	

				ESTIMA					ASSAYS								GEOCHEMICAL				COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
12776	55.15	55.65	0.50	51	260	518	9.5	620											0.0		
12777	63.20	64.70	1.50	17	26	30	0.6	25											0.0		
12778	87.70	89.30	1.60	93	74	320	3.5	20											0.0		
12779	89.30	90.70	1.40	30	35	108	1	50											0.0		
12780	90.70	91.30	0.60	32	18	127	0.5	20											0.0		
12781	91.30	92.60	1.30	42	33	1940	0.9	100											0.0		
12782	109.95	111.00	1.05	250	265	2420	4.9	100											0.0		
12783	114.50	115.30	0.80	21	22	152	0.4	15											0.0		
12784	115.30	116.40	1.10	42	14	103	0.8	40											0.0		
12785	116.40	117.45	1.05	32	7	60	0.4	20											0.0		
12786	119.10	120.10	1.00	6	10	50	0.2	5											0.0		
12787	120.10	121.10	1.00	10	12	58	0.4	10											0.0		
12788	121.10	122.20	1.10	20	15	110	0.4	15											0.0		
12789	122.20	123.60	1.40	80	40	102	0.8	35	1620										0.0		
12790	123.60	125.30	1.70	42	13	103	0.2	10											0.0		
12791	125.30	126.30	1.00	83	20	132	0.6	15											0.0		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11562	59.40	62.40	3.00	14.74	0.123	1.81	2.73	2.83	0.73	0.02	4.07	0.01	69.05		0.29		1.64	98.04	0.6	25	192	15	17	1	62	10
11563	104.30	107.30	3.00	16.69	0.137	3.48	2.84	3.3	1.88	0.07	2.2	0.06	63.2		0.35		0.3	94.52	0.2	34	125	19	27	1	63	5
11564	135.00	138.00	3.00	16.28	0.088	2.34	1.92	2.51	2.21	0.07	2.72	0.04	68.29		0.23		0.06	96.77	0.3	15	116	6	27	1	35	5
11565	168.80	171.80	3.00	14.03	0.085	3.73	1.63	3.8	0.79	0.07	2.27	0.04	68.68		0.19		0.24	95.54	0.4	22	210	18	13	1	23	5
11566	194.20	197.20	3.00	17.15	0.097	3.43	4.68	4.15	1.51	0.08	0.46	0.14	62.12		0.54		1.18	95.53	0.5	7	103	16	27	1	77	5

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT	PLOTTING COORDS GRID: MINE	ALTERNATE COORDS GRID:	COLLAR DIP: -72° 0' 0"
PROJECT NUMBER: 242	NORTH: 10253.00N	NORTH: 0+ 0	LENGTH OF THE HOLE: 253.90m
CLAIM NUMBER: SOLLY	EAST: 10375.00W	EAST: 0+ 0	START DEPTH: 0.00m
LOCATION: NTS 92 B/13	ELEV: 633.00	ELEV: 633.00	FINAL DEPTH: 253.90m

COLLAR GRID AZIMUTH: 180° 0' 0"   COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 24, 1989	COLLAR SURVEY: NO	PULSE EM SURVEY: NO	CONTRACTOR: FRONTIER DRILLING
DATE COMPLETED: April 27, 1989	MULTISHOT SURVEY: NO	PLUGGED: NO	CASING: 18.9 m
DATE LOGGED: 0, 0	RQD LOG: YES	HOLE SIZE: NQ	CORE STORAGE: CHEMAINUS

PURPOSE: TEST HIGH GRADE ZONE DEFINED BY HOLES 62,67,182

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.96	-	-72° 0'	ACID	OK		-	-	-	-	-	
121.92	-	-71° 0'	ACID	OK		-	-	-	-	-	
182.88	-	-70° 0'	ACID	OK		-	-	-	-	-	
253.90	-	-69° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 18.28	«OB»					
18.28 TO 21.02	Quartz Feldspar Porphyry «QFP DYKE»	Colour: Very light grey Grain Size: Coarse grained Probable dyke; thick bedded massive, weakly foliated; 15% white to ghosty to clay altered feldspar crystals to 3mm; 15% quartz eyes to 8mm, groundmass is very fine grained.		Siliceous	<1% pyrite	
21.02 TO 22.36	«DIORITE»	Colour: Dark green Grain Size: Fine grained Sicker Age		Strongly carbonatized		
22.36 TO 24.16	Rhyolite Lithic Crystal Tuff «Rhy LXT»	Colour: Medium grey, weak green cast Grain Size: Medium grained Moderate bedded; moderate foliated; 10% to 15% white to ghosty to clay altered feldspar crystals to 1/2mm; 10% quartz crystals and/or shards to 1/4mm; 5% to 10% medium green lithic fragments to 1mm. Between 23.90m and 24.16m andesite crystal lithic tuff. CAB at 23.90	24	Weakly calcareous	<1% pyrite	Locally has highly contorted foliating.
24.16 TO 24.99	Rhyolite Ash Tuff «Rhy ASH»	Colour: White to very light grey Grain Size: Fine grained Moderately bedded, moderately foliated. «Fault» 24.16 to 24.99m core very rubbly, very poor recovery.				
24.99 TO 31.73	Quartz Feldspar Porphyry «QFP Dyke»	Colour: Light grey Grain Size: Coarse grained Probable dyke; thick bedded, massive; weakly foliated; 10% white to ghosty feldspar crystals to 2mm; 15% quartz eyes to 8mm; 2% to 3% medium to dark lithic frags? to 1mm.		Siliceous Core locally hematite stained.	<1% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		«Fault» 28.60m to 28.70m «Fault» 28.90m to 29.00m «Diorite» 29.10m to 29.20m «Diorite» 30.44m to 30.80m				
31.73 TO 33.32	Andesite Crystal Lithic Tuff «AND XLT»	Colour: Medium green Grain size: Medium grained Moderately bedded; moderately foliated; 15% white to ghosty to weakly epidote altered feldspar crystals to 1/2mm; 5% to 10% quartz crystals and grains. CAB at 33.32	31		1% disseminated fine grained pyrite.	
33.32 TO 34.06	Rhyolite Lithic Crystal Tuff «Rhy LXT»	Colour: Medium grey Grain Size: Medium grained Moderately bedded; moderately foliated; 15% white to ghosty to weakly epidote altered feldspar crystals to 1mm; 10% quartz crystals to 1/2mm. CAB at 34.03 Between 35.10m and 35.30m andesite ash interbed.	24		2% to 3% disseminated, weakly laminated fine grained pyrite.	
34.06 TO 44.00	Quartz Eye Rhyolite «QFP DYKE»	Colour: Light to medium grey Grain Size: Medium grained Massive bedded, moderately foliated; 15% to 20% quartz eyes to 1cm; 10% white to ghdsty to predominately epidote altered feldspar crystals to 1mm; groundmass is very fine grained to aphanitic. Between 37.90m and 38.85m andesite crystat tuff «And XT»; 15% white to ghosty to predominately epidote altered feldspar crystals to 1/2mm; 5% medium to dark green lithic frags and as crystals to 1/2mm; 1% to 2% light green epidote altered lithic fragments to 4mm; «And XLT» Possible andesite crystal lithic tuff fragment between 39.49m and 39.53m, and 41.20m and 41.40m. CAF? at 38.85 CAF? at 44.00	32 15	Silicified Moderate to strongly carbonatized	Minor disseminated pyrite	Foliation locally contourted

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
44.00 TO 54.25	Andesite Lapilli Tuff «AND LAP T»	Colour: Medium green Grain Size: Coarse grained Massive bedded; moderately foliated; 10% ghosty to white to predominately epidote altered feldspar crystals to 1mm; 10% medium to dark green lithic fragments and/or crystals to 2mm; 5% to 10% light green epidote altered lithic fragments to 4mm; 5% to 10% light green epidote altered lithic fragments to 9cm.		Weakly calcareous, well developed chlorite on foliation surfaces.		
54.25 TO 63.18	Quartz Eye Rhyolite "Dyke" «QFP DYKE»	Colour: Medium grey Grain Size: Medium to coarse grained Massive bedded; massive foliated; 15% to 20% quartz eyes to 1cm; 5% to 10% white to ghosty tp predominately epidote altered feldspar crystals to 1.5mm.		Silicified	<1% pyrite	
63.18 TO 72.06	Andesite Lapilli Tuff «AND LAP T»	Colour: Medium to dark green Grain Size: Coarse grained Massive bedded; moderately foliated; 15% white to ghosty to predominately epidote altered feldspar crystals to 1mm; 10% to 15% medium to dark green lithic fragments and/or crystals to 2mm; 10% light green epidote altered lithic fragments to 4mm; 15% light green epidote altered lithic fragments from 4mm to 5cm.		Well developed chlorite on foliation planes. Weakly calcareous	Minor disseminated pyrite	
72.06 TO 74.58	Andesite Lithic to Lapilli Tuff «AND LITH, LAP T»	Colour: Medium green Grain Size: Medium to coarse grained Massive bedded; moderately foliated; 10% white to ghosty to epidote altered feldspar crystals to 1/2mm; 10% medium to dark green lithic fragments and/or crystals to 2mm; 10% to 15% light green epidote altered lithic fragments to 6mm; <5% to 3cm; rare white felsic fragments to 2cm CAB at 74.58	48	Well developed chlorite on foliation sufaces.	1% disseminated fine grained pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
74.58 TO 75.89	Andesite Crystal Lithic Tuff «And XLT»	Colour: Medium to dark green Grain Size: Medium grained Thickly bedded; moderately foliated; 15% white to ghosty to epidote altered feldspar crystals to 1/2mm; 15% medium green lithic fragments to 1mm; 5% dark green lithic fragments and/or crystals to 1mm		well developed chlorite on foliation surfaces. Moderately calcareous.	<1% disseminated fine grained pyrite	
75.89 TO 76.94	Rhyolite Quartz Eye Crystal Lithic Tuff «QFP TUFF»	Colour: Medium grey green Grain Size: Medium grained Moderately bedded; moderately foliated; 15% quartz eyes to 4mm; 10% to 15% white to ghosty to weakly epidote altered feldspar crystals to 1/2mm. CAF at 76.74	25		<1% disseminated pyrite	Possible dyke
76.94 TO 96.80	Andesite Lithic to Lapilli Tuff «AND LITH, LAP T»	Colour: Medium to dark green Grain Size: Medium to coarse grained Thickly bedded; moderately foliated; 10% white to ghosty to epidote altered feldspar crystals to 1mm; 5% to 10% medium green lithic fragments to 3mm; 15% light green epidote altered lithic fragments to 1cm; 10% quartz eyes (blue) to 8mm. Quartz eye rhyolite intrusions «Dyke» (epidote altered feldspar porphyritic) between 78.70m and 79.04m, 79.76m and 80.77m 82.60m and 85.06m 87.37m and 89.50m Andesite ash between 85.60m and 85.74m. CAB at 85.60m Possible fine grained «argillite» in the matrix of the lithic to lapilli tuff between 87.31m and 87.37m.	30			
96.80 TO 104.64	Quartz Eye Rhyolite «QFP DYKE»	Colour: Light to medium grey Grain Size: Medium grained Thick bedded; massive; weakly foliated; 10% t0 15% quartz eyes to 8mm; 10% white to ghosty to		Silicified	<1% disseminated pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		predominately epidote altered feldspar crystals to 1.5mm; minor screens of andesite LT-LaT.				
104.64 TO 110.54	Andesite Lithic to Lapilli Tuff «AND LITH, LAP T»	Colour: Medium to dark green Grain Size: Medium to coarse grained Thick bedded; massive; weakly foliated; 10% white to ghosty predominately epidote altered feldspar crystals to 1mm; 10% to 15% dark green lithic fragments to 3mm; 10% to 15% light green epidote altered lithic fragments to 1cm; weak argillaceous component to the groundmass. Between 109.57m and 110.61m rhyolite crystal lithic tuff (possible dyke); medium grained; medium green grey. Southern rhyolite contact at 110.54m.		Siliceous	Abundant cross-cutting quartz veins	
110.54 TO 113.80	Rhyolite Lithic Tuff? «Rhy TUFF?»	Colour: Medium grey green Grain Size: Medium grained This interval is very strongly sheared and highly contourted; it also contains numerous gouge seams; possibly contained argillaceous bands. «Gouge» 110.54 to 110.63.				This interval locally appears to be a heated fault structure.
113.80 TO 114.86	Rhyolite Lithic Tuff «Rhy LT»	Colour: Light grey; weak green cast Grain Size: Medium grained This interval is highly contourted and moderately sheared; minor gouge seams; it also contains 40% quartz veins; may have contained minor argillite interbeds. Possible argillite between 114.66 and 114.69. Quartz vein between 114.69 and 114.86m.		Bleached, locally siliceous	Between 113.80m to 114.22m #BCD 12774, 3-5% possibly banded pyrite, trace chalcopyrite. Between 114.22m and 114.66m #BCD 12775, 5-10% pyritye, trace sphalerite and chalcopyrite.	Hanging wall zone
114.86 TO 116.05	Rhyolite Crystal Lithic Tuff «Rhy LT»	Colour: Light to mediu grey, weak green cast Grain Size: Medium grained Moderately bedded; moderately foliated; 10% white to ghosty to clay altered feldspar crystals to 1.5mm; possible 5% to 10% medium grey felsic fragments to 2mm.			<1% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Diorite between 115.48m to 115.69m, possible Sicker Age.				
116.05 TO 119.05	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Very light grey Grain Size: Fine grained Moderately bedded; moderately foliated; 15% white to ghosty to clay altered feldspar crystals to 1/2mm; 10% quartz crystals and/or shards to 1/4mm; 3% possible chert or very fine grained rhyolite ash fragments to 3cm. Argillite between 119.04 to 119.05m.			<1% very fine grained disseminated pyrite locally 1%	Foliation in the interval is locally highly contourted
119.05 TO 136.29	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Light to medium grey Grain Size: Fine to medium grained Massive bedded; moderately foliated; 15% white to ghosty to clay altered feldspar crystals to 1/2mm; 5% quartz crystals and/or shards to 1/4mm; possible 10% to 15% medium grey lithic fragments to 2mm; possible 5% to 10% white felsic fragments to 2mm. Between 134.99m and 136.29m possible white felsic fragments to 11cm. Between 136.03m and 136.05m argillite band. CAB at 136.05	72	Weakly calcareous Silicified	1% fine grained pyrite Between 119.90m and 120.60m 1-2% fine grained pyrite BCD #12801. Between 122.97 and 123.49m 1-2% fine grained pyrite.	
136.29 TO 142.54	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Medium grey Grain Size: Fine to medium grained Massive bedded; moderately foliated; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/2mm; 5% quartz crystals and/or shards to 1/4mm.		Moderately calcareous	Trace pyrite	
142.54 TO 148.60	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Medium to dark grey Grain Size: Medium grained Massive bedded; weak to moderately foliated; 10% to 15% white to ghosty to clay altered feldspar crystals to 1mm; 5% to 10% quartz crystals and/or		Weak to moderately calcareous; silicified	<1% dissminated fine grained pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		shards to 1/4mm; possible 5% medium grey felsic fragments to 2mm.				
148.60 TO 151.40	Rhyolite Quartz Eye Crystal Lithic Tuff «QP LITH T»	Colour: White to light grey Grain Size: Medium grained Thick bedded; massive; weakly foliated; 5% to 10% white to ghosty feldspar crystals to 1/2mm; 10% to 15% quartz crystals and/or shards to 1/4mm; possible felsic lapilli to 7cm. Between 151.37 and 151.40m possible argillite.		Bleached and silicified	1% disseminated fine grained pyrite	
151.40 TO 152.24	Rhyolite Crystal Lithic Tuff «Rhy XLT»	Colour: Medium grey Grain Size: Fine to medium grained Moderately bedded; moderately foliated; 10% white to ghosty feldspar crystals to 1/2mm; 10% to 15% medium to dark grey felsic fragments to 2mm; 1-2% dark grey green lithic fragments to 1.5mm.			<1% disseminated fine grained pyrite. Sample BCD 12803	
152.24 TO 161.83	«CORONATION ZONE»	Colour: White Grain Size: Medium grained Quartz eye rhyolite crystal lithic tuff, 10% quartz eyes to 3mm; 5% to 10% white to ghosty feldspar crystals to 1/4mm; 10% quartz crystals and/or shards to 1/4mm.		Silicified; bleached; mineralized bands are strongly calcareous.	Between 152.24m and 152.84m 15% to 20% pyrite; 1-2% tan coloured sphalerite; <1% galena; <1% chalcopyrite; 1% disseminated and patchy tetrahedrite.	All mineralized intervals are banded to laminated to locally semi-massive, and have a strong cataclastic overprint BCD #12804
					Between 152.84m to 153.48, 10% to 15% pyrite; 1% to 2% tan coloured sphalerite; <1% galena; 1% chalcopyrite and 1% to 2% tetrahedrite.	BCD #12805
					Between 153.48m to 153.77m 3% to 5% pyrite; 1% sphalerite; 1% chalcopyrite; .5% galena; 1% tetrahedrite.	BCD #12806
					Between 153.77 and 154.15m 5-7% pyrite; 4% sphalerite; <1% chalcopyrite; <1% galena; 1-2% tetrahedrite.	BCD #12807
					Between 154.15 and 154.53m 5% pyrite; 3% sphalerite; <1% galena; <1% chalcopyrite; 1% tetrahedrite.	BCD #12808

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					Between 154.53 and 155.14m 15% to 20% pyrite; 6% sphalerite; <1% galena; 2% chalcopyrite; 1% tetrahedrite.	BCD #12809
					Between 155.14 and 155.58m 10% to 15% pyrite; <1% galena; 2-3% chalcopyrite; 1% tetrahedrite; 5% to 7% sphalerite.	BCD #12810
					Between 155.58 and 156.06m 15% pyrite; 1% chalcopyrite; <1% galena; 3-5% sphalerite; 1% tetrahedrite.	BCD #12811
				This interval may contain 15% white felsic fragments to 5cm.	Between 156.06 and 156.66m 60% pyrite; 2-3% chalcopyrite; 1% galena; 5% to 7% sphalerite.	BCD #12812
					Between 156.66 and 157.16m 20% to 25% pyrite; 1-2% chalcopyrite; 1% galena; 5% sphalerite; <1% tetrahedrite.	BCD #12813
					Between 157.16 and 157.58m 5% pyrite; 3% to 5% sphalerite; 1% chalcopyrite; 1% galena; <1% tetrahedrite.	BCD #12814
					Between 157.58 to 158.06m 3% to 5% pyrite; 2% to 3% chalcopyrite; 1% galena; 5% sphalerite; trace tetra-hedrite.	BCD #12815
					Between 158.06 to 158.82m 5% to 7% pyrite; 2% to 3% chalcopyrite; 1-2% galena; 3% to 5% sphalerite.	BCD #12816
					Between 158.82 and 159.23m 3-5% pyrite; 5% sphalerite; 2-3% chalcopyrite; 1-2% galena, trace tetrahedrite.	BCD #12817
				Between 159.23 and 159.34m «Shear» abundant gouge.	Between 159.23 and 159.65m 2% pyrite; 1% sphalerite; <1% chalcopyrite; <1% galena; trace to .5% tetrahedrite.	BCD #12818
					Between 159.65 and 160.09m 1-2% pyrite; 1-2% sphalerite; <1% galena; <1% chalcopyrite.	BCD #12819
					Between 160.09 and 160.54m 3-5% pyrite;	BCD #12820

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
				Minor diorite between 160.23 and 160.26m, strongly sheared between 160.26 and 160.30m. May possibly contain minor chert or rhyolite ash fragments to 3cm.	2-3% sphalerite; <1% chalcopyrite; 1% galena; 1-2% tetrahedrite. Between 160.54 and 161.31m 1% to 2% pyrite; <1% sphalerite, galena and chalcopyrite, trace tetrahedrite. Between 161.31 to 161.83m <1% pyrite; trace sphalerite.	BCD #12821 BCD #12822
161.83 TO 165.02	«DIORITE»	Colour: Medium to dark green Grain Size: Fine grained Sicker Age?		Strongly calcareous		
165.00 TO 166.76	Rhyolite	Colour: White to very light grey				
TO 166.76	Quartz Eye Crystal Ltihic Tuff «QEXLT (2C)»	Grain Size: Medium grained Moderately bedded; moderately foliated; 5% to 10% white to ghosty feldspar crystals to 1/4mm; 10% quartz crystals and/or shards to 1/4mm.		Silicified; bleached.		Appears to be the same horizon as the Coronation but not mineralized.
166.76 TO 169.75	Feldspar Porphyry «QFP»	Colour: Medium grey, local weak green cast Grain Size: Medium grained Moderately bedded; moderately foliated; 15% quartz eyes to 5mm; 15% white to ghosty feldspar crystals to 2mm; 1% light to medium green lithic fragments to 2mm; the upper 1m of this interval contains minor chert of fine grained rhyolite ash fragments to 4cm. «Shear» 166.45m to 166.48m Strongly «sheared» argillite between 169.49 and 169.63m.			<1% disseminated pyrite	
169.75 TO 177.40	Quartz Eye Rhyolite «QFP TUFF»	Colour: Light to medium grey Grain Size: Medium grained Thick bedded; moderately foliated; unit moderately sheared; 20% quartz eyes to 1cm; 10% to 15% white to ghosty to clay altered feldspar crystals to		<1% disseminated pyrite	Possible dome	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		1.5mm. Between 173.60m to 177.40m 60% bull quartz veins. Between 177.30m and 177.40m possibly 15% strongly «sheared» argillite. «Shear» 177.30 and 177.40m.				
177.40 TO 221.06	«GABBRO»	Colour: Medium to dark green Grain Size: Fine to coarse grained Kamutsen: Fine grained phase between 198.68m and 199.52m. Minor «shear» at 200.00m.				
221.06 TO 248.76	Quartz Eye Rhyolite «QFP-FW»	Colour: Light to medium grey Grain Size: Medium to coarse grained Massive bedded; massive; weakly foliated; 15% quartz eyes to 1cm; 5% to 10% white to ghosty feldspar crystals to 1.5mm; possible 15% aphanitic medium grey felsic fragments to 2mm; below 233.00m to end of the interval 3-5% dark green to black (actually sericide) lithic fragments to 1cm; these usually occur in aggregates. Possible diorite intrusion between 243.85 to 244.10m. «Shear» 248.04m and 248.45m 90% gouge. Diorite between 248.45m and 248.62m, also strongly sheared. «Shear» 248.62 to 248.76m.		Very siliceous. Local weak epidote alteration.	<1% disseminated fine grained pyrite	
248.76 TO 248.95	«NANAIMO»	Colour: Black Siltstone «Fault» 248.75 to 248.95, abundant gouge.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
248.95 TO 249.00	«QFP-FW»	Colour: Medium grey, weak green cast «Sheared» between 248.95m and 249.00m.				
249.00 TO 249.08	«NANAIMO»	Colour: Black Siltstone between 249.00 and 249.02, (gouge). Dome «Gouge» between 249.02 and 249.06. Siltstone between 249.06 and 249.08m.				
249.08 TO 249.93	«NANAIMO?»	Colour: Grayish green Grain Size: Coarse grained Appears to be a coarse grained sandstone, largest fragment 4cm; composed of andesitic and felsic fragments.				
249.93 TO 251.91	Nanaimo	Colour: Dark grey Grain Size: Fine to medium grained Appears to be a fine to medium grained sandstone composed of Sicker volcanics.				Between 240.08 and 251.91m there is a fining down hole sequence.
251.91 TO 253.90	«NANAIMO»	Colour: Black Grain Size: Fine grained Siltstone; gouge between 251.91 and 251.95m.				

				ESTIMA	ASSAYS										GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
12774	113.80	114.22	0.42	624	820	2500	14.5	195											0.0		
12775	114.22	114.66	0.44	940	1400	3000	27.4	210											0.0		
12801	119.90	120.60	0.70	30	32	62	0.7	15											0.0		
12802	122.97	123.49	0.52	20	20	26	0.2	10											0.0		
12803	151.40	152.24	0.84	98	460	1560	3.8	205											0.0		
12804	152.24	152.84	0.60							0.15	0.26	0.64	1.34	45.9	0.017	0.59			18.6		
12805	152.84	153.48	0.64							0.432	0.75	0.82	6.07	208	0.062	2.13			67.3		
12806	153.48	153.77	0.29							0.353	0.11	0.4	1.08	36.9	0.103	3.53			45.6		
12807	153.77	154.15	0.38							0.374	0.52	1.65	3.4	116.4	0.116	3.96			70.0		
12808	154.15	154.53	0.38							0.297	0.31	2.13	2.23	76.3	0.018	0.62			32.6		
12809	154.53	155.14	0.61							0.706	0.23	3.35	3.42	117.4	0.046	1.58			59.1		
12810	155.14	155.58	0.44							0.803	0.56	5.14	3.06	104.9	0.053	1.83			68.1		
12811	155.58	156.06	0.48							0.184	0.37	2.5	0.69	23.8	0.011	0.37			20.9		
12812	156.06	156.66	0.60							0.465	1.48	4.66	2.46	84.2	0.056	1.92			60.2		
12813	156.66	157.16	0.50							0.442	1.51	2.43	1.25	42.7	0.018	0.62			31.3		
12814	157.16	157.58	0.42							0.217	0.86	1.7	0.47	16.1	0.011	0.39			17.4		
12815	157.58	158.06	0.48							0.426	0.64	1.81	0.52	17.8	0.01	0.33			20.3		
12816	158.06	158.82	0.76							0.35	0.69	1.45	0.53	18.2	0.009	0.31			17.7		
12817	158.82	159.23	0.41							0.802	1.48	2.54	1.4	48.1	0.022	0.74			38.7		
12818	159.23	159.65	0.42							0.127	0.31	1.02	0.99	33.9	0.007	0.24			14.6		
12819	159.65	160.09	0.44							0.028	0.15	0.98	0.65	22.3	0.004	0.15			9.9		
12820	160.09	160.54	0.45							0.126	1.11	2.23	2.38	81.7	0.021	0.71			33.7		
12821	160.54	161.31	0.77							0.042	0.48	0.73	0.95	32.4	0.018	0.61			15.8		
12822	161.31	161.83	0.52	19	15	65	1.6	145											0.0		
AVE.	152.84	156.66	3.82							0.467	0.60	2.72	3.03	103.86	0.055	1.89			54.31		
ALT.AVG.	152.84	161.31	8.47							0.360	0.70	2.10	1.90	65.258	0.032	1.10			36.28		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11587	68.30	71.30	3.00	15.61	0.014	11.81	10.29	0.15	4.58	0.17	0.77	0.14	50.23		0.55		0.3	94.62	1	4	76	9	47	2	51	5
11588	127.10	130.10	3.00	16.91	0.072	2.14	3.01	5.33	1.34	0.03	1.19	0.04	64.47		0.34		1.7	96.56	0.6	33	48	16	16	2	26	5
11589	230.78	233.78	3.00	13.2	0.096	1.04	1.72	5.51	0.71	0.04	1.41	0.01	73.41		0.17		0.06	97.36	0.5	10	43	14	11	1	101	5

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10345.50N
EAST: 10052.50W
ELEV: 680.00

ALTERNATE COORDS GRID:
NORTH: 0+ 00
EAST: 0+ 00
ELEV: 680.00

COLLAR DIP: -77° 0' 0"
LENGTH OF THE HOLE: 442.30m
START DEPTH: 0.00m
FINAL DEPTH: 442.30m

COLLAR GRID AZIMUTH: 180° 0' 0"   COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 25, 1989
DATE COMPLETED: May 1, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 6.1 m
CORE STORAGE: CHEMAINUS

PURPOSE: To test the easterly extent of a high grade shoot intersected by hole 182.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
49.70	-	-76° 0'	ACID	OK		-	-	-	-	-	
139.00	-	-76° 0'	ACID	OK		-	-	-	-	-	
206.30	-	-74° 0'	ACID	OK		-	-	-	-	-	
265.20	-	-74° 0'	ACID	OK		-	-	-	-	-	
313.00	-	-73° 0'	ACID	OK		-	-	-	-	-	
354.80	-	-72° 0'	ACID	OK		-	-	-	-	-	
415.40	-	-71° 0'	ACID	OK		-	-	-	-	-	
96.60	212° 0'	-75°30'	SING.SHOT	OK		-	-	-	-	-	
213.40	211° 0'	-73°30'	SING.SHOT	OK		-	-	-	-	-	
369.10	219°30'	-72°30'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.50	Overburden «OB»					
6.50 TO 13.65	Felsic Ash, Tuff, QP «F ASH, TUFF, QP»	Colour: Greyish white, green Grain size: Fine grained -Weakly foliated 2-3% <1mm rounded shattered quartz eyes. Patches with 1-2% 2-4mm sericitized feldspars. 8.0 foliation	 45	«M-S Ser» Moderate to strongly sericitized. Very blitzed looking.	«2-3% py» 2-3% pyrite disseminated and aligned parallel to foliation.	
13.65 TO 16.45	Pyritic Felsic Ash «Py F ASH»	Colour: Medium grey Grain size: Fine grained -Very fine felsic ash with abundant very fine disseminated pyrite. Minor bedding observed but usually distorted. -Fairly homogeneous throughout. -15cm gougy core at lower contact.		«S Ser» Strongly sericitic	«7-10% tr cpy» 7-10% and locally up to 30% very fine disseminated syngenetic pyrite. Trace disseminated chalcopyrite.	
16.45 TO 97.30	Felsic Ash, Tuff, QP «F ASH,» «TUFF, QP»	Colour: Greyish white, green Grain size: Aphan to fine grained -Continuation of unit from 6.5 - 13.65 17.0 foliation 23.1 foliation ┤34.8 - 39.9├ «F ASH, CHERT» Interbedded aphanitic to fine grained felsic ash and light green cherts. Good bedding measurements at: 35.2 37.1	 30 30 40 55	«M-S Ser» 34.45-34.8 Siliceous zone with 10-15% light tan disseminated sericite.	«1-2% py» 1-2% finely disseminated pyrite. Locallized <10cm zones with up to 10% pyrite. ┤16.45 - 16.9├ «5% py, 1%sp, <1% cpy» 5% pyrite, 1% sphalerite, and <1% chalcopyrite as <1cm siliceous stringers parallel to foliation. ┤34.8 - 36.8├ «5-7% py» 5-7% very fine disseminated syngenetic pyrite. 36.8 - 39.9 2-3% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		37.3	40			
		37.4	45			
		37.6	45			
		45.0 bedding	40		45.2 5cm qtz, pyrite, chalcopyrite veinlet.	
		46.6 bedding	50			
		52.2 foliation	45			
		53.65 - 54.2 Finely bedded light grey cherts and fine felsic ash.			54.2 - 54.7 2-3% finely disseminated pyrite.	
		54.0 bedding	60			
		┤64.1 - 73.6├ «AND ASH, TUFF, CHERT» Andesite ash, tuff, chert: greyish green, fine grained ash and fine tuffs with rare 2-5mm chert layers and 2-3mm fine pyrite laminations. <1% 2-4m epidotized feldspars mainly below 69m.		┤64.1 - 73.6├ «M Chl» Moderately chloritic	┤64.1 - 73.6├ «2-3% py» 2-3% very fine pyrite disseminated and as occassion mm laminations.	
		64.7 bedding	70			
		65.0 bedding	60			
		66.0 bedding	50			
		72.0m fining up hole.				
		72.8 - 73.6 Black argillaceous component to rock.				
		73.6 - 74.0 Mafic dyke: fine grained, green, calcareous, moderately sheared.				
		┤77.1 - 85.4├ «AND ASH, TUFF» Andesite ash, tuff: 77.1 - 82.2 Fine grained, fairly homogeneous ash and fine tuff, <1mm translucent feldspars below 82.2 becoming coarser grained with 2-3mm epidotized feldspars.		┤77.1 - 85.4├ «W-M Chl» Weak to moderately chloritic.	┤77.1 - 85.4├ «2-3% py» 2-3% finely disseminated pyrite. 81.9 5cm with 20% pyrite, 1% chalcopyrite, cherty zone.	
		-Fining up-hole at 82.2, tops up-hole.				
		84.6 - 85.0 Gougy core				
		88.1 - 88.3 Mafic dyke.				
		88.75 - 90.2 Mafic dyke: massive and weakly sheared, calcareous.				
		90.2 - 93.3 Gougy broken core.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		93.5 - 96.85 Andesite ash similar to previous units. -Gougy lower contacts.			93.5 - 96.85 2-3% fine disseminated pyrite.	
97.30 TO 116.30	Andesite Ash, Crystal Tuff «AND ASH, TUFF»	Colour: Dark green Grain size: Fine grained -Weakly foliated -Fairly fine grained with up to 10% <1mm translucent feldspars. 101.3 foliation -Occassional zones with 5-7% 2-4mm epidotized feldspars. -Rare 3-4mm rounded felsic fragments. 99.4 - 100.2 Minor argillite component or sulfide smears.	30	«W Chl, Patchy Ep» Weakly chloritic, patchy epidote as epidotized feldspars and fragments.	«1% py»	
116.30 TO 122.05	Quartz- Pyrite- Chalcopy. Stringer Zone «QTZ-PY- CPY STRINGERS»	20cm - 1.2m quartz pyrite-chalcopyrite stringers cutting mineralized andesite and felsic tuffs. -Host rock strongly silicified.		Strong silica flooding into andesite and felsic tuff host rock.	«20-25% py <1-1% cpy» 20-25% coarse brassy pyrite, locally up to 70% over 10cm within quartz veins. Chalcopyrite intergrown with pyrite. Majority of sulfides within quartz veins. 2-5% py mineralization within tuffs.	
122.05 TO 244.45	Andesite Ash, Tuff «AND ASH TUFF»	Colour: Dark green Grain size: Fine grained -Continuation of andesite unit from 97.3-116.3. 122.05 - 139.4 Up to 15% 1-3mm epidotized feldspars, rare <5mm epidotized fragments. 140.5 foliation 148.6 foliation 149.9 - 158.2 Andesite crystal tuff, lapilli tuff, 5-10% 2-3mm epidotized feldspars and 5-7% <1cm epidotized fragments. -Below 158.2 stronger sheared appearance, more	 40 30	«W Chl, Patchy ep» 158 - 244.45 «W-M Chl»		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		mafic looking, not as granular as previous, lacking epidotized feldspars. Possible strongly stretched green mafic fragments.		Increasing chlorite alteration down hole.	162.9 - 163.5 Sulfide smears	
		172.1 - 174.6 <1cm stretched and flattened grey felsic fragments.				
		173.6 foliation	50			
		185.4 - 185.6 Fault gouge.				
		187 foliation	30			
		206.2 - 211.7 Distorted foliation 50 - 0 degrees to core axis.			206.2 - 211.7 «2-3% py, tr cpy» 2-3% pyrite and trace chalcopyrite disseminated parallel to foliation. 207.4m 7cm with 3% chalcopyrite.	
		212.2 foliation	35			
		239.3 - 243.1 <5% <1cm epidotized andesitic fragments.				222.8 - 223.6 Broken rubbly core.
244.45 TO 249.40	Andesite Argillite Conglom-erate «AND, ARG, CONGLOM»	Colour: Blackish green Grain size: Fine to coarse grained				
		-<5mm fragments of epidotized andesite, feldspars and some felsic fragments in a fine grained pyritic argillite to argillaceous andesite groundmass. Matrix supported. Maximum fragment size 3cm.		«Patchy Ep»	«2-3% py» 2-3% very fine pyrite disseminated within argillite groundmass.	
		-Greatest argillite content within first 2m.				
		246.2 - 248.45 Felsic dyke: light grey, massive, very siliceous, 10% total of whitish feldspars, bluish white quartz eyes, and greenish epidotized grains. Sharp lower contact.				
		248.45 contact	50			
249.40 TO 274.50	Felsic Dyke «F DYKE»	Colour: Greenish light grey Grain size: Fine grained				
		-Massive, finely brecciated with a fine white calcite/quartz gash filling.		«S Sil» Strongly siliceous, primary feature.	«<1% py» Overall <1% pyrite. Locally 1-2% disseminated pyrite near volcanic screens.	
		1-2% 3-7mm round bluish white quartz eyes and patchy 2-3% mm epidotized grains.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-Numerous <1m screens of andesite lapilli tuff at top and base of interval.				
274.50 TO 332.50	Andesite Tuff, Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Dark green Grain size: Fine to coarse grained 10-15% <1cm green epidotized fragments and up to 10% 1-3mm epidotized grains (fsp) in a fine grained andesite groundmass. 285.5 - 287.6 Block size epidotized fragments, wispy groundmass flowing around fragments. Approx. 70% fragments. -Felsic dykes, massive, siliceous with blue white quartz eyes and epidotized feldspars as follows: 287.6 - 288.4 287.6 contact 289.8 - 292.5 292.5 contact 293.9 - 298.4 293.9 contact 292.5 - 293.9 Andesite dyke: dark green, fine grained, fine epidote grains, weakly brecciated with fine carbonate gash fillings 298.4 - 310.2 Occassional 2cm and up to 9cm fragments. 310.2 - 321.95 «F DYKE» Felsic dyke: light grey, massive, siliceous. Up to 20% combined 2-3mm whitish feldspar crystals 4-7mm blue white quartz eyes and 1-2mm epidotized grains (fsp). Sharp lower contact. 326.4 - 329.2 Felsic dyke: gougy brecciated upper and lower contact. 332.5 2cm fault gouge at lower contact. 332.5 fault	 45 30 45 55 40	«W Chl, W Ep» Weakly chlorite, weak epidote as fragments and grains.	«tr py» 321.95 - 326.4 1-2% disseminated pyrite. 326.4 - 329.2 1-2% disseminated pyrite.	
332.50 TO 351.00	QFP Crystal Tuff «QFP F TUFF»	Colour: Speckled light grey Grain size: Fine grained -Massive to very weakly foliated. White speckled appearance caused by 3-7% 2-3mm whitish		«W Ser, Calc, Patchy M Sil» Weak sericite alteration of groundmass.	tr py	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		translucent feldspar crystals and 1-2mm shattered rounded quartz eyes. -Sharp lower contact. 351.0	 30	Very weak sericite +/- calcite alteration of feldspars. Patchy moderate silicification.		
351.00 TO 352.10	Felsic Ash «F ASH»	Colour: Light grey Grain size: Aphanitic to fine grained -Weakly foliated, very weakly developed bedding towards base of unit. <1mm dark lines, some with fine pyrite defining possible bedding or foliation Occassional 1-2mm calcite veinlets generally parallel to foliation. 351.5 fol.? -Fine cherts and ash at base of unit defining bedding. 351.8 bedding -Sharp lower contact.	 45 50 35	« W Ser»	«<1% py» <1% pyrite as 2-4mm disseminated aggregates and <1mm bands parallel to foliation/bedding?	Stratigraphic equivalent of Coronation Zone.
352.10 TO 403.00	QFP Crystal Tuff «QFP TUFF»	Colour: Light grey Grain size: Fine grained 3-5% rounded, clear shattered and whitish cloudy 2-8mm quartz eyes. 5-10% and locally 20% 1-3mm tannish clay, sericite, calcite altered feldspars, some with good euhedral outlines. -Rare felsic ash fragments. 359.8 Gouge smeared fault plane at 5 degrees to core axis. -Some feldspar poor zones, mainly towards end of interval below 385m. 400.6 - 401.9 and 402.5 - 403.0 Mafic dykes. 400.6 contact	 55	«W Ser»	Nil	
403.00 TO 411.80	Felsic Lithic Tuff Lapilli Tuff «F LT LAP»	Colour: Light grey green Grain size: Fine to medium green -Prevasive brecciated and sheared appearance. 403.3 shearing	 50	«M Ser» Moderate sericite alteration of	<1% py	Unit is more like a fault zone, sheared, mylonitic? which imparts the

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	«TUFF»	-<1cm felsic lithic fragments, and minor quartz eyes in a greenish soft clay altered groundmass. Up to 70% fragments. Rare mafic fragments. Rare quartz vein fragments = fault zone. Fault breccia clay gouge fault zones from 405.3 - 405.4 and 407.4 -407.7. -Gougy rubbly core below 407.7m. 404.0 - 405.1 Felsic ash: greenish grey, fine grained. Distorted brecciated appearance, fine chert at base of unit shows slumping/soft sediment deformation. 405.1 contact 411.6 Sharp lower contact with 2cm black fault gouge.	40 60	groundmass. May be clay alteration of faulting. 404.0 - 405.1 Weakly sericitic.	404.0 - 405.1 1-2% wispy 1mm pyrite stringers possibly original bedding now distorted by slumping.	fragmental appearance to unit.
411.80 TO 414.30	Volcanic Sandstone «VOLC SS»	Colour: Medium grey Grain size: Fine grained -Fine grained granular appearance, <1mm subangular quartz grains, felsic grains, and some feldspars. 413.4 - 413.6 Well rounded fragments of karmutsen diorite/gabbro up to 5cm. 413.6 - 414.3 possibly a single large diorite fragment.				Nanaimo formation. Contains fragments of karmutsen gabbro.
414.30 TO 435.10	Biotite Porphyry «BIOT-RICH DIKE»	Colour: Medium green Grain size: Fine to medium grained 5-7% 1-3mm biotite porphyritic. Strongly sheared upper margin. From 414.3 - 422.2 no biotite, strong sheared texture abundant very soft 1-3mm sericitic patches = altered crystals. 419.9 shearing 434.5 - 435.1 Weak shearing to lower margin.	55	Relatively soft weak to moderately sericitized groundmass.	Nil	Possibly related to Island Intrusives.
435.10 TO 438.20	Silicified Argillite «ARG, SIL»					

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
438.20 TO 442.30	«NANAIMO»					

				ESTIMA	ASSAYS										GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
12792	12.50	13.65	1.15	57	12	133	0.6	20											0.0		
12793	13.65	15.05	1.40	1020	12	162	1.1	35	2200										0.0		
12794	15.05	16.45	1.40	34	20	107	0.3	45	3500										0.0		
12795	16.45	16.90	0.45	1850	3900	4100	4	45											0.0		
12796	16.90	18.10	1.20	51	50	113	0.2	5											0.0		
12797	34.45	34.80	0.35	44	22	62	0.4	25											0.0		
12798	34.80	35.80	1.00	16	10	100	0.2	15	3760										0.0		
12799	35.80	36.80	1.00	17	12	125	0.4	20	5000										0.0		
12800	36.80	38.30	1.50	22	10	88	0.4	5	3400										0.0		
12826	38.30	39.90	1.60	9	8	89	0.3	5	2340										0.0		
12827	53.65	54.70	1.05	11	10	63	0.4	5	2800										0.0		
12828	64.10	65.60	1.50	70	12	70	0.6	5											0.0		
12829	65.60	67.10	1.50	116	11	82	0.6	5											0.0		
12830	67.10	68.60	1.50	400	14	93	0.7	5											0.0		
12831	116.30	117.30	1.00	6750	18	78	2.3	5											0.0		
12832	117.30	118.30	1.00	6900	18	230	2.2	35											0.0		
12833	118.30	119.35	1.05	12500	17	94	3.2	20											0.0		
12834	119.35	119.85	0.50	2450	21	52	1.9	20											0.0		
12835	119.85	121.05	1.20	4100	18	53	1.6	25											0.0		
12836	121.05	122.05	1.00	13000	17	120	3.2	35											0.0		
12837	206.20	207.70	1.50	2050	18	145	1.3	20											0.0		
12838	207.70	209.20	1.50	425	24	135	1	15											0.0		
12839	244.45	245.30	0.80	275	94	150	0.9	5											0.0		
12840	245.30	246.20	0.90	265	17	66	0.7	5											0.0		
12841	350.00	351.00	1.00	15	9	26	0.4	10											0.0		
12842	351.00	352.10	1.10	94	62	165	1	15											0.0		
12843	352.10	353.10	1.00	21	8	32	0.5	5											0.0		
12844	404.00	405.10	1.10	34	20	102	0.7	5											0.0		
12845	435.10	436.70	1.60	47	309	408	2.1	5											0.0		
12846	436.70	438.20	1.50	329	1230	990	11.2	5											0.0		
ALT.AVG.	116.30	122.05	5.75	7986.1	17.904	107.18	2.42	23.652													

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11567	7.00	10.00	3.00	13.07	0.205	0.01	2.53	4.37	1.14	0.03	0.1	0.02	74.96		0.23		1.5	98.16	0.3	28	240	18	17	1	28	55
11568	45.10	47.80	2.70	13.56	0.175	0.27	5.42	3.17	5.36	0.15	0.06	0.1	66.00		0.43		1.64	96.34	0.4	10	181	27	51	5	90	5
11569	77.30	80.30	3.00	16.79	0.158	0.97	8.41	2.04	6.22	0.24	2.2	0.15	56.15		0.67		1.86	95.85	0.8	9	213	377	58	8	117	5
11570	110.00	113.00	3.00	15.5	0.056	6.45	9.3	1.08	7.17	0.36	1.08	0.15	50.28		0.58		0.28	92.28	0.8	1	71	70	66	7	101	5
11571	145.40	148.40	3.00	16.83	0.143	3.22	9.39	1.15	7.65	0.36	1.85	0.15	51.23		0.65		1.4	94.02	0.8	1	222	238	67	19	132	5
11572	185.90	188.70	2.80	16.51	0.155	1.58	7.81	2.29	6.36	0.25	1.7	0.13	56.19		0.6		1.36	94.94	0.6	1	181	294	62	6	131	5
11573	223.60	226.60	3.00	15.32	0.059	6.61	8.08	0.58	5.87	0.31	3.17	0.13	51.95		0.52		0.3	92.91	0.6	2	96	163	60	6	168	5
11574	278.60	281.60	3.00	15.42	0.028	9.18	8.95	0.01	5.29	0.28	3.49	0.83	49.48		0.67		0.24	93.85	0.8	18	266	101	57	7	120	5
11575	322.20	324.60	2.40	15.38	0.03	8.84	10.15	0.3	4.82	0.28	2.08	0.77	49.42		0.6		1.75	94.43	0.9	19	162	96	48	3	179	5
11601	340.00	343.00	3.00	14.48	0.101	3.02	1.98	3.15	1.31	0.06	2.72	0.25	68.38		0.21		0.23	95.89	0.2	12	124	8	18	1	24	5
11602	355.70	358.70	3.00	13.04	0.073	3.36	1.95	3.55	1.05	0.07	1.35	0.3	70.44		0.19		0.19	95.57	0.2	124	77	5	10	1	12	5
11603	391.60	394.10	2.50	13.36	0.076	2.35	1.98	5.12	0.76	0.06	1.6	0.25	70.21		0.18		0.31	96.26	0.2	154	78	9	7	1	14	5

HOLE NUMBER: 89-235

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10337.50N
EAST: 10550.00W
ELEV: 635.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 635.00

COLLAR DIP: -53° 0' 0"
LENGTH OF THE HOLE: 276.45m
START DEPTH: 0.00m
FINAL DEPTH: 276.45m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 27, 1989
DATE COMPLETED: April 29, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 11.3 m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST DOWN DIP OF HIGH GRADE EXPOSED IN EAST DRIFT

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.36	-	-52° 0'	ACID	OK		-	-	-	-	-	
121.92	212° 0'	-50° 0'	SING.SHOT	OK		-	-	-	-	-	
182.88	213° 0'	-49° 0'	SING.SHOT	OK		-	-	-	-	-	
274.32	214° 0'	-47° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 11.30	«OB»					
11.30 TO 33.60	«GABBRO»	Colour:Medium to dark green Grain size: Very fine to coarse grained Coarse grained sections are massive non-foliated; fine grained sections are strongly foliated; coarse grained between 11.30m to 12.64m with feldspars forming daisy patterns. «Gouge» 32.00 to 32.08m		Fine grained sections are strongly calcareous.		
33.60 TO 36.03	Andesite Ash «AND ASH»	Colour: Medium to dark green Grain size: Fine to medium grained Thin to moderately bedded; moderately foliated; 15% to 20% white to ghosty feldspar crystals to 1/4mm; 5% to 10% rounded quartz grains to 1/2mm. «Shear» Between 34.60 and 34.70m «Shear» Between 35.36 and 35.40m «Shear» Between 35.60 and 35.65m		Well developed chlorite on foliation surface.		
36.03 TO 40.86	Andesite Ash «AND ASH»	Colour: Medium to dark green Grain size: Fine to medium grained Very thin to moderately bedded; moderately foliated; 15% white to ghosty feldspar crystals to 1/4mm; 10% to 15% rounded quartz grains to 1/4mm; 15% to 20% medium green grey lithic fragments to 1/2mm; 2-3% chert fragments to 4cm. Between 36.03m and 36.13m is a chert or very fine grained rhyolite ash interbed. CAB at 36.03m «Shear» Between 36.80m and 36.95m. Chert between 38.70m and 38.75m. Chert between 40.43m and 40.86m.	60		1% very fine grained disseminated pyrite. Rare disseminated, patchy chalcopyrite, also in micro-fractures and quartz veins.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
40.86 TO 55.46	Andesite Ash «AND ASH»	Colour: Medium green grey Grain size: Fine grained Thickly bedded; moderately foliated; 10% white to ghostly feldspar crystals to 1/4mm; 15% rounded quartz grains to 1/4mm; 5% quartz crystals to 1/4mm. CAF at 38.50m «Shear» Between 41.35m and 41.37m. Between 45.44m and 46.30m 20% quartz veins; foliation highly contorted; minor group seams. Between 54.34m and 54.39m minor «shear», gougy. Possible argillaceous component to groundmass between 55.00m and 55.46m.	35	Well developed chlorite on foliation surfaces. Rare chalcopyrite in quartz veins. Between 49.11m and 51.62m the interval is moderately to strongly calcareous.	1% very fine grained disseminated pyrite.	Possibly a Dacite unit.
55.46 TO 57.26	Andesite Crystal Lithic Tuff «And XLT»	Colour: Medium green Grain size: Medium grained Thick bedded; moderately foliated; 15% white to ghosty predominately epidote altered feldspar crystals to 1mm; 15% medium to dark green lithic fragments and/or crystals to 1.5mm; 5% to 10% light green epidote altered lithic fragments to 1cm. CAB at 57.14m	45		1% very fine grained disseminated pyrite.	
57.26 TO 62.68	Andesite Ash «AND ASH»	Colour: Medium green Grain size: Medium grained Moderately bedded; moderately foliated; 15% white to ghosty feldspar crystals to 1/4mm; 10% to 15% medium to dark green lithic fragments to 1/2mm; 15% quartz grains to 1/4mm; <5% white felsic fragments to 2mm; 1-2% light green epidote altered lithic fragments to 5mm.		Locally weak calcareous.	1% to 2% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Possibly argillaceous between 70.77m and 70.84m. CAF at 62.20m	 31			
62.68 TO 64.61	Andesite Crystal Lithic to Lapilli Tuff «And XLT - LaT»	Colour: Medium green Grain size: Medium to coarse grained Moderately bedded; moderately foliated; 15% white to ghosty to epidote altered feldspar crystals to 1/2mm; 20% medium to dark green lithic fragments to 2mm; 5% light green epidote altered lithic fragments to 2cm.			<1% disseminated fine grained pyrite; rare patchy chalcopyrite.	
64.61 TO 67.45	Andesite Crystal Lithic Tuff «And XLT»	Colour: Medium green Grain size: Medium grained Moderately bedded; moderately foliated; 10% to 15% white to ghosty feldspar crystals to 1mm; 15% to 20% medium to dark grey green lithic fragments to 2mm; 5% quartz grains to 1/4mm; 1% to 2% light green epidote altered lithic fragments to 8mm.			1% to 2% disseminated fine grained pyrite; locally trace chalcopyrite.	
67.45 TO 69.20	Andesite Lapilli Tuff «And LaT»	Colour: Medium green Grain size: Medium to coarse grained Moderately bedded; weak to moderately foliated; 10% to 15% white to ghosty to predominately epidote altered feldspar crystals to 1mm; 15% medium to dark green lithic fragments to 2mm; 10% light green epidote altered lithic fragments to 3cm.		Weakly calcareous.	1% disseminated fine grained pyrite.	
69.20 TO 76.48	Andesite Lithic Crystal Tuff «And LT-XLT»	Colour: Medium to dark green Grain size: Medium grained Thin to moderately bedded; moderately foliated; 10% white to ghosty to weakly epidote altered feldspar crystals to 1/2mm; 15% medium to dark green lithic fragments to 2mm; 5% light green epidote altered lithic fragments to 1cm; 5% quartz grains to 1/2mm; 2% to 3% dark green to black lithic fragments? or crystals to 1/2mm. «Argillite» 76.20m to 76.48m very thinly bedded to varved.			1% disseminated, locally patchy fine to medium grained pyrite. Rare trace chalcopyrite. 3-5% very fine grained disseminated pyrite.	Local argillite laminations.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		CAB at 76.48m CAF at 76.48m	49 66			
76.48 TO 85.10	Andesite Lithic to Lapilli Tuff «And LT-LaT»	Colour: Medium grey Grain size: Medium to coarse grained Thickly bedded; moderately foliated; 10% to 15% white to ghosty to predominately epidote altered feldspar crystals to 1/2mm; 5% uralite crystals to 2mm (very rare to 5mm); 15% medium to dark green lithic fragments to 3mm; 2% quartz grains to 2mm; 5% light green epidote altered lithic fragments to 1cm; rare to 5cm (84.70m to 85.10m). Between 82.50m and 84.70m 60% quartz veins.		Weak to moderately calcareous.	<1% disseminated fine grained pyrite. Rare trace chalcopyrite in quartz veins (79.54m to 79.69m).	
85.10 TO 90.36	Rhyolite Quartz Eye Feldspar Porphyry «QFP DYKE»	Colour: White to medium greyish green Grain size: Medium grained Thick bedded; massive; weakly foliated; 10% to 15% quartz eyes to 9mm; 10% white to ghosty to predominately epidote altered feldspar crystal to 1/2mm. Minor andesite crystal lithic tuff between 87.30m to 87.61m.		Siliceous.	Locally 1% cross-cutting medium grained pyrite.	
90.36 TO 96.52	Andesite Crystal Lithic to Lapilli Tuff «AND XLT, LAP T»	Colour: Medium green Grain size: Medium to coarse grained Thick bedded; moderately foliated; 10% white to ghosty to predominately epidote altered feldspar crystals to 1/2mm; 15% to 20% medium green lithic fragments to 3mm; 1% to 2% dark green to black crystals? and/or lithic fragments to 1.5mm; 10% light green epidote altered lithic fragments to 1cm, rare to 4cm (between 90.36m and 92.50m). CAF at 94.50m	 33	Weak to moderately calcareous. Silicified between 95.52m and 96.50m.	1% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
96.52 TO 103.54	Quartz Eye Rhyolite «QFP DYKE?»	Colour: White to light grey Grain size: Medium grained Thick bedded; massive; weakly foliated; 15% quartz eyes from 1mm to 1cm; 10% white to ghosty feldspar crystal to 1mm. Between 97.41m and 98.06m «Quartz vein». Between 98.06m and 99.98m andesite crystal lithic to lapilli tuff «And XLT-LaT» same as between 90.36m and 96.52m. Core badly broken between 101.90m and 102.70m.		Siliceous.	<1%	
103.54 TO 123.50	Andesite Crystal Lithic Tuff «And XLT»	Colour: Medium green Grain size: Medium grained Moderately bedded; moderately foliated; 10% white to ghosty to predominately epidote altered feldspar crystals to 1.5mm; 15% to 20% medium green lithic fragments to 3mm; 3% dark green to black crystals? and/or lithic fragments to 1.5mm; 5% light green epidote altered lithic fragments to 1cm; quartz feldspar porphyry dyke «QFP Dyke» between 112.40m to 115.27m thickly bedded; massive weakly foliated; 15% blue quartz eyes to 1cm; 10% epidote altered feldspar crystals to 1mm. «QFP Duke» between 116.40m and 117.56m, and between 118.81m and 119.85m. CAF at 106.40m 107.00m 112.10m	 20 9 34	Locally silicified and contains minor quartz eyes. Andesite crystal lithic tuff between 119.85m and 123.50m, pervasive epidote alteration.	1% to 2% disseminated fine to medium grained pyrite.	Foliation locally highly contourted.
123.50 TO 130.23	Quartz Eye Feldspar Porphyry Dyke «QFP DYKE»	Colour: Medium grey Grain size: Medium grained Massive bedded; weakly foliated; 15% quartz eyes from 1mm to 1cm (blue); 10% to 15% white to ghosty to predominately epidote altered fetdspar		Siliceous.	<1% disseminated pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		crystals to 1mm. Broken core between 126.85m and 127.22m.				
130.23 TO 142.67	Andesite Lithic Crystal Tuff «And LXT»	Colour: Medium green Grain size: Medium grained Thicky bedded; moderately foliated; 5% to 10% white to ghosty to epidote altered feldspar crystals to 1mm; 15% to 20% medium green lithic fragments to 3mm; 1% to 2% dark green to black crystal and/or fragments to 1mm; 5% light green epidote altered lithic fragments to 6mm. Felsic dykes (QFP) between 130.69m and 130.84m, and 131.77m and 132.58m. Diorite (Sicker) between 133.50m and 133.87m. Felsic «QFP» dykes between: 133.87m and 133.95m 134.05m and 134.12m 135.55m and 136.24m 136.67m and 138.12m		Weakly to moderately calcareous.	1% disseminated fine grained pyrite.	Andesite locally silicified proximal to felsic dykes.
142.67 TO 157.60	Rhyolite Quartz Eye to Quartz Feldspar Porphyry Dyke «QFP DYKE»	Colour: Medium grey to light grey Grain size: Medium grained Thick bedded; massive; weakly foliated; 15% to 20% quartz eyes from 2mm to 1cm; 10% white to ghosty to predominately epidote altered feldspar crystals to 1mm. «Shear» 148.67m to 148.92m Andesite lithic to lapilli tuff «And LT-LaT» between 149.04m and 149.87m. Shear between 151.53m and 151.57m. Andesite lithic to lapilli tuff «And LT-LaT» between 152.47m and 152.97m. Andesite lapilli tuff «And LaT» between 156.38m and 157.60m.		Siliceous.	<1% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		«Gouge» 157.45m and 157.60m.				157.60m Southern rhyolite contact.
157.60 TO 177.40	Quartz Eye Rhyolite Ash Tuff (2A) «QP ASH»	Colour: Light grey Grain size: Fine grained Thickly bedded; moderately foliated; 15% quartz eyes to 1mm; 5% to 10% white to ghosty to clay altered feldspar crystals to 1/2mm. «Gouge» 157.60m to 158.03m «Shear» 158.03m to 160.30m, minor gouge shear. «Gouge» 160.30m to 160.78m «Fault» between 161.95m and 162.85m, abundant gouge. «Shear» 174.00m to 174.10m. Between 174.50m and 175.60m 90% quartz veins.		Well developed sericite on foliation surfaces.	1% disseminated fine grained pyrite. Between 158.50m and 159.04m 2% to 3% disseminated, laminated fine grained pyrite, trace sphalerite, trace galena. Between 159.04m and 159.73m 3% to 5% disseminated, laminated fine grained pyrite, traces sphalerite and galena. Between 159.73m and 160.30m 2-3% laminated fine grained pyrite, trace sphalerite, galena, and chalcopyrite. Large pyritic fragment to 2cm at 165.90m.	BCD #12823
177.40 TO 197.20						

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
12823	158.50	159.04	0.54	104	95	464	7.2	360											0.0		
12824	159.04	159.73	0.69	465	1120	2600	12	95											0.0		
12825	159.73	160.30	0.57	660	2500	4430	7	100											0.0		
12851	190.03	191.03	1.00	19	33	30	0.4	10											0.0		
12852	191.03	192.03	1.00	10	20	21	0.3	10											0.0		
12853	192.03	193.05	1.02	11	18	19	0.6	15											0.0		
12854	193.05	194.10	1.05	9	12	36	0.4	20											0.0		
12855	194.10	194.58	0.48							0.708	0.16	0.70	0.48	16.5	.007	0.23			17.6		
12856	194.58	195.17	0.59							0.402	0.07	0.86	0.24	8.3	.015	0.50			15.1		
12857	195.17	195.73	0.56							0.618	0.25	2.98	0.31	10.5	.017	0.59			28.0		
12858	195.73	196.30	0.57							0.706	0.10	2.70	0.53	18.2	.024	0.83			31.4		
12859	196.30	197.01	0.71							0.167	0.10	0.25	0.40	13.7	.012	0.41			9.6		
12860	197.01	197.53	0.52							0.426	0.10	0.23	1.05	36.0	.057	1.94			31.2		
12861	197.53	197.90	0.37							0.202	0.15	0.32	0.25	8.4	.006	0.21			7.6		
12862	197.90	198.35	0.45							0.943	0.05	0.12	0.76	26.2	.017	0.59			23.1		
12863	198.35	198.77	0.42							0.473	0.12	0.19	0.43	14.8	.012	0.40			13.6		
12864	198.77	199.62	0.85	236	121	342	2	35											0.0		
12865	237.60	238.10	0.58	20	28	30	1.4	25											0.0		
12866	251.25	252.10	0.85	21	15	31	0.6	5											0.0		
12867	252.10	252.76	0.66	5	16	38	0.6	5											0.0		
12868	270.96	271.64	0.68	90	23	130	0.7	15											0.0		
12869	271.64	272.55	0.91	76	21	260	0.4	5											0.0		
AVE.	194.10	198.77	4.67							0.506	0.12	0.99		16.84		0.65			10.9		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11590	47.10	50.00	2.90	17.18	0.133	0.28	8.66	1.87	8.63	0.28	1.64	0.17	52.9		0.64		1.8	94.18	1	1	204	39	80	7	296	40
11591	78.00	81.00	3.00	15.19	0.022	9.33	9.02	0.01	6.87	0.25	3.71	0.85	51		0.58		0.25	97.07	0.7	19	192	67	47	2	57	5
11592	120.00	123.00	3.00	17.16	0.01	7.76	9.46	0.07	5.04	0.2	3.43	0.74	50.83		0.64		1.1	96.43	0.7	21	53	161	55	7	78	5
11593	163.70	166.70	3.00	13.67	0.192	1.55	1.43	3.99	1.26	0.03	1.44	0.23	72.56		0.18		0.04	96.58	0.2	19	528	10	7	1	30	70
11594	212.57	215.57	3.00	13.54	0.081	1.72	1.7	2.55	1.02	0.04	3.87	0.19	72.47		0.25		0.1	97.53	0.2	16	171	7	11	1	22	5
11595	255.00	258.00	3.00	12.63	0.073	2.95	1.89	2.85	0.95	0.06	2.04	0.22	71.46		0.18		0.16	95.47	0.2	27	127	10	15	1	19	5

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13W

PLOTTING COORDS GRID: MINE
NORTH: 10338.00N
EAST: 10550.00W
ELEV: 635.00

ALTERNATE COORDS GRID: MINE
NORTH: 103+38N
EAST: 105+50W
ELEV: 635.00

COLLAR DIP: -77° 0' 0"
LENGTH OF THE HOLE: 322.20m
START DEPTH: 0.00m
FINAL DEPTH: 322.20m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: April 30, 1989
DATE COMPLETED: May 3, 1989
DATE LOGGED: May 3, 1989

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

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

CONTRACTOR: FRONTIER DRILLING LTD.
CASING: 12.8m
CORE STORAGE: CHEMAINUS

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
60.96	-	-77° 0'	ACID	OK		-	-	-	-	-	
60.96	-	-77° 0'	ACID	OK		-	-	-	-	-	
121.92	-	-78° 0'	ACID	OK		-	-	-	-	-	
182.88	-	-78° 0'	ACID	OK		-	-	-	-	-	
300.00	-	-77° 0'	ACID	OK		-	-	-	-	-	
246.89	220° 0'	-78° 0'	SING.SHOT	OK		-	-	-	-	-	
320.00	0° 0'	-76° 0'	SING.SHOT			-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 12.80	«OB»					
12.80 TO 35.37	«GABBRO»	Colour: med. dark green grain: fi. med. gr. -Fine grained between 12.80m and 23.00m -Med. grained btw we.00m and 35.37m		Stongly calcarenus, 20% carbonate.	-Upper 3.00m are strongly weathered.	
35.37 TO 68.74	RHYOLITE ASH «RHY ASH»	colour: white to very light grey grain: fi. gr. -has a waxy appearance; thickly bedded; moderate to locally strongly foliated. CAF at 43.20m CAF at 45.00m CAF at 58.00m CAF at 63.10m between 35.37 - 37.65m; 3-5% subrounded chert fragments. -btween 37.65 - 37.80m Chert: -Shear at 47.80m core angle 22. -Between 49.95 - 50.50m, 1-2% chert fragments to 5mm. -between 66.39 - 68.74m, minor interbed of chert.	24 11 15 17	well developed sericite on foliation surfaces. strongly silicified btw 35.37 - 35.57m at contact with gabbra.	<1% disseminated and discontinued stringers of fine grained pyrite.	from 62.40 - 68.74m the unit appears to be in a transition phase to the underlying Andesite Ash, well-developed chlorite on foliations and a weak green cast to the unit mark this transition.
68.74 TO 137.15	ANDESITE ASH TO VERY FINE GRAIN LITHIC CRYSTAL TUFF «AND ASH»	colour: med. green grey to med. green grain: fi. gr. -moderate to thickly bedded; moderately to strongly foliated 5-10% white ghosty feldspar crystals to 1mm. 15-20% med. green lithic fragments to 1mm, 10% quartz grains to 1mm, locally contains minor white felsic fragments to form 1mm to minor «Shear» at 69.20m. CAF at 69.00m CAF at 80.00m -84.53M a 5mm, very thinly bedded arillite. CAB at 84.53m -92.80m 93.27 «Shear» with minor gouge CAF at 96.00m CAF at 104.70m 108.00 - 108.20m; «Shear»	 22 19 14 15 17	well developed chlorite on foliation surfaces.	1% very fine grained disseminated pyrite; heal medium grained pyrite stringers, these may contain minor chalcopyrite; generally minor disseminated chalcopyrite; chalcopyrite is also commonly associated with minor quartz veins. 85.47 - 85.77m, 10% med. to coarse grained pyrite and 1% chalcopyrite. 104.08m - 104.32m, 25% med. grained pyrite, 3% chalcopyrite. 108.78 - 108.93m, 40% quartz vein; with 10-15% chalcopyrite. 109.25 - 109.43m, 40% med. to coarse	-Quartz veins <1cm in true thickness are locally attenuated and boudined, so that they form quartz patches.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		110.11 - 110.14m «Shear» minor gouge 111.45 - 111.65m «Fault» abundant gouge 112.48 - 112.73m «Fault» abundant gouge, fault angle to bedding 16. CAF at 115.90m CAF at 118.73m CAF at 121.65m CAF at 124.20m CAF at 126.50m -At 120.00m, minor shear in cove with a cove angle at 003. -123.40 - 123.50m «Shear» minor gouge 125.00 - 130.00m, possible minor argillite inter-beds <5 mm, may be finely ground sulphides or more strought chloritic sections. 127.56 - 128.44m, quartz vein. 130.70 - 130.90m, minor shear 131.50 - 132.30m Andesite Ash becomes very fine grained and weakly siliceous CAB at 131.60m CAB at 131.80m 132.50 - 132.90m, minor shear, local gouge CAF at 134.50m	 24 44 25 26 19 17 50 25		grained pyrite 51% chalcopyrite. 128.14 - 128.44m, 15% coarse grained pyrite, 1% coarse grained chalcopyrite 130.50 - 130.70m, 10% coarse grained pyrite.	Minor kink fold at 131.75.
137.15 TO 153.40	ANDESITE ASH TO LITHIC TUFF «AND ASH, LITH TUFF»	colour: light to med. green grain: fi. med. grain. -moderate to thickly bedded, moderately foliated, 5-10% white to weakly epidote altered to ghost feldspar crystals to 1mm, 15-20% light to med. green lithic fragments to 2mm; 10% quartz grains to 2mm, 5% white felsic fragments to 2cm; 5% light green epidote altered lithic fragments to 4mm. 138.60 - 138.70m, «Fault», has a cove angle of 31, abundunt gouge. CAB at 153.40m	30	well developed chlorite and minor sericite on foliation surfaces. 149.47 - 153.40m moderately to locally strongly silicified.	1-2% fine to med. gr. pyrite, locally c rosscutting med. to coarse grained pyrite stringers, these often contain minor amounts of chalcopyrite. 152.75 - 153.40m 5-5% laminated to banded, to patchy med. to coarse gr. pyrite with trace to minor amounts of chalcopyrite.	minor quartz veins, locally attenuated or boudined.
153.40 TO 238.06	ANDESITE CRYSTAL LITHIC TUFF «AND XLT»	colour: med. green grain: med. gr. -moderate to thickly bedd; moderately foliated; 10% white to ghosty to epicote altered feldspar crystals to 1mm, 10-15% med. to dark green lithic fragments to 3mm; 5% white falsic fragments to 3mm		-local bleaching and patchy silicification. 154.76- 155.84m local bleaching and very weak silicificatioal patchy. 155.84 - 156.66m local bleaching and	1-2% laminated to banded to patchy fine to med. grained pyrite. 154.76 - 155.84m, 7-10% med. to coarse grained pyrite; X1% coarse grained chalcopyrite. 155.84 - 156.66m, 3-5% med. to coarse	BCP #12870 BCD #12871

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		1-2% light green epidote altered lithic fragments to 5mm. CAB at 159.95m 159.95 - 160.55m, Rhyolite Ash; cherty to strongly silicified. 170.90 - 171.09m «Shear» minor gouge 177.81 - 178.65m 50% quartz veins, hast rock is strongly chloritized. 182.60 - 183.15m., 80% quartz veins. 215.20 - 215.50m «Shear» very rubbly cove. CAF at 216.30m CAF at 222.98m 232.80 - 238.06m «AND LT-LAT» this interval contains up to 5% epidote altered lithic fragments to 4cm.	60 15 32	weak patchy silification. 160.60 - 161.50m weakly blended and silicified. 170.67 - 176.01 locally bleached and patchy silica alteration. 176.01 - 176.53m, bleached and silicified. 182.10 - 183.15m, host rock strongly chloritized. 183.15 - 188.10m; bleached, weakly epitoized. 188.10 -194.60m, moderately epidized locally silicified, patchy biotite development; weak to moderately strong 194.60 - 238.06m weakly bleached, patchy epidote development. weak to moderately calcareous weakly silicified.	grained pyrite, <1% coarse gr. chalcopyrite. 156.66 - 157.17m, 15% med. to coarse grained pyrite, 2-3% coarse grained chalcopyrite. 170.67 - 176.01m 3% locally 5% med. to coarse grained pyrite, minor chalcopy-rite. 176.01 - 176.53m 15% med. to coarse grained pyrite, <1% chalcopyrite. 177.81 - 178.65m minor chalcopyrite and pyrrhotile in quartz vein. 178.65 - 182.60m <1% disseminated fine grained pyrite. 183.15 - 188.10m, 2-3% pyrite, 1% pyrrhotite <1% chalcopyrite; locally patchy and associated with quartz veins. 188.10 - 194.60m <1% pyrite, minor pyrrhotite and chalcopyrite. 194.60 - 237.70m <1% pyrite, rare trace pyrrhotite and chalcopyrite. 237 - 238.06m 3-5% pyrite, trace pyrrhotite.	BCD #12873 183.15 - 238.06m must be proximal to a Tertiary Intrusive.
238.06 TO 252.90	QUARTZ FELDSPAR PORPHYRY DYKE «QFP DYKE»	colour: med. grey grain: med. gr. -massive; weakly foliated in massive; contains 15% quartz eyes to 8mm, 5-10% white to ghosty to epidote altered feldspar crystals to 2mm. 245.60 - 247.30m Andesite lithic to lapilli tuff. 249.80 - 249.93m Andesite lithic tuff 249.93 - 252.10m,		strongly silicified.	<1% fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		«Fault» less than 50% recovery of which the majority is gouge.				
252.90 TO 264.50	«DIORITE»	colour: med. dark green grain: fi. med gr. -thick bedded massive; moderately foliated, 10% white to ghosty to epidote altered feldspar crystals to 1/2mm; 10-15% med. to dark green lithic fragments and or crystals. 257.45 - 257.50m «Shear» 260.65 - 261.74m Felsic Dyke, Quartz Porphyry 261.74 - 262.10m «Fault» very strongly sheared, abundant gouge. 262.10 - 264.30m Rhyolite Quartz eye Crystal lithic tuff; 5-10% quartz eyes to 2mm. 15?% med. grey green lithic fragments to 2mm. 264.30 - 265.37m «Fault» predominately gouge.		moderate to locally strongly calcareous <1% disseminated fine grain pyrite.	Does not appear to be a Southern Rhyolite Formation.	This interval may possibly be a fine to med. grained andesite crystal lithic tuff.
264.50 TO 266.94	«CORONATION ZONE»	colour: white to very light grey grain: fine to med. grain -Rhyolite Quartz eye lithic tuff; 5-10% quartz eyes to 7mm, 5% white to ghosty feldspar crystals to 1/4mm; <10% quartz grains and or shards to 1/4mm 264.50 - 265.10m «Fault» very intensely sheared, abundant gouge. 265.95 - 266.04m «Fault» intensely sheared, minor gouge		well developed sericite on foliation planes, locally moderately calcareous.	265.37 - 265.80m <1% pyrite, trace sphalerite, galona 265.80 - 266.94m 1-2% pyrite, trace sphalerite; gatema, tetura bechite	BCD #12876 BCD #12877
266.94 TO 283.43	RHYOLITE QUARTZ EYE CRYSTAL LITH TUFF «QP XLT-FW»	colour: med. grey weak green cast grain: med. gr. -massive bedded; moderately foliated; 15% quartz eyes to 2mm; 5-10% white to ghosty feldspar crystals to 1mm; 10-15% med. grey to grey green lithic fragments to 7mm, <10% quartz crystals and or shards to 1/2mm. 275.26 - 275.30m; «Shear» 282.50 - 283.43m «SHear» intensely sheared interval with abundant		locally weakly calcareous.	<1% disseminated fine grained pyrite.	Footwall formation.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		gouge. CAF at 276.40m	30			
283.43 TO 306.32	RHYOLITE QUARTZ EYE CRYSTAL LITH TUFF «QP XLT»	colour: med. grey green grain: med. gr. -massive bedded; weak to moderately foliated: 15% quartz eyes to 3mm, 10% white to ghosty to clay altered feldspars crystals to 1mm, 5-10% med. to dark green lithic fragments to 3mm. 5% dark grey lithic fragments to 2mm; rare felsic fragments to 3cm. 291.80 - 291.85m «Shear» intensly sheared, rubbly. 294.50 - 294.65m «Shear»intensly sheared, very rubbly 295.40 - 295.45m «Shear» 295.73 - 295.80m «Shear» 299.10 - 299.60m «Shear» 301.70 - 302.20m «Shear» innstensly sheared, abundant fault gouge.' 303.65 - 305.06m «Fault» intensly sheared, abundant gouge.		<1% disseminated fine grained pyrite.	Footwall Formation. 301.95 - 301.00m 2-3% patchy y\pyrite in fragment in the gouge. 303.35 - 303.65m 1-2% disseminated pyrite.	
306.32 TO 308.30	RHYOLITE LITHIC CRYSTAL TUF «RHY XLT»	colour: light grey weak green cast grain: fine to med. gr. -moderately bedded, moderately foliated; 10% white to ghosty feldspars= crystals 1/2mmm to 1mm; <5% quartz eyes to 2mm; possible 5% light green lithic fragments to 3mm; possible 5% white felsic fragments to 3mm; groundmass very fine grained to aphantic «Shear» 307.98 - 308.00m 308.00 - 308.30m Rhyolite Ash; light to med. grey fine to med. ground, thin to moderately bedded; entire interval is moderately sheared. CAB at 308.30m	38	moderately silicified.	generally <1% disseminated fine grained pyrite 307.32 - 307.53m 3-5% disseminated fine grained pyrite. 308.00 - 308.30m 2-3% fine grained pyrite	BCD #12878

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
308.30 TO 313.41	«QP-FW»	colour: light greyish green grain: med. to coarse gr. -thick bedded; massive - weakly foliated; moderately sheared; 15% quartz eyes to 8mm; 5% ' white to ghosty feldspar crystal to 1/2mm; 309.45 - 309.46mm «Shear» gougy 311.30 - 313.41m «Shear» intensly sheared.		silicified.	<1% disseminated fine grained pyrite.	
313.41 TO 313.52	NANAIMO	colour: black grain: very fi. gr. -siltstone, intensly sheared - felsic interband between 303.49 - 303.51				
313.52 TO 314.45	«NANAIMO»	colour: greenish grey grain: med. grained -possibly a fine grained volcanic sandstone		strongly calcareous 304.10 - 304.45m intense quartz carbonate veining.		
314.45 TO 322.20	«DIORITE»	-fine to med. grained 304.45 - 304.75m moderately sheared.				very sharp contact with the overlying interval.
322.20 TO 322.20	EOH					

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
12870	154.76	155.84	1.08	1370	24	46	1.4	10											0.0			
12871	155.84	156.66	0.82	580	13	41	0.9	20											0.0			
12872	156.66	157.17	0.51	1310	18	62	1.6	40											0.0			
12873	176.01	176.53	0.52	97	207	499	3.4	25											0.0			
12874	184.22	185.22	1.00	63	232	372	7.3	5											0.0			
12875	185.22	186.22	1.00	78	46	148	1.2	10											0.0			
12876	265.37	265.80	0.43	21	8	19	0.4	55											0.0			
12877	265.80	266.94	1.14	32	11	42	0.6	100											0.0			
12878	308.00	308.30	0.30	22	24	36	0.5	40											0.0			

Sample	From (m)	To (m)	Length (m)	Al203 %	Ba %	CaO %	Fe203 %	K20 %	MgO %	MnO2 %	Na20 %	P205 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11596	48.30	51.30	3.00	11.86	0.142	0.3	1.66	3.19	1.91	0.04	0.11	0.14	78.02		0.16		0.31	97.81	0.3	17	96	13	18	1	27	5
11597	81.40	84.40	3.00	16.59	0.11	1.57	8.82	1.09	7.48	0.26	2.31	0.54	54.66		0.6		0.92	94.96	1	1	211	143	64	9	107	5
11598	117.96	120.96	3.00	15.68	0.058	2.2	10.33	0.62	7.77	0.26	2.44	0.63	53.32		0.58		1.67	95.55	1.1	1	46	84	71	8	108	5
11599	143.70	146.70	3.00	16.92	0.134	2.4	7.6	1.18	5.79	0.19	3.69	0.54	55.62		0.61		1.38	96.05	0.8	6	264	161	56	6	79	5
11600	200.30	203.30	3.00	17.42	0.073	5.49	7.26	2.19	4.62	0.18	2.22	0.6	54.62		0.62		0.03	95.33	0.7	16	77	129	55	5	102	5
11626	233.80	236.80	3.00	15.46	0.013	6.36	8.25	0.19	6.05	0.36	3.19	0.74	55.22		0.53		0.12	96.48	0.5	29	20	97	57	4	127	5
11627	275.50	278.50	3.00	13.03	0.07	1.4	1.95	3.2	1.59	0.04	2.5	0.21	72.92		0.25		0.08	97.26	0.3	14	81	6	18	1	31	5

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-237 IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10256.50N
EAST: 10125.00W
ELEV: 652.50

ALTERNATE COORDS GRID:
NORTH: 0+ 00
EAST: 0+ 00
ELEV: 652.50

COLLAR DIP: -57° 0' 0"
LENGTH OF THE HOLE: 231.90m
START DEPTH: 0.00m
FINAL DEPTH: 231.90m

COLLAR GRID AZIMUTH: 180° 0' 0" COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 1, 1989
DATE COMPLETED: May 3, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 17.10 m
CORE STORAGE: CHEMAINUS

PURPOSE: Definition hole to an indicated high grade massive sulfide trend intersected by DDH 203 &

DIRECTIONAL DATA: 199.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
34.40	-	-57° 0'	ACID	OK		-	-	-	-	-	
100.90	-	-55° 0'	ACID	OK		-	-	-	-	-	
163.70	-	-54° 0'	ACID	OK		-	-	-	-	-	
218.50	-	-52° 0'	ACID	OK		-	-	-	-	-	
121.90	211° 0'	-55° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 17.10	Overburden «OB»					
17.10 TO 19.30	Felsic Tuff «F TUFF»	Colour: Light grey, rusty grey Grain size: Fine grained -Weakly foliated. 1-2% <1mm pinhead quartz eyes. -Abundant surface oxidation giving rusty colour. 17.7 foliation	 40	«M Ser» Moderately sericitic	«2% py» 2% disseminated pyrite.	
19.30 TO 121.00	Andesite Tuff, Lapilli Tuff, Crystal Tuff «AND LAP» «TUFF,» «XSTAL» «TUFF»	Colour: Dark green Grain size: Fine grained with lapilli size fragments -Weakly foliated, finer grained zones moderately foliated. 5-8% <1cm epidotized fragments, subangular to subrounded, occassion 2cm fragments and rare fragments 5-6cm. Groundmass supported composed of finer tuff with 3-7% and locally 20% 1-2mm epidote grains (fsp?). -Occassional fine grained ash layers defining bedding. Some ash zones flowing around large fragments. 19.8 foliation 28.7 bedding 28.8 bedding 33.0 foliation 37.3 bedding 38.7 bedding? foliation? 20.6 - 21.5 Felsic tuff: light grey, weak indistinct fragmental appearance, <1cm indistinct felsic fragments. <1% 1-2mm rounded quartz eyes. 25.2 - 26.0 Felsic tuff, dyke?: light grey, weakly foliated, fairly siliceous looking, 1% 2mm whitish quartz eyes. Very indistinct fragmental	19.8: 25 28.7: 25 28.8: 25 33.0: 30 37.3: 40 38.7: 25	«W Chl, Ep» Weakly chloritic. Epidote as altered fragments and smaller grains = fsp?	«<1% py» Overall <1% pyrite. Sulfide enriched zones as follows: 21.5 - 21.8 2% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		appearance. 25.6 foliation	35			
		27.6 - 28.5 Felsic tuff, dyke?: similar to above interval but getting 1-2mm epidotized fsp and bluish quartz eyes in last 10cm. 28.0 foliation 28.5 contact	45 50		27.6 - 28.5 <1% disseminated pyrite	
		-Felsic dykes, massive to weakly foliated, siliceous, with bluish white quartz eyes up to 8mm and up to 7% 1-3mm epidotized feldspars as follows:				
		21.8 - 22.6				
		29.8 - 31.6 31.6 contact	20			
		33.7 - 36.5				
		48.6 - 49.9 48.6 contact	33			
		49.7 - 49.9 Fracturing with rusty oxidation.				
		54.9 - 60.4 60.4 contact	40			
		64.5 - 65.6 65.6 contact	60			
		67.2 - 67.5				
		67.9 - 70.2				
		44.7 - 48.6 10-12% fragments rare fragments with disseminated pyrrhotite.				
					71.7 - 76.7 «2% py» 2% disseminated pyrite. Locally 5-7% pyrite over 15cm.	
		75.75 - 76.7 Minor felsic component to andesite.				
		76.7 - 80.5 «F TUFF» Felsic tuff: light grey, fine grained. Fairly massive with weak foliation fracturing at 25 degrees to core axis. Weak siliceous appearance.		76.7 - 80.5 «W Sil»	76.7 - 80.5 «1-2% py» 1-2% disseminated pyrite. 78.3 - 78.5 5% pyrite 79.5 - 79.8 3-4% pyrite	
		79.5 - 79.8 Faulting in core marked by foliation swing to 55 degrees at 79.8m, sharp break then foliations return to shallow angles. Below 79.5 to 80.5 weakly developed bedding, minor andesite ash component. 80.0 bedding	 30			
		80.5 - 92.6 «AND ASH, FLOW?» Andesite ash/flow? dark green, fine grained, massive, featureless. Weakly calcareous with fine calcite stockwork. Patchy weak foliation, lower contact marked by				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		reappearance of epidotized fragments. 101.6 - 104.6 Ash and crystal rich beds defining bedding as follows: 101.9 102.5 103.4 104.5 108.3 - 108.9 Felsic dyke 119.0 Foliations becoming distorted. Rock taking on a strong sheared appearance. 120.45 - 121.0 Intense fault gouge development.	 35 30 45 40		109.25 - 109.5 1% pyrite	
121.00 TO 155.65	Felsic Tuff, QP «F TUFF, QP»	Colour: Light grey Grain size: Fine grained -Weakly foliated -<1% with zones of 2-3% <1mm rounded quartz eyes. Fine grained texture with coarser granular zones where quartz eyes become >1mm. 121.0 - 123.4 Rubbly shattered brecciated core. Weak brecciated appearance continuing to 126.3m. 124.8 - 125.0 Well developed fault gouge sharp upper and lower contacts at 60 degrees to core axis. 132.0 - 133.0 Moderately sheared, moderate to strong gouge development. 135.5 0.5cm argillaceous break. 143 - 155 Increasing percentage of quartz eyes up to 5-7%. Coarser grained patches with 2mm siliceous grains and some feldspars.		«W Ser» Weakly sericitic	«tr py» Trace pyrite. Zones of greater sulfide contents as follows: 123.5 - 125.4 «1-2% py» 1-2% fine pyritic stockwork. 125.0 - 125.4 7-10% pyrite as thin stringers parallel to shearing at 60 degrees to core axis. 131.4 - 132.0 «20% py» 20% very fine pyrite disseminated in a patchy siliceous, strongly sericitic groundmass and as a weak fine stockwork 134.75 - 135.2 5% fine disseminated pyrite. Locally 20% py over 5cm.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
155.65 TO 157.10	«CORONATION ZONE»	Colour: Light grey Grain size: Fine grained -Continuation of above fine grained fine QP felsic tuff unit with sulfide mineralization. -Faulted lower contact with 1.5cm black fault gouge. 157.1 fault	80	«W-M Sil, W Cal» Weak to moderately siliceous. Brecciated with a fine calcite stockwork.	«1% py, <1% sp, tr cp, gn, tet» 1% pyrite, <1% sphalerite, and trace galena, chalcopyrite, and tetrahedrite, disseminated mineralization. 156.2 - 156.75 Mineralization decreased significantly. Below 156.75 trace sulfides.	155.65 - 156.2 Very rubbly core, questionable recovery.
157.10 TO 164.40	Felsic QP Lithic Tuff «F QP LITH TUFF»	Colour: Light greenish grey Grain size: Medium grained -Massive, medium to coarse granular texture due to 2-3mm rounded siliceous grains and 3-5% 2-3mm quartz eyes. 157.1 - 160 Distinctive greenish sericitic clots within siliceous grains and as 2mm grains.		«W Sil»	Nil	
164.40 TO 188.30	Diorite «DIOR»	Colour: Dark green Grain size: Fine to medium grained -Massive, feldspar porphyritic becoming weakly equigranular between 165 and 183m. -Occassional finer grained calcareous mafic dykes <20cm. -Sharp lower contact	60			
188.30 TO 206.60	Felsic QP Lithic Tuff «F QP LITH TUFF»	Colour: Light to medium grey Grain size: Medium grained -Very similar to previous QP lithic tuff. 2-4% 2-3m quartz eyes and 2-3% whitish siliceous grains Rare 2cm fragments. -Occassional 10-15cm mafic dykes.		«W-M Sil»	Nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
206.60 TO 213.60	Mafic Dyke «M DYKE»	Colour: Dark green Grain size: Fine grained -Massive, fine white speckled appearance by <1mm leucoxene. <1% 1mm white feldspars.		21.8 - 22.5 Weak quartz epidote veining.	Nil	
213.60 TO 219.00	Felsic QP Lithic Tuff «F L TUFF,» «QP»	Colour: Light green grey Grain size: Fine to medium grained -Massive, strong siliceous appearance. Distinctive granular appearance due to <1-1% <1-1mm quartz eyes and 3-5%, locally 7% 1-2mm and up to 4mm siliceous greenish grains = felsic lithic fragments.		«M-S Sil» Moderate to strongly siliceous. Weakly calcareous as fine calcite gash fillings.	Nil	
219.00 TO 231.90	Felsic Tuff «F TUFF»	Colour: Medium grey Grain size: Fine grained -Very weakly foliated. <1-1% <1mm rounded quartz eyes. Patches with 2-3% 1mm greenish siliceous grains. -Very similar to previous unit but finer grained with less qtz eyes and siliceous grains. -Patchy white speckled appearance by mm grains containing calcite.		«W Ser» weakly sericitic	Nil	

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
12847	78.30	79.50	1.20	6	10	7	0.2	5											0.0			
12848	79.50	80.50	1.00	13	5	15	0.4	5											0.0			
12849	123.50	124.50	1.00	14	42	81	3.2	60											0.0			
12850	124.50	125.40	0.90	40	100	200	2.4	55											0.0			
12901	131.40	132.00	0.60	50	15	10	0.9	60											0.0			
12902	134.75	135.20	0.45	32	13	72	0.5	5											0.0			
12903	155.65	156.20	0.55	1800	5500	45000	20.1	1450							0.053	1.8			16.7			
12904	156.20	157.10	0.90	400	2500	5400	31.5	965							0.029	1			9.1			
AVE.	155.65	157.10	1.45	931.03	3637.9	20421	27.18	1149.0							0.038	1.3034			11.98			

Sample	From (m)	To (m)	Length (m)	Al203 %	Ba %	CaO %	Fe203 %	K20 %	MgO %	MnO2 %	Na20 %	P205 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11604	38.40	41.40	3.00	17.78	0.188	7.89	7.83	1.31	4.01	0.28	2.61	0.67	52		0.64		0.42	95.62	0.7	12	212	175	48	3	90	5
11605	71.50	74.50	3.00	14.7	0.017	7.93	13.48	0.18	5.41	0.24	1.2	0.83	47.12		0.58		7.4	99.09	1.5	11	27	242	52	5	59	5
11606	111.60	114.60	3.00	16.37	0.013	8.31	11.2	0.04	5.39	0.28	1.65	0.78	49.27		0.72		0.64	94.66	1.4	22	58	280	59	8	105	5
11607	145.10	148.10	3.00	14.87	0.07	1.57	1.7	4.04	0.76	0.03	2.95	0.18	70.25		0.21		0.25	96.88	0.3	58	113	8	8	1	11	5
11608	159.40	162.40	3.00	13.27	0.089	2.18	1.95	4.23	0.77	0.06	2.69	0.22	71.1		0.17		0.07	96.79	0.4	14	42	7	13	1	28	5
11609	197.20	200.20	3.00	14.56	0.081	2.98	3.25	2.6	0.95	0.08	3.85	0.28	67.39		0.33		0.61	96.96	0.4	17	105	12	12	1	23	5
11610	224.60	227.60	3.00	15.01	0.078	3.58	4.03	2.81	1.14	0.09	2.85	0.33	67.37		0.38		0.29	97.97	0.8	18	95	69	15	1	43	5

HOLE NUMBER: 89-238

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10180.00N
EAST: 10125.00W
ELEV: 632.50

ALTERNATE COORDS GRID:
NORTH: 0+ 00
EAST: 0+ 00
ELEV: 632.50

COLLAR DIP: -52° 0' 0"
LENGTH OF THE HOLE: 92.35m
START DEPTH: 0.00m
FINAL DEPTH: 92.35m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 3, 1989
DATE COMPLETED: May 4, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 15.8 m
CORE STORAGE: CHEMAINUS

PURPOSE: Exploration hole testing the zone 25m up dip of hole 51 which intersected high grade massive

DIRECTIONAL DATA: sulfides; and test near surface open pit potential.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
92.35	-	-50° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.80	Overburden «OB»					
15.80 TO 21.00	Andesite Crystal Tuff «AND TUFF»	Colour: Dark green Grain Size: Fine grained 5% 1-2mm epidote grains (fsp) and 1% <1cm epidotized fragments in a finer grained groundmass Felsic dykes as follows: 17.6 - 18.3, and 18.7 - 21.0m Faulted lower contact.		«Patchy Ep» Patchy epidote as epidotized feldspars and fragments.	Nil	
21.00 TO 28.70	Felsic Tuff «F TUFF»	Colour: Light grey Grain Size: Fine grained <1% <1-1mm rounded quartz eyes. Distinctive white speckled appearance caused by 5-10% 1-2mm soft grains with disseminated calcite = possible altered feldspars. 21.0 - 21.8 Intense gouge developed. 21.8 - 23.3 Minor gouge, distorted foliations. Weakly foliated. 25.7 foliation	 55	«W Ser, Calc»	«tr py»	
28.70 TO 41.20	Felsic QP Lithic Tuff «F QP LITH TUFF»	Colour: Light grey Grain Size: Fine to medium grained 1-2% rounded shattered quartz eyes and 3-5% 2-4mm siliceous grains. Patchy mottled appearance; some looks like bleaching, others bleached fragments. 39.6 3cm of creamy black gouge at 30 degrees to core axis.		«M Sil» Moderately siliceous 37.2 - 41.2 Strongly bleached, mottled appearance with a dark grey pyritic pseudobreccia stockwork most noticeable from 37.2 - 37.7.	28.7 - 29.15 «7-10% py» 7-10% very fine dark disseminated pyrite. 29.15 - 31.8 <1-1% disseminated py. 37.2 - 37.7 <1% pyrite causing darker coloration of pseudobreccia stockwork.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
41.20 TO 51.00	FP Felsic Tuff «FP TUFF»	Colour: Greenish grey Grain Size: Fine grained 3-5% 1mm soft calcareous whitish altered feldspars and <1% mm quartz eyes. Fairly massive. Finer grained ashy horizons as follows: 45.9 - 46.75 Felsic ash: light grey, patcy brecciated or slumped beds especially in last 15cm Thin crystal rich beds. 48.15 - 49.1 Felsic ash: light grey, fairly massive, uniform throughout, no bedding. 49.8 - 50.9 Felsic ash: light grey, fairly massive, very indistinct, distorted bedding towards lower contact. 50.9 contact	50	«W Ser»	tr py <1% pyrite	
51.00 TO 60.30	Q(F)P Felsic Lithic Tuff «Q(F)P F LITH TUFF»	Colour: Light grey Grain Size: Fine to medium grained Massive, granular appearance or 5-7% 2mm weakly calcareous grey felsic grains and possible feldspars. 1% mm rounded quartz eyes. Patches with up to 5% qtz eyes.		«W Ser»	Nil	
60.30 TO 68.00	QP Felsic Tuff «QP TUFF»	Colour: Light grey Grain Size: Fine grained 1-3% and locally 7-8% <.5mm and up to 1mm quartz eyes. Fairly fine grained uniform texture throughout. 65.5 - 68.0 Unit becoming weakly bleached, <1% qe but contains fine felsic granules. 66.1 - 66.6 3 1cm zone of siliceous tuff, chert, possible exhalites?		«W Ser»	tr py 66.1 - 66.6 <1% pyrite within siliceous horizons.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		66.1 3cm of black argillite with quartz veining. 67.5 - 67.9 Buff tan dyke?				
68.00 TO 79.70	Q(F)P Felsic Lithic Tuff «Q(F)P L T»	Grain Size: Fine to medium grained Essentially the same unit as found from 51.0 - 60.3. 3-5% calcareous grains and up to 5% 1-2mm quartz eyes. 68.5 - 68.7 and 69.4 - 69.6 Leucoxene phyric dykes. 72.6 - 72.9 Mafic dyke. Gradational lower contact.		«W-M Sil»	tr py	
79.70 TO 92.35	FP Felsic Crystal Tuff «FP TUFF»	Colour: Light grey green Grain size: Fine grained Weakly foliated, feldspar phyric with 2-3% white 1-2mm subhedral to anhedral feldspars. Occassional 2-5cm white fsp phyric fragments.		Nil	Nil	

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
12905	28.70	29.90	1.20	19	27	62	0.8	5											0.0			
12906	45.90	46.75	0.85	37	36	50	0.8	10											0.0			
12907	49.80	50.90	1.10	70	21	127	1	10											0.0			
12908	64.60	66.10	1.50	60	384	310	1	85											0.0			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11611	24.10	27.10	3.00	13.49	0.099	2.75	1.7	4.03	1.59	0.04	1.49	0.26	69.81		0.2		0.21	95.66	0.3	6	118	10	17	1	24	10
11612	38.00	41.00	3.00	14.03	0.121	2.7	0.76	4.57	0.56	0.03	2.11	0.24	70.66		0.26		0.36	96.42	0.2	5	257	11	5	1	6	5
11613	71.00	73.00	2.00	14.17	0.089	2.29	1.38	2.6	0.73	0.03	3.44	0.19	71.25		0.2		0.13	96.51	0.2	7	96	16	7	1	14	5
11614	86.30	89.30	3.00	13.72	0.053	1.98	2.07	1.81	1.88	0.06	2.58	0.26	72.35		0.19		0.05	96.98	0.3	17	57	8	26	1	38	5

HOLE NUMBER: 89-239

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10249.00N
EAST: 10502.00W
ELEV: 627.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 627.00

COLLAR DIP: -70° 0' 0"
LENGTH OF THE HOLE: 221.60m
START DEPTH: 0.00m
FINAL DEPTH: 221.60m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 4, 1989
DATE COMPLETED: May 6, 1989
DATE LOGGED: May 6, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 6.10 m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST DOWN DIP OF HIGH GRADE ZONE IN EAST DRIFT

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
61.00	-	-67° 0'	ACID	OK		-	-	-	-	-	
122.00	-	-66° 0'	ACID	OK		-	-	-	-	-	
221.60	-	-65° 0'	ACID	OK		-	-	-	-	-	
124.10	212° 0'	-67°30'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.70	«OB»					
6.70 TO 34.48	Rhyolite Quartz Feldspar Porphyry Dyke «QFP Dyke»	Colour: Medium grey Grain size: Medium grained Thick bedded massive; weak to moderately foliated; massive; 15% blue quartz eyes to 7mm; 5% white to ghostly to predominately epidote altered feldspar crystals to 1mm. 6.70m to 7.00m Andesite crystal lithic tuff. 7.37m to 7.85m Andesite crystal lithic tuff. 11.45m to 11.81m Andesite crystal lithic tuff. 11.94m to 12.57m Andesite crystal lithic tuff. 15.10m to 17.22m Andesite crystal lithic tuff. 17.62m to 18.70m Andesite crystal lithic tuff. 22.94m to 23.50m Andesite crystal lithic tuff. 25.09m to 26.52m Andesite crystal lithic tuff. 26.52m to 27.80m «Fault» or strong shear in the felsic dyke, section is very rubbly with minor gouge. 31.78m to 32.45m Andesite crystal lithic tuff. 32.25m to 32.45m «Shear» very rubbly with minor gouge.		Very siliceous.	<1% fine grained pyrite.	
34.48 TO 62.16	Andesite Crystal Lithic to Lapilli Tuff «And XL- LAP T»	Colour: Medium to dark green Grain size: Medium to coarse grained Thickly bedded; moderately foliated; 5% white ghostly to predominately epidote altered feldspar crystals to 1mm; 5% to locally 10% epidote altered lithic fragments to 4mm; 5% to 6cm; <1% white felsic fragments to 3cm.		Well developed chlorite on foliation and fracture surfaces; weak to locally moderately calcareous.	<1% to locally 2% disseminated to weakly laminated fine to medium grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		CAF at 38.41m	41			
		CAB at 38.51m	60			
		38.51m to 38.63m Andesite ash.				
		39.30m to 39.49m Andesite ash.				
		47.55m to 47.70m Andesite ash.				
		CAF at 47.60m	20			
		47.70m to 48.03m Quartz vein--barren.				
		48.30m to 48.60m Predominately andesite ash.				
		CAB at 48.30m	40			
		48.60m	23			
		48.60m to 50.00m Andesite crystal lithic tuff.				
		50.00m to 50.17m Rhyolite lithic tuff.			40% medium to coarse grained pyrite.	
		CAB at 50.00m	25			
		50.17m	20			
		51.70m to 51.83m «Shear»				
		53.80m to 53.94m «Shear»				
		59.06m to 59.60m Rhyolite quartz feldspar porphyry dyke; 5% epidotized feldspars to 1mm.				
62.16 TO 74.93	Quartz Feldspar Porphyry Dyke «QFP DYKE»	Colour: Medium grey Grain size: Medium grained				
		Thickly bedded, massive; weak to moderately foliated; 5% blue quartz eyes to 4mm; 5% to locally 10% feldspar crystals to 1.5, predominately epidote altered.		Very siliceous.	<1% disseminated fine grained pyrite.	
		CAF at 62.16m	24			
		65.84m to 66.04m Andesite lapilli tuff.				
		69.10m to 69.34m Andesite crystal lithic tuff.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		71.51m to 71.74m Andesite lithic to lapilli tuff. 74.93m Southern rhyolite contact.				
74.93 TO 76.75	«FAULT»	74.93m to 75.00m Black gouge. 75.00m to 75.89m BCD #12879 75.89m to 76.75m BCD #12880 75.00m to 76.75m «Fault» 60% gouge and 40% intensely sheared felsic rock.			1-2% pyrite, locally up to 1% sphalerite at 50.10m, and abundant mineralized felsic fragment in gouge (galena, tetrahedrite, sphalerite).	
76.75 TO 89.13	Rhyolite Lapilli Tuff to Tuff Breccia «Rhy LAP T, TBX»	Appear to be a fragment supported breccia interval fragment may compose 60% of the interval; the fragments are a fine grained rhyolite QP that is weakly silicified, with 55% white to ghostly feldspar crystals to .5mm; minor, 5% to 10% quartz eyes to .5mm. The matrix to the interval is a feldspar rich rhyolite, 10% white to ghostly feldspar crystals to 1mm; up to 10% quartz eyes to 1.5mm; predominately <1mm. 78.58m to 79.02m «Shear» moderately sheared. 81.38m to 81.72m Local bleached patches, possible fragments; they have no obvious compositional change. Below 81.72m, the unit loses the fragmental breccia look. 86.70m to 88.25m 70% quartz veins--barren.			Also, fragments contain minor pyrite and sphalerite, traee galena; locally up to 5% fine to medium grained pyrite; as a fracture filling; very nice cross-cutting, stringer look.	
89.13 TO 127.00	Rhyolite Feldspar Porphyry «FP-HW» Hanging Wall	Colour: Light to medium grey Grain size: Fine to medium grained Thick bedded; massive; moderately foliated; 10% white to ghostly feldspar cyrstals to 1mm; 5% quartz eyes to 2mm but genrally <1mm; 5% to 10% clear to milky siliceous fragments.		Common carbonate around feldspars that are broken and fractured. Weak patchy sericite locally. 100.6 - 100.9 «qtz vein»	<1% very fine grained disseminated pyrite. 100.6 - 100.9 tr py in q.v.	99.6 - 100.05 Blocky core.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Fine grained, light green mafic dykes at: 101.65-102.0m 102.55-102.65m 115.55 - 115.7 Chloritic mafic dyke? with 2-3% py. Contacts sharp but irregular. 115.7 contact	80	⎨107.45 - 127.0⎬ «W ser» Weak pervasive sericite has bleached core a light grey colour.	103.8 - 104.05 5% needle-shaped metallic silvery grey sulphides = stibnite? in qtz. veinlets. (Arsenopyrite). ⎨121.0 - 127.0⎬ «tr py, cp, tet» Tr py, cp, tet, in microveinlets--in fringe of mineralized zone.	
127.00 TO 139.63	«CORONATION ZONE»	Colour: Grey Grain size: Fine grained. Host rock = hanging wall FP with 2-3% q's; weakly foliated. 130.60 - 130.70 Fault gouge.		«W-M ser, patchy sil» Weak to moderate sericite with siliceous fine grained patches.	⎨127.0 - 130.58⎬ «4% sph, 4% py, 2% cp, tr gal, tet» Overall, 10% sulphides includes 4% sph, 4% py, 2% cp, tr galena, tetrahedrite. Sph. is light brown in colour (zn. rich). Sulphide rich zone at: 128.84-129.40 130.10-130.58 Suphides can occur as wisps and stringers. ⎨130.58 - 139.63⎬ «2% py, 1% sph, tr cp, gal, tet» Weakly mineralized compared to above--same style of sulphide stringers. Overall, 2-3% sulphides includes 1% sph, 2% py, traces of tetrahedrite throughout--usually associated with sph. Also have traces of cp. and galena.	Estimate = 1.5-2.0% Zn., 0.5-0.7% Cu. over 3.58m. Estimate = 0.3% Zn, 0.1-0.2% Cu. over 9.05m.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
139.63 TO 141.50	Hanging Wall «F(Q)P-HW»	Colour: Light grey Grain size: Fine grained Massive; mm sized white specks = feldspar (5-10%); 2-3% rounded q's up to 2mm across.		«W ser» 141.2 - 141.5 Carb. vein.	None	
141.50 TO 192.30	«QFP»	Colour: Greenish grey Grain size: Medium grained -Massive. 141.5 contact -Upper contact marked by black argillite with siliceous fragments. -15-20% subhedral feldspar crystals 2-3mm long, locally f's are ghost-like due to weak perv. alt. (ser). -5% q's 2-3mm across; most are subrounded. 146.9 - 147.0 Argillite wisps. 147.25 - 147.5 Argillite band with 5% qtz. frags. = bedded. 147.25 bedding ┤156.6 - 156.9├ «FAULT» Minor gouge and blocky core. 173.6 - 173.7 Fine grained, green mafic dyke. ┤189.3 - 189.75├ «FAULT» Minor gouge. ┤191.2 - 192.1├ «FAULT» Fault gouge.	45 40	Relatively unaltered with the odd weakly sericitic patch.	tr py ┤166.3 - 170.05├ «1% py» 1% py stringers.	
192.30 TO 209.65	Felsic Ash, F(Q)P «F ASH, F(Q)P»	Colour: Greenish grey Grain size: Fine grained Massive; have diffuse fragments of medium to coarse grained FP at: 192.9-193.25 201.2-202.00 Unit very fine grained with mm-sized q's (2-3%) and white specks = fsp?--similar to hanging wall		Unaltered.	tr py	Unit may have large blocks of footwall FQP--looks quite heterogeneous.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		zone except for coarser grained FP = fragments. ⫞206.5 - 207.75⊦ «I dyke» Fine grained, greenish grey dike with 1m wide contact zone that is qtz. rich.			⫞206.5 - 207.75⊦ «2% py» Py occurs in fine microveinlets within dyke.	
209.65 TO 216.05	«F(Q)P»	Colour: Grey Grain size: Medium to coarse grained Well foliated; looks similar to footwall F(Q)P; 20-25% f's up to 2-3mm long; 2-3% rounded and bluish q's 3mm in diameter. 211.5 fol. ⫞214.4 - 216.05⊦ «FAULT» Fault gouge and dark green, carb. rich mafic dyke at 214.65-215.3.	60	Unaltered.	tr py	
216.05 TO 221.60	«NANAIMO» Sediments	Colour: Black Grain size: Fine grained Massive to weakly bedded mudstones. ⫞216.3 - 217.0⊦ «FAULT» ⫞218.65 - 218.8⊦ «FAULT» 221.0 bedding	80	Unaltered.	None	

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
12879	74.93	75.89	0.96	1030	1190	6100	11.4	98											0.0		
12880	75.89	76.75	0.86	810	920	4610	12.7	39											0.0		
12881	76.75	77.55	0.80	214	169	405	10.9	117											0.0		
12882	77.55	78.33	0.78	640	1660	2720	82	3000							0.087	2.98			27.4		
12883	78.33	79.24	0.91	37	910	1290	8.2	219											0.0		
12884	79.24	80.24	1.00	28	192	525	4.5	158											0.0		
12885	80.24	81.34	1.10	16	53	156	2.8	81											0.0		
12951	121.00	122.00	1.00	10	11	12	0.6	4											0.0		
12952	122.00	123.00	1.00	14	9	8	0.7	2											0.0		
12953	123.00	124.00	1.00	21	10	83	0.8	14											0.0		
12954	124.00	125.00	1.00	11	10	10	0.8	18											0.0		
12955	125.00	126.00	1.00	15	9	9	0.8	21											0.0		
12956	128.00	127.00	1.00	10	9	15	0.7	19											0.0		
12886	127.00	127.57	0.57							0.016	0.01	0.06	0.06	1.9	0.003	0.11		2.74	1.8		
12887	127.57	128.20	0.63							0.623	0.12	1.03	0.37	12.7	0.013	0.45		2.82	19.0		
12888	128.20	128.84	0.64							0.427	0.19	1.09	0.46	15.8	0.017	0.59		2.78	18.6		
12889	128.84	129.40	0.56							1.47	0.36	2.68	0.87	29.9	0.011	0.37		2.89	39.8		
12890	129.40	130.10	0.70							0.254	0.35	1.27	0.36	12.3	0.006	0.21		2.77	13.2		
12891	130.10	130.58	0.48							0.591	0.13	0.76	0.7	24.1	0.029	0.98		2.9	24.6		
12892	130.58	131.95	1.37							0.193	0.02	0.11	0.3	10.3	0.012	0.4		2.69	8.7		
12893	131.95	132.98	1.03							0.138	0.05	0.57	0.53	18.1	0.007	0.23		2.77	9.7		
12894	132.98	133.39	0.41							0.534	0.11	0.68	0.84	28.9	0.006	0.2		2.85	17.1		
12895	133.39	134.40	1.01							0.077	0.14	1.81	0.52	17.8	0.013	0.44		2.73	16.0		
12896	134.40	135.40	1.00							0.076	0.07	0.97	0.65	22.3	0.005	0.17		2.7	10.7		
12897	135.40	136.40	1.00							0.065	0.03	0.98	0.47	16.2	0.013	0.44		2.82	11.9		
12898	136.40	137.40	1.00							0.031	0.12	0.64	0.3	10.4	0.012	0.4		2.76	8.8		
12899	137.40	138.50	1.10							0.038	0.17	0.41	0.18	6.2	0.006	0.19		2.72	5.4		
12900	138.50	139.63	1.13							0.003	0.01	0.02	0.05	1.7	0.001	0.02		2.74	0.8		
ALT.AVG.	74.93	79.24	4.31	554.40	972.55	3118.4	23.668	640.49													
AVE.	127.00	130.58	3.58							0.547	0.20	1.16	0.46	15.68	0.013	0.43		2.81	19.06		
ALT.AVG.	127.00	138.50	11.50							0.250	0.12	0.87	0.44	15.17	0.011	0.35		2.77	13.10		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11628	39.80	42.80	3.00	16.14	0.006	7.52	9.64	0.01	5.47	0.21	2.41	0.8	52.2		0.73		0.5	95.61	0.7	4	18	85	56	6	76	5
11629	83.00	86.00	3.00	13.51	0.127	3	2.77	3.53	1	0.03	1.87	0.29	69.49		0.26		1.62	97.5	1.1	18	169	22	237	1	474	40
11631	111.30	114.60	3.30	13.66	0.102	2.82	1.34	4.81	0.81	0.04	1.86	0.28	69.37		0.26		0.38	95.72	0.8	12	89	15	29	1	30	5
11632	151.50	154.60	3.10	13.69	0.07	2.68	1.62	2.38	0.87	0.04	4.01	0.28	70.16		0.25		0.24	96.3	0.2	8	73	39	22	1	26	5
11633	182.10	185.10	3.00	14.12	0.08	2.27	1.67	2.99	0.66	0.05	3.51	0.27	70.29		0.27		0.42	96.59	0.4	16	102	10	11	1	23	5
11634	209.90	212.90	3.00	13.14	0.075	2.73	2.01	3.07	1.19	0.06	1.7	0.31	70.8		0.17		0.14	95.4	0.2	43	82	7	18	2	25	5

MINNOVA INC.

HOLE NUMBER: 89-240 — DRILL HOLE RECORD — IMPERIAL UNITS: — METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10168.00N
EAST: 10175.00W
ELEV: 625.00

ALTERNATE COORDS GRID:
NORTH: 0+ 00
EAST: 0+ 00
ELEV: 625.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 123.40m
START DEPTH: 0.00m
FINAL DEPTH: 123.40m

COLLAR GRID AZIMUTH: 180° 0' 0" — COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 4, 1989
DATE COMPLETED: May 5, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 9.75 m
CORE STORAGE: CHEMAINUS

PURPOSE: Exploration hole testing the near surface potential of the Coronation Zone 37m up dip from

DIRECTIONAL DATA: DDH 206.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
41.80	-	-45° 0'	ACID	OK		-	-	-	-	-	
123.40	-	-44° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 9.75	«OB»					
9.75 TO 41.70	Felsic QP Lithic Tuff «QP LITH TUFF»	Colour: Light grey Grain size: Fine grained				
		1% 1-2mm rounded clear quartz eyes and 5-7% whitish indistinct 1-2mm calcareous granules (possibly fsp?) and grey rounded felsic granules.		«Patchy bleaching»	«<1-1% py» <1-1% disseminated pyrite.	
		Distinctive granular appearance.			9.75 - 15.0 «1-2% py» 1-2% pyrite with occassional 7-10cm zones with 5-7% pyrite.	
		Patchy whitish mottling.				
		Becoming solid bleached creamy grey from 19.4 - 25.3.		19.4 - 25.3 «M-S bleached»		
		Weakly foliated. 17.0 foliation	55			
		Minor fault gouge at 12.9m, 15.7m, 25.3.				
		25.3 - 27.7 Felsic tuff, patchy FP tuff, patchy fragmental tuff with felsic tuff fragments. Unit characterized by lack of quartz eyes.		25.3 - 27.7 Weakly sericitic.		
		28.8m noticeable increase in percentage of quartz eyes 3-5% locally 7% qe.				
		31.0 - 31.1 Felsic ash: light grey, weakly brecciated.			31.0 - 31.1 2-3% very finely disseminated pyrite.	
		31.6 - 33.2 «F ASH, TUFF» Felsic ash: light grey weakly developed brecciated bedding. Fragmental appearance with finer ashier fragments in a slightly coarser groundmass. Possible bedding at:		Negligible alteration	31.6 - 33.2 «<1% py, tr sp» <1% pyrite. Last 10cm <1% red sphalerite 3% pyrite.	
		32.6	65			
		32.7	50			
		32.8	35			
				36.6 - 37.1 Patchy wormy quartz veining.		
				37.1 - 37.4 Massive white barren quartz vein.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		39.4 - 40.0 Felsic ash: finely bedded, distorted and brecciated chert and felsic ash. 39.7 bedding 40.0 - 41.7 Coarser granular appearance to core.	 50		39.4 - 40.0 <1% py, trace sphalerite in quartz vein.	39.4 - 40.0 Rubbly broken core.
41.70 TO 80.20	FP Felsic Tuff «F TUFF, FP»	Colour: Light grey Grain size: Fine grained 4-5% and locally 7-8% 2-3mm white subhedral to anhedral feldspar crystals and rare <1mm rounded quartz eyes. Patchy fsp phyric fragments in a fsp phyric groundmass. 46.3 - 54.4 «QP LITH TUFF» Light grey, massive, <1% mm quartz eyes, 4-5% 1-2mm calcareous grains of felsic tuff and feldspars. 54.8 - 54.9 2cm of fault gouge, sheared appearance to interval. 54.8 fault 64.8 foliation 73.0 - 75.9 Quartz eye lithic tuff 2-3%mm quartz eyes and fine felsic grains. Strong bleaching at end of interval. Sharp lower contact slightly irregular.	 55 40 40	Patchy bleaching. 44.4 - 45.3 Spotty quartz veining. 66.4 - 75.9 «M-S Sil, W ep» Moderate to strongly silicified, patchy weak epidotization of feldspars.	43.5 - 46.3 «1% py, <1% cpy, tr sp» 1% disseminated pyrite, <1% chalcopyrite as <1cm blobs within quartz veins. Trace black sphalerite within quartz veins and diss. at 45.9m.	Footwall rocks. 44.4 - 46.3 Coronation zone equivalent
80.20 TO 90.80	QP Crystal Lithic Tuff «QP LITH TUFF»	Colour: Light grey green Grain size: Coarse grained 7-10% 2-4mm rounded quartz eyes and 10% rounded 2-4mm felsic grains = lithic fragments. Massive, siliceous looking.		«M-S Sil»	nil	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
90.80 TO 94.50	Felsic Lithic Tuff «F LITH TUFF»	Colour: Medium grey green Grain size: Fine grained 7-10% 1mm fine felsic lithic granules, finer grained felsic groundmass. Weakly foliated, gougy core at 91.3m. Faulted lower contact. 93.5 foliation	 65	«W Ser/Chl» Weak sericite/chlorite alteration.		
94.50 TO 123.40	Felsic QP Lithic Tuff «QP LITH TUFF» E.O.H.	Colour: Light greenish grey Grain size: Medium to coarse grained 3-5% 2-4mm and up to 6mm rounded quartz eyes and 7-10% rounded felsic lithic grains 2-4mm. 10cm fault zone at 94.5. Quartz poor from 94.5 to 101.4m. Minor gouge at 97.6 and 98.0. 106.7 - 113.1 Moderate to strongly bleached, coarse granular texture. 110.3 - 113.1 very fine qp tuff <1mm quartz eyes with patchy coarser grained zones. 106.7 - 108.4 Dark muddy smears along fracture planes. 109.4 - 110.3 Muddy smears running approx. parallel to core. Very fine grained QP lithic tuff with <1mm quartz and felsic grains from 117.4 - 118.7 and 119.4 - 123.4		«M-S Sil» {106.7 - 113.1} «M-S Bleached, W-M Ser, Patchy Qtz Vns» 108.4 - 108.9 Qtz. vn. Minor veining to 109.2. 114.5 - 115.0 Quartz veining. 115.6 - 116.1 Quartz veining.	«tr py» Trace disseminated pyrite. 108.4 - 108.9 3% pyrite as massive blebs at lower margin of vein. 113.1 - 114.5 Overall <1% pyrite but pyrite occurs as 3-4cm zones with 5-7% pyrite. 114.5 - 115.0 Trace chalcopyrite, and massive pyrite blebs in quartz veins. 115.6 - 115.8 Massive pyrite blebs, 10% py.	

				ESTIMA	ASSAYS										GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
12909	27.00	27.70	0.70	33	31	72	0.8	16											0.0		
12910	31.00	31.60	0.60	20	23	74	0.8	15											0.0		
12911	31.60	32.40	0.80	38	52	93	0.9	21											0.0		
12912	32.40	33.20	0.80	172	320	1950	2	18											0.0		
12913	39.40	40.00	0.60	99	62	810	1.3	55											0.0		
12914	43.50	44.40	0.90	61	27	91	1.2	11											0.0		
12915	44.40	45.30	0.90	1750	19	2250	6.3	880											0.0		
12916	45.30	46.30	1.00	42	21	112	0.7	22											0.0		
12917	108.40	109.20	0.80	62	23	39	1.1	2											0.0		
12918	113.10	114.50	1.40	9	12	16	0.7	4											0.0		
12919	114.50	115.00	0.50	52	17	128	1	1											0.0		
12920	115.60	116.10	0.50	21	16	40	1.1	1											0.0		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11615	15.80	18.80	3.00	15.7	0.189	2.14	3.1	5.58	0.47	0.03	2.19	0.24	66.04		0.29		1.76	97.73	0.3	12	277	16	9	1	15	5
11616	33.80	36.80	3.00	13.94	0.073	1.99	1.22	3.07	0.58	0.03	3.6	0.21	72.09		0.19		0.17	97.15	0.2	26	65	9	12	1	18	5
11617	63.10	66.10	3.00	15.78	0.075	1.48	2.46	2.75	2.62	0.07	2.13	0.24	69.08		0.22		0.12	97.01	0.6	13	71	6	29	1	50	5
11618	96.20	99.20	3.00	13.7	0.064	1.71	1.46	4.05	0.63	0.04	1.59	0.19	72.92		0.18		0.34	96.86	0.3	37	69	8	8	1	10	5

HOLE NUMBER: 89-241

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10277.00N
EAST: 10275.00W
ELEV: 644.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 644.00

COLLAR DIP: -68° 0' 0"
LENGTH OF THE HOLE: 313.90m
START DEPTH: 0.00m
FINAL DEPTH: 313.90m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 5, 1989
DATE COMPLETED: May 8, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 15.2 m
CORE STORAGE: CHEMAINUS

PURPOSE: Definition hole to delineate an indicated high grade massive sulfide trend intersected by DDH's

DIRECTIONAL DATA: 62, 67, & 182.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
38.70	-	-68° 0'	ACID	OK		-	-	-	-	-	
108.90	-	-67° 0'	ACID	OK		-	-	-	-	-	
175.90	-	-65° 0'	ACID	OK		-	-	-	-	-	
224.60	-	-63° 0'	ACID	OK		-	-	-	-	-	
267.30	-	-63° 0'	ACID	OK		-	-	-	-	-	
313.90	-	-63° 0'	ACID	OK		-	-	-	-	-	
114.30	208° 0'	-66°30'	SING.SHOT	OK		-	-	-	-	-	
256.00	216° 0'	-63°30'	SING.SHOT		Diorite do not use azimuth.	-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.20	«OB»					
15.20 TO 149.90	Andesite Tuff «AND TUFF»	Colour: Dark green Grain size: Fine grained				
		2-3% 1-2mm epidotized grains = fsp, locally 5-7%, 1% <1cm epidotized fragments and patches.		«W ep» Weak epidote as epidotized fragments and finer grains which = fsp.	«<1% py» Overall, <1% disseminated pyrite. Greater sulfide accumulations as follows:	Green Volcanoclastic Unit.
		Andesite lapilli tuff zones described later.				
		15.2 - 19.8 Moderate shearing, numerous distorted folded, <1cm quartz veins.				
		15.9 shearing	25			
		17.3 shearing	45			
		19.3 shearing	25			
		19.8 - 22.0 Very rubbly core.				
		22.0 - 30.0 «F TUFF» Light grey, moderately sheared with varying angles to core mainly from 22.0 to 26.5m. Folded foliations 25.6 - 26.5. 25.2 - 25.5 screen of andesite tuff. Fine felsic tuff, rare <1mm quartz eyes, and below 28.6m <1-1% mm sericitized grains possible very fine feldspars.			22.0 - 30.0 «<1-1% py» <1-1% disseminated pyrite.	
		28.6 - 30.0 Possibly a felsic dyke				
		30.0 contact	15			
		30.0 - 30.6 Argillaceous component to andesite groundmass including 10cm of 90% dark grey muddy argillite at top of interval.				
		33.4 - 34.6 Felsic tuff: very light grey, fine grained, moderately siliceous. 1cm grey fault gouge at upper contact.				
		33.4 contact	65			
					35.1 - 43.1 <1% pyrite.	
		35.1-43.1 Felsic Dyke. light grey, fine grained, siliceous, massive to very weak foliation. 35.1 - 37.0 Brecciated with calcite gashes. Screen of andesite tuff from 37.0 - 37.2. Below			37.0 - 37.2 7% disseminated pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		37.2 getting 1-2% round grey quartz eyes, rare whitish quartz eyes. <1% white feldspars and 1-2% mm epidote grains.				
		Below 40.9 unit becomes weakly foliated. Sharp lower contact.				
		41.3 fol.	30			
		43.1 contact	25			
		43.1 - 53.4 2-3% epidotized fragments averaging <1cm.				
		48.4 - 51.8 <1% 5mm-2cm felsic fragments.				
		53.4 - 62.4 «F DYKE» Felsic dyke:,light grey, weakly foliated, 3-5% 3-5mm bluish white and white quartz grains, and patches with 1-2% 1-2mm epidote grains. Unit begins quite massive becoming weakly foliated at 54.6m.				
		55.0 foliation	35			
		56.3 - 56.7 and 57.3 - 58.5 Mafic dykes: dark green, fine grained, fine wispy calcite veinlets, sharp contacts.				
		56.7 contact	55			
		57.3 contact	20			
		56.7 - 57.3 Felsic tuff: fine grained, aphyric, moderately foliated especially towards lower contact.				
		Below 58.5 5% 3-5mm white stretched quartz grains				
		67.5 - 72.0 Stronger fragmental appearance 5% epidotized fragments averaging <1cm.				
		75.5 - 81.4 «F DYKE» Felsic dyke: light grey, 3-5% round blue white quartz grains, 2-3% mm green epidote grains and patchy 3-5% 2-3mm white feldspars.		75.5 - 81.4 M-S silicified	trace pyrite.	
		82.9 - 84.6 Felsic dyke.				
		84.6 - 89.8 Shearing, foliation 0-5 degrees to core axis, minor gouge along foliation planes.				
		84.6 contact	30			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		91.2 - 100.3 Coarser fragmental. Average fragment size 2cm, fragments up to 5cm.			91.2 - 92.3 1% fine disseminated pyrite.	
		93.1 - 93.7 Fine andesite ash fairly massive.			91.3 - 100.3 1-2% fine disseminated pyrite. Includes 5% py from 95.8 to 99.25.	
		93.8m 2cm fine dark pyritic mud at 20 degrees to core axis.				
		100.3 - 110.6 «F DYKE» Felsic dyke: light green grey, massive, strong silicified appearance. 3% whitish fsp crystals, 3% green epidotized crystals			100.3 - 110.6 <1% pyrite, rare <1cm wide pyrite stringer and fracture coatings from 100.3 - 102m.	
		100.3 contact	40			
		110.6 contact	30			
		110.6 - 120.8 Andesite lapilli tuff up to 15% fragments mainly <1cm but 2-3% in the 2-4cm range. 10-15% epidotized feldspars.		110.6 - 149.9 «W-M Chl» Weak to moderate chlorite alteration of groundmass. 110.6 - 112.3 M-S chlorite alteration of groundmass.	110.6 - 120.8 1% disseminated pyrite.	
		112.3m Crystal rich bed fining up hole to ash.				
		112.3 bedding	50			
		120.8 - 121.5 Felsic dyke.				
		122.9 - 123.4 Felsic tuff, sheared felsic dyke? 1cm fault gouge at top of interval.			122.9 - 123.4 1-2% pyrite.	
		122.9 contact	45			
		124.6 - 125.6 Fine compositional laminations of andesite, fine fragments and minor felsic lamination. Strong sheared appearance parallel to compositional layering.				
		125 layering	25			
		125.3 layering	25			
		128.2 - 129.9 More shearing parallel to layering. 128.6 good bedding contact.				
		128.3 shearing	30			
		128.6 bedding	40			
		2cm fault gouge at end of interval.				
		129.3 shearing	30			
		133.5 - 135.3 Felsic dyke.				
		136.4 - 138.85 Felsic dyke: speckled grey green,				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		dark green sericite clots, light green epidote grains and <1% blue white quartz grains. 136.4 contact 138.85 contact 140 foliation 142.2 Disseminated hematite and hematitic fracture coatings. 145.1 - 148.6 Andesite lapilli tuff 30-40% 0.5-2cm epidotized fragments. 148.6 - 149.9 Unit taking on a sheared appearance. 149.9 sharp contact with fault gouge.	 45 35 30 40			
149.90 TO 151.65	Fault «FAULT»	Colour: Black and light grey. 149.9 - 150.49 Black fault gouge, sharp contact at 70 degrees followed by sheared and gougy rhyolite.			150.45 - 151.65 1-2% fine pyrite within gouge. 150.45 - 150.95 <1% <0.5cm fragments with 5-10% pyrite.	Southern Rhyolite Fault.
151.65 TO 168.85	QP Felsic Tuff «F TUFF, QP»	Colour: Light grey Grain size: Fine grained <1-1% and locally 2-3% <1-1mm rounded quartz eyes. Weak granular texture of very indistinct <1-1mm felsic grains. Some grains may be altered feldspars. Minor coarser grained patches with 15-20% felsic grains. 154.4 foliation 156.2 foliation 163.5 contact 165.2 - 165.5 Fault zone, felsic tuff fragments in a greenish dark grey soft sericitic groundmass. 165.5 - 166.7 Coarse granular appearance. 15-20% coarse feldspars.	 50 45 88 65	«W Calc» Fine disseminated calcite. ┤159.1 - 163.4├ «M Bleached» Moderately bleached, sharp lower contact to interval with minor grey clay gouge.	┤151.65 - 163.4├ «2-3% py» 2-3% very finely disseminated pyrite. Greater pyrite concentrations as follows: 158.2 - 158.5 7-10% pyrite 159.95 - 160.0 10% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		168.3 - 168.85 Finer grained ash/tuff.			168.3 - 168.85 <1% pyrite, trace sphalerite.	
168.85 TO 169.35	Coronation Zone, Massive Sulfides «CORONATION ZONE»	Colour: Black Grain size: Fine grained Massive sphalerite, galena, and lesser chalcopyrite, weakly layered. 12-13% quartz gangue and felsic tuff. 168.95 layering	 35		«68% sp, 10% gn, 5 cpy, 5 py, tr tet»	168.85-169.35 «MS»
169.35 TO 171.40	Felsic Tuff Ash «F TUFF, ASH»	Colour: Light grey Grain size: Fine grained Fine grained, fairly uniform tuff with <0.5mm sericite specks. 171.0 - 171.4 unit becoming a fine ash, distorted appearance, no bedding.		«W Ser»	«2-3% py, tr sp, cpy» 2-3% very finely disseminated pyrite, trace dark brown sphalerite, trace chalcopyrite in 1mm veinlet.	
171.40 TO 173.10	Argillite, Cherty Agillite «ARG»	Colour: Black Grain size: Fine grained Poorly defined bedding, distorted from 0 degrees to 40 degrees to the core axis. Minor felsic ash component defining bedding towards end of unit. Lower 20cm mixing with lower FP unit.			2% fine wispy pyrite.	
173.10 TO 217.90	FQP Crystal Tuff «FQP TUFF»	Colour: Light grey green Grain size: Medium grey 15-20% 2mm whitish feldspar crystals and 2% 1mm rounded quartz grains. Very weakly foliated. Rare felsic fragments 1-2cm. 181.7 - 182.8 Crystal poor interval. 209.8 - 213.25 «QP TUFF» QP Felsic tuff: light grey, fine grained, weakly foliated. 2-3% <1.5mm rounded clear quartz eyes. Indistinct upper contact 209.8 contact Faulted lower contact with 10cm milled and gougy core.	 35	«W Ser» 173.1 - 177.5 Moderately bleached. 197.8 - 199.0 Strongly bleached. 199.0 - 206.9 Moderately bleached. 209.8 - 213.25 Weakly sericitic.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		213.25 fault contact 213.25 - 217.9 Coarser grained QFP. White qtz. and fsp. crystals up to 5mm. Sharp lower contact.	75 70			
217.90 TO 284.30	Diorite «DIOR»	Colour: Dark green Grain size: Medium grained Massive, weakly equigranular fsp.-hornblend to fsp porphyritic diorite. Occassion finer grained calcareous phases. Patches with 1-2% shinny black metallic mineral= illmenite? 270.4 Becoming finer grained towards lower contact. Feldspar porphyritic with ragged white feldspars. Sharp lower contact.	45	Rare quartz chlorite veining. Rare weak patchy epidote.		
284.30 TO 288.00	Felsic Lithic Tuff «F LITH TUFF»	Colour: Light creamy green Grain size: Coarse grained 15-20% 3-5mm rounded white felsic lithic granules in a fine grained, weakly sericitic groundmass. <1% 2-5mm green sericite clots. Faulted lower contact.		«W Ser»	tr py .	
288.00 TO 302.80	Volcanic Ash, Sediments, Chert «SEDS, VOLC ASH, CHERT»	Colour: Light grey Grain size: Fine grained Very fine grained felsic ash, sediments interbedded with 20-50cm cherts, cherty argillite, and cherty ash. Good bedding measurements as follows: 289.0 290.8 292.2 292.5 293.9	55 35 30 40 30	Nil	tr <1% py 293.5 - 294.1 <1-1% dark fine pyrite parallel to bedding.	Possible Cameron River formation.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		294.9 20cm fault gouge at top of unit.	35		297.0 - 297.9 1% pyrite as very fine weak pseudobreccia type stockwork.	
302.80 TO 307.75	Diorite «DIOR»	Colour: Green Grain size: Fine grained <1-1% <2mm white ragged feldspars in a fine grained green groundmass. 307.0 - 307.75 Fault zone, sheared and milled diorite. Sharp contact with black mud at 307.0. 307.0 fault Sharp lower contact to diorite at 307.75m.	 65 80			Karmutsen Type intrusive.
307.75 TO 313.90	Argillite «NANAIMO»	Colour: Black Grain size: Fine grained Massive, soft, homogeneous, occassional mm calcite veinlets.				

				ESTIMA	ASSAYS											GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		
12921	157.80	158.80	1.00	43	114	168	1	5											0.0			
12922	167.30	168.30	1.00	39	32	90	0.5	10											0.0			
12923	168.30	168.85	0.55	1390	1800	6500	20.2	1950		.139	0.18	0.65		20.2		1.95			0.0			
12924	168.85	169.35	0.50							2.59	11.5	22.6	13.27	455	1.464	50.2		3.55	686.4			
12925	169.35	170.35	1.00	280	200	820	4.3	890											0.0			
12926	170.35	171.40	1.05	56	30	100	0.9	315											0.0			
12927	171.40	173.10	1.70	89	56	330	1	25											0.0			
12928	293.50	294.10	0.60	10	12	32	0.6	2											0.0			
AVE.	168.30	169.35	1.05							1.306	5.57	11.10		227.25		24.93						

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11619	15.20	18.20	3.00	12.89	0.024	4.41	5.86	0.36	2.56	0.16	3	0.46	66.15		0.42		0.75	97.06	0.9	23	163	35	40	1	49	5
11620	50.00	53.00	3.00	17.05	0.066	5.53	8.93	0.41	4.81	0.18	4.13	0.63	52.16		0.62		1.35	95.87	0.8	13	350	77	51	4	85	5
11621	92.00	95.00	3.00	17.09	0.013	9.06	9.77	0.17	5.22	0.17	1.92	0.82	50.23		0.73		0.92	96.13	0.7	25	33	233	50	6	56	5
11622	126.20	129.20	3.00	14.72	0.015	8.08	10.89	0.31	5.69	0.31	0.91	0.83	50.63		0.57		0.2	93.15	1.1	13	37	28	58	7	105	5
11623	152.70	155.70	3.00	13.57	0.063	3.66	2.58	3.09	0.75	0.03	2.63	0.3	68.47		0.26		1.84	97.23	0.3	16	180	14	10	1	7	5
11624	175.20	178.20	3.00	15.03	0.07	3.08	1.99	3.24	1.64	0.05	2.19	0.31	67.34		0.24		1.11	96.29	0.2	17	73	20	22	1	35	5
11625	203.00	206.00	3.00	18.36	0.089	3.3	1.74	4.64	1.55	0.05	2.34	0.31	62.63		0.28		0.05	95.33	0.3	18	90	6	18	1	26	5

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10236.00N
EAST: 10600.00W
ELEV: 635.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 635.00

COLLAR DIP: -62° 0' 0"
LENGTH OF THE HOLE: 209.40m
START DEPTH: 0.00m
FINAL DEPTH: 209.40m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 6, 1989
DATE COMPLETED: May 8, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 1.8 m
CORE STORAGE: CHEMAINUS

PURPOSE: TEST DOWN DIP OF HIGH GRADE ZONE IN EAST DRIFT

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
61.00	-	-57° 0'	ACID	OK		-	-	-	-	-	
183.00	-	-58° 0'	ACID	OK		-	-	-	-	-	
209.40	-	-58° 0'	ACID	OK		-	-	-	-	-	
149.40	218° 0'	-56° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 1.82	«OB»					Casing.
1.82 TO 9.15	«QFP DIKE»	Colour: Light grey Grain size: Medium to coarse grained Massive. 10% large (up to 1cm) rounded blue 9's, 10% feldspar crystals 2-3mm long. Lower contact fairly sharp. 9.15 contact	 35	«W ep» Fsp. crystals, weak epidote alteration	None	
9.15 TO 50.90	Andesite Lapilli Tuff with QFP dikes «AND LAP T, QFP DIKES»	Colour: Green with light grey dikes. Grain size: Fine to medium grained. 5% epidote patches in andesite crystal tuff matrix = lapilli fragments? Unit also has ashy layers (ie. 10.2 - 10.3) which are bedded/foliated. 10.2 bedding Unit pervasive moderate to strong foliation. 11.3 fol. Have patches with 10-15% epidotized fsp crystals. QFP dikes with large blue q's and ep f's as above at: 12.2-15.7 16.8-18.2 12.2 contact 21.95 - 23.0 Fine grained, green mafic dike. FP dikes, fgr, grey, 5-10% light green fsp at: 24.5-24.8 26.1-26.5 30.7-31.0 31.1-31.9 32.8-33.55 40.0-40.9 40.9 contact 26.7 - 27.3 3-5% subrounded, blue q's (0.5cm diam.) in dark green matrix.	10.2 bedding: 30 11.3 fol.: 30 12.2 contact: 60 40.9 contact: 30	«M-S ep, W-M chl» Pervasive moderate to strong epidote alteration in andesite, fsp crystals in QFP's are weakly epidotized. Andesite is weakly to moderately chloritic.	tr py in epidote patches. 23.0 - 23.1 2-3% py at lower contact of dike.	Blocky core around FP dikes; particularily bad at: 31.9-35.6.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		27.3 - 29.6 Fine grained mafic/andesitic ash grading in lapilli tuff. Contact area is pyritic. 27.3 bedding 46.8 - 49.05 QP dike- 5% large (0.5cm) rounded blue qtz. eyes in siliceous f. gr. grey groundmass 49.05 contact 50.8 - 50.9 Siliceous fine grained grey felsic dike.	 40 20		{29.05 - 30.7} «7-8% py» 7-8% disseminated py in contact zone between ash and lap tuff. Locally zone is siliceous = qv.'s?	
50.90 TO 51.10	«FAULT»	Colour: Light grey Milled and ground felsic rock with small massive pyrite fragments (up to 0.8cm) and qtz. fragments.				
51.10 TO 81.20	Hanging Wall F(Q)P «F(Q)P, T,ASH-HW»	Colour: Light to greenish grey Grain size: Fine grained Massive to weakly foiated. 2-3% mm-sized q's, fsp crystals = white specks, crystal tuff/ash. Thin zones of fault gouge in the interval 51.1 - 53.5. 65.4 - 81.2 Fsp. crystals more abundant (15%) and larger (up to 2mm), actual contacts gradational, 1-2% q's. 66.3 foliation {69.6 - 69.8} «CHT» Well bedded cherty layer with 1-2% mm py beds. 69.7 bedding Greenish grey, chloritic mafic dikes at: 76.3-76.45 76.6-76.9 77.1-77.3 77.55-78.85 79.0-79.1 79.85-80.45 80.55-81.2 82.0-82.1	 50 73	{51.1 - 54.6} «W-M ser» Weak to moderate sericite has bleached core a light grey colour.	{51.1 - 54.6} «2-3% py, tr sph, tet, gal» 2-3% diss. py in altered zone with traces of sphalerite, tetrahedrite and galena. 57.3 1.5cm x 1.5cm py cube.	Hanging wall zone.

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-242

DATE: 10-January-1990

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		81.2 contact	80			
81.20 TO 103.56	«Q(F)P TUFF»	Colour: Grey to light grey Grain size: Fine grained 3-5% q's up to 2mm diameter; 5% white ghosty fsp crystals becoming less apparent as alteration increases. Q's larger than in above F(Q)P but may still be same unit. 102.1 - 102.2 Argillite, with QP frags and greenish grey mafic dike. 102.2 contact	 50	┤81.2 - 94.35├ «W patchy ser» Patchy sericite, core bleached light grey in colour. ┤94.35 - 99.9├ «M ser» Moderate sericite.	tr py in stringers.	
103.56 TO 108.80	«CORONATION ZONE»	Colour: Grey Grain size: Fine grained Host = QP same as above. Wisps of arg. or f. gr. py at 103.7. 103.7 bedding? 104.2 fault?	 65 65	«M ser»	┤103.56 - 104.20├ «15-18% py, 2-3% sph, tr ep, tet» 15-18% py, 2-3% sph, tr ep, tr tet. Lower contact of this zone very sharp = fault plane? ┤104.20 - 108.8├ «2-3% py, tr sph, tet» Sulphides occur as stringers.	
108.80 TO 111.65	«DIORITE»	Colour: Dark green Grain size: Fine grained Well foliated, Sicker age diorite. Strongly magnetic due to 1-2% diss mt. Sharp chilled contacts. 109.50 foliation	 60	«M-S carb» Moderate to strong carbonate.	None	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
111.65 TO 120.20	Hanging Wall, QFP Tuff «QFP TUFF, HW»	Colour: Light grey Grain size: Fine to medium grained Massive. 8-10% rounded q's up to 2mm diameter. 5-10% mm-sized white specks = f's? 1-2% white ghostly fsp. 1cm fault gouge at 120.15m.		«W-M ser» Weak to moderate pervasive ser.		
120.20 TO 132.70	«F(Q)P-FW»	Colour: Greenish grey Grain size: Medium grained Well foliated. 20-25% fsp crystals up to 2mm long; 1-2mm sized q's. 121.87 contact 122.4 - 122.55 F. gr., light green mafic dyke. 122.55 - 123.00 «FAULT» Fault gouge. Foliation is locally crenulated and folded. 128.5 fol.	65 40	«W ser»	120.20 - 121.87 «40% py» Semi-massive pyrite as fine disseminations and massive pods at top of FP = host. Lower contact of sulphide zone is sharp at 65 degrees to C.A.	Sulphide zone possibly correlates with argillite in footwall FP.
132.70 TO 133.30	Cherty, Cherty Ash «CHT, CHTY ASH»	Colour: Grey Grain size: Fine grained Weakly bedded. Unit marks contact between FQP and QP with large q's. Upper contact gougy. 133.0 bedding	58		tr py	
133.30 TO 196.85	«QP TUFF»	Colour: Greenish grey Grain size: Coarse grained Well foliated, locally foliation crenulated/folded 10-15% large rounded white q's--up to 1cm across.		«W-M ser» Weak to moderate pervasively sericitic		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Most are 2-3mm across.		matrix.		
		140.5 foliation	50	157.2 - 161.15 «15% qtz veins»		
		Fine grained, thin, greyish green mafic dikes at: 155.0-155.1 161.8-161.9 175.0-175.2				
		177.0 foliation	55			
		169.45 - 160.7 «FAULT» Fault gouge.				
				185.7 - 195.35 «patchy dark green sericite blebs» Patches with 5% sericite blebs.		
		Chert and ashy beds at: 185.95-188.4 «CHT» 188.65-189.2 «CHT»				
		189.0	63			
		195.7-197.3 «FAULT» Fault gouge and milled core crosses boundary between Nanaimo and Sicker.				
196.85 TO 209.40	«NANAIMO» Sediments	Colour: Black Grain size: Fine grained				
		Interbedded black argillites and greyish brown wachees--locally well bedded.		Pervasive carb. veining.	None	
		202.8 bedding	53			

				ESTIMA	ASSAYS										GEOCHEMICAL							COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		
12957	29.05	30.70	1.65	39	144	102	1.8	18											0.0			
12958	50.90	51.90	1.00	26	143	270	2.4	83											0.0			
12959	51.90	53.50	1.60	32	790	1480	4.8	132											0.0			
12960	53.50	54.60	1.10	113	330	860	4.6	188											0.0			
12961	102.56	103.56	1.00	13	26	65	0.6	43											0.0			
12962	103.56	104.20	0.64	3000	480	15000	33.2	570											0.0			
12963	104.20	105.35	1.15	350	205	5800	7.6	130											0.0			
12964	105.35	106.40	1.05	590	1030	6500	11.8	300											0.0			
12965	106.40	107.60	1.20	42	62	350	1.3	570											0.0			
12966	107.60	108.80	1.20	20	25	142	0.6	37											0.0			
12967	120.20	120.86	0.66	18	23	98	1	7											0.0			
12968	120.86	121.30	0.44	16	34	67	1.7	9											0.0			
12969	121.30	121.87	0.57	18	40	200	1.1	19											0.0			
ALT.AVG.	51.90	54.60	2.70	65.000	602.59	1227.4	4.72	154.81														
AVE.	103.56	106.40	2.84	1035.9	571.99	8132.0	14.92	292.01														
ALT.AVG.	103.56	108.80	5.24	575.65	329.93	4520.1	8.52	297.27														

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11635	35.70	38.70	3.00	17.22	0.024	9.37	10.11	0.4	4.87	0.26	1.83	0.87	47.48		0.71		0.15	93.29	0.6	17	64	9	54	9	83	5
11637	66.20	69.20	3.00	12.95	0.196	1.93	1.63	2.94	1.67	0.03	2.27	0.24	71.25		0.18		0.13	95.42	0.2	18	828	8	18	2	27	85
11638	96.60	99.60	3.00	13.63	0.071	1.5	1.28	3.86	0.84	0.01	2	0.17	72.69		0.25		0.7	97.01	0.3	14	41	15	11	1	16	5
11640	114.90	117.90	3.00	14.3	0.071	2	0.91	2.59	0.65	0.02	3.9	0.23	71.4		0.27		0.3	96.63	0.2	7	67	9	9	1	5	5
11641	145.40	148.40	3.00	12.85	0.073	3.17	2	4.14	0.92	0.07	1.87	0.31	69.96		0.17		0.08	95.62	0.2	12	43	8	12	1	18	5
11642	191.10	194.20	3.10	13.33	0.059	1.75	1.2	3.33	0.69	0.04	3.44	0.24	72.52		0.17		0.08	96.84	0.2	14	42	7	8	1	8	5

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-243 | IMPERIAL UNITS: | METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10278.00N
EAST: 10620.00W
ELEV: 636.50

ALTERNATE COORDS GRID:
NORTH: 102+78N
EAST: 106+20W
ELEV: 636.50

COLLAR DIP: -71° 0' 0"
LENGTH OF THE HOLE: 249.00m
START DEPTH: 0.00m
FINAL DEPTH: 249.00m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 8, 1989
DATE COMPLETED: May 11, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 5.18M
CORE STORAGE: CHEMAINUS

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
61.00	-	-70° 0'	ACID	OK		-	-	-	-	-	
122.00	-	-68° 0'	ACID	OK		-	-	-	-	-	
183.00	-	-68° 0'	ACID	OK		-	-	-	-	-	
115.82	202° 0'	-69° 0'	SING.SHOT	OK		-	-	-	-	-	
235.10	210° 0'	-66° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 5.18	«OB»					
5.18 TO 7.89	RHYOLITE QUARTZ FELDSPAR PORPHYRY DYKE «QFP DIKE»	colour: light grey grain: med. gr. -5-10% blue quartz eyes to 5mm, 5-10% epidote altered feldspar crystals to 1 1/2mm		very siliceous	1% stringer pyrite.	
7.89 TO 18.55	ANDESITE CRYSTAL LITHIC,LAP TUFF «AND LITH, LAP TUFF»	colour: med. dark green grain: med. to coarse gr. -thick bedded, massive, moderately foliated; 10-15% white to ghosty to predominately epidote altered feldspar crystal to 1mm; 5-10% dark green to black, horn blende, pyroxene crystals from <1mm to 5mm; <5% white felsic gr. to 1mm; 10% light green epidote altered lithic fragments to 4mm, 5% 4mm to 3cmm, 10% med. green lithic frags to 2mm. CAF at 16.54 15.70 - 15.72m: minor argillite laminations CAB at 15.72 16.54 - 17.30m Andesite fine to med. gr. lithic tuff,,	 30 37	weak pervasive epidote alteration.	7% disseminated patchy med. gr.pyrite.	
18.55 TO 56.36	RHYOLITE QUARTZ PORPHYRY DYKE «QFP DYKE»	colour: white to med. grey grain: med. gr. -5-10% blueish white quartz eyes to 6mm, 5% to locally 10% white to epidote altered feldspar crystals to 1mm. 21.48 - 21.56m: Andesite crystals lithic tuff, may contain minor argillite. 24.11 - 24.28m: Minor shear, very rubbly core. 24.28 - 24.60m: fault zone 24.60 - 24.75m: Andesite Crystal lithic tuff. 24.77 - 24.79m: «Fault» gouge FAULT 30.55 - 32.30m: Andesite lithic to lapilli tuff 36.00 - 36.26m: Andesite lithic crystal tuff CAF at 33.10 38.90 - 45.60m «AND XLT» Andesite crystal lithic tuff 15 - 20% (locally 45%) white to predominately weakly epidote altered feldspar crystals; <24 epidote altered lithic fragments to 2cm.	 65 30	18.55 - 21.30m: bleached white and strongly silicified. epidotized feldspars occur below 21.30m 30.55 - 32.30m: Strongly calcareous. interval moderately calcaveous	1-2% disseminated patchy, stringers of fine to med. gr. pyrite. 24.28 - 24.60: 3-5% py, patches, stringers. 1-2% disseminated, patchy fine to med. grained pyrite.	margins at Andesite inclusions are very strongly silicified.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		49.00 - 49.10: «Fault» gouge 49.85 - 50.17m; Andesite crystal lithic to lapill tuff. 52.30 - 52.38m minor shear and gouge	 30			
56.36 TO 85.75	ANDESITE CRYSTAL LITHIC TUFF «AND TUFF»	colour: med. green grain: med. gr. -thick bedded; moderately foliated; 10-15% white to ghosty to predominately epidote altered feld-spar crystals to 1mm; 1-2% dark green to black crystals and or fragments to 1mm; 10% med. to dark green lithic fragments to 3mm; 5 - 10% light green epidote altered lithic fragments to 6mm; <1% to 2 cm. 56.36 - 56.90m: foliation highly contourted 56.90 - 57.12m: Quartz feldspar Porphyry dyke. 62.72 - 62.78m: ANdesite Ash. CAB at 62.72 69.07 - 72.80m: Quartz feldspar Porphyry dyke. 73.40 - 73. 60m: Andesite ash CAB at 73.60m 75.20 - 76.24m: 80% quartz vein. 75.30 - 77.17m: Quartz feldspar porphyry dyke. 79.13 - 82.00m: Quartz feldspar Porphyry dyke. 83.70 - 84.75m: Quartz feldspar Porphyry dyke. 83.25 - 85.75m: Quartz feldspar porphyry dyke. CORE ANGLE: 85.25	22 39 30	locally weak to moderately calcaveous.	1-2% disseminated, fine to med. gr. pyrite.	
85.75 TO 114.61	ANDESITE LAPILLI TUFF «AND LAP TUFF»	colour: med. green grain: coarse grained. -massive bedded; moderately foliated, 15% epidote altered feldspar crystals to 1 1/2mm, 2% dark green to black crystals and or lithic fragments to 2mm, 5-10% dark green lithic fragments to 4mm, 15 % light green epidote altered lithic frags to 6mm 5 - 10% to 5cm. 100.70 - 101.35m: Quartz feldspar porphyry dyke. 102.60 - 102.83m: Felsic Ash. CAF at 105.00m 109.32 - 109.82m: 80% quartz veins 110.95 - 116.35m: Quartz feldspar porphyry dyke	20	local pervasive epidote alteration.	<1% disseminated, patchy medium grained pyrite. 102.35 - 102.50m: 5% med. to coarse grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
114.61 TO 118.11	RHYOLITE «F TUFF»	-intensly «sheared» kicak abundant gouge seams. 114.61m - 114.90m gouge.		Intensly bleached, well developed sericite	114.61 - 115.54m: <1% pyrite 115.54 - 116.54m: 1-2% py, trace sph, and galena 116.54 - 117.34m: 2-3% py, trace to 1/2% sph, trace gal, trace chalcopyrite. 117.34 - 118.11m: 5-7% py, trace sph.	BCD #12970 BCD #12971 BCD #12972 BCD #Geochem: 12973
118.11 TO 122.41	RHYOLITE QUARTZ FELDSPAR PORPHYRY «QFP TUFF»	colour: very light ot med. grey grain: med. gr. -thicklyy bedded; moderately foliated; 10% quartz eyes from <1mm to 3mm; 5-10% white to ghosty to clay altered feldspar crystals to 1/2mm. 120.24 - 120.26m «Shear» abundant gouge.		silicified	118.11 - 119.11m: 1-2% py, trace sph 119.11 - 119.85M 1% py, trace sph 119.85 - 121.00m: 2-3% py, 1% sph, tr. galena, tr. chalcopyrite. 121.00 - 121.80m: 3-5% py, 1-2% sph, <1% chalcopyrite, trace galena 121.80 - 122.11M: 2-3% py, 2-3% sph, 1% chal, <1% galena.	BCD #Geochem 12974 BCD #Geochem 12975 BCD #Geochem 12976 BCD #ASSAY 12977 BCD #ASSAY 12978
122.41 TO 164.92	RHYOLITE QUARTZ PORPHYRY «QFP-HW»	colour: very light ot med. grey grain: fine to med. gr. -thick bedded; moderately foliated; 5 -10% quartz eyes from <1mm to 1 1/2mm, 5-10% white to ghosty to clay altered feldspar crystals from <1/2mm to 1mm. 127.52 - 128.10m: strong shear minor gouge. 132.30 - 132.60m: Quartz vein 139.72 - 140.10m: Quartz Vein' 141.40 - 140.96m: Quartz vein 145.20 - 145.40m: «Shear» 152.00 - 152.30m: 90% quartz veins. 152.70 - 153.20m: 80% quartz veins. 155.86 - 155.90m «Shear» 160.70 - 161.00m Dioritic dyke.	16	weak to moderately silicified. 146.50 - 150.60m: patchy bleaching and silicification, givinng a mottled, fragmental look;	<1% disseminated, weakly laminated py. 128.10 - 128.75m: 3-5% ph, 2% sph, <1% galena, chalcopyrite 128.75 - 129.36m: 1-2% py, 5-7% sph, 2% galena, <1% chalcopyrite. 129.36 - 130.11m: 1-2% py, <1% sph, trace galena, trace chalcopyrite. 130.11 - 130.75m: 1-2% py, trace sph.	mineralized interval between 128.10 - 130.75 is predominately cross-cutting in nature. BCD #12979 BCD #12980 BCD #12981 BCD #12982

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
164.92 TO 176.60	RHYOLITE QUARTZ FELDSPAR PORPHYRY «QFP»	colour: light grey ot white. grain: med. grained -massive bedded, moderately foliated; 5-10% quartz zz eyes <1mm to 2mm, 5-10% white to ghosty feldspar crystals to 1/2mm, rare to 1mm.		bleached, patchy silicification local intense sericitation.	164.92 - 166.00M: 2% disseminated, laminated fine to med. grained py.	BCD #12983: local ptygmitic folding in quartz veins;
					166.00 - 166.99m: 1-2% disseminated, fine grained pyrite.	BCD #12984
					166.99 - 168.46m: 3-5% disseminated laminated, patchy cross-cutting med. gr. pyrite.	BCD #12985
		168.46 - 169.70m: «Fault» intense sheared with abundant gouge. CORE ANGLE 169.70m	18		168.46 - 169.70m: 1-2% py in felsic fragments	BCD #12986
					169.70 - 170.30m: 2-3% disseminated, laminated, patchy fine to med. grained pyrite	BCD #12987
					170.30 - 171.60m: 1-2% disseminated, laminated cross-cutting py.	BCD #12988
176.60 TO 195.31	«CORONATION ZONE»	colour: white to very light grey. grain: med. gr. -Rhyolite QFP, 5% quartz eyes <1mm to 1 1/2mm, 5% white to ghosty feldspar crystals to 1/2mm		moderate to strongly calcaveous proximal to any mineralization. mineralization is predominately cross-cutting in nature, weak lamintations and banding are also evident.	171.60 - 172.80m: 3-5% py, 1-2% sph; <1% gal, <1% chal, trace tetrhedrite	BCD #12989
					172.80 - 174.26m: 3% py, 2% sph, <1% galena, <1% chal, trace tetrahedrite.	BCD #12990
		172.00 - 172.25m: minor shear	04		174.26 - 175.29m: 1-2% py, 1-2% sph, <1% chal, tr gal, tr tet.	BCD #12991
		175.29 - 176.24m: med. grey to buff coloured dyke.			175.29-176.24m: 5% py, tr sph, gal	BCD #12992
					176.24 - 176.95m: 2% py, 1-2% sph, 1% chal, <1% gal, trace tet.	BCD #12993
		176.95 - 177.60m: med. grey buff coloured dyke.			176.95 - 177.60m: 2% py, tr. sph, <1% chal	BCD #12994
					177.60 - 178.52: 5% py, 1-2% chal; 1% sph, trace galena	BCD #12995
					178.52 - 179.75m: 5-7% py, 3% chal, <1% sph, tr. galen, tetrahedrite.	BCD #12996
					179.75 - 181.09m: 10% py, 2% chal, 1% sph, tr gal, tr. tet.	BCD #12997
				181.09m to intensely bleached and sericitized.	181.09 - 182.35m: 5% py, 1-2% sph, <1% chal, tr. gal, tr tet	BCD #12998
		CAF at 182.35m	43		182.35 - 183.52m: 3-5% py 2-3% sph, <1% chal, tr gal, tr. tet.	BCD #12999
					183.52 - 184.61m: 2-3% py, 1-2% shp, <1% chal, <1% gal, tr tet	BCD #13000
		possible argillite lamination at 185.57m CAB at 185.57m	32		184.61 - 185.45m: 3% py, 1-2% sph, <1% gal, tr. tet	BCD #13001
		185.60 - 185.78m: foliation highly contourted, mionor shear and gouge: CAF at 185.50m	35		185.45 - `186.40m: 1-2% py, <1% sph, tr. chal, tr gal.	BCD #13002
					186.40 - 187.00m: 1% py, tr. sph.	BCD #13003
		187.00 - 187.01m: Argillite CAB at 187.00m	15		187.00 - 188.32m: 2-3% py; tr. sph chalcopyrite.	BCD #13004
		187.59 - 187.60m CORE ANGLE «Fault» gouge	55		188.32 - 189.10m: 1-2% py, tr. sph	BCD #13005

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		187.75 - 187.76m CAB at 187.75m Argillite 195.26 - 195.31m: «Fault» gouge CORE ANGLE	25 47		189.10 - 190.40m: 1% py, possible tr sph 190.40 - 192.00m: 1% py 192.00 - 193.07m: 3-5% py 193.07 - 195.31m: <1% py	BCD #13006 BCD #13007 BCD #13008
195.31 TO 203.60	FOOTWALL QUARTZ FELDSPAR PORPHYRY «QFP-FW»	colour: med. to dark grey grain: med. gr. -thick bedded, moderately foliated 5% quartz eyes to 3mm; 10% white to ghosty feldspar crystals to 1mm. (locally 15%) 195.64 - 197.20m: mafic dyke. 197.20 - 197.26m: «Fault» gouge 200.15 - 200.18m «Fault» gouge 200.40 - 200.67m; «Argillite» 202.24 - 202.43m: Quartz vein CAB at 200.67m 203.42 - 203.60m «Shear»	58	195.31 - 195.64m: bleached	<1% disseminated fine grained pyrite	this is not a great example of a footwall.
203.60 TO 215.24	FELDSPAR QUARTZ PORPHYRY HANGINGWALL «F(Q)P-HW»	colour: med. to dark grey grain: med. gr. -thickly bedded, moderately foliated; 5% quartz eyes to 1mm, 5 - 10% feldspar crystals to 1/2mm 209.40 - 209.50m «Shear» 214.75 - 215.24m «Argillite» cove very ground up intervals			<1% disseminated pyrite. 210.60 - 211.00m: 5-66% py, tr. sph and galena	more like the Hangingwall rocks
215.24 TO 225.10	QUARTZ FELDSPAR PORPHYRY «QFP»	colour: light to med. grey grain: med. gr. -thick bedded, massive; weak to moderately foliated; 10% quartz eyes to 3mmm; 5-10% feldspar crystals to 1mm; possible <5% white felsic fragments.		weakly bleached, silicified.	<1% fine grained disseminated pyrite	more representative of Footwall foundations.
225.10 TO 242.99	QUARTZ FELDSPAR PORPHYRY «QFP-HW» HANGINGWALL	colour: med. grey - weak green cast grain: med. gr. -thick bedded; moderately foliated <5% quartz eyes to 1mm, up to 5% white to ghosty feldspar crystal to 1/2mm			<1% fine grained pyrite	very similar to Hangingwall units

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		225.70 - 225.75m «Fault» 237.20 - 238.62m: 5% Quartz eyes to 4mm, 5% feldspar to 1 1/2mm; 238.00 - 238.60m; moderate to strongly sheared 238.60 - 239.25m «Fault» Intensly sheared and brecciated. may have contained argillaceous intervals CORE ANGLE: 238.60m 239.53 - 239.80 intensely sheared, 30% quartz veins; possible chert horizon 239.80 - 240.03m: Rhyolite ash with minor chert horizons; strongly sheared. 240.03 - 240.06m gouge 240.06 - 241.20m strongly sheared 241.20 - 242.99m: moderate to strongly sheared	 40 90	 Siliceous locally bleached	 1-2% pyrite. 1% pyrite	
242.99 TO 249.00	SILTSTONE «NANAIMO»	colour: black grain: fine gr. -243.02 - 243.30m «Gouge» CAF at 242.97 244.57 - 244.75m CONTACT 242.99 strong shear CAF at 243.00 244.90 - 245.05m strongly sheared 245.15 - 245.27m strongly sheared 245.90 - 246.80m moderately sheared.	 68 39 74			very sharp contact.
249.00 TO 249.00	EOH					

				ESTIMA	ASSAYS										GEOCHEMICAL						
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
12970	114.61	115.54	0.93	15	18	9	0.6	5											0.00		
12971	115.54	116.54	1.00	10	33	78	1	40											0.00		
12972	116.54	117.34	0.80	570	440	1230	29.4	285											0.00		
12973	117.34	118.11	0.77	244	1250	1780	27.1	222											0.00		
12974	118.11	119.11	1.00	162	660	1030	18.2	189											0.00		
12975	119.11	119.85	0.74	45	345	470	8	530											0.00		
12976	119.85	121.00	1.15	390	445	930	23.3	930											0.00		
12977	121.00	121.80	0.80							0.113	0.15	0.34	0.42	14.4	0.012	0.41		2.81	9.48		
12978	121.80	122.11	0.31							0.135	0.29	0.8	0.59	20.3	0.024	0.81		2.82	16.69		
12979	128.10	128.75	0.65							0.07	0.08	0.38	0.29	10.1	0.008	0.28		2.79	6.91		
12980	128.75	129.36	0.61							0.223	1.16	2.38	7.9	271	0.098	3.36		2.82	94.18		
12981	129.36	130.11	0.75	83	450	840	30.2	592											0.00		
12982	130.11	130.75	0.64	134	2050	3100	24.1	225											0.00		
12983	164.92	166.00	1.08	32	29	53	1.1	2											0.00		
12984	166.00	166.99	0.99	68	15	27	1.6	1											0.00		
12985	166.99	168.46	1.47	51	19	255	3.6	29											0.00		
12986	168.46	169.70	1.24	10	13	27	1	1											0.00		
12987	169.70	170.30	0.60	13	5	7	0.3	2											0.00		
12988	170.30	171.60	1.30	9	12	14	0.6	2											0.00		
12989	171.60	172.80	1.20							0.056	0.16	0.8	0.34	11.7	0.001	0.04		2.84	6.67		
12990	172.80	174.26	1.46							0.18	0.04	1.05	0.18	6.2	0.006	0.2		2.93	9.74		
12991	174.26	175.29	1.03							0.192	0.02	0.2	0.15	5.1	0.006	0.21		2.85	6.20		
12992	175.29	176.24	0.95	143	23	280	2	1800		0.014	0	0.03	0.06	2.0	0.054	1.85			17.69		
12993	176.24	176.95	0.71	3160	20	2250	4.6	204		0.316	0	0.22	0.13	4.6	0.006	0.20			7.77		
12994	176.95	177.60	0.65	750	17	305	2	128		0.075	0	0.03	0.06	2.0	0.004	0.13			2.74		
12995	177.60	178.52	0.92							0.76	0.01	0.06	0.24	8.2	0.018	0.61		2.89	17.45		
12996	178.52	179.75	1.23							0.441	0.01	0.08	0.13	4.3	0.01	0.34		2.88	10.12		
12997	179.75	181.09	1.34							0.45	0.02	0.13	0.18	6	0.01	0.35		2.96	10.77		
12998	181.09	182.35	1.26							0.161	0.01	0.28	0.06	2	0.003	0.1		2.83	4.60		
12999	182.35	183.52	1.17							0.132	0.02	1.53	0.07	2.5	0.005	0.18		2.87	10.05		
13000	183.52	184.61	1.09							0.095	0.01	0.79	0.03	1	0.002	0.07		2.86	5.32		
13001	184.61	185.45	0.84							0.233	0.02	0.74	0.07	2.3	0.006	0.2		2.79	8.46		
13002	185.45	186.40	0.95	186	550	2700	6.4	540											0.00		
13003	186.40	187.00	0.60	16	30	39	5.2	535											0.00		
13004	187.00	188.32	1.32	10	26	110	4.6	564											0.00		
13005	188.32	189.10	0.78	6	15	63	1.4	188											0.00		
13006	189.10	190.40	1.30	5	12	18	0.3	116											0.00		
13007	190.40	192.00	1.60	6	12	8	0.2	224											0.00		

Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %
13008	192.00	193.07	1.07	20	13	11	0.3	20											0.00	
AVE.	171.60	185.45	13.85							0.239	0.0277	0.50	0.14	4.6318	0.010	0.33			9.11	

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11630	12.00	15.00	3.00	16.2	0.01	9.11	10.44	0.01	5.3	0.26	1.99	0.83	49.96		0.7		1.76	96.57	1.3	31	62	98	58	3	66	5
11636	60.00	63.00	3.00	17.66	0.05	5.83	8.81	0.84	4.62	0.17	3.71	0.66	52.35		0.64		1.79	97.13	1	29	34	35	59	3	65	5
11639	90.00	93.00	3.00	15.06	0.005	15.7	10.47	0.01	3.74	0.25	0.57	0.97	48.69		0.65		0.03	96.12	0.9	29	5	9	41	1	36	5
11643	135.00	138.00	3.00	14.8	0.095	2.46	4.07	3.53	1.56	0.04	2.54	0.32	66.92		0.32		1.18	97.83	0.7	13	165	14	25	1	21	5
13007	190.40	192.00	1.60	14.82	0.209	2.08	1.85	5.49	0.86	0.02	1.94	0.01	69.5		0.3		0.89	97.95	0.5	11	178	8	11	1	9	250
11644	222.30	225.30	3.00	13.57	0.098	1.78	3.27	3.47	0.53	0.04	3.82	0.18	69.93		0.26		0.8	97.75	0.7	10	89	9	17	1	15	5

HOLE NUMBER: 89-244

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10346.60N
EAST: 10172.00W
ELEV: 673.00

ALTERNATE COORDS GRID:
NORTH: 0+ 00
EAST: 0+ 00
ELEV: 0.00

COLLAR DIP: -62° 0' 0"
LENGTH OF THE HOLE: 395.90m
START DEPTH: 0.00m
FINAL DEPTH: 395.90m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 9, 1989
DATE COMPLETED: May 13, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 6.1 m
CORE STORAGE: CHEMAINUS

PURPOSE: Exploration hole testing the extent of a high grade massive sulfide trend intersected by DDH's

DIRECTIONAL DATA: 62, 67, 182, & 241.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
60.00	-	-61° 0'	ACID	OK		-	-	-	-	-	
123.40	-	-58° 0'	ACID	OK		-	-	-	-	-	
185.00	-	-57° 0'	ACID	OK		-	-	-	-	-	
227.70	-	-57° 0'	ACID	OK		-	-	-	-	-	
291.70	-	-56° 0'	ACID	OK		-	-	-	-	-	
335.90	-	-57° 0'	ACID	OK		-	-	-	-	-	
360.00	-	-55° 0'	ACID	OK		-	-	-	-	-	
395.30	-	-54° 0'	ACID	OK		-	-	-	-	-	
15.20	0° 0'	-64° 0'	SING.SHOT		check deviation at collar.	-	-	-	-	-	
79.20	213° 0'	-59° 0'	SING.SHOT	OK		-	-	-	-	-	
222.50	218° 0'	-56°30'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 85.00	Felsic Tuff, Ash «F TUFF, ASH»	Colour: Very light grey Grain size: Fine grained				
		Weak to moderately foliated with <1m of kinked foliation. Kinked zones often contain minor amounts of gouge.		«M-S Ser, W Chl» Moderate to strongly sericitized, "blitzed." Rare chlorite as a groundmass in some pyrite stringers.	«1-2% py» 1-2% disseminated pyrite aligned parallel to foliation. Zones of greater pyrite as follows:	
		7.6m foliation	50			
		Overall, <1% mm round quartz eyes. Patches as follows with 1-2% faint 1-2mm sericitized feldspar crystals: 8.2m - 12.6m Top of unit indistinct fragmental appearance. 27.7m - 29.0m <1% sericitized fsp. 36.0m - 37.0m <1% fsp. 63.3m - 68.8m 1-2% fsp.			8.9m - 9.7m 3% pyrite disseminated and as sericitic stringers.	
		13.1m <10cm of barren green-grey chert, broken core no bedding.				
		13.2m foliation	60			
		14.2m Minor chert, no bedding.				
		22.0m foliation	30			
		27.7m foliation	35			
		28.9m foliation	45			
		32.6m - 35.1m Fault zone, gougy rubbly core, very poor recovery.				
					40.5m - 40.9m 3-5% pyrite disseminated and within chloritic stringers.	
		41.3m - 42.1m Chert and fine ash, weak indistinct bedding.			2-3% fine pyrite, weakly bedded.	
		41.5m bedding	40			
		43.7m foliation	40			
		44.9m foliation	55			
		45.5m 5cm fault gouge.				
				45.85m - 46.25m Quartz epidote vein.		
		46.25m - 48.8m Chert and felsic ash. 2-3cm bedding, good bedding angles. Occassional fsp phyric tuff beds.			46.25m - 48.8m 1-2% fine disseminated pyrite weakly bedded.	
		46.3m	50			
		46.6m	60			
		46.7m	65			
		46.8m	60			
		47.5m	50			
		48.8m	50			
				50.0m - 54.7m Moderately bleached.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		54.7m - 55.3m Rounded fragmented chert in a felsic groundmass. 77.10m 5cm fault gouge. 77.10m fault 2-3cm gouge zones as follows: 78.3m 79.2m 80.6m 81.7m - 82.4m Andesite ash. 84.5m - 85.0m Fault zone with felsic fragments in a dark grey pyritic muddy matrix. Distorted foliations above zone, zone contains some foliated fragments, foliation does not equal fault direction.	40	66.63m - 67.0m Silicification and patchy <1cm epidote. 81.7m - 82.4m Moderately chloritic.	51.5m - 52.65m 3-5% pyrite. 57.35m - 60.0m 2-3% pyrite, finely disseminated. 66.63m - 67.0m 2-3% py, <1% chalcopyrite coarse grained. 10cm at top of interval 3% cpy. 79.8m 10cm stringer with 30% pyrite in a green sericitic groundmass. 84.5m - 85.0m Possible argillite or muddy horizon acting as a fault zone at the contact between felsics and andesites.	
85.00 TO 95.70	Andesite Ash, Tuff «AND ASH, TUFF»	Colour: Green Grain size: Fine grained Weakly foliated ash and fine tuff with occassion crystal tuff zones with 5-7% 1-2mm epidotized feldspar grains.		«W-M Chl» Weak to moderately chloritic.	«<1-1% py» <1-1% disseminated pyrite. 85.0m - 86.5m 5-7% very fine disseminated pyrite.	
95.70 TO 240.60	Andesite Crystal Tuff, Lapilli Tuff «AND TUFF»	Colour: Green Grain size: Fine to medium grained Massive to weakly foliated, variable feldspar content from 2-3% to 20% 2-3mm epidote grains (fsp). Zones with high epidotized fsp's often contain up to 5% <1cm epidote fragments.		«W-M Chl, M Ep» Weak to moderately chlorite alteration of groundmass. Moderate epidote as altered feldspar and epidotized fragments. Chlorite alteration decreasing down hole. 97.3m - 97.8m Qtz. vn.	«<1-1% pyrite» <1-1% disseminated pyrite. 97.3m - 97.8m 10-12% py, <1% cpy. 10-12% coarse brassy pyrite mainly as 6cm	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					massive pyrite at top of vein. <1% chalcopyrite intergrown with pyrite.	
		104.5m 5cm fault gouge.			102.5m - 107.6m 1-2% pyrite.	
		105.0m foliation	40			
		105.7m - 106.3m Sheared appearance, distorted foliations.			107.6m - 108.7m 4-5% pyrite.	
		109.2m - 110.1m Felsic dyke: light grey, aphyric, silicified appearance.		Below 115m chlorite alteration minimal.		
		126.25m - 128.0m Argillaceous component to groundmass. 128.15m - 128.25m 100% pyritic muddy weak fragmental appearance.				126.25m - 128.0m May represent another fault zone locallized along an earlier argillite horizon.
		128.5m foliation	30			
		129.0m - 129.1m Pyritic mud.				
		Felsic dykes with blue-white quartz eyes and 2-3mm epidote grains, and white 2-3mm fsp's. 130.4m - 132.5m 133.2m - 136.8m 137.5m - 139.1m 146.2m - 149.2m 149.8m - 151.05m 156.9m - 158.0m Faulted upper contact. 158.5m - 160.6m 50cm sheared upper margin at 20 degrees. 161.0m - 161.5m 166.7m - 168.9m 172.2m - 175.3m 176.0m - 176.6m 178.7m - 179.5m 186.4m - 189.8m 197.5m - 204.2m 213.2m - 214.7m 220.3m - 222.9m			186.6m - 189.8m 1% pyrite. 197.5m - 204.2m 2-3% disseminated pyrite.	
		130.4m contact	20			
		132.5m contact	30			
		151.05m contact	50			
		168.9m contact	25			
		214.7m contact	20			
		141.55m - 141.8m Two felsic interbeds within		143.3m - 143.5m Qtz. vn.	141.55m - 141.8m 7-10% fine pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		andesite. 141.8m bedding	45			
		161.5m Stronger fragmental appearance, <1-3cm epdotized fragments.				
		162.8m - 172.2m Shearing and breakage of core parallel to core axis.		162.8m - 172.2m Weak to moderately chloritic.		
		175.3m - 176.0m Mafic dyke.				
		176.6m - 176.85m Mafic dyke.				
					181.0m - 184.9m 2-3% pyrite locally 10% pyrite over 3cm.	
				182.8m - 183.45m Chlorite biotite quartz veining.		
				197.3m 10cm qtz., chl. biot. veining.		
		204.2m - 206.3m 3-7mm quartz eyes in andesite adjacent to felsic dyke.				
		206.3m - 209.1m Rubbly core.				
		210.2m - 211.3m Mafic dyke, dark green, massive, fine grained.				
		238.0m - 238.7m Mild sheared appearance.				
		238.7m - 240.3m Strong shearing of core. 238.9m shearing	50			
		240.3m - 240.6m Moderate clay gouge developed.				
240.60 TO 256.50	Felsic QFP Crystal Tuff «QFP TUFF»	Colour: Light grey Grain size: Fine grained				
		Weakly foliated, often kinked and folded. Foliations parallel to core axis. 5-10% 1-2mm calcareous altered feldspars and <1-3% <1mm rounded quartz eyes. Some crystal poor patches.		«W Carb» Weak carbonate alteration of felspars.	tr py Trace pyrite.	Hangingwall QFP.
		240.6m - 241.8m Strong gouge development of the Southern Rhyolite Fault.				
				244.15m - 245.0m Quartz veining.	244.15m - 245.0m <1% pyrite.	
		245.5m - 245.7m Gougy milled core.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		254.45m - 254.6m Fault. Grey-black, possibly an argillite horizon, now sheared with pyrite, quartz, and felsic fragments. Sharp upper and lower contacts. 254.6m fault 254.6m - 254.8m Weakly sheared. 254.8m - 255.1m Abundant lime green mica, fuchsite? 255.1m - 256.0m Strongly bleached. 256.0m - 256.5m «F ASH» Felsic ash: fine grained, medium grey, weakly foliated, weakly brecciated with carbonate veinlets. Faulted lower contact with 5cm grey-black argillaceous? fault gouge. 256.0m contact 256.5m fault	50 45 40		256.0m - 256.5m 3-4% disseminate pyrite.	256.0m - 256.5m Stratigraphic Equivalent of Coronation Zone. Pierce paint- 165.7m
256.50 TO 279.80	Felsic FQP Crystal Tuff «FQP TUFF»	Colour: Light grey Grain size: Fine to medium grained Very weak to weakly foliated. 5-10% 2-4mm indistinct to sharp outlined white feldspars and 5-7% 1mm quartz eyes. 1cm fault gouge at lower contact. 279.8m fault contact	80	«W Ser, Patchy Sil» Weakly sericitic, patchy silicification and bleaching obscuring some feldspars. 256.5m- 259.1m Moderate to strongly bleached, silicified appearance. 259.1m - 262.0m Weaker bleached appearance.	tr py	Footwall QFP
279.80 TO 362.75	Diorite «DIOR»	Colour: Speckled green Grain size: Medium to coarse grained Massive, equigranular feldspar and hornblende to feldpsar phyric in a green hornblende rich groundmass. Occassional <1m finer grained zones, weakly sheared, calcareous. No chill margin at		«Patchy Qtz Chl Vning» Occassional <0.5m quartz chlorite veining.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		upper contact. 361.0m - 362.75m Fine grained leucoxene phyric chill margin. 362.75m contact	 60			
362.75 TO 372.20	Felsic QP Lapilli Tuff «QP LAP TUFF»	Colour: Light grey Grain size: Medium to coarse grained 2-3% and locally 7-8% white and clear 4-7mm round quartz eyes. Top of interval <0.5-2cm fine grained felsic lithic fragments. Patches with 5-7% 4-5mm dark green sericitic clots. Thin mafic dykes as follows: 363.1m - 363.3m 367.55m - 367.7m 370.2m - 370.4m 370.65m - 371.1m 371.4m - 371.6m 371.7m - 372.2m Fault zone, strong gouge development.		371.1m - 371.2m Quartz vein.	371.1m - 371.2m 1% pyrite, 0.5% chalcopyrite as mm stringers in quartz veins.	
372.20 TO 383.10	Cameron River Felsic Tuff, Chert Argillite «CAMERON SEDS»	Colour: Light grey-green Grain size: Fine grained Very weakly foliated, light green and creamy white felsic granular tuffs and finer grained ashes. Occassional interbeds as follows of black cherty argillite, green cherts and ash: 377.0m - 377.7m Argillite. 378.4m - 378.7m Chert and ash. 381.45m - 381.65m Chert and ash and 383 u m. 377.5m bedding 377.8m bedding 378.6m bedding Black argillaceous fault gouge at top of interval. 379.35m - 379.5m and 382.05m - 382.12m Thin intrusive fingers of possible Mt. Washington type.	 50 60 70		379.35m - 379.5m 7% pyrite/pyrrhotite, 1% magnetite as 2 0.5cm semi-massive bands.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					382.05m - 382.12m 15% disseminated pyrite.	
383.10 TO 389.30	Diorite «DIOR»	Colour: Green Grain size: Fine grained Massive, feldspar porphyritic with 2-3% 1-2mm white feldspars in a fine grained green groundmass. Faulted lower contact, milled diorite at lower contact. 389.3m contact	75			Karmutsen type intrusive.
389.30 TO 395.90	Nanaimo Argillite «NANAIMO»	Colour: Black Grain size: Fine grained Massive, no bedding, occassional carbonaceous partings and mm white calcite veinlets. 395.90 «EOH»				

				ESTIMA	ASSAYS										GEOCHEMICAL							COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		
12929	41.30	42.10	0.80	28	16	95	0.5	20	3000										0.0			
12930	46.25	47.20	0.95	31	9	58	0.4	2	1800										0.0			
12931	51.50	52.65	1.15	14	22	38	1	98											0.0			
12932	84.70	85.90	1.20	223	18	91	0.8	2											0.0			
12933	97.30	97.80	0.50	3000	15	37	1.5	1											0.0			
12934	254.20	255.10	0.90	79	59	146	1.2	40											0.0			
12935	255.10	256.00	0.90	60	11	91	0.2	6											0.0			
12936	256.00	256.50	0.50	44	27	82	1.8	1135							0.035	1.21			11.0			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11651	20.40	23.40	3.00	14.45	0.201	0.48	3.6	3.05	3.98	0.12	1.26	0.29	67.68		0.33		1.58	97.01	0.6	16	138	15	37	1	88	5
11652	60.00	63.00	3.00	11.47	0.164	0.52	4.82	1.74	4.57	0.12	1.05	0.28	70.16		0.15		2.75	97.8	0.6	17	167	32	39	1	51	10
11653	87.50	90.20	2.70	16.9	0.126	1.33	9.44	0.01	8.46	0.36	2.39	0.2	54.48		0.62		1.72	96.03	0.8	37	159	422	71	6	210	5
11654	120.40	123.40	3.00	17.29	0.108	3.42	8.25	1.16	5.65	0.26	3.02	0.55	54.88		0.62		0.53	95.73	0.7	29	194	142	57	4	99	5
11655	152.40	155.40	3.00	17.77	0.02	8.52	8.91	0.25	4.71	0.19	3.3	0.74	48.56		0.67		0.92	94.55	0.7	35	98	84	55	4	71	5
11656	191.50	194.50	3.00	17.24	0.026	7.33	8.92	0.1	4.97	0.22	3	0.67	52.17		0.67		0.96	96.28	0.8	29	197	35	59	3	62	5
11657	233.00	236.00	3.00	15.8	0.043	7.14	14.1	0.75	5.5	0.34	0.55	0.79	48.35		0.69		0.89	94.95	1.2	40	237	45	59	4	122	5
11658	249.00	251.00	2.00	13.98	0.097	1.64	1.8	3.56	1.14	0.06	2.2	0.2	71.74		0.2		0.02	96.64	0.6	10	328	10	26	1	66	5
11659	264.30	267.30	3.00	14.45	0.07	2.65	1.53	2.4	0.69	0.05	3.54	0.24	70.31		0.2		0.02	96.14	0.8	10	118	5	14	1	18	5
11660	366.40	369.40	3.00	13.44	0.049	2.36	2	3.99	0.8	0.08	1.92	0.21	71.33		0.17		0.01	96.36	0.6	13	68	12	17	1	93	5

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: 92 B13/W

PLOTTING COORDS GRID: MINE
NORTH: 10198.00N
EAST: 10875.00W
ELEV: 668.00

ALTERNATE COORDS GRID: MINE
NORTH: 101+98N
EAST: 108+75W
ELEV: 668.00

COLLAR DIP: -52° 0' 0"
LENGTH OF THE HOLE: 182.88m
START DEPTH: 0.00m
FINAL DEPTH: 182.88m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 10, 1989
DATE COMPLETED: May 12, 1989
DATE LOGGED: May 12, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 21.95M
CORE STORAGE: CHEMAINUS

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
61.00	-	-50° 0'	ACID	OK		-	-	-	-	-	
122.00	-	-48° 0'	ACID	OK		-	-	-	-	-	
127.00	-	-48° 0'	ACID	OK		-	-	-	-	-	
182.88	-	-47° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 22.70	«OB»					
22.70 TO 24.26	«Q(F)P» «HANGING WALL ZONE»	colour: light ot med. grey grain: med. gr. 22.70m - 23.10m Intensly sheared, abundant gouge 40% quartz vein. CONTACT 23.10m 23.10 - 23.55m black MSSX; very stongly weathered between 25.50 and 25.55m. 23.55 - 24.26m gouge between 24.20 - 24.26.	72	Intensly carbonatized (40%)	22.70 - 23.10m BCD#13009 1-2% py <1% sphalerite, <1% chalcopyrite; <1% galena. 23.10 - 23.55m 1% py, 5-10% chal-copyrite, 25-30% sphalerite; 10% galena, 2-3% tetrahedrite. 23.55 - 24.26m 2% py; 3% sph; 1% gal <1% chalcopyrite, trace tetrahedrite.	Hanging wall zone, possibly right at the southern rhyolite contact. BCD #1310 BCD #13011 Very stringery in appearance.
24.26 TO 58.65	QUARTZ FELDSPAR PORPHYRY «Q(F)P-HW»	colour: light to med. grey grain: med. gr. -thickly bedded; moderately foliated; 5-10% quartz eyes to 1 1/2mm, 5% to locally 10% feldspar crys. to 1mm; 5-10% quartz crystals to 1/2mm 29.56 - 32.16m Interval contains 1% felsic fragments to 1 cm. at 38.20mm, thrust C.S. fabric developed uphole 55 Thrust 72 downhole 50 uphole side moved up relative to overlying units. 41.65 - 41.75m minor «Shear» 46.20m to 46.53m «Shear» 54.50 - 54.68m core very broken and rubbly 55.40 - 55.50m core very broken and rubbly 58.15 - 58.65m «Fault» abundant gouge FAULT at 58.15m FAULT at 58.65m	25 26 35	locally weakly salcareous 24.26 - 26.50m bleached and weakly silicified patches, giving the interval a mottled texture. interval weakly bleached.	1% veryfine gr. disseminated pyrite. 29.56-32.16m; these frags. contain abundant py and tr. tetrahedrite; the interval contains 1-2% diss. to stringers of fine to med. gr. pyrite.	24.26 - 25.50m; BCD #13012 25.50 - 26.50m; BCD #13013 26.50 - 28.00m; BCD #13014 28.00 - 29.56m; BCD #13015 29.56 - 30.78m; BCD #13016 30.78 - 32.16m; BCD #13017
58.65 TO 71.18	QUARTZ FELDSPAR PORPHYRY «QFP»	colour: med. grey grain: med. gr. -thick bedded, massive; moderatelyfoliated; 5% quartz eyes to1 1/2mm, 10-15% white to ghosty to clay altered feldspar crystals to 1 1/2mm; poss. 5% white felsic fragments to 1 1/2mm; (v.nebulous) 58.15 - 60.60m; abundant rhyolite ash to crystal tuff fragments to 6cm, locally fragment supported			<1% disseminated fine grained pyrite.	The rest of this interval from 60.60 m may contain minor amounts of very nebulous fragments.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		ash fragmetns are silicified to cherty. 61.30 - 63.10m: 50% quartz veins interval moderately to locally strongly sheared, minor amounts of gouge. 65.35 - 65.96m: fine grained buff coloured felsic dyke contacts very sharp. CONTACTS: 67.07m 67.28m 67.72 - 67.78m; minor CS fabric developed. 71.17 - 71.18m: «Fault» gouge CORE ANGLE:	85 50 82 75		68.56 - 68.88m 3-5% pyrite.	
71.18 TO 77.03	QUARTZ FELDSPAR PORPHYRY «Q(F)P- HW»	colour: light grey grain: fi. med. gr. -thick bedded, moderately foliated, 5% quartz eyes to 1mm; <1% quartz eyes to 3mm, 5-10% white to ghosty to clay altered feldspar crystals to 1/2mm 74.95 - 75.09m; weakly sheared. 75.09 - 75.25m; med. green grey dyke, very sharp contacts, possible minor argillite btw 75.09 - 75.12m (highly contourted) CONTACT: 75.09 75.25 75.25 - 75.28m; Argillite, strongly sheared. CONTACT: 75.28 78.14 - 79.30m; Possible felsic dyke.	85 60 70	bleached; well developed; sericite 75.28 - 79.30m; interval becomes more siliceous. 78.14 - 79.30m; abundant emerald green alteration? mineral	<1% disseminated fine grained pyrite.	
77.03 TO 87.13	«CORONATION ZONE»	colour: white to light grey grain: med. gr. -Quartz Feldspar Porphyry, 5% quartz eyes to 1mm, 5-10% white to ghosty feldspar crystals to 1/2mm. 77.30 - 77.34m «Shear» 77.50m «Shear» 77.70 - 77.03m «Shear» healed and silicified. 78.30 - 78.47m; quartz vein, well mineralized. 80.62 - 80.66m «Shear» healed	18 45	strongly bleached; well developed sericite.	77.30 - 78.30m; 7% py; 1%cph; <1% gal chalcopyrite, trace to 1/2% tet. 78.30 - 79.12m; 3-5%py, 3% sph; <1% gal chalcopyrite, trace to 1/4% tet. 79.12 - 79.99m; 1-2% py, 7-10% sph, <1% gal; <1% chal., 1% tet. 79.99 - 80.70m; 2%py, 7-10% sph, <1% gal, <1% chal, trace to 1/2% tet.	BCD #13018 BCD #13019 BCD #13020 BCD #13021

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					80.70 - 81.31m; 5% py, 5-7% sph, 1% chal., <1% gal; trace tet.	BCD #13022
					81.31 - 82.20m; 2-3% py, 3% sph, <1% gal, chalcopyrite; trace tet.	BCD #13023
		82.37 - 82.38m «Shear»	60		82.20 - 83.03m; 7-10% py, 5-7% sph, 2% chal. <1% gal, trace tet.	BCD #13024
					83.03 - 83.70m; 2-3%py, 1-2% sph, <1% gal, <1% chal, trace tet.	BCD #13025
					83.70 -84.60m; 1-2% py, 1-2% sph, <1% chal, <1% gal, trace tet.	BCD #13026
					84.60 - 85.28m; 1% py, <1% sph, <1% chal, <1% gal; trace tet.	BCD #13027
		85.60 - 85.70m «Shear» 86.00 - 86.22m; foliation highly contourted, minor gouge.			85.28 - 85.93m; 7% py, 1-2% sph, <1% chal, <1% gal, trace to 1/4% tet.	BCD #13028
					85.93 - 86.43m; 1% py, <1% sph, trace cal, trace gal, trace tet.	BCD #13029
		87.76 - 87.77 «Fault» gouge 86.89 - 86.90m «Fault» gouge 87.13 «Fault gouge (3mm)	 88 62 50		86.43 - 87.13m; 1-2% py, <1% sph, trace chal, gal, tet, mssx pyrite 87.11 - 87.13m	BCD #13030
87.13 TO 114.00	QUARTZ FELDSPAR PORPHYRY «QFP - FW»	colour: med. dark grey grain: med. gr. -thick bedded; massive; weak to moderately = foliated, 5-10% white to ghosty to clay altered feldspar crystals to 1 1/2mm; 5% quartz eyes to <1mm - 3mm; unit locally becomes coarser over narrow intervals 90.11 - 90.12 «Shear»	39		<1% disseminated pyrite	not a very distinctive Footwall lithology.
		103.73 - 103.82m; CS Fabric developed. downhole side moved up at 104.55m, is a 1cm Rhyolite Ash fragment which contains 5% disseminated fine grained pyrite.			104.55 - 111.69m 1-2% cross cutting pyrite.	
		106.00 - 106.25m 2 shears, one between 106.00 - 106.05m 2nd: 106.05 - 106.25m	 80 33			
		107.03 - 108.03m 30% quartz veins to 22cm.			barren	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		111.90 - 111.91m «Shear» 113.50 - 114.00m; interval moderately to strongy sheared local gouge zones	 65 69			
114.00 TO 160.17	QUARTZ FELDSPAR PORPHYRY «Q(F)P»	colour: med. grey grain: med gr. -massive bedded, massive character; weak to moderately foliated; 15% quartz eyes from <1mm to 1cm; quartz eyes have grey tinge to them, 5% feldspar crystals, white to ghosty to 1mm, ground mass very fine grained. 114.00 - 116.70m; 3-5% buff coloured, rhyolite ash fragments to 10cm, there can be very angular, this interval also has a weak greenish cast to it. 118.51 - 118.55m «Shear» 118.73 - 118.75m «Shear» 123.30 - 123.56m «Shear» 127.40 - 127.45m «Shear» 133/85 - 133.87m «Shear» 133.52 - 135.54m CAB Argillite 133.54 - 133.78m possible fragments, dark grey black to 3cm. 138.92 - 138.93m «Fault» 140.80 - 140.90m «Fault» CS Fabric developed down hole thrust down 144.98 - 145.15m possible fragments to 3cm. very indistinct 145.50 - 145.90m «Shear» 148.34 - 148.50m «Shear»	 81 68 31 51 33 40 83 86 50	siliceous	<1% disseminated fine grained pyrite.	good example of Footwall rocks.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
160.17 TO 171.90	QUARTZ PORPHYRY «QP»	colour: very light ot med. grey, local green cast grain: med. to coarse gr. -massive bedded, massive; weakly foliated massive 15-25% quartz eyes to 2-3% dark green to black (sericite) altered fragments? to 8mm; <5% white to ghosty to epidote altered feldspar crystals to 1 1/2mm; 164.10 - 164.29m quartz vein with sheared margin. 171.80 - 171.90m moderately sheared CONTACT at 171.90m	85	very siliceous, local patchy bleaching; local patches of epidote altered fragments? minor hemitite staining with quartz veins.	<1% pyrite.	
171.90 TO 182.88	«NANAIMO»	colour: black grain: fine -siltstone; 171.90 - 172.60m «Sheared» intensely sheared. 174.86 - 174.94m «Shear» 174.94 - 175.16m; minor sandstone fragments in the siltstone. 175.16 - 177.07m fine grained sandstone 177.80m - 178.00m minor «shear» 178.13 - 178.22m Snadstone fine grained CAB 178.25 - 178.41m «Shear»	30			
182.88 TO 182.88	EOH					

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
13009	22.70	23.10	0.40	880	810	3600	20	1500		0.088	0.08	0.36		20.0	0.047	1.62			14.8			
13010	23.10	23.55	0.45							1.76	8.98	22.5	31.5	1080	0.449	15.4		3.32	464.8			
13011	23.55	24.26	0.71							0.11	0.48	0.87	2.58	88.5	0.112	3.83		2.92	57.0			
13012	24.26	25.50	1.24	44	400	880	4.3	95											0.0			
13013	25.50	26.50	1.00	18	11	21	0.9	25											0.0			
13014	26.50	28.00	1.50	12	5	10	0.8	80											0.0			
13015	28.00	29.56	1.56	11	12	11	0.6	80											0.0			
13016	29.56	30.78	1.22	12	18	50	0.4	20											0.0			
13017	30.78	32.16	1.38	14	29	110	0.5	35											0.0			
13018	77.30	78.30	1.00							0.082	0.5	0.73	1.82	62.5	0.03	1.02		2.99	25.5			
13019	78.30	79.12	0.82							0.1	0.74	1.64	1.11	38	0.037	1.28		2.91	27.6			
13020	79.12	79.99	0.87							0.425	0.1	3.75	0.77	26.3	0.015	0.52		2.93	30.6			
13021	79.99	80.70	0.71							0.301	0.12	3.8	0.59	20.2	0.012	0.42		2.99	27.2			
13022	80.70	81.31	0.61							0.374	0.1	3.47	0.54	18.4	0.019	0.66		3.08	28.6			
13023	81.31	82.20	0.89							0.187	0.06	0.96	0.12	4.2	0.006	0.2		2.94	9.1			
13024	82.20	83.03	0.83							0.892	0.14	2.17	0.48	16.3	0.018	0.61		3.08	29.5			
13025	83.03	83.70	0.67							0.202	0.06	0.57	0.16	5.6	0.013	0.44		2.93	10.2			
13026	83.70	84.60	0.90							0.152	0.12	0.34	0.15	5.1	0.007	0.24		2.9	6.7			
13027	84.60	85.28	0.68	600	960	1420	3.2	130											0.0			
13028	85.28	85.93	0.65							0.21	0.2	0.3	0.35	12	0.008	0.28		2.96	9.0			
13029	85.93	86.43	0.50	245	675	1810	4.2	160											0.0			
13030	86.43	87.13	0.70	700	324	2000	5.2	145											0.0			
13031	110.57	111.69	1.12	24	30	49	1	10											0.0			
ALT.AVG.	22.70	24.26	1.56							0.580	2.83	6.98	10.26	356.95	0.193	6.60		2.29	163.81			
AVE.	77.30	83.03	5.73							0.329	0.26	2.24	0.81	27.814	0.020	0.68		2.98	25.15			
ALT.AVG.	77.30	84.60	7.30							0.295	0.23	1.85	0.67	22.975	0.018	0.61		2.97	21.50			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11645	32.16	35.16	3.00	14.07	0.124	2.6	2.09	3.15	0.76	0.03	3.07	0.24	70.88		0.27		1.15	98.43	1	14	482	22	18	1	71	85
11646	63.10	65.00	1.90	13.88	0.068	2.9	2.19	3.46	1.15	0.04	2.39	0.26	70.00		0.26		0.67	97.27	0.8	16	133	10	26	1	25	5
11647	91.40	94.40	3.00	14.1	0.072	1.86	1.78	3.08	0.73	0.04	3.27	0.18	71.37		0.26		0.08	96.81	0.6	7	126	5	14	1	19	5
11648	118.90	121.90	3.00	13.06	0.074	2.24	2.08	3.26	1.11	0.05	1.94	0.21	73.35		0.17		0.02	97.55	0.7	14	109	4	19	1	17	5
11649	164.49	167.49	3.00	12.83	0.056	1.43	1.86	3.73	0.57	0.04	2.89	0.18	73.24		0.15		0.02	97.02	0.6	8	81	4	16	1	10	5

HOLE NUMBER: 89-246 MINNOVA INC. DRILL HOLE RECORD IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10219.00N
EAST: 10875.00W
ELEV: 669.50

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 669.50

COLLAR DIP: -68° 0' 0"
LENGTH OF THE HOLE: 208.60m
START DEPTH: 0.00m
FINAL DEPTH: 208.60m

COLLAR GRID AZIMUTH: 180° 0' 0" COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 12, 1989
DATE COMPLETED: May 14, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 18.9m
CORE STORAGE: CHEMAINUS

PURPOSE: 50.0m down-dip test of PL 7.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
91.44	-	-65° 0'	ACID	OK		-	-	-	-	-	
26.52	209° 0'	-66° 0'	SING.SHOT	OK		-	-	-	-	-	
124.00	211° 0'	-64° 0'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 18.29	«OB»					
18.29 TO 23.53	Andesite Crystal Lithic Tuff «AND LITH TUFF»	Colour: Medium green Grain size: Medium grained Moderately bedded; moderately foliated; 5% to locally 10% light green epidote altered feldspar crystals to 1mm; <5% medium to dark green lithic fragments to 3mm; 5% to 10% light green epidote altered lithic fragments to 1cm. 19.97m to 21.70m QFP dyke. 21.70m to 21.82m appears to have been a finely bedded to laminated argillite and andesite ash, now very strongly «sheared». 21.82m to 22.01m «gouge» black. 22.01m to 22.09m intensely «sheared» andesite ash. 22.09m to 22.35m «gouge» greenish white (QFP dyke?). 22.35m to 23.00m QFP dyke moderately «sheared». 23.00m to 23.27m interbedded argillite and andesite ash «sheared». 23.27m to 23.30m QFP dyke. 23.30m to 23.53m Quartz vein «sheared».		Locally moderately to strongly calcareous.	<1% disseminated, patchy medium grained pyrite.	Foliation locally highly contourted. 23.53m Southern rhyolite contact.
23.53 TO 33.28	Rhyolite Lapilli Tuff to Tuff Breccia «Rhy LAP T, TBX»	Colour: Medium grey, weak green cast Grain size: Coarse grained Thick bedded; moderately foliated; contains 5% to 10% rhyolite ash (minor QE) fragments to 6cm; these are silicified; the matrix to these fragments is rhyolite feldspar porphyry, medium grey green in colour, containing 10% to 15% white to ghosty feldspar crystals to 1.5mm. 25.51m to 25.55m «shear».	28		<1% disseminated fine grained pyrite fragments contain minor pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		25.55m to 25.59m Quartz vein.				
		27.32m to 27.60m Quartz vein.				
		27.88m to 28.00m Quartz vein.				
		28.20m to 28.26m minor «shear».	60			
		29.00m to 29.20m «shear».				
		29.55m to 29.58m «shear».	58		30.70m to 33.28m 2-3% disseminated, laminated, fine to medium grained pyrite.	
		30.81m to 30.83m CS structure, footwall up.	80			
		32.48m to 32.63m Diorite.	20			
		32.64m to 32.70m «shear».				
		32.93m to 33.05m «shear».	40			
		33.24m to 33.28m «shear».				
33.28 TO 89.30	Quartz Feldspar Porphyry «QFP»	Colour: Very light to medium grey Grain size: Medium grained				
		Massive bedded; massive in character; weakly foliated; 5% quartz eyes to 1.5mm; 5% to possibly 10% white to ghosty feldspar crystals to 1.5mm (they are very nebulous); groundmass is very fine grained to aphanitic.		33.28m to 37.00m intensely silicified. 37.00m to end strongly bleached, very siliceous, well developed sericite on fracture surfaces; locally has mottled look, possible fragmental?	33.28m to 34.78m #BCD 13023 3% pyrite. 34.78m to 36.14m #BCD 13033 3-5% pyrite.	All mineralization is cross-cutting in nature "stockwork".
		33.28m to 33.31m possible «sheared» argillite.			36.14m to 37.00m #BCD 13034 5-7% pyrite.	
		33.47m to 33.59m Feldspar porphyry appears to be the same as the overlying unit.			37.00m to 38.48m #BCD 13035 2-3% pyrite.	
		38.12m to 38.20m «shear».	69		38.48m to 39.95m #BCD 13036 2% pyrite.	
					39.95m to 41.45m #BCD 13037 1-2% pyrite.	
		41.75m to 41.80m «shear».	50		41.45m to 43.40m #BCD 13038 1-2% pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					43.40m to 45.25m #BCD 13039 5-7% pyrite, possible trace sphalerite.	
					43.25m to 46.40m #BCD 13040 1-2% pyrite.	
					46.40m to 47.57m #BCD 13041 2-3% pyrite.	
					47.57m to 48.65m #BCD 13042 10-12% pyrite.	
					48.65m to 49.82m #BCD 13043	
		51.08m to 51.11m «shear».	65 or 85		49.82m to 51.56m #BCD 13044 3-5% pyrite.	
		CAF at 53.00m	35		51.56m to 53.30m #BCD 13045 2-3% pyrite.	
		52.70m to 52.71m «shear».	40			
		52.80m to 52.81m «shear».	63		53.30m to 55.10m #BCD 13046 1-2% pyrite.	
					55.10m to 57.00m #BCD 13047 1% pyrite, trace sphalerite.	
		57.00m to 59.00m internal intensity altered 10% quartz veins.			57.00m to 59.00m #BCD 13048 1% pyrite, trace sphalerite; quartz veins contain trace galena and tetrahedrite.	
		59.00m to 60.95m 20% quartz veins. 59.05m to 60.00m a shear starts at 59.05m and ends at 60.00m, core angle of 005 degrees.			59.00m to 60.95m #BCD 13049 1-2% pyrite, trace sphalerite and galena.	
		60.87m to 60.95m «fault».	40			
					60.95m to 62.10m #BCD 13050 3-5% pyrite; 1% sphalerite; trace galena, tetrahedrite. Between 60.95m and 61.08m 2-3% sphalerite, 2% galena, <1% tetrahedrite.	Hanging Wall Zone. To MSSX in 245?
		62.10m to 63.10m abundant minor shears; 5% quartz veins; «shear» at 62.35m; core angle 21 degrees.			62.10m to 63.10m #BCD 13051 1-2% pyrite, trace sphalerite, galena.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		63.10m to 64.30m 5% quartz veins.			63.10m to 64.30m #BCD 13052 2-3% pyrite; trace sphalerite; trace galena in quartz veins.	
		65.30m to 66.15m strongly «sheared»; 40% quartz veins.		Intensely altered.	64.30m to 66.15m #BCD 13053 1-2% pyrite; <1% sphalerite, <1% galena; trace sphalerite, galena, and tetrahedrite in quartz veins.	
		66.15m to 66.83m 30% quartz veins.		Intensely altered.	66.15m to 67.70m #BCD 13054 1-2% pyrite, trace sphalerite; the interval with th quartz veins contains 1-2% sphalerite, 2-3% galena, 2-3% chalcopyrite, trace tetrahedrite.	
		67.70m to 69.20m 5% quartz veins. CAF at 67.00m	30	Intensely altered.	67.70m to 69.20m #BCD 13055 1-2% pyrite; <1% sphalerite; quartz veins contain minor amounts of sphalerite and galena.	
		69.20m to 69.96m 60% quartz veins; minor «shear» between 69.70m and 69.71m.	60	Intensely altered.	69.20m to 70.90m #BCD 13056 2-3% pyrite, trace sphalerite; quartz veins contain minor amounts of sphalerite and galena.	
		70.90m to 73.00m local minor shears.		Intensely altered.	70.90m to 73.00m #BCD 13057 1-2% pyrite; trace sphalerite.	
		73.00m to 74.53m 25% quartz veins.		Intensely altered.	73.00m to 74.53m #BCD 13058 1-2% pyrite; trace sphalerite; quartz veins contain minor amounts of sphalerite, galena, with trace tetrahedrite.	
		74.53m to 74.98m «fault» very poor recovery abundant gouge.		Intensely altered.	74.53m to 76.20m #BCD 13059 1% pyrite; trace sphalerite and galena.	
		76.20m to 78.00m minor quartz veins; 77.04m to 77.05m «shear».	27	Minor fushite or mariposite. Intensely altered.	76.20m to 78.00m #BCD 13060 1-2% pyrite; trace sphalerite; quartz veins contain minor sphalerite and galena.	
		78.70m to 79.48m «fault» extreme core loss, remaining core very gougy. Contact at 79.48m	42	Intensely altered.	78.00m to 79.48m #BCD 13061 1-2% pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		79.89m to 79.90m «shear».	60	Intensely altered.	79.48m to 80.30m #BCD 13062 1% pyrite.	
		80.30m to 83.50m «fault» extreme core loss, only 62cm recovered, abundant gouge sections.		Intensely altered.	80.30m to 83.50m #BCD 13063 1% pyrite.	
		84.50m to 85.40m «fault» extreme core loss, only 25cm of core recovered.		Intensely altered.	83.50m to 85.40m #BCD 13064 1% pyrite.	
		85.40m to 86.20m «fault» extreme core loss.			85.40m to 86.97m #BCD 13066 1% pyrite.	
		88.10m to 88.30m Quartz vein.			86.97m to 88.30m #BCD 13067 1-2% pyrite.	
		88.75m to 89.30m «fault» extreme core loss, only 15cm recovered.			88.30m to 89.30m #BCD 13067 2% pyrite.	
89.30 TO 112.06	Quartz Feldspar Porphyry-Hangingwall «QFP-HW»	Colour: Medium grey Grain size: Medium grained Thick bedded; moderately foliated; 5% to locally 10% quartz eyes from <1mm to 2mm; 5% to 10% feldspar crystals to 1mm.		Weakly bleached, unit appears moderately altered.	<1% disseminated to weakly laminated fine to medium grained pyrite.	This interval is basically the same as the previous one.
		94.20m to 94.21m «shear».	40			
		99.68m to 99.69m thrust, HW more up.	55			
		104.25m to 104.30m «fault» gouge.				
		106.36m to 107.70m intensely sheared, minor gouge.				
		108.28m to 108.39m Felsic dyke, fine grained buff coloured.				
		108.95m to 109.05m «fault» intensely sheared, abundant gouge.				
		110.09m to 110.10m «shear».	55			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
112.06 TO 123.67	«CORONATION ZONE»	Colour: Very light to medium grey Grain size: Medium grained Quartz feldspar porphyry; 5% to 10% quartz eyes from <1mm to 2mm; 5% nebulous white to ghosty feldspar crystals to 1/2mm.		Bleached, silicified.	112.06m to 113.10m #BCD 13068 1-2% pyrite; trace sphalerite; tetrahedrite. 113.10m to 114.49m #BCD 13069 3-5% pyrite, trace tetrahedrite. 114.49m to 115.31m #BCD 13070 1-2% pyrite, trace sphalerite, tetrahedrite, and chalcopyrite. 115.31m to 116.00m #BCD 13071 2-3% pyrite; 2-3% sphalerite; <1% chalcopyrite; <1% galena; trace to 1/4% tetrahedrite. 116.00m to 116.60m #BCD 13072 1% pyrite; 1-2% sphalerite; <1% chalcopyrite; <1% galena; trace to 1/4% tetrahedrite. 116.60m to 117.40m #BCD 13073 2-3% pyrite; 4% sphalerite; 1% chalcopyrite; 1% galena; trace to 1/4% tetrahedrite. 117.40m to 118.24m #BCD 13074 2% pyrite; 3% sphalerite; 1% chalcopyrite; 1% galena; 1/4% tetrahedrite. 118.24m to 118.85m #BCD 13075 5% pyrite; 7% sphalerite; 2% chalcopyrite; 1% galena; trace tetrahedrite. 118.85m to 119.51m #BCD 13076 1-2% pyrite; 4% sphalerite; 1-2% chalcopyrite; <1% galena; trace tetrahedrite. 119.51m to 120.12m #BCD 13077 3% pyrite; 4% sphalerite; 1%	Mineralization in the zone is predominately cross-cutting "stockwork" in nature.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
					chalcopyrite; <1% galena; trace tetrahedrite.	
					120.12m to 121.25m #BCD 13078 1-2% pyrite; <1% sphalerite; trace chalcopyrite, galena, tetrahedrite.	
					121.25m to 122.02m #BCD 13079 2-3% pyrite; 3% sphalerite; <1% chalcopyrite; <1% galena; trace tetrahedrite.	
					122.02m to 122.84m #BCD 13080 1% pyrite; 1-2% sphalerite; <1% chalcopyrite; 1% galena; trace tetrahedrite.	
		123.63m to 123.67m possible minor argillite laminations.	63		122.84m to 123.67m #BCD 13081 3-5% pyrite; <1% sphalerite; trace chalcopyrite; <1% galena; trace tetrahedrite.	
123.67 TO 163.94	Quartz Feldspar Porphyry «QFP-HW»	Colour: Light to medium grey Grain size: Fine to medium grained				
		Thick bedded; moderately foliated; 5% quartz eyes from <1mm to 1.5mm; 5% white to ghosty feldspar crystal to 1/2mm.				
		126.98m to 126.99m «shear».	68		<1% fine grained pyrite.	No real change from lithology in the Coronation Zone.
		127.40m to 127.41m «shear».	38			
		128.10m to 130.04m unit seems to become finer grained.		120.10m to 130.04m bleached and silicified, increasing towards bottom.		
		130.04m to 144.60m «Diorite» well developed chill margins.		Chill margins are strongly calcareous; local hematite staining on fractures.		
		155.18m to 155.21m «shear». CAF at 153.50m	63 36			
		156.23m to 156.25m possible argillite laminations.				
		157.85m to 161.79m Quartz feldspar porphyry; 5% quartz eyes to 1.5mm; 10% to locally 15% white to		Bleached.	<1% fine grained disseminated pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		ghosty to clay altered feldspar crystals to 1.5mm. 161.70m to 161.79m possible minor argillite laminations. 162.58m to 162.61m «shear».	 56			
163.94 TO 177.31	Quartz Feldspar Porphyry Footwall «QFP-FW»	Colour: Medium grey, weak green cast Grain size: Medium grained Thick bedded; moderately foliated; 5% to 10% quartz eyes to 3mm; 10% to 15% white to ghosty feldspar crystals to 2mm. 163.94m to 165.07m 30% quartz veins. 165.07m to 165.66m Diorite. 166.60m to 166.70m Diorite. 167.78m to 167.81m Diorite. 168.44m to 169.50m Diorite. 172.38m to 172.51m Diorite. 174.00m to 175.80m this interval possibly contains 5% rhyolite feldspar porphyry fragments, these are generally very indistinct. 176.40m to 176.53m moderately «sheared». 176.53m to 176.64m Quartz vein. 176.64m to 177.31m predominately very thin bedded rhyolite ash. CAB at 176.90m 177.30m to 177.31m «fault» gouge	46 40	Weakly silicified.	<1% disseminated fine grained pyrite.	Good footwall formation.
177.31 TO 194.87	Quartz Feldspar Porphyry «Q(F)P»	Colour: Medium grey, weak green cast Grain size: Medium to coarse grained Thick bedded; massive in character; moderately foliated; 10% to locally 15% quartz eyes from 1mm		Weakly bleached and silicified.	<1% disseminated fine grained pyrite.	Good footwall formation.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		to 8mm; 5% white to ghosty feldspar crystals to 1mm. 180.90m to 181.00m «fault» gouge. 182.86m to 182.87m Rhyolite fragment to 3cm. 183.72m to 194.20m 1-2% buff coloured rhyolite ash fragments to 5cm. 191.59 to 191.60m «shear».	 64 34			Same as those seen in hole 89-245 between 114.00m and 116.70m.
194.87 TO 200.70	Quartz Porphyry «QP»	Colour: Light to medium grey, weak green cast Grain size: Medium to coarse grained Thick bedded; massive in character; moderately foliated (sheared?); 15% quartz eyes to 1cm; <5% white to ghosty feldspar crystals to 1mm. 197.43m to 197.77m Argillite; with 25% felsic fragments. 197.77m to 200.70m «sheared» intense shearing. 198.38m to 198.39m «fault». 199.07m to 199.48m Feldspar porphyry.	 77	Bleached.	<1% disseminated pyrite.	Good footwall.
200.70 TO 208.60	«NANAIMO»	200.70m to 201.48m 40% rhyolite fragments in an argillaceous groundmass. 201.48m to 202.14m «Gouge» black siltstone, with minor sandstone fragments. 208.60 «EOH».		202.14m to 208.60m Abundant carbonate veins.		

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
13032	33.28	34.78	1.50	33	40	93	4.2	82											0.0			
13033	34.78	36.14	1.36	25	14	32	2.8	96											0.0			
13034	36.14	37.00	0.86	29	12	24	3	98											0.0			
13035	37.00	38.48	1.48	20	26	100	1.2	63											0.0			
13036	38.48	39.95	1.47	13	13	42	0.5	37											0.0			
13037	39.95	41.45	1.50	11	8	32	0.4	16											0.0			
13038	41.45	43.40	1.95	9	5	38	0.4	24											0.0			
13039	43.40	45.25	1.85	11	7	53	0.7	21											0.0			
13040	45.25	46.40	1.15	12	3	31	0.6	18											0.0			
13041	46.40	47.57	1.17	10	7	20	0.4	33											0.0			
13042	47.57	48.65	1.08	15	15	46	1	61											0.0			
13043	48.65	49.82	1.17	13	11	323	0.6	34											0.0			
13044	49.82	51.56	1.74	12	10	100	0.5	19											0.0			
13045	51.56	53.30	1.74	26	16	58	1.1	26											0.0			
13046	53.30	55.10	1.80	15	17	57	0.6	12											0.0			
13047	55.10	57.00	1.90																0.0			
13048	57.00	59.00	2.00	31	64	146	1	10											0.0			
13049	59.00	60.95	1.95	28	31	107	0.8	38											0.0			
13050	60.95	62.10	1.15							0.071	0.22	0.40	0.83	28.4	.004	0.15		2.79	9.3			
13051	62.10	63.10	1.00	14	19	70	0.4	22											0.0			
13052	63.10	64.30	1.20	38	258	585	1.4	38											0.0			
13053	64.30	66.15	1.85							0.016	0.05	0.11	0.11	3.6	.002	0.07		2.66	2.0			
13054	66.15	67.70	1.55	473	660	1650	5	161											0.0			
13055	67.70	69.20	1.50	122	158	584	1	54											0.0			
13056	69.20	70.90	1.70	44	56	91	0.4	42											0.0			
13057	70.90	73.00	2.10	52	65	250	1.1	45											0.0			
13058	73.00	74.53	1.53	86	343	475	0.8	70											0.0			
13059	74.53	76.20	1.67	145	83	400	1.9	62											0.0			
13060	76.20	78.00	1.80	40	32	17	0.6	23											0.0			
13061	78.00	79.48	1.48	12	12	10	0.5	11											0.0			
13062	79.48	80.30	0.82	14	8	9	0.8	12											0.0			
13063	80.30	83.50	3.20	25	24	88	0.8	15											0.0			
13064	83.50	85.40	1.90	210	18	53	0.9	56											0.0			
13065	85.40	86.97	1.57	50	36	34	1.3	19											0.0			
13066	86.97	88.30	1.33	22	19	21	1.2	17											0.0			
13067	88.30	89.30	1.00	19	18	14	0.8	21											0.0			
13068	112.06	113.10	1.04	13	11	19	1.2	104											0.0			
13069	113.10	114.49	1.39	68	279	54	6.1	302											0.0			

Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %
13070	114.49	115.31	0.82	99	198	610	3.2	379											0.0	
13071	115.31	116.00	0.69							0.213	0.1	1.98	1.35	46.3	0.017	0.59		2.84	24.8	
13072	116.00	116.60	0.60							0.178	0.26	1.14	0.3	10.2	0.006	0.22		2.76	11.1	
13073	116.60	117.40	0.80							0.312	0.2	2.26	0.41	14.1	0.011	0.38		2.78	19.7	
13074	117.40	118.24	0.84							0.211	0.02	3.28	0.08	2.7	0.005	0.16		2.78	18.3	
13075	118.24	118.85	0.61							0.589	0.04	5.94	0.2	6.8	0.011	0.37		2.89	36.9	
13076	118.85	119.51	0.66							0.212	0.12	3.11	0.13	4.3	0.006	0.21		2.83	18.4	
13077	119.51	120.12	0.61							0.324	0.2	4.27	0.23	7.9	0.011	0.39		2.85	27.0	
13078	120.12	121.25	1.13							0.048	0.02	0.67	0.05	1.8	0.007	0.23		2.76	5.9	
13079	121.25	122.02	0.77							0.162	0.18	2.12	0.19	6.4	0.006	0.22		2.77	14.2	
13080	122.02	122.84	0.82							0.101	0.39	1.3	0.34	11.8	0.008	0.27		2.71	11.8	
13081	122.84	123.67	0.83							0.07	0.43	0.59	0.41	14.2	0.041	1.4		2.9	19.4	
AVE.	115.31	120.12	4.81							0.286	0.13	3.10	0.39	13.19	0.010	0.33		2.82	22.04	
ALT.AVG.	115.31	123.67	8.36							0.203	0.18	2.25	0.32	10.99	0.012	0.41		2.80	17.87	

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
	0.00	0.00	0.00																							

HOLE NUMBER: 89-247

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10402.50N
EAST: 10175.00W
ELEV: 680.80

ALTERNATE COORDS GRID:
NORTH: 104+ 2N
EAST: 101+75W
ELEV: 680.80

COLLAR DIP: -71° 0' 0"
LENGTH OF THE HOLE: 426.40m
START DEPTH: 0.00m
FINAL DEPTH: 426.40m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 14, 1989
DATE COMPLETED: May 19, 1989
DATE LOGGED: May 19, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 3.0 M
CORE STORAGE: CHEMAINUS

PURPOSE: EXPLORATION HOLE TESTING THE CORONATION ZONE DOWN DIP OF 244 AND TO TEST THE EXTENT OF HIGH GRADE

DIRECTIONAL DATA: MINERALIZATION INTERSECTED IN HOLES 182 AND 184

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
76.20	-	-69° 0'	ACID	OK		-	-	-	-	-	
135.60	-	-69° 0'	ACID	OK		-	-	-	-	-	
190.20	-	-70° 0'	ACID	OK		-	-	-	-	-	
242.90	-	-70° 0'	ACID	OK		-	-	-	-	-	
300.80	-	-70° 0'	ACID	OK		-	-	-	-	-	
339.50	-	-72° 0'	ACID	OK		-	-	-	-	-	
379.80	-	-71° 0'	ACID	OK		-	-	-	-	-	
426.40	-	-69° 0'	ACID	OK		-	-	-	-	-	
160.00	216° 0'	-70° 0'	SING.SHOT		TEST VERY CLOSE TO MAGNETII	-	-	-	-	-	
297.20	210° 0'	-71° 0'	SING.SHOT	OK		-	-	-	-	-	
347.50	211° 0'	-71°30'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.00	OVERBURDEN «OB»					
3.00 TO 36.60	FELSIC TUFF «F TUFF»	colour: light grey grain: f. gr. -moderately foliated, moderate to strong alteration masking primary features. Fine grained ashy, fine tuff with zones containing <0.5mm quartz eyes. Occasional zones with very distinct stretched and flattened greenish fragments, <1mm light grey siliceous felsic grains, and weakly calcaneous feldspurs. -fragmental zones have a fine dinstinctive, whitish speckled appearance of felsic grains of fsp. 8.5m fault zone with d.grey pyrite mud groundmass. foliations: 7.5 11.2 18.7 23.6 35.9 - 36.1 25.6 Fault zone, gougy milled core; sharp lower contact contact: 36.6	40 30 35 40 45 45	«M - SER» -moderately sericitic. Patchy weaker sericite alteration.	«1-3% py» 1-3% finely disseminated pyrite aligned parallel to foliation. 25.3 - 33.8 «5-7% py, <0.5% sp,cpy» 5-7% disseminated pyrite, <0.5% sphalerite and chalcopyrite disseminated and mm wisps parallel to foliation 36.1-36.6; 5% pyrite trace sphalerite.	
36.60 TO 40.90	INTERMEDIAT ASH. «I ASH»	colour: med. grey grain: f. gr. -<1-2cm beds of fine ash, pyritic ash and rare <1cm grey cherts Bedding: 39.6 39.7 38.1 - 39.2m; felsic tuff	50 45	«M-S chl/Ser»	«5-7% py» 5-7% fine syngenetic pyrite disseminated and as thin bands parallel to bedding	-Possible Lenora-Tyee Horizon.
40.90 TO 50.30	FELSIC TUFF «F TUFF»	colour: light grey grain: f. gr. -weaker foliated, fine weak granular appearance, rare lime green wisp possible fuchsite. Foliation 44.0 48.3	25 25	«W. ser» weakly sericitic	«2-3% py» 2-3% fine disseminated pyrite.	
50.30 TO 54.70	INTERMEDIAT TUFF ASH «I T, ASH»	colour: med. grey grain: f. gr. -weakly foliated, weakly granular tuff and finer grained ashes, bedding rare, defined by thin cherts. Bedding: 53.5	45	«W. Ser» weakly sericitic	«3-5%» 3-5% finely disseminated pyrite. 50.8m - 51.1 <1cm beds of fine pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Sharp lower contact	40			
54.70 TO 64.20	DIORITE «DIORITE»	colour: green grain: f-med gr. -massive felspar porphyritic, weakly equigranular towards middle of unit		-minor qtz/carbonate veining towards lower contact		
64.20 TO 71.00	INTERMEDIAT ASH TUFF «I ASH,T»	colour: med. grey grain: f. gr. -weak to moderately foliated, kinked foliations at 69.2m. -Fine aphyric ashes and lesser fine granular tuffs Rare <0.5 cm flattened greeen fragments (pumice?) 69.7 - 70.3 Felsic Tuff Foliation: 67.7 68.8	 15 25	«W. Ser» -weakly sericitic	«1-2% py» -1-2% pyrite disseminated and weakly aligned parallel to foliations.	
71.00 TO 89.50	FELSIC ASH «F. ASH»	colour: light grey grain: f. gr. weakly foliated, generally aphyric, rare <0.5mm rounded quartz eyes. 7cm cherty ash zone at top of units 81.4 - 84.2 rubbly core minor gouge. Foliation: 79.1 79.4 83.6	 30 20 20	«W. Ser» -weakly sericitic, but very "blitzed" looking.	«<1% py, tr cpy» -<1% pyrite and trace chalcopyrite. -87.8 5 cm strringer 10% coarse pyrite, trace chalcopyrite.	
89.50 TO 121.60	INTERMEDIAT TUFF «I TUFF»	colour: med. grey green grain: fr. gr. -weakly foliated, fine granular appearance, 2-3% mm felsic lithic grains. Fine white speckled appearance =calcite altered grains. Foliation: 96.4 101.9 89.5 - 94.2; Intermediate Ash and minor chert, rubbly cove, no bedding angles recovered. Gougy core at upper contact. Foliation: 105.3 105.5 - 108.2; Felsic Tuff: light grey, fine grained, weakly foliated, <1% mm rounded quartz eye, 2-3% 0.5 mm x 1 cm sericitic wisps = possible frags? gougy lower contact.	 20 30 30	«M. Ser» moderately sericitic. 105.5 - 108.2 -weakly sericitic.	1% pyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Foliation: 106.1 2-3cm gouge zones as follows 110.3, 112.7 Foliation: 110.3 Faults: 112.7 Foliation: 113.6 120.6 - 121.1 folded and distorted foliations.	30 60 40 40	108.2 - 121.6 «W-M chl» weak to moderately chloritcic 118.3 - 118.75 Quartz chloritic carbonate veining.	118.3 - 118l.75 5-7% chalcopyrite associated with quartz veining 121.45 - 121.6 5% chalcopyrite, 3% pyrite associated with minor quartz veining.	
121.60 TO 153.10	DIORITE «DIORITE»	colour: dark green grain: f. gr. -weak to moderately sheared outlined by pervasive calcite disseminated and as thin veinlets. Occasional zones with 5-7% up to 5mm white ragged feldspars in a fine grained massive to weakly sheared green groundmass. Shearing : 128.3 Shearing : 138.0 -Sheared zones/eucoxene phyric. Patchy weakly magnetic zones with fine disseminated magnetite. Faulted Lower Contact:	45 40 30	«Perv calc, Patchy Qtz Veining» -Pervasive calcite, Patchy Qtz, Fe carbonate, chlorite veining.		
153.10 TO 321.80	ANDESITE TUFF, ASH «AND TUFF, ASH»	colour: dark green grain: f.gr. -weakly foliated ash to fine granular tuff with 1-2% <0.5 mm translucent feldspars. Rare <1cm grey felsic fragments. 153.1 - 153.6; gougy core. Foliation: 167.5m Foliation: 181.3m 196.9 - 201.0m; strong sheared apperarance at 30 - 40 to core axis.	30 25	«W-M chl, W calc» -weak to moderately chloritic. Weakly calcareous with calcite disseminated, clots and fine veinlets.	«<1 - 1% py» <1 - 1% disseminated pyrite and within thin calcite veinlets. 162.75 - 162.9; 50% coarse, brassy pyrite within a chlorite calcite stringer. 162.9 - 164.0 2-3% pyrite within <1cm calcite veinlets - Trace chalcopyrite. 165.1 - 165.3; 5% coarse brassy pyrite 166.25 - 166.35; 3% pyrite w/in qtz vein. 166.7 - 167.3; 5-7% pyrite associated with calcite veining.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		200.00 gougy core. 201 - 202; minor distortions to foliations 213.3; 5 cm fault gouge Fault: 213.3	40		196.6; 4cm with 30% coarse, brassy pyrite and 1% chalcopyrite.	
				223.85 - 225.5; quartz chlorite veining. Andesite between qtz veins strongly chloritic. 227.2 - 228.2; qtz chloritic veining	219.55 - 219.80; 2% pyrite <1% chalcopyrite.	
		229.9; 1 cm fault gouge C-S fabric over 4 cm. Fault:	65		228.75 - 228.9; 30% coarse, brassy pryrite. 234.4; 10cm 20% brassy pyrite. 234.8 - 235.3; 20% coarse, brassy pyrite.	
		Foliation: 240.8m	30		236.55 - 237.70; 5% py 1% cpy; includes 5cm with 20% pyrite and 5% chalcopyrite in a siliceous groundmass 238.2 - 238.6; 5% pyrite.	
		Foliation: 252.9	40		245.9 - 252.1; 2% disseminated pyrite 254.9 - 258.6; 1-2% disseminated pyrite	
		253.2 - 254.9; 5% 2-4mm epidote grains. 257.7 - 258.6 epidotical grains. 257.7 - 260.8; distorted foliations, weak gouge developments, weakly milled core. qtz chlorite heated fault zones? 277.2 - 278.0, 279.7 - 280.8 280.8 - 284.2; distorted foliations, gougy slip planes, distorted foliations 0 - 35 core axis continue to 290m.		258.0 - 272.2; moderately chloritic, patchy strong chlorite. 258.1 - 264.0m; moderately abundant qtz veining, moderate to strongly chloritic, strong chlorite continuing to 265.0 271.3 - 272.2; abundant qtz chlorite veining.		
		296.9 - 297.0 Fault: 297.0 dark grey muddy slips gradational lower contact	65	«288.6 - 321.8»«W ep» unit becoming lighter green due to weak epidot alteration. Patchy quartz, chlorite epidote veining. No chlorite alteration	311.6 - 311.8 <1% pyrite chalcopyrite is quartz vein.	
321.80 TO 373.05	ANDESITE TUFF, LAPILLI TUFF «AND TUFF, LAP T»	colour: dark green grain: fi gr. -massive, partchy weak foliation. 5-7% <1.5cm epidotized fragments & occasional zones with up to 20% 1-2mm epidotized feldspars. Weak calcite filled gashes. Silicified Felsic dykes with bluish quartz eyes, large quartz clots up to 1cm, green epidote grains and whitish feldspars as follows; 334.4 - 350.2. 239 - 239.4 muddy slip planes 5 to core axis.		«W ep» weak epidote as epidotized fragments and feldspars	tr py	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		341.4 - 341.6 mmoderate gouge developed. 361.9 - 364.35 Contact: 361.9 367.3 - 367.9 369.3 - 370.0 353.5 3cm fault gouge with Fault: 353.5 sharp upper and lower contacts 354.3 fualt gouge, 2cm Foliation: 385.7 367.9 - 369.3 2-3 cm brecciated fragments Fol/Shearing: 370.1 Below 367.9 andesite bbecoming moderately sheared as Southern Rhyolite Fault is approached. Shearing: 371.4 sharp fault lower contact	 10 65 45 25 35 25 60			
373.05 TO 389.50	FQP FELSIC CRYSTAL TUF «FQP TUFF-HW»	colour: light green grain: fr. gr. -very weakly foliated, <1-1% and locally 5%, <1-1mm rounded quartz eyes and up to 10% carbonate altered feldspars. 373.05 - 373.6 dark grey, strong fault gouge development. 373.6 - 374.1 minor fault gouge, milled core 377.05 1 cm gougy slip plane Fault: 377.05 382.7 - 389.5 rubbly broken core, most severe btw 383.1 - 385.6.	55	«W ser, Carb» weakly sericitic. weak carbonate alteration of feldspar	«<1% pyrite» 373.05 - 374.1 2-3% pyrite within fault gouge.	"Hanging Wall FQP"
389.50 TO 392.55	«CORONATION ZONE»	colour: ligh grey grain: fi. gr. -fine grained felsic tuff lacking carbonate altered feldspar and only rare quartz eyes. 1 cm fault gouge at 392.1	70		«9% py, 4% cpy, 1% sp, tr gn, tet» Sulpides occur primarily as <1-2cm stringers/veinlets at 35 - 55 to core axis, weakly disseminated and as massive sulfide lenses as follows 390.85 - 391.0 60% py, 5% sphalerite, 2% chalcopyrite 392.1 - 392.15 95% py, 1% chalcopyrite Best base metals from 390.75 - 391.4 3% shalerite and 1% chalcopyrite.	
392.55 TO 394.30	MAFIC DYKE «M DYKE»	colour: dark green grain: fi. gr. -weakly foliated, pervasive carbonate outlining foliation/shearing. Rubbly core.		«M carb» moderate carbonate alteration disseminated parallel to foliation.		

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
394.30 TO 411.35	FP FELSIC CRYSTAL TUFF «FP TUFF»	colour: light grey, green grey grain: fi. gr. -weakly foliated, 4% 1mm rounded quartz eyes and up to 20% 1-2mm whitish feldspars 396.8 8mm muddy slip 400.8 - 401.2 Fault zone moderate to strong gouge development 401.2 - 404.1 «QP TUFF» QP felsic tuff light,grey 2-3%, 1-2mm rounded quartz eyes, gradational lower contact Last 70cm of unit, 2% 3-4mm quartz eyes minor gouge along lower contact	30 40	«W ser» weakly sericitic 394.3 - 396.8 moderately sericitic 395.3 - 396.4 quartz veining, minor fault gouge at base of interval @50 to core axis.	<1% pyrite 394.4 - 394.5 5% disseminated stibnite. 409.0 - 410.6 «7% py» 7% finedork pyrite as 1cm siliceous brecciated stringer parallel to foliation at 45 to core axis. Last 25cm, 20% pyrite.	Footwall FP.
411.35 TO 420.60	FELSIC ASH TUFF, «F ASH,TUF»	colour: light grey green grain: fi gr. -411.35 - 411.85 chert and felsic ash, no bedding 411.85 - 412.8 Fault zone Fault: 411.85 gougy milled core with strongly faulted upper and lower contacts. Fault: 412.8 Below 412.8: Fine felsic ash, fine granular tuff strong cataclastic overprint with numerous healed fault zones and gougy fault zones. 415.6 - 416.7 Healed fault zone, minor gouge. Fault: 415.6 418.7 - 420.6 strong gouge developed adjacent to Nanaimo Contact. Fault: 420.6	20 15 15 50			
420.60 TO 426.40	NANAIMO ARGILLITE «NANAIMO»	colour: black grain: fi. gr. -Carbonaceous partings. Weakly brecciated with fine calcite gashes. 420.6 - 421.8 gougy core, associated with Fulford Fault.				

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
12940	25.30	26.80	1.50	710	240	785	2.3	43											0.0		
12941	26.80	28.30	1.50	365	140	520	1.4	26											0.0		
12942	28.30	29.80	1.50	172	127	930	1.1	15											0.0		
12943	29.80	31.30	1.50	165	142	1630	1.4	22											0.0		
12944	31.30	33.20	1.90	590	51	4900	1.7	57											0.0		
12945	33.20	33.80	0.60	300	75	5700	0.9	51											0.0		
12946	36.10	36.60	0.50	113	158	395	1.4	108											0.0		
12947	36.60	38.10	1.50	295	20	290	1.3	16											0.0		
12948	39.20	40.00	0.80	460	13	174	1.6	5	1300										0.0		
12949	40.00	40.90	0.90	500	11	200	1.4	2	1100										0.0		
12950	118.30	118.75	0.45							2.99	0.01	0.11	0.37	12.7	0.023	0.8			49.5		
13101	162.75	164.00	1.25	188	27	98	1.8	3											0.0		
13102	236.55	237.00	0.45	4500	18	215	2.6	61											0.0		
13103	373.05	374.10	1.05	40	16	45	0.7	4											0.0		
13104	388.60	389.50	0.90	61	34	78	2.1	17											0.0		
13105	389.50	390.25	0.75							0.349	0.12	2.29	0.57	19.7	0.055	1.88		2.91	35.0		
13106	390.25	390.75	0.50							0.196	0.18	0.46	0.3	10.4	0.012	0.41		2.75	10.4		
13107	390.75	391.40	0.65							0.96	0.92	2.05	1.8	61.8	0.029	1.01		2.99	42.7		
13108	391.40	391.40	0.00							0.755	0.26	0.57	1.05	35.9	0.05	1.73		2.78	34.9		
13109	391.90	392.55	0.65							0.487	0.03	0.12	0.53	18.2	0.029	0.99		2.89	19.4		
13110	409.00	409.80	0.80	22	21	62	0.9	4											0.0		
13111	409.80	410.60	0.80	38	29	83	1.3	15											0.0		
AVE.	389.50	392.55	3.05							0.426	0.26	1.10	0.69	23.60	0.028	0.96		2.42	23.55		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11661	9.75	12.70	2.95	14.95	0.198	0.05	4.32	3.94	4.28	0.1	0.39	0.01	69.47		0.33		1.36	99.39	0.6	25	95	134	37	6	109	20
11662	51.80	54.50	2.70	17.33	0.099	0.01	7.29	2.07	6.03	0.25	3.07	0.07	61.08		0.53		1.67	99.5	1.3	29	65	646	50	12	195	10
11663	77.60	80.70	3.10	12.92	0.16	0.01	3.18	3.52	3.43	0.09	0.1	0.01	74.70		0.17		1.1	99.36	0.7	22	115	193	28	5	72	5
11664	111.30	114.30	3.00	18.09	0.144	0.84	8.8	2.21	6.67	0.3	2.43	0.05	57.74		0.65		1.56	99.49	0.9	20	88	328	54	12	134	5
11665	156.40	159.40	3.00	16.7	0.093	0.94	10.38	1.42	7.63	0.29	2.27	0.06	57.57		0.63		1.62	99.6	1	16	72	369	61	15	125	5
11666	192.60	195.40	2.80	17.29	0.105	2.79	10.54	1.32	8.35	0.36	2.09	0.07	54.72		0.65		0.97	99.26	1.1	26	62	95	61	13	117	5
11667	231.30	234.30	3.00	17.32	0.108	1.00	8.93	1.19	7.08	0.21	3.66	0.05	57.86		0.63		1.75	99.78	1	21	143	345	50	12	78	10
11668	267.00	270.00	3.00	16.94	0.129	3.34	7.59	1.81	4.99	0.18	2.6	0.01	56.19		0.59		0.72	95.09	1.7	21	178	259	81	5	177	30
11669	297.80	300.80	3.00	18.07	0.079	5.64	7.19	1.77	4.78	0.19	3.31	0.05	53.74		0.66		0.36	95.84	0.8	19	87	67	57	3	72	5
11670	350.20	352.60	2.40	16.36	0.014	8.9	9.2	0.2	5.14	0.27	2.62	0.07	49.19		0.6		0.12	92.68	1	17	76	162	55	5	74	5
11671	376.70	379.70	3.00	13.25	0.083	2.83	1.99	4.22	0.78	0.06	2.2	0.01	69.65		0.19		0.31	95.56	0.6	20	161	21	14	1	30	10
11672	404.50	407.50	3.00	14.03	0.101	2.14	2.72	2.47	2.15	0.05	2.46	0.01	68.87		0.28		0.52	95.79	0.6	19	255	20	33	1	46	5

HOLE NUMBER: 89-248

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10301.00N
EAST: 10875.00W
ELEV: 673.50

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

COLLAR DIP: -68° 0' 0"
LENGTH OF THE HOLE: 281.00m
START DEPTH: 0.00m
FINAL DEPTH: 281.00m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 14, 1989
DATE COMPLETED: May 17, 1989
DATE LOGGED: 0, 0

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

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

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

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
61.00	-	-67° 0'	ACID	OK		-	-	-	-	-	
183.00	-	-64° 0'	ACID	OK		-	-	-	-	-	
209.00	-	-63° 0'	ACID	OK		-	-	-	-	-	
280.00	-	-62° 0'	ACID	OK		-	-	-	-	-	
145.00	213° 0'	-64°30'	SING.SHOT	OK		-	-	-	-	-	
225.55	214° 0'	-63°30'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 6.71	«OB»					
6.71 TO 8.40	Andesite Lithic Tuff «AND LITH TUFF»	Colour: Medium green Grain size: Medium grained Very thin to thin bedded; 5% white felsic fragments to 3mm; 2-3% light green epidote altered fragments to 1cm; groundmass is fine grained granular material. 7.64m - 7.84m «Argillite» very finely laminated tops up hole. CAB at 7.64m 7.84m - 8.40m Rhyolite crystal lithic tuff.	45		2-3% disseminated pyrite.	Strongly resembles a sedimentary sequence, conglomerate.
8.40 TO 19.92	Quartz Feldspar Porphyry Dyke «QFP DYKE»	Colour: Medium grey Grain size: Medium grained Massive; weak to moderately foliated; 5% blue quartz eyes to 8mm; up to 5% epidote altered feldspar crystals to 2mm. 8.82m - 9.12m Andesite lapilli tuff. 10.22m - 10.36m 80% argillite, 20% andesite crystal lithic tuff. 11.90m - 12.62m Andesite crystal lithic tuff. 17.30m - 17.35m «Fault» gouge. 18.06m - 18.59m Andesite lithic to lapilli tuff.	65			
19.92 TO 38.70	Andesite Crystal, Lithic to Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Medium green Grain size: Medium to coarse grained Moderate to thick bedded; moderately foliated; 10-15% light green epidote altered feldspar crystals to 1mm; 5% light green epidote altered lithic fragments to 6cm; <5% to 3cm; <5% dark green lithic fragments to 3mm. CAF at 20.45m 22.60m 21.80m - 22.10m Minor fold.	50 50	Local pervasive epidote alteration; rare hematite staining on fractures.	1-2% disseminated to patchy fine to medium grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		25.90m - 26.22m Quartz feldspar porphyry dyke. 26.52m - 28.07m Quartz feldspar porphyry dyke. 28.57m - 28.72m Quartz feldspar porphyry dyke. CAF at 32.30m 33.38m - 37.06m Quartz porphyry, bleached white; 5% quartz eyes to 3mm, blue; dyke? 33.38m contact 37.06m contact 38.50m - 38.70m «Fault» core very rubbly with core loss.	 40 40 46		1-2% disseminated, weakly laminated pyrite.	
38.70 TO 79.60	Quartz Feldspar Porphyry Dyke «QFP DYKE»	Colour: Light to medium grey, weak green cast Grain size: Medium grained Massive; weakly foliated; 5-10% quartz eyes to 8mm; blue; 5% white to weakly epidote altered feldspar crystals to 2mm. 38.70m - 38.77m «Fault» core very rubbly. 39.00m - 39.90m «Fault» core very rubbly, strongly sheared. 40.70m - 41.50m «Shear» starts at 40.70m. 41.70m - 42.17m «Fault» abundant gouge. 45.75m - 50.00m Andesite crystal lithic tuff. 52.18m - 54.85m Andesite crystal lithic to lapilli tuff. 63.66m - 66.87m Andesite crystal lithic tuff 30-35% epidote altered feldspar crystals to 2mm. 69.84m - 71.60m Andesite ash. CAF at 71.32m 72.40m - 72.80m Andesite ash to lithic tuff.	05 38 32	Strongly silicified. 49.30m - 50.00m Strongly silicified.	1% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
79.60 TO 85.30	Andesite Crystal Lithic to Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Dark green Grain size: Medium to coarse grained Thick bedded; moderately foliated; 10% light green epidote altered feldspar crystals to 1mm; 5% to locally 10% dark green to black crystals? and/or lithic fragments to 1.5mm; <5% light green epidote altered lithic fragments to 6mm; 2-3% to 5cm.		Local patchy silicification.	1-2% disseminated fine grained pyrite.	
85.30 TO 100.04	Quartz Feldspar Porphyry Dyke «QFP DYKE»	Colour: Medium grey, weak green cast Grain size: Medium grained Massive in character; weakly foliated; 5-10% quartz eyes, blue to 6mm; 5% epidote altered feldspar crystals to 1mm. 87.79m - 88.24m Andesite ash. 91.80m - 91.81m CS felsic.	 73	Very siliceous.	<1% disseminated fine grained pyrite.	
100.04 TO 127.90	Andesite Crystal Lithic to Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Medium green Grain size: Medium to coarse grained Thick bedded; moderately foliated; 5% white to ghosty to predominately epidote altered feldspar crystals to 1/2mm; 5% dark green to black crystals to 1/2mm; 5% light green epidote altered lithic fragments to 6mm; 1-2% to 4cm. CAF at 102.00m 105.03m 101.40m - 101.80m Quartz feldspar porphyry dyke. 102.83m - 102.84m «Shear» 107.60m - 107.61m CS Fabric well developed. CAF at 108.60m 108.95m - 108.96m «Shear» sence of movement obscure. CAF at 111.40m 116.08m - 116.68m Quartz feldspar porphyry dyke. CAF at 120.43m 120.93m - 125.50m Quartz feldspar porphyry dyke.	35 29 50 45 27 40 38 27			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		127.10m - 127.34m Quartz feldspar porphyry dyke.				
127.90 TO 135.50	Quartz Porphyry Dyke? «QP DYKE»	Colour: Whitish-green Grain size: Medium grained Thick bedded; massive in character; 5% quartz eyes to 4mm. 128.35m - 128.44m «Gouge» 128.44m - 131.85m «Fault» intense shearing, abundant gouge, locally annealed. 131.85m - 135.50m «Fault» intensly sheared, annealed fault structure.		Strongly siliceous.		Still part of the Green Volcaniclastic Package; the entire interval shows intense structual deformation.
135.50 TO 141.63	Feldspar Quartz Porphyry «F(Q)P»	Colour: Light to medium grey, weak green cast Grain size: Medium grained Thick bedded; massive in character; weak to moderately foliated; 10% to locally 15% white to ghosty to clay altered feldspar crystals to 1.5mm; 5% to locally 10% quartz eyes to 2mm. 139.62m - 139.63m «Shear» 139.86m - 141.63m Quartz porphyry: very light to medium grey; 10-15% quartz eyes <1mm to 2mm; groundmass very fine grained and siliceous.	70	Locally bleached, weak mottled look. Siliceous, bleached.	<1% disseminated fine grained pyrite. Possible large fragment.	
141.63 TO 157.34	Rhyolite Lapilli Tuff to Tuff Breccia «F LAP TUFF ,TBX»	Colour: Light to medium grey, local weak green cast. Grain size: Coarse grained Matrix of the unit is a feldspar quartz porphyry, the same as between 135.50m and 139.86m; fragments are a rhyolite quartz porphyry, the same as found between 139.86m and 141.63m; these may compose 80% of the interval, and in excess of 1m in size. 154.28m - 154.70m «Fault» local gouge. 155.20m - 155.58m «Fault» abundant gouge.			<1% disseminated fine grained pyrite.	Clast supported; fragments are hangingwall lithologies.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
157.34 TO 179.44	Quartz Feldspar Porphyry «QFP»	Colour: Very light to medium grey. Grain size: Medium grained				
		Thick bedded; massive in character; weak to moderately foliated; 10% quartz eyes from <1mm to 3mm; 5% white to ghosty feldspar crystals to 1.5mm		Strongly silicified.	<1% disseminated fine grained pyrite.	Strong silicification is suggestive of footwall formations.
		164.34m - 165.04m «Shear» minor gouge.				
		168.97m - 169.50m «Fault» intense shearing, abundant gouge.				
		169.50m - 171.20m Moderate to strongly sheared, annealed.				
		171.70m - 171.86m «Fault» annealed structure.				
		171.86m - 175.48m Moderately sheared.				
		175.48m - 175.49m «Fault»	85			
		175.49m - 179.44m Weak to moderately sheared.				
179.44 TO 186.20	Quartz Feldspar Porphyry «QFP»	Colour: Medium grey-green Grain size: Medium grained				
		Thick bedded; massive in character; weak to moderately foliated; 5% quartz eyes to 2mm; 5% white to ghosty feldspar crystals to 1/2mm.		Silicified.	<1% disseminated fine grained pyrite.	Silicifaction suggests a footwall formation.
		181.95m - 181.96m «Fault» 2 structures.	84 66			
		183.19m - 183.20m «Fault»	72			
		183.20m - 183.48m Possible LaT interval, silicified rhyolite fragments in a feldspathic groundmass.				
		184.20m - 184.24m «Fault» minor gouge.	30			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
186.20 TO 207.52	Rhyolite Lapilli Tuff to Tuff Breccia «F LAP TUFF ,TBX»	Colour: Light to medium grey, local green cast Grain size: Coarse grained Matrix of the interval is a feldspar porphyry; 10-15% white to ghosty to clay altered feldspar crystals to 1.5mm; fragments are a light grey quartz porphyry, these contain 5% quartz eyes <1mm to 2mm, <5% feldspar crystals to 1/2mm.		Local patchy bleaching and silicification.	<1% disseminated fine grained pyrite.	Very similar to the interval between 141.63m and 157.34m. Hard to estimate the percentage of fragments but may be chert supported.
		186.20m - 186.21m «Fault»	15			
		192.70m - 192.91m Mafic dyke.				
		196.11m - 196.53m Mafic dyke.				
		197.44m - 197.60m «Fault» annealed.				
		201.10m - 201.19m «Fault»				
		204.50m - 204.51m «Fault»	59			
		207.41m - 207.45m «Fault»	40			
207.52 TO 213.63	Quartz Feldspar Porphyry Hangingwall «QFP-HW»	Colour: Light to medium grey Grain size: Medium grained Thick bedded; moderately foliated; 5% quartz eyes to 1mm; 5-10% white to ghosty feldspar crystals to 1/2mm.			<1% disseminated fine grained pyrite, trace tetrahedrite at 210.15m.	
		210.15m - 210.16m «Fault»	20		210.00m - 210.68m BCD #13082 <1% pyrite, trace tetrahedrite.	
		210.40m - 210.41m «Fault»	42			
		210.56m - 210.68m Possible disturbed argillite laminations.				
213.63 TO 219.39	«DIORITE»	Colour: Medium green Grain size: Fine to medium grained Massive in character; moderate to locally strongly foliated.		Moderate to strongly carbonated.		Possible andesite crystal lithic tuff?
		214.84m - 216.20m Quartz vein.				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		218.65m - 218.83m QFP inclusion.		Strongly silicified.		
219.39 TO 230.78	Quartz Feldspar Porphyry «Q(F)P»	Colour: White to very light grey Grain size: Fine to medium grained Thick bedded; massive in character; moderately foliated; 5% to locally 10% quartz eyes from <1mm to 2mm; 5% to locally 10% feldspar crystals to 1/2mm. 224.60m - 225.30m 30% quartz veins, possible disrupted argillite laminations between 225.00m and 225.20m.		Intensly bleached and silicified; locally the intense silicification obscures the textures to this unit.	219.39m - 220.55m BCD #13083 <1% disseminated fine grained pyrite. 220.55m - 221.87m BCD #13084 <1% disseminated fine grained pyrite. 221.87m - 222.91m BCD #13085 <1% disseminated pyrite; between 222.18m and 222.25m, 60% pyrite, trace chalcopyrite and tetrahedrite. 222.91m - 224.12m BCD #13086 <1% disseminated fine grained pyrite; trace tetrahedrite in minor quartz veins.	Possible Coronation Zone horizon.
230.78 TO 233.70	«DIORITE»	Colour: Medium to dark green Grain size: Fine to medium grained Massive; moderately foliated; minor quartz carbonate veining; locally ptygmatically folded.		Moderately carbonated.		
233.70 TO 248.81	Quartz Feldspar Porphyry Hangingwall «Q(F)P-HW»	Colour: Medium grey Thick bedded; moderately foliated; 5-10% quartz eyes from <1mm to 2mm; 5% white to ghosty to clay altered feldspar crystals to 1/2mm. 237.65m - 237.66m «Fault» 237.65m - 240.21m Feldspar porphyry: medium grey, medium grained; massive in character; lower contact not well defined; 15% white to ghosty	62		<1% disseminated fine grained pyrite. <1% disseminated fine grained pyrite.	The only difference between this interval and the one between 219.39m and 230.78m is the lack of bleaching and silicification.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		feldspar crystals to 2mm; 2-3% quartz eyes to 3mm.				
		238.99m - 239.07m Fine grained felsic dyke.				
		240.26m - 240.32m «Fault»	50			
		240.32m - 240.34m Possible strongly sheared argillite.				
		242.93m - 247.24m Quartz feldspar porphyry: medium grey, medium grained; thickly bedded; moderately foliated; 10% to locally 15% white to ghosty to clay altered feldspar crystals to 1mm; 1-2% quartz eyes to 3mm; between 244.44m and 244.45m possible argillite lamination.			1% disseminated fine grained pyrite.	Both upper and lower contacts not well defined, gradational.
248.81 TO 270.88	Quartz Feldspar Porphyry «QFP»	Colour: Medium grey Grain size: Medium grained				
		Thick bedded; moderately foliated; 10-15% white to ghosty to clay altered feldspar crystals to 1.5mm; <5% quartz eyes to 3mm.		Local patchy silicification.	<1% disseminated fine grained pyrite.	
		249.02m - 249.93m Quartz feldspar porphyry-hangingwall, very similar to interval between 233.70m and 248.81m.				
		249.93m - 250.14m Quartz vein.				
		At 250.95m 2cm felsic fragments.				
		251.86m - 252.10m «Shear»	25			
		254.74m - 254.75m «Shear»	75			
		257.40m - 257.41m «Fault»	36	257.41m <1% chloritized? fragments to 3mm.		
		258.22m - 258.23m «Fault»	60			
		260.44m - 260.45m «Fault»	40			
		260.60m - 260.64m «Fault» gouge.	80			
		263.47m - 263.48m «Fault»	70			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		268.70m - 270.20m «Shear» moderately sheared. 270.20m - 270.88m «Shear» intensly sheared; minor amounts of gouge.			1-2% pyrite, very fine grained; trace chalcopyrite; BCD #13087.	
270.88 TO 270.93	«NANAIMO»	Black gouge. 270.88m contact	68			
270.93 TO 273.41	Sicker Felsics «RHY»	Intensly sheared, abundant local gouge seams. 272.60m - 272.61m CS fabric. 272.61m - 273.41m Diorite, intensly sheared. 273.41m contact	60 50		272.25m - 272.72m 1-2% pyrite, trace chalcopyrite; BCD #13088.	
273.41 TO 281.00	«NANAIMO»	Colour: Black Grain size: Very fine grained Siltstone. 281.00m «EOH»				

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
13082	210.00	210.68	0.68	9	22	23	0.6	2											0.0			
13083	219.39	220.55	1.16	46	4	10	0.4	2											0.0			
13084	220.55	221.87	1.32	16	3	13	0.5	16											0.0			
13085	221.87	222.91	1.04	440	7	48	2.4	73											0.0			
13086	222.91	224.12	1.21	7	5	6	0.5	6											0.0			
13087	270.20	270.80	0.60	820	61	590	1.8	6											0.0			
13088	272.25	272.72	0.47	375	169	430	1.6	41											0.0			

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11680	20.50	23.50	3.00	14.99	0.008	12.11	12.6	0.02	4.89	0.31	1.77	0.07	48.41		0.7		3.05	98.94	0.8	24	20	84	29	8	59	5
11681	80.50	83.50	3.00	17.34	0.024	8.04	10.04	0.47	5.27	0.23	3.24	0.12	52.49		0.73		0.47	98.45	0.9	26	14	19	43	12	77	10
11682	111.90	114.90	3.00	17.07	0.066	8.88	8.73	0.77	4.11	0.19	2.97	0.1	51.21		0.66		0.06	94.8	1	25	104	17	53	4	58	5
11683	136.30	139.30	3.00	13.44	0.097	1.91	2.55	3.02	1.22	0.05	2.83	0.01	69.32		0.26		0.5	95.2	0.7	5	141	14	12	1	34	10
11684	161.00	164.00	3.00	13.92	0.066	0.81	1.97	2.34	0.85	0.03	4.7	0.01	71		0.27		0.47	96.42	0.6	7	204	33	27	1	24	10
11685	190.00	193.00	3.00	13.91	0.094	1.14	2.81	2.64	1.51	0.06	4.17	0.01	69.72		0.24		0.04	96.33	0.6	9	142	9	24	1	39	5
11686	216.20	219.20	3.00	10.43	0.028	15.04	7.79	1.59	8.85	0.17	0.13	0.01	38.87		0.42		0.51	83.85	1.3	123	56	7	69	11	88	5
11687	233.70	236.70	3.00	13.67	0.076	1.16	2.39	3.45	1.32	0.04	3.09	0.01	70.9		0.26		0.06	96.42	0.5	13	147	5	18	1	28	10
11688	261.20	264.20	3.00	13.76	0.077	2.21	2.12	3.26	0.86	0.05	3.1	0.01	70.5		0.26		0.04	96.23	0.6	3	148	5	13	1	19	5

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-249 IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT	PLOTTING COORDS GRID: MINE	ALTERNATE COORDS GRID:	COLLAR DIP: -68° 0' 0"
PROJECT NUMBER: 242	NORTH: 10250.00N	NORTH: 0+ 0	LENGTH OF THE HOLE: 243.90m
CLAIM NUMBER: SOLLY	EAST: 10950.00W	EAST: 0+ 0	START DEPTH: 0.00m
LOCATION: NTS 92 B/13	ELEV: 677.50	ELEV: 0.00	FINAL DEPTH: 243.90m

COLLAR GRID AZIMUTH: 180° 0' 0" COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 17, 1989	COLLAR SURVEY: NO	PULSE EM SURVEY: NO	CONTRACTOR: FRONTIER DRILLING
DATE COMPLETED: May 21, 1989	MULTISHOT SURVEY: YES	PLUGGED: NO	CASING: 4.5m
DATE LOGGED: 0, 0	RQD LOG: YES	HOLE SIZE: NQ	CORE STORAGE: CHEMAINUS

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
61.00	-	-66° 0'	ACID	OK		-	-	-	-	-	
122.00	-	-63° 0'	ACID	OK		-	-	-	-	-	
183.00	-	-62° 0'	ACID	OK		-	-	-	-	-	
243.90	-	-61° 0'	ACID	OK		-	-	-	-	-	
113.00	210° 0'	-64° 0'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 4.50	«OB»					
4.50 TO 67.00	Andesite Crystal to Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Medium green Grain size: Medium to coarse grained Thick bedded; moderately foliated; 5% light green epidote altered feldspar crystals to 1mm; 5% medium to green lithic fragments and/or crystals to 1mm; <5% light green epidote altered lithic fragments to 1mm; 2-3% to 5cm; rare white felsic fragments to 4cm. CAF at 21.00m	44	Locally moderate to strongly calcareous.	1% disseminated to patchy fine to medium grained pyrite.	4.50m - 19.00m Core locally very strongly weathered and oxidized; core locally very rubbly with very poor recovery.
		4.50m - 5.96m Quartz feldspar porphyry dyke.				
		21.90m - 36.83m «QFP Dyke» Quartz feldspar porphyry dyke.				
		27.90m - 28.10m «Fault»	40			
		31.00m - 31.09m «Fault»	35			
		31.25m - 31.45m «Fault»	20			
		47.58m - 47.72m Andesite ash. CAB at 45.78m	40			
		47.05m - 47.80m «Fault»				
		47.85m - 48.90m Andesite ash.				
		49.35m - 60.48m Andesite ash. «And Ash» CAF at 52.00m	45	57.00m - 58.10m Strong epidote alteration.		
		63.00m - 63.01m CS Fabric.	71			
		63.70m - 64.50m Rhyolite crystal lithic tuff.				
		67.00m Southern Rhyolite Sequence.				
67.00 TO 149.63	Rhyolite Lapilli Tuff to Tuff Breccia «F LAP TUFF	Colour: White to very light grey Grain size: Coarse grained Thick bedded; massive; moderately foliated; groundmass is a feldspar quartz porphyry; 15-20% white to ghosty feldspar crystals to 1mm; <5%			<1% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	,TBX»	quartz eyes to 2mm.				
		Fragments: may compose 50% of the interval to a maximum size of 25cm; these are fine grained, bleached, and silicified quartz feldspar porphyry; <5% quartz eyes to 2mm; <5% white to ghosty feldspar crystals to 1mm.				Very possible some fragments exceed 3m in size.
		67.00m - 67.11m «Fault» grey gouge 100%.				
		67.11m - 69.02m «Shear» intensely sheared.				
		72.96m - 73.02m «Fault» predominate gouge.				
		74.50m - 74.51m «Fault»	55			
		78.83m - 78.84m «Fault»	57			
		79.23m - 79.24m «Fault»	81			
		80.60m - 80.61m «Fault»	44			
		81.00m - 81.10m «Fault»	25			
		83.30m - 83.45m «Fault»	30			
		85.00m - 87.20m Minor felsic fragments to 1cm.			Fragments 1-2% pyrite, possible trace tetrahedrite.	
		92.00m - 92.30m «Shear»				
		92.30m - 98.77m Diorite.				
		98.77m - 99.94m Strongly silicified.				
		106.00m - 108.20m 50% quartz veins; «Fault» between 107.50m and 107.60m.				
		109.70m - 109.71m «Fault»	74			
		113.00m - 120.00m Fragments very indistinct, feldspar quartz porphyry groundmass becomes fine to medium grained.				
		113.20m - 113.40m «Fault»	10			
		126.70m - 126.71m «Fault»	70			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		131.94m - 131.95m «Fault»	70			
		132.80m - 146.50m Fragments are very nebulous; thin interval may be a large block or a Q(F)P, light grey, medium grained, massive in character, 5-10% quartz eyes to 1mm; <5% feldspar crystals white to clay altered to ghosty to 1/2mm.				Possible large fragment.
		139.51m - 139.52m «Fault»	43			
		141.70m - 142.30m «Fault» annealed.		Abundant green micas.		
		142.96m - 143.39m «Diorite»				
		144.74m - 144.89m Felsic dyke.				
149.63 TO 157.43	«CORONATION ZONE»	Colour: Very light grey Grain size: Fine to medium grained				
		Quartz feldspar porphyry; thick bedded; massive in character; moderately foliated; <5% quartz eyes to 2mm; <5% white to ghosty to clay altered feldspar crystals to 1/2mm.		Bleached, patchy silica alteration.		
					149.13m - 150.13m BCD #13089 <1% disseminated pyrite; 5% quartz veins with trace galena, sphalerite.	
					150.13m - 151.03m BCD #13090 1% disseminated fine grained pyrite; trace sphalerite; 10% quartz veins with trace galena, sphalerite.	Foliation highly contourted in thin interval; quartz veins are buck folded.
					151.30m - 152.00m BCD #13091 1-2% disseminated fine grained pyrite; 10% quartz veins with trace galena, sphalerite.	Foliation locally highly contourted.
		152.19m - 152.20m «Fault»	44		152.00m - 153.09m BCD #13092 <1% disseminated fine grained pyrite, trace sphalerite; 10% quartz veins with trace sphalerite, galena.	
		153.96m - 153.97m «Fault»	50		153.09m - 154.09m BCD #13093 1-2% disseminated fine grained pyrite, trace sphalerite; <1% quartz veins.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		157.00m - 157.01m «Fault»	68		154.09m - 155.00m BCD #13094 1-2% disseminated fine grained pyrite, possible trace sphalerite/galena/ tetrahedrite. 155.00m - 156.00m BCD #13095 <1% disseminated pyrite, 1/2% sphalerite, 1/2% galena, trace tetrahedrite. 156.00m - 156.70m BCD #13096 1-2% pyrite, trace sphalerite; 60% quartz veins. 156.70m - 157.43m BCD #13097 <1% pyrite; 90% quartz veins.	
157.43 TO 179.43	Quartz Feldspar Porphyry-Hangingwall «QFP-HW»	Colour: Light to medium grey Grain size: Medium grained Thick bedded; massive in character; moderately foliated; 5% quartz eyes to 1.5mm; 10% white to ghosty feldspar crystals to 1mm; possible white felsic fragments to 2cm. 158.00m - 158.20m 80% quartz veins. 160.24m - 160.40m «Fault» gouge. 165.86m - 166.00m «Fault» strongly sheared; minor gouge. 166.00m - 167.05m «Sheared» moderately; 40% quartz veins. 179.42m - 179.43m «Fault»	 43 60	Interval is bleached.	<1% disseminated fine grained pyrite. 157.43m - 158.40m BCD #13098 2-3% pyrite proximal to quartz veins. 174.14m - 175.70m BCD #13099 3% disseminated, patchy, laminated fine grained pyrite. 175.70m - 176.75m BCD #13100 3% disseminated, patchy, laminated fine grained pyrite.	Locally this interval weakly resembles the lapilli tuff to tuff breccia interval above the zone.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
179.43 TO 190.68	Quartz Feldspar Porphyry «QFP»	Colour: Medium grey Grain size: Medium grained				
		Thick bedded; massive; moderately foliated; 5% quartz eyes to 1.5mm; 5% white to ghosty to clay altered feldspar crystals to 1mm.			<1% disseminated fine grained pyrite.	Local minor quartz veins with buck folds. Not a good footwall example.
		184.06m - 184.07m «Fault»	80			
		186.61m - 186.62m «Fault»	87			
		190.64m - 190.68m Possible argillaceous laminations.	55			
190.68 TO 202.41	Quartz Feldspar Porphyry «QFP»	Colour: Very light grey Grain size: Medium grained				
		Thick bedded; massive; moderately foliated; 5% quartz eyes to 1.5mm; 5-10% white to ghosty to clay altered feldspar crystals to 1mm.			<1% disseminated fine grained pyrite.	Not a good footwall example.
		190.68m - 190.69m «Fault»				
		200.40m - 200.41m «Fault» north side up.	72			
202.41 TO 208.40	Quartz Feldspar Porphyry «QFP»	Colour: Medium to dark grey Grain size: Medium grained				
		Thick bedded; massive; weak to moderately foliated; <5% quartz eyes to 3mm; 5-10% white to ghosty feldspar crystals to 1mm; very nebulous.		Patchy silica alteration.	<1% disseminated fine grained pyrite.	
		206.68m - 206.69m «Fault»	89			
		207.24m - 207.44m Rhyolite ash.		Intense silicification.		Not a good chert.
		207.44m - 208.00m		Intense silicification.		
		208.00m - 208.30m Rhyolite ash.		Intense silicification.		Not a chert.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
208.40 TO 229.70	Quartz Feldspar Porphyry «QFP»	Colour: Medium grey with a weak to moderate green cast. Grain size: Medium grained				
		Thick bedded; massive in character; 5% quartz eyes; 5% white to ghosty feldspar crystals to 1mm.			<1% disseminated fine grained pyrite.	
		208.40m - 209.99m Interval may contain <5% white felsic fragments to 4cm, these are very nebulous.				
		216.55m - 216.67m Diorite.				
		219.91m - 220.17m Diorite.				
		220.62m - 220.91m Quartz vein.				
		200.17m - 200.33m Diorite.		200.32m - 223.10m Bleached.		
		222.55m - 222.60m Rhyolite ash very fine grained.				Possibly folded in.
		222.55m contact	80			
		222.60m contact	55			
		222.77m - 222.78m «Fault»	87			
		223.10m contact	54		223.10m - 223.63m BCD #13151 10-15% pyrite.	
		223.18m - 223.19m «Fault»	70			
		223.63m contact	58			
		223.63m - 223.91m Rhyolite ash, very fine grained.			1-2% very fine grained disseminated pyrite, possible trace sphalerite, galena, and tetrahedrite.	
		223.91m - 223.92m «Fault»	60			
		223.92m - 224.13m Quartz vein.				
		224.28m - 224.29m «Fault»	36			
		224.29m - 224.59m 50% quartz vein.			2-3% pyrite.	
		224.59m - 226.15m Rhyolite ash, very fine grained.			1% disseminated fine grained pyrite.	
		225.09m - 225.13m «Fault»	33			
		226.15m - 229.70m Rhyolite ash, very fine to			<1% disseminated pyrite.	Not a sharp contact with the fine

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		medium grained; to rhyolite QP, 5% quartz eye <1mm. 229.69m - 229.70m «Fault»	 10			grained ash interval.
229.70 TO 234.88	Quartz Porphyry «QP»	Colour: Light grey, weak green cast Grain size: Medium to coarse grained Thick bedded; massive in character; moderate to strongly foliated; (sheared?); 10% to locally 15% quartz eyes to 1cm; <5% white to ghosty feldspar crystals to 1mm. 231.26m - 231.94m Rhyolite ash, medium grained. 231.26m contact 213.94m contact 232.81m - 232.82m «Fault» 233.78m - 233.88m «Fault» 233.50m - 233.54m «Fault» strongly sheared. 233.87m - 233.88m «Fault»	 51 84 70 26 or 78 84 60	Siliceous.	<1% disseminated fine grained pyrite.	
234.88 TO 236.39	Quartz Feldspar Porphyry «QFP»	Colour: Very light grey Grain size: Medium grained Thick bedded; massive in character; moderately foliated; (sheared?); 5% quartz eyes to 1mm; <5% white to ghosty feldspar crystals to 1/2mm; also contains minor chert fragments to 2cm by 2mm; angular. 235.96m - 235.97m «Fault» 236.26m - 236.32m «Fault»	 57 84	Bleached, weakly silicified.	234.88m - 235.38m BCD #13152 <1% pyrite, trace sphalerite and galena stringers. 235.38m - 236.39m BCD #13153 <1% pyrite; trace sphalerite and galena stringers.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
236.39 TO 236.78	«Fault»	Very intensely sheared Nanaimo and Sicker with abundant gouge.				
236.78 TO 237.10	«Rhy»	Colour: Very light grey Grain size: Medium grained Intensely sheared felsic tuff. «Shear» 236.78m contact	 70			
237.10 TO 243.90	«NANAIMO»	Colour: Black to grey Grain size: Very fine grained Siltstone. 237.10m - 237.16m «Fault» 237.16m - 237.67m Nanaimo sandstone. 243.90m «EOH»	 45			

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
13089	149.13	150.13	1.00	23	40	49	3.2	91											0.0			
13090	150.13	151.03	0.90	41	154	275	4.3	173											0.0			
13091	151.03	152.00	0.97	26	58	117	1.4	81											0.0			
13092	152.00	153.09	1.09	9	15	23	0.6	43											0.0			
13093	153.09	154.09	1.00	43	32	71	2.2	70											0.0			
13094	155.00	155.00	0.00	57	59	54	2.1	32											0.0			
13095	155.00	156.00	1.00	215	360	510	7	32											0.0			
13096	156.00	156.70	0.70	18	33	70	0.9	9											0.0			
13097	156.70	157.43	0.73	13	7	9	0.7	1											0.0			
13098	157.43	158.40	0.97	9	8	11	0.6	2											0.0			
13099	174.14	175.70	1.56	21	15	42	0.6	1											0.0			
13100	175.70	176.75	1.05	36	14	8	0.7	4											0.0			
13151	223.10	223.63	0.53	18	19	51	1.8	2											0.0			
13152	234.88	235.38	0.50	6	45	104	1.1	9											0.0			
13153	235.38	236.39	1.01	62	380	610	1.3	7											0.0			

Sample	From (m)	To (m)	Length (m)	Al_2O_3 %	Ba %	CaO %	Fe_2O_3 %	K_2O %	MgO %	MnO_2 %	Na_2O %	P_2O_5 %	SiO_2 %	Sr %	TiO_2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11689	40.23	43.23	3.00	17.54	0.019	8.07	8.15	0.37	3.98	0.16	3.97	0.15	51.88		0.65		0.02	94.95	0.9	16	35	32	49	3	50	5
11690	78.33	81.33	3.00	13.86	0.076	1.63	2.56	2.06	1	0.05	4.49	0.01	72.01		0.28		0.78	98.8	0.6	6	116	32	20	1	79	10
11691	108.80	111.80	3.00	14.25	0.086	1.48	2.71	3.26	1.65	0.07	2.86	0.01	69.28		0.28		0.42	96.34	0.5	11	97	16	28	1	76	5
11692	145.00	148.00	3.00	14.11	0.113	1.53	2.35	3.4	1.37	0.06	2.83	0.01	69.14		0.27		0.27	95.43	0.6	14	213	15	23	1	47	10
11693	170.50	173.50	3.00	13.5	0.074	3.29	2	3.95	0.97	0.04	1.3	0.01	69.77		0.26		0.41	95.57	0.5	8	84	24	21	1	91	15
11694	198.60	201.60	3.00	14.28	0.073	1.67	2.13	4.13	1.38	0.04	2	0.01	69.38		0.28		0.1	95.48	0.6	5	93	13	26	1	58	5
11695	231.94	233.88	1.94	12.57	0.056	2.5	1.82	3.44	0.94	0.06	1.76	0.01	71.91		0.17		0.12	95.34	0.5	60	70	5	45	1	57	5

HOLE NUMBER: 89-250

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10337.50N
EAST: 10550.00W
ELEV: 635.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 635.00

COLLAR DIP: -68° 0' 0"
LENGTH OF THE HOLE: 296.60m
START DEPTH: 0.00m
FINAL DEPTH: 296.60m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 19, 1989
DATE COMPLETED: May 21, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 15.2m
CORE STORAGE: CHEMAINUS

PURPOSE: To test the Coronation Zone half way between holes 235 & 236.

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	-	-68° 0'	ACID	OK		-	-	-	-	-	
118.00	-	-68° 0'	ACID	OK		-	-	-	-	-	
194.20	-	-67° 0'	ACID	OK		-	-	-	-	-	
236.80	-	-66° 0'	ACID	OK		-	-	-	-	-	
280.40	216° 0'	-63° 0'	SING.SHOT	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.20	Overburden «OB»					
15.20 TO 35.40	Diorite «DIORITE»	Colour: Green Grain size: Fine grained Massive, feldspar porphyritic with 5-7% 2-5mm white ragged feldspars. 33.7m - 35.4m Weak sheared appearance outlined by wispy carbonate veinlets at 30-35 degrees to core axis. 34.5m shearing	35			
35.40 TO 53.30	Felsic Ash «F ASH»	Colour: Creamy light grey Grain size: Fine grained Weakly foliated, generally aphyric except for rare <1-1mm rounded shattered quartz eyes. 38.1m foliation 42.1m Gougy rubbly core. 42.5m foliation 46.0m - 47.45m Intermediate ash: medium to dark grey, moderately foliated, siliceous, cherty near upper contact. 49.5m foliation Last 40cm distorted and folded foliations.	20 20 30 30	«S Ser» Strongly sericitic, very "blitzed" looking. 46.0m - 47.45m Strongly sericitic.	«3-5% py» Overall, 3-5% pyrite as abundant <0.5cm weakly siliceous stringers parallel to and occassionally cross-cutting foliation. 35.4m - 38.2m Trace pyrite. 40.5m Thin stringer containing sphalerite and chalcopyrite. 46.0m - 46.80m 5% pyrite disseminated parallel to foliation. 48.5m - 48.95m 5-7% py, <0.5% chalcopyrite stringers. 51.25m - 52.85m <0.5% pyrite.	
53.30 TO 133.90	Andesite Ash, Tuff «AND ASH, TUFF»	Colour: Dark green Grain size: Fine grained Weak to moderately foliated ash and occassional very fine granular tuff. Quite homogenous throughout. Unit becoming weakly granular tuff below 81.1m with patchy ashier zones. 57.8m foliation	40	«M-S Chl» Moderate to strongly chloritic. 59.0m - 60.0m Quartz chlorite veining.	«1-2% py» 1-2% finely disseminated pyrite. 61.3m 3cm coarse pyrite chalcopyrite	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		62.6m foliation 63.1m foliation 65.0m - 65.6m Distorted and folded foliations. 65.9m foliation 69.7m - 71.6m Distorted and gently folded foliations. 72.5m foliation Zones as follows with 5% epidotized feldspars and occassion cm epidotized fragments: 76.5m - 77.75m 77.75m contact 78.0m - 81.1m 95.8m - 97.3m 1% epidotized <1cm fragments. 98.0m - 107.5m Andesite lapilli tuff. 10-15% 1-2cm and up to 5cm epidotized fragments and 7-10% epidotized feldspars. Sharp lower contact. 113.5m - 120.7m Andesite crystal tuff. 10% 2-4mm epidotized grains = fsp. 120.7m - 123.1m Felsic tuff: light grey, fine grained, moderately to strongly siliceous, possible dyke, <1% <1mm round quartz eyes. Sharp lower contact. 123.1m contact 132.55m - 133.55m Felsic dyke. Sharp upper and lower contacts. 132.55m 133.55m Gradational lower contact.	30 20 30 20 30 65 25 50 20	 63.8m - 65.75m Patchy quartz chlorite veining.	stringer. 98.0m - 107.5m Trace pyrite.	
133.90 TO 195.40	Andesite Crystal Tuff, Lapilli Tuff «AND TUFF, LAP TUFF»	Colour: Dark green Grain size: Fine to coarse grained Fairly massive, 5-20% 2-3mm epidotized grains (fsp) and 2-3% <1-3cm epidotized fragments in a finer grained granular andesite groundmass.		 «Patchy Ep, Qtz, W Chl» Patchy epidote as epidotized fragments and feldspars. Patchy weak quartz veining. Weakly chloritic.	 «tr py»	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Felsic dykes as follows: massive, siliceous, blue-white quartz eyes, white feldspars, and green epidote grains. 143.5m - 162.6m 150.0m - 158.0m Very rubbly and broken core, some minor gougy zones. Broken core to end of interval. 185.6m - 186.35m 185.6m contact 187.9m - 193.0m 193.0m - 194.2m Felsic tuff: light grey, fine grained, weakly foliated, some kinked folations, 40% recovery, gougy towards lower contact.	40	142.5m - 143.5m Moderately chloritic. 177.0m - 180.4m Moderately abundant quartz chlorite +/- biotite veining.	142.5m - 142.7m 3% pyrite, tr cpy. 177.0m - 178.5m 7-10% pyrite within andesite, trace chalcopyrite within quartz vein at 177.9m. 178.5m - 179.65m 3-5% pyrite. 193.0m - 194.2m 4-5% pyrite.	188.1m - 196.3m Rubbly core.
195.40 TO 198.70	Diorite «DIOR»	Colour: Dark green Grain size: Fine grained Weak to moderately sheared, 5-7% 1-2mm weakly epidotized feldspars, hematitic fracture coatings. 195.8m Unit becoming quite sheared, gougy core from 195.8m - 196.2m. 195.8m 196.1m faults Sharp lower contact.	 35 45 35			
198.70 TO 200.85	Felsic Dyke «F Dyke»	Colour: Light green Grain size: Fine grained Pervasive brecciated, milled appearance with calcite gashes, moderate silicified appearance. Sharp lower contact with grey fault gouge smeared along contact.	35			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
200.85 TO 232.70	Felsic Tuff QP, «CORONATION ZONE» «F TUFF,QP»	Colour: Creamy grey Grain size: Fine grained Very bleached and brecciated appearance. Brecciation causing a coarse granular texture, 1% and locally 2-3% 1-2mm rounded quartz eyes. <1cm wide gougy slips at 20-30 degrees to core axis as follows: 206.0m, 207.8m, 208.8m, 212.1m, 215.1m. 225.8m - 226.0m Sheared mafic dyke. 230.95m - 232.6m Fault zone: milled, moderate gouge developed.		«S bleached, W Ser, Sil» Strongly bleached, weakly sericitic and silicified.	«<1-1% py, .25-.5 sp, tr cpy, tet, gn» Mineralization finely disseminated throughout interval, and as <1-5mm wide stringers tetrahedrite closely associated with sphalerite especially within the stringers.	
232.70 TO 235.20	FP Crystal Tuff «FP TUFF, HW»	Colour: Light grey Grain size: Fine grained 10-12% indistinct 1-2mm sericitized feldspars and rare 1-2mm round quartz eyes. 232.7m - 233.0m Mafic dyke: fine grained, medium green, sharp upper and lower contacts.	50	«W Ser, Patchy Qtz vns» Weak sericite alteration of groundmass and feldspars. Occassional <10cm quartz veins.	tr py	Hangingwall FP
235.20 TO 259.90	FP Crystal Tuff «FP TUFF»	Colour: Light grey Grain size: Fine grained 10-15% 2-3mm white feldspars and rare to locally 2-3% rounded shattered quartz eyes, weakly foliated. 240.7m foliation Differs from above unit by the more distinctive white well outlined feldspars. Intervals as follows of QP tuff lacking any feldspars and with 2-3% quartz eyes: 240.9m - 242.9m 245.5m - 251.8m Moderate granular appearance. <1cm fault with clay smears at 240.3m. 240.3m fault Larger fault zone from 252.2m - 252.4m.	30 25	«W Ser»	«tr py» 235.2m - 237.1m «<1% stib» <1% stibnite needle clusters, generally associated with 1-2cm grey quartz veining. 244.1m - 245.5m <1% pyrite. 253.3m - 254.9m <1% pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
259.90 TO 264.60	Felsic Tuff «F TUFF»	Colour: Light grey green Grain size: Fine grained Weakly foliated, very fine granular appearance, no quartz or fsp crystals. 259.9m - 260.65m Fault zone: 259.9m - 260.1m Fault gouge, 260.1m - 260.65m brecciated and healed chert and felsic ash. Sharp lower contact.	60	Nil	«<1-1% py» <1-1% disseminated pyrite.	
264.60 TO 283.80	QFP Crystal Tuff «QFP TUFF»	Colour: Light to medium grey Grain size: Coarse grained Weakly foliated, 20% 2-3mm weak sericite and carbonate altered creamy feldspars and 5-7% 3-4mm round quartz eyes and whitish felsic granules. 266.5m foliation 271.5m foliation 281.6m - 283.8m Fault zone, milled core, strong gouge development. 283.8m fault contact	30 40 80	«W Ser»	tr py	
283.80 TO 296.60	Nanaimo Sandstone & Argillite «NANAIMO»	Colour: Dark grey, black Grain size: Fine grained 283.8m - 290.5m Fine grained sandstone composed of granular felsic volcanic material. Occassional <10cm zones with 3-4mm fragments predominately of felsic volcanics with minor chloritic tuff and siliceous pyritic fragments. Massive, fine calcite veining. 290.5m - 296.6m Black argillite: fine calcite veining, carbonaceous partings.				

				ESTIMA	ASSAYS										GEOCHEMICAL						
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	COMMENTS
13112	40.25	41.00	0.75	108	6	200	0.4	1											0.0		
13113	46.00	47.45	1.45	176	11	58	0.8	4											0.0		
13114	48.50	48.95	0.45	350	8	22	0.6	102											0.0		
13115	177.00	178.50	1.50	540	12	40	0.8	2											0.0		
13116	200.85	201.90	1.05	158	654	1640	5	112											0.0		
13117	201.90	202.90	1.00	290	1160	3000	3.4	21											0.0		
13118	202.90	203.20	0.30	870	2630	8500	13.8	89											0.0		
13119	203.20	204.70	1.50	270	410	1700	3.6	42											0.0		
13120	204.70	206.20	1.50	86	390	1730	1.4	48											0.0		
13121	206.20	207.70	1.50	79	210	950	1	36											0.0		
13122	207.70	209.20	1.50	56	209	340	0.8	32											0.0		
13123	209.20	210.70	1.50	48	200	354	0.5	4											0.0		
13124	210.70	212.20	1.50	59	222	400	0.8	19											0.0		
13125	212.20	213.70	1.50	57	176	420	0.8	17											0.0		
13126	213.70	215.20	1.50	91	384	660	1.2	26											0.0		
13127	215.20	216.70	1.50	82	290	750	1	38											0.0		
13128	216.70	218.20	1.50	66	195	502	1	30											0.0		
13129	218.20	219.70	1.50	60	175	380	0.7	5											0.0		
13130	219.70	221.20	1.50	85	170	510	1.2	19											0.0		
13131	221.20	222.70	1.50	63	144	490	1	26											0.0		
13132	222.70	224.20	1.50	155	580	2500	2.6	27											0.0		
13133	224.20	225.70	1.50	243	372	1860	2.5	510											0.0		
13134	225.70	227.20	1.50	79	250	730	0.8	177											0.0		
13135	227.20	228.70	1.50	54	176	315	0.7	19											0.0		
13136	228.70	230.20	1.50	77	307	810	1.3	21											0.0		
13137	230.20	231.20	1.00	56	225	445	0.8	12											0.0		
13138	231.20	232.70	1.50	48	92	265	0.7	47											0.0		
13139	235.20	236.70	1.50	18	10	32	0.2	169											0.0		
AVE.	200.85	207.70	6.55	199.91	605.94	2020.7	3.1810	51.723													
ALT.AVG.	200.85	232.70	31.85	107.06	323.04	980.09	1.5381	59.397													

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11673	42.80	45.80	3.00	11.65	0.176	0.01	2.11	3.71	0.78	0.02	0.13	0.01	77.31		0.17		1.19	97.23	0.5	9	296	21	10	1	16	5
11674	67.50	70.50	3.00	16.41	0.143	0.3	9.31	2.96	6.97	0.33	0.58	0.1	54.88		0.62		2.25	94.84	1.5	23	150	265	73	9	1010	45
11675	107.60	110.60	3.00	18.38	0.264	1.01	8.43	3.12	6.00	0.23	2.1	0.11	54.08		0.66		1.64	96.01	1.3	10	218	343	58	6	140	10
17201	164.60	167.60	3.00	15.87	0.009	14.17	9.98	0.15	5.88	0.29	1.96	0.12	42.32		0.57		0.26	91.58	1.3	13	16	44	132	8	150	5
13124	210.70	212.20	1.50	13.02	0.271	0.71	0.78	6.21	0.59	0.01	0.08	0.01	74.39		0.25		0.28	96.59	1.4	10	155	47	199	10	363	10
17202	236.80	239.80	3.00	13.33	0.151	0.82	1.33	4.00	1.28	0.01	1.54	0.01	73.55		0.15		0.05	96.2	0.3	544	688	4	28	1	94	10
17203	273.40	276.40	3.00	13.08	0.033	3.68	2.14	3.63	0.85	0.09	1.69	0.01	69.8		0.17		0.11	95.28	0.5	15	48	18	22	1	51	5

HOLE NUMBER: 89-251

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10193.00N
EAST: 11050.00W
ELEV: 670.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 670.00

COLLAR DIP: -48° 0' 0"
LENGTH OF THE HOLE: 169.70m
START DEPTH: 0.00m
FINAL DEPTH: 169.70m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 21, 1989
DATE COMPLETED: May 23, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 34.75m
CORE STORAGE: CHEMAINUS

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
61.00	-	-51° 0'	ACID	OK		-	-	-	-	-	
168.00	-	-46° 0'	ACID	OK		-	-	-	-	-	
137.00	209° 0'	-47° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 34.75	«OB»					
34.75 TO 43.62	Rhyolite Lapilli Tuff to Tuff Breccia «F LaT-TBX»	Colour: Light to medium grey Grain size: Medium to coarse grained Thick bedded, massive in character; weak to moderately foliated; matrix is quartz feldspar porphyry, with 5% to locally 10% quartz eyes to 2mm; 10% to locally 15% white to ghosty to clay altered feldspar crystals to 1/2mm; fragments make up about 5% of the interval, and are essentially the same as the matrix material, to 15cm rare dark grey, very fine grained felsic fragments to 2cm (36.08m).		Fragments are bleached and silicified.	<1% disseminated, patchy, rare stringers, fine to medium grained pyrite.	34.75m - 36.20m Strongly oxidized.
43.62 TO 67.95	Quartz Feldspar Porphyry Hangingwall «QFP-HW»	Colour: Light to medium grey Grain size: Medium grained Thick bedded, massive in character; weak to moderately foliated; 5% quartz eyes to 2mm; 5% white to ghosty to clay altered feldspar crystals to 1mm.			<1% disseminated, patchy, rare stringers of fine to medium grained pyrite.	
		45.15 - 45.16 «Fault»	73		51.10m - 51.57m 5% pyrite.	
		51.17 - 51.18 «Fault»	51			
		51.17 - 61.78 Weak fragmental look.			51.17m - 59.50m 1% disseminated, patchy stringer pyrite.	
		51.77 - 51.82 Felsic dyke.				
		52.43 - 52.44 «Fault»	87			
		54.98 - 54.99 «Fault»	70			
		56.78 - 57.19 Felsic dyke.				
		59.13 - 59.14 «Fault»	88			
		61.78 - 67.95 Well defined fine grained felsic fragments to 9cm; «LaT-TBX».				Fragments are both felsic ash and QFP.
		62.27 - 62.28 «Fault»	80			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		64.45 - 64.46 «Fault»	18			
		66.00 - 66.01 «Fault»	34			
		67.25 - 67.26 «Fault»	24			
		67.36 - 67.80 Quartz vein.				
67.95 TO 76.35	Quartz Feldspar Porphyry Hangingwall «QFP-HW»	Colour: Medium grey Grain size: Medium grained Thick bedded, massive; weak to moderately foliated; 5% quartz eyes to 1mm; 5% white to ghosty feldspar crystals to 1/2mm.			<1% disseminated fine grained pyrite.	Minor buckle folds in quartz veins, axiz 031 degrees.
		76.17m - 76.18m «Fault»	58			
		76.34m - 76.35m «Fault»				
76.35 TO 129.62	Feldspar Quartz Porphyry «F(Q)P»	Colour: Light to medium grey Thick bedded, massive; weak to moderately foliated; <5% quartz eyes to 1mm, rare to 4mm; 10% to locally 15% white to ghosty to clay altered feldspar crystals to 1.5mm.			<1% disseminated fine grained pyrite.	
		76.35m - 78.00m Weak fragmental look.				
		76.80m - 76.81m «Fault»	35			
		80.61m - 80.62m «Fault»	28			
		83.99m - 84.00m «Fault»	80			
		84.83m - 84.84m «Fault»	60			
		88.10m - 88.11m «Fault»	30			
		89.56m - 89.57m «Fault»	57			
		92.90m - 92.91m «Fault»	30			
		95.80m - 97.48m 30% quartz veins.				
		97.80m - 97.81m «Fault»	46			

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		106.11m - 106.12m «Fault»	58			
		106.19m - 107.48m Diorite. Contact 76/70 degrees		Abundant leucoxene.		
		107.48m - 107.61m Felsic dyke.				
		108.86m - 110.71m Diorite. Contact 87/35 degrees		Abundant leucoxene.		
		110.71m - 110.79m «Argillite» CAB at 110.79m	48			
		110.75m - 110.76m «Fault»	35			
		112.60m - 112.61m «Fault»	47			
		116.17m - 116.18m «Fault»	73			
		116.37m - 116.38m «Fault»	47			
		127.37m - 127.38m «Fault»	49			
		127.74m - 127.77m «Fault»	87			
		127.77m - 127.81m Quartz vein.			Abundant stibmite.	
		127.81m - 127.85m			Abundant stibmite.	
		129.61m - 129.62m «Fault»	89			
129.62 TO 133.02	Quartz Porphyry «QP»	Colour: Medium grey Grain size: Medium grained				
		Thick bedded, massive in character; moderate to strongly foliated (sheared?); 10% to 15% quartz eyes to 8mm; 5% feldspar crystals to 1/2mm.			<1% disseminated fine grained pyrite.	
		132.82m - 132.83m «Fault»	74			
		133.01m - 133.02m «Fault»	65			
133.02 TO 145.29	Quartz Porphyry «QP»	Colour: Light to medium grey Grain size: Medium to coarse grained				
		Thick bedded, massive in character; weak to moderately foliated (sheared?); 5% white to ghosty		Strongly silicified, patchy bleaching.	<1% disseminated pyrite. Possible trace realgar at 139.50m.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		to weakly epidote altered feldspar crystal to 1.5mm; 2-3% dark green to black, sericite altered fragments to 5mm. 137.26m - 137.30m «Fault», gougy.	 31			
145.29 TO 146.45	Rhyolite Volcani-clastic «F VOLCLAS»	Colour: Light to medium grey, weak green cast Grain size: Fine to coarse grained Moderately bedded; moderately foliated; 25% to 30% crystal and lithic material to 3mm; <5% rhyolite ash fragments to 5cm. 146.30m - 146.45m Predominately argillite.				This interval may be strongly sheared and represent a fault contact.
146.45 TO 149.90	Quartz Porphyry «QP»	Colour: Medium grey Grain size: Medium grained Thick bedded, massive in character; weakly foliated; 5% to 10% quartz eyes to 4mm; <5% white to ghosty feldspar crystals to 1.5mm. 147.60m - 147.61m «Fault»	 20	Locally strongly silicified.	<1% disseminated pyrite.	
149.90 TO 157.53	«GABBRO»	Colour: Medium green Grain size: Medium grained Well developed chill margin; massive in character; local well developed shear textures. 153.34m - 153.35m «Fault»	 40			
157.53 TO 164.07	Quartz Feldspar Porphyry «Q(F)P»	Colour: Very light grey Grain size: Medium grained Thick bedded, moderate to a strong shear texture developed; 5% to 10% quartz eyes to 6mm; <5% white to ghosty to clay altered feldspar crystals to 1mm. 157.57m - 157.60m «Fault» gouge, may have been an argillite.	 64		<1% disseminated fine grained pyrite.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		157.60m - 157.71m Strongly «sheared», contained abundant argillite. 158.05m - 158.10m Argillite, strongly «sheared». 158.10m - 158.30m «Shear» 158.95m - 159.00m «Fault» 159.13m - 159.14m «Fault» 161.75m - 161.95m Diorite; intensely sheared. 161.33m - 161.90m Diorite; intensely sheared. 163.10m - 162.15m «Fault» gouge. 164.07m - 164.07m «Fault» gouge.	70 84		158.30m - 159.00m <1% pyrite; trace galena, and sphalerite.	
164.07 TO 169.70	«NANAIMO»	Colour: Black Grain size: Very fine grained Siltstone; minor sandstone interbeds. 164.07m - 164.80m «Fault» abundant gouge. 165.20m - 165.40m «Fault» 169.70m «EOH»				

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
	0.00	0.00	0.00																0.0			

Sample	From	To	Length	Al203	Ba	CaO	Fe203	K20	MgO	MnO2	Na20	P205	SiO2	Sr	TiO2	Zr	S	Tot	Ag	As	Ba-ppm	Cu	Pb	Sb	Zn	Au
	(m)	(m)	(m)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
11696	38.71	41.71	3.00	14.33	0.067	2.44	2.28	4.5	0.94	0.03	1.83	0.01	69.08		0.27		1.02	96.79	0.4	16	105	17	12	3	18	5
11697	57.30	60.30	3.00	14.19	0.07	2.08	1.87	3.14	0.86	0.02	3.55	0.01	70.72		0.28		0.63	97.41	0.5	11	78	11	11	1	8	5
11698	87.50	90.50	3.00	13.74	0.073	2.01	1.84	4.28	1.47	0.03	1.48	0.01	69.94		0.18		0.02	95.06	0.3	13	98	11	21	1	19	5
11699	121.00	124.00	3.00	13.47	0.066	2.42	2.22	3.38	1.42	0.05	3.02	0.01	68.65		0.27		0.03	95.00	0.4	12	87	7	19	2	23	5

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: 89-252 | IMPERIAL UNITS: | METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: NTS 92 B/13

PLOTTING COORDS GRID: MINE
NORTH: 10153.25N
EAST: 10300.00W
ELEV: 621.50

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 621.50

COLLAR DIP: -55° 0' 0"
LENGTH OF THE HOLE: 76.20m
START DEPTH: 0.00m
FINAL DEPTH: 76.20m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 21, 1989
DATE COMPLETED: May 22, 1989
DATE LOGGED: 0, 0

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 9.1
CORE STORAGE: CHEMAINUS

PURPOSE: Delineate an indicated high grade massive sulfide trend intersected by holes 203, 199, and to test

DIRECTIONAL DATA: near surface open pit potential.

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
76.20	-	-51° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 9.10	Overburden «OB»					
9.10 TO 14.90	QFP Crystal Tuff «QFP TUFF, HW»	Colour: Light grey Grain size: Fine grained 2-3% and locally 5% <1mm round quartz eyes and 5-10% 1mm weakly calcareous faint whitish grey feldspars. Weakly foliated, weak siliceous appearance. Gougy broken lower contact.		«W Sil, Carb» Weak silicified appearance, weak carbonate alteration of feldspars.	«tr py» Trace pyrite.	Hangingwall QFP.
14.90 TO 35.90	FP Crystal Tuff «FP TUFF»	Colour: Light green grey Grain size: Medium to coarse grained 20-25% 2-3mm white feldspars and locally 1% 2mm rounded quartz eyes. Weakly foliated. 14.9m - 17.4m Rubbly broken core, minor gouge at upper contact. 21.4m - 21.7m Argillite fragments, bands layered at 30 degrees to core axis defining foliation. 21.95m - 22.4m Fault zone: brecciated FP mixed with minor arg. in a darker grey groundmass. Minor gouge developed. 23.5m - 23.7m Argillite, medium to dark grey, no bedding. 23.8m - 26.5m Rusty orange discolouration to about 10% of fsp. 27.5m Muddy slip plane at 45 degrees to core axis cross-cutting foliation. 27.4m foliation 29.6m - 35.9m Coarse fragmental zone with blocks up to 1.5m of finer grained tuff with 1-2% green sericite spots; blocks separated by 2-10cm of FP crystal tuff. Lower contact 8cm possible heated fault.	40	«W Ser» 14.9m - 21.3m Weakly silicified. 23.8m - 24.5m Moderately bleached. 29.3m - 35.9m «S bleached» Strongly bleached, weak to moderately silicified. Bleaching overprinting granular crystal texture.	«tr py» 21.35m 4cm of <1cm quartz veining with rare mm sphalerite grains. 23.5m - 23.7m <1% pyrite.	Footwall FP.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
35.90 TO 76.20	QP Crystal Tuff, Lithic Tuff «QP TUFF»	Colour: Light grey Grain size: Coarse grained 10% and locally 20% 3-4mm rounded and eliptical quartz eyes and 5-7% rounded grey translucent felsic granules. Very weak foliation. 55.0m - 58.4m Rare brownish grey biotite rich weakly QP felsic fragments. 65.9m - 66.65m Diorite: feldspar porphyritic, ground, milled core, sheared, towards lower contact. Below 66.65m foliation becomes stronger, % quartz eyes decreases to 5-7%. 69.6m foliation 67.5m - 69.4m 2-3% dark green sericite spots. 70.5m - 71.0m Fault zone, milled core, weak fault gouge developed. 70.5m fault 71.0m fault 74.2m foliation	 45 50 50 40	«W-M Sil, W Biot, Patchy Ep» Weak to moderately silicified, primary feature. Weak disseminated biotite. Patchy epidote in strongly silicified zones (veining?).	«tr py»	

Sample	From (m)	To (m)	Length (m)	ESTIMA Cu ppm	ASSAYS Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	GEOCHEMICAL Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %		COMMENTS
	0.00	0.00	0.00																0.0			

Sample	From (m)	To (m)	Length (m)	Al_2O_3 %	Ba %	CaO %	Fe_2O_3 %	K_2O %	MgO %	MnO_2 %	Na_2O %	P_2O_5 %	SiO_2 %	Sr %	TiO_2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
17204	11.20	14.20	3.00	14.56	0.075	2.57	1.35	4.13	0.6	0.04	3.32	0.01	69.54		0.21		0.08	96.48	0.2	6	47	16	30	1	28	10
17205	24.50	27.50	3.00	14.87	0.084	1.54	2.63	2.67	2.21	0.05	2.66	0.01	68.92		0.22		0.06	95.91	0.1	19	67	13	30	4	42	5
17206	56.10	59.10	3.00	14.02	0.074	1.8	1.76	3.72	0.63	0.03	4.12	0.01	70.05		0.19		0.15	96.54	0.3	12	44	10	12	1	17	5

HOLE NUMBER: 89-253

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: LARA PROJECT
PROJECT NUMBER: 242
CLAIM NUMBER: SOLLY
LOCATION: 92 B13 W

PLOTTING COORDS GRID: MINE
NORTH: 10228.00N
EAST: 10950.00W
ELEV: 677.50

ALTERNATE COORDS GRID: MINE
NORTH: 102+28N
EAST: 109+50W
ELEV: 677.50

COLLAR DIP: -55° 0' 0"
LENGTH OF THE HOLE: 157.58m
START DEPTH: 0.00m
FINAL DEPTH: 157.58m

COLLAR GRID AZIMUTH: 180° 0' 0"
COLLAR ASTRONOMIC AZIMUTH: 208° 0' 0"

DATE STARTED: May 23, 1989
DATE COMPLETED: May 26, 1989
DATE LOGGED: May 26, 1989

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

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

CONTRACTOR: FRONTIER DRILLING
CASING: 15.8 m
CORE STORAGE: CHEMAINUS

PURPOSE: TARGETED AT MASSIVE SULPHIDES IN THE HANGING WALL AND CONTINUED THROUGH TO THE CORONATION ZONE.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
157.58	-	-51° 0'	ACID	OK		-	-	-	-	-	
78.00	207° 0'	-53° 0'	SING.SHOT	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 15.80	«OB»					
15.80 TO 29.10	ANDESITE CRYSTAL LITHIC TO LAPILLI TUFF «AND XLT»	colour: med. green grain: med. to coarse grained -thickly bedded, moderately foliated possible 5-10% white to clay altered to epidote altered feldspar crystals to 1mm, 56 light green epidote lithic fragments to 6mm, <5% to 5cm. 24.00 - 29.10m; Andesite Ash.			<1% disseminated fine grained pyrite?	Intensly weathered, locally strongly oxidized, minor clay seams; cove very rubbly and poor recovery
29.10 TO 82.56	RHYOLITE LAPILLI TUFF TO TUFF BRECCIA «RHY LAP T, TBX»	colour: very light grey grain: med. gr. -thick bedded matrix material is a feldspar porphyry; 10-15% white to ghosty to clay altered feldspar crystals to 1 1/2mm; fragments may compose up to 10% of the interval varying in size up to 15cm. These are a fine grained rhyolite QP with <5% quartz eyes to 1mm, <5% feldspar crystals to 1/2mm; and is weakly siliceous.		fragments are bleached and silicified.	<1% disseminated fine grained pyrite; locally rhyolite fragments contains up to 1% very fine grained pyrite.	Southern Rhyolite Contact.
		29.10 - 29.71m «Fault« 100% gouge				
		29.71 - 36.30m «Shear» intensly sheared with abundant gouge seams				
		37.55 - 37.77m «Shear»	30			
		40.40 - 40.58m «Fault»	25			
		41.52 - 41.55m «Fault»	58			
		42.10 - 42.12m «Fault»	57			
		43.40 - 43.42m «Fault»	70			
		44.40 - 46.73m «Diorite»	46 44			
		47.18 - 47.37m «Fault»	40			
		50.80 - 50.93m «Fault»	45			
		52.01 - 52.23m «Fault» gouge			50.93 - 52.01m 2-3% stringer pyrite	
		52.23 - 58.22m		minor pyrite in quartz veins.		possibly the same gouge zone above

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		70% quartz veins				MSSX in 89-245? very poor recovery between 52.73 - 57.30m
					58.22 - 59.71m; BCD #13154 1-2% pyrite. 59.71 - 60.80m; BCD #13155 2-3% pyrite. 60.80 - 61.80m; BCD #13156 2-3% pyrite. 61.80 - 62.78m; BCD #13157 1-2% pyrite 62.78 - 63.64m; BCD #13158 4-5% pyrite 63.64 - 64.79m; BCD #13159 1-2% pyrite.	58.22 - 82.56m Possible hanging wall zone, all sulphides are predominately stringers, or possibly as a matrix to the fragments.
		67.10 - 67.30m «Fault» strong shear with abundant gouge	60		64.79 - 65.83m; BCD #13160 1% pyrite.	
		68.65 - 68.82m «Fault» strongly sheared abundant gouge	68		65.83 - 68.88m; BCD #13161 1% pyrite	
					68.88 - 69.80m; BCD #13163 3-5% pyrite.	
		70.10 - 70.42m «Shear»			69.80 - 71.00m; BCD #13164 1-2% pyrite.	
		70.80 - 71.00 «Fault»			71.00 - 72.30m; BCD #13165 5% pyrite.	
		72.30 - 72.45m «Fault»	59		72.30 - 73.73m; BCD #13166 2-3% pyrite.	
					73.73 - 74.91m; BCD #13167 2-3% pyrite 74.91 - 76.38m; BCD #13168 3-5% pyrite. 76.38 - 77.42m; BCD #13169 2-3% pyrite.	
		77.42 - 78.78m; 80% quartz veins; 20% rhyolite Interval is strongy «Sheared»		Rhyolite contains abundant bright green sericite	77.42 - 78.78m; BCD #13170 1-2% pyrite, trace sphalerite.	
		78.78 - 81.00m; moderately «sheared», minor gouge.		minor bright green sericite alteration.	78.78 - 81.00m; BCD #13171 1% pyrite.	
		81.46 - 82.10m; intensly «sheared» 82.10 - 82.56m; diorite		local bright green sericite alteration.	81.00 - 82.10m; BCD #13172 2-3% pyrite, trace sphalerite and galena.	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
82.56	QUARTZ	colour: very light to med. grey		well developed sericite	82.56m - 84.65m; BCD #13173	
TO	FELDSPAR	-thick bedded; moderately to strongly foliated;			1% pyrite	
92.76	PORPHYRY	5% quartz eyes to 1 1/2mm, 5% feldspar crystals				
	HANGINGWALL	to 1.2mm, white to ghosty and clay altered.				
	«QP-HW»	82.89 - 84.665m	36			
		«Fault»				
		84.51 - 84.65	57			
		«Fault»				
		85.25 - 86.26m			84.65 - 86.60m; BCD #13174	
		«Fault» abundant gouge, very poor recovery - 20%			1% pyrite, trace sph and galena	
		86.60 - 89.00m		Abundant bright green sericite, mica?	86.60 - 89.00m; BCD #!3175	
		10% quartz veins; 10% fine grained buff coloured			<1% pyrite, trace sphalerite	
		felsic dykes; moderate to strongly «sheared»				
		89.91 - 89.92m			89.00 - 90.53m; BCD #13176	
		«Fault»	59		1% ph, trace sphalerite and galena and	
		91.43 - 91.45m			chalcopyrite.	
		«Fault»	44		90.53 - 91.91m; BCD #13177	
		91.91 - 92.40m		abundant med. to bright green mica?	1% pyrite, trace sphalerite.	
		92.40 - 92.76m		sericite		
		«Fault» intensley sheared	37			
92.76	FELDSPAR	colour: very light grey		-Bleached.	<1% disseminated fine grained pyrite.	
TO	QUARTZ	grain: med. gr.				
96.00	PORPHYRY	-thick bedded, massive in charactar, moderately				
	«F(Q)P»	foliated, 10-15% white to ghosty to clay altered				
		feldspar crystals to 1 1/2mm, <5% quartz eyes to				
		1mm.				
		95.98 - 96.00m	89			
		«Fault»				
96.00	QUARTZ	colour: very light grey to med. grey			<1% disseminiated fine grained pyrite	
TO	FELDSPAR	grain: med. gr.				
106.45	PORPHYRY-	-thick bedded, massive in character, moderately				
	HANGINGWALL	foliated; 5% quartz eyes to 1mm; 5% white to				
	«QEP-HW»	ghosty feldspar crystals to 1/2mm.				
		97.30 - 97.31m	66			
		«Fault»				
		99.10 - 99.55m				
		«Shear»				
		99.97 - 100.08m			trace pyrite, chalcopyrite and galena.	
		Quartz vein				
		100.08 - 100.10m				
		Buff coloured felsic Dyke				
		100.73 - 100.75m				

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Buff coloured felsic dyke 101.19 - 101.34m Quartz vein. 101.34 - 101.35m «Fault» 101.68 - 102.27m Felsic Dyke? 105.28 - 105.45m «Fault» strongly sheared felsic dyke.	 42 50			
106.45 TO 117.96	RHYOLITE LAPILLI TUFF,TUFF BRECCIA «RHY LAP T, TBX»	colour: very light ot med. grey grain: coarse gr. -Thick bedded, massive in character, weakly foliated; matrix is a feldspar porphyry; fragments are Rhyolite fine grained ash and quartz feldspar porphyry; fragments may exceed 1 metre. 117.69 - 117.70m «Fault» 117.70 - 117.91m Buff coloured felsic dyke.	 50	fragments are bleached and silicified.	<1% disseminated pyrite. 109.50 - 110.70 2-3% pyrite stringers	fragment supported.
117.96 TO 127.46	QUARTZ FELDSPAR PORPHYRY «QFP»	colour: med. grey grain: med. gr. -thick bedded, massive; moderately foliated; 5-10% quartz eyes to 1mm; 5-10% whit to ghosty to clay altered feldspar crystals to 1/2mm. 122.00 - 122.01 «Fault» 122.35 - 122.44m «Fault» strongly sheared. 122.44 - 122.48m Argillite 122.86 - 123.14m Quartz vein 123.30 - 123.54m Quartz vein. 124.03 - 124.18m «Fault» 124.22 - 124.26m «Fault»	 39 49 50 36	Bleached.	<1% disseminated pyrite.	Coronation Zone Horizon?

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
127.46 TO 157.60	QUARTZ FELDSPAR PORPHYRY HANGINGWALL «QFP-HW»	colour: med. grey grain: med. gr. -thick bedded; massive in character; moderately foliated; 5% quartz eyes to 2mm; 5% white to ghosty feldspar crystals to 1/2mm; 127.46 - 128.02m 50% quartz veins, minor «shear» 129.35 - 129.60m 30% quartz veins 129.78 - 129.81m «Fault» 134.16 - 136.50m Buff coloured Rhyolite dyke. 140.56 - 140.60m Felsic dyke 140.60 - 140.67m «Fault» 141.80 - 141.91m «Fault» 148.95 - 149.01m «Fault» 152.28 - 152.29m «Fault» CS Fabric HW - up 156.23 - 156.24m «Fault» gouge	78 64 60 63 70		<1% disseminated fine grained pyrite. 154.30 - 156.10m minor pyrite porphoblasts and or fragments to 1/2cm.	
157.60 TO 157.60	EOH					

				ESTIMA	ASSAYS										GEOCHEMICAL						COMMENTS
Sample	From (m)	To (m)	Length (m)	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	Ba ppm	Cu %	Pb %	Zn %	Ag oz/t	Ag g/T	Au oz/t	Au g/T	Ba %	SG SG	NSR NSR	SUL %	
13154	58.22	59.71	1.49	25	8	41	0.3	2											0.0		
13155	59.71	60.80	1.09	32	6	36	0.6	40											0.0		
13156	60.80	61.80	1.00	29	10	36	0.6	5											0.0		
13157	61.80	62.78	0.98	23	6	24	0.4	10											0.0		
13158	62.78	63.64	0.86	27	7	32	0.5	40											0.0		
13159	63.64	64.79	1.15	23	5	35	0.2	3											0.0		
13160	64.79	65.83	1.04	20	5	33	0.4	2											0.0		
13161	65.83	66.85	1.02	22	7	35	0.2	2											0.0		
13162	66.85	68.88	2.03	19	5	27	0.2	1											0.0		
13163	68.88	69.80	0.92	29	8	43	0.4	18											0.0		
13164	69.80	71.00	1.20	27	9	50	0.4	62											0.0		
13165	71.00	72.30	1.30	24	15	102	1	23											0.0		
13166	72.30	73.73	1.43	21	6	17	0.6	4											0.0		
13167	73.73	74.91	1.18	35	11	33	1.1	102											0.0		
13168	74.91	76.38	1.47	24	12	25	0.8	19											0.0		
13169	76.38	77.42	1.04	20	5	27	0.4	178											0.0		
13170	77.42	78.78	1.36	14	12	24	2.4	1370							0.041	1.42			12.9		
13171	78.78	81.00	2.22	17	6	42	0.7	1190							0.036	1.23			11.3		
13172	81.00	82.10	1.10	33	14	87	0.8	1100							0.034	1.18			10.7		
13173	82.56	84.65	2.09	26	10	34	0.4	21											0.0		
13174	84.65	86.60	1.95	90	240	1170	3.4	165											0.0		
13175	86.60	89.00	2.40	50	18	133	1	100											0.0		
13176	89.00	90.53	1.53	293	182	1440	4.4	125											0.0		
13177	90.53	91.91	1.38	158	250	1650	1.2	100											0.0		

Sample	From (m)	To (m)	Length (m)	Al2O3 %	Ba %	CaO %	Fe2O3 %	K2O %	MgO %	MnO2 %	Na2O %	P2O5 %	SiO2 %	Sr %	TiO2 %	Zr %	S %	Tot %	Ag ppm	As ppm	Ba-ppm ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb
11700	41.76	44.46	2.70	14.09	0.103	0.83	2.43	1.97	0.54	0.01	5.18	0.01	71.09		0.27		1.46	97.98	0.3	12	423	15	5	1	49	5
13168	74.91	76.38	1.47	14.64	0.204	4.17	4.77	3.03	0.84	0.04	3.33	0.01	60.66		0.29		0.65	92.63	1.1	10	71	19	23	2	30	5
17226	106.77	109.77	3.00	13.67	0.255	2.81	1.74	3.6	0.77	0.03	1.99	0.01	70.21		0.25		0.75	96.08	0.4	21	1075	14	32	1	65	5
17227	125.00	127.46	2.46	14.25	0.075	1.81	1.69	4.24	1.59	0.04	1.2	0.01	70.11		0.15		0.09	95.24	0.3	16	112	5	20	1	20	5
17228	152.86	155.86	3.00	13.44	0.068	2.22	2.34	3.52	1.14	0.05	1.97	0.01	69.75		0.27		0.03	94.79	0.4	1	44	9	31	1	19	5