# 827207

## 1990 Exploration Program

#### Lara Property

## Victoria Mining Division NTS 92B/13W Lat: 48° 54' N Long: 123° 52'W

Minnova Inc.

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Vancouver, B.C.

G. S. Wells J. D. Kapusta January 9, 1991

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#### Summary

The main objective of the 1990 exploration program on the Lara property was to evaluate the massive sulphide potential in areas removed from the Coronation Zone. Most of the budget was devoted towards diamond drilling (49 holes - 11,167.1 m) although some reconnaissance IP (18.8 km) and soil geochemistry was done to the south of the Fulford Fault in an attempt to locate thrust slices of Sicker volcanics.

The CZ Felsic sequence was tested over a 2.7 km strike length to the east of the Coronation Zone. Weak zinc stringer mineralization was intersected in an number of holes but no zones of economic sulphides were discovered. The host rocks are relatively unaltered which indicates that there is no hydrothermal alteration systems and associated proximal VMS deposition in the CZ Felsic sequence.

The other main target of the 1990 drill program was the 262 Felsic sequence which occurs immediately north of the CZ Felsics. In a regional context, it appears that the 262 Felsics can be correlated with the altered felsic volcanics that host Falconbridge's Anita barite-massive sulphide occurrence and the former Lenora and Tyee massive sulphide deposits. In detail, pyritic cherts, ashes and massive sulphides occur within 40 meters of the contact between sericitic 262 Felsic tuffs and the underlying 262 Andesites. This sulphide zone is interpreted as a distal exhalative horizon associated with VMS deposition. It has been tested at variable depths over a strike length of 6.5 km and thin copper rich, massive to semi-massive sulphide zones have been intersected in six holes. The mineralization, pyritic exhalites and hydrothermal alteration in the 262 Felsics appear to be confined to shallow levels (<100 m vertical). At depth, the 262 Felsics are unaltered and pyritic exhalites are thin or absent.

Drilling of isolated VLF and IP anomalies elsewhere on the property failed to intersect significant mineralization. The recce IP to the south of the Fulford Fault did not define any additional slivers of Sicker volcanics.

The 1990 exploration program has greatly reduced the potential for discovering a near-surface massive sulphide deposit on the Lara property. Any deep drilling should be directed at the 262 Felsic sequence in areas of anomalous lithogeochemistry.

## <u>1990 Exploration Program</u> <u>Lara Property</u>

#### 1. <u>Introduction</u>

Minnova's 1990 exploration program on the Lara property focused evaluating the massive sulphide potential of the 262 Felsic volcanics which occur in the structural hangingwall to the Coronation Zone and the CZ Felsic sequence located east of the Coronation and Coronation Extension Zones.

#### a. Location and Access

The Lara property is located on southern Vancouver Island, 75 km north of Victoria and 15 km northwest of Duncan (Figure 1). Access to the property is via MacMillan Bloedel's Chemainus River logging road and a network of secondary logging and forestry roads. In addition, a major B.C. Hydro right-of-way cuts across the west side of the property.

#### b. <u>Property Status</u>

The Lara property is owned 100% by Laramide Resources Ltd. of 904 - 675 W. Hastings St., Vancouver, B.C. Minnova Inc. has obtained exclusive exploration rights to the Lara property for the period between November 1, 1988 and June 30, 1991 subject to certain expenditure guarantees.

#### C. <u>Mineral Claims</u>

<u>Claim Name</u>	Record No.	<u>Units</u>	<u>Expiry Date</u>
	Group	<u>5 I</u>	
Silver I Silver II Fang Tooth	535 536 534 1377	12 9 20 5	May 8, 2001 May 8, 2001 May 8, 2001 Nov 7, 2001

Touche	1396	12	Jan 21, 2001
Cavity	1397	12	Jan 21, 2001
Susan (Lot 23G)	698	1	Oct 26, 2001
Klondyke (Lot 68G)	699	1	Oct 26, 2001
Tinto View (Lot 78G)	700	1	Oct 26, 2001
	<u>Group II</u>		
Solly	537	9	May 8, 2001
T.L.	538	20	May 8, 2001
Jennie	1112	4	Nov 18, 2001
Ugly	753	6	Feb 8, 2001
Wimp	754	2	Feb 8, 2001
Nero	755	1	Feb 8, 2001
Face	1402	12	Jan 23, 2001
Plant	1401	20	Jan 23, 2001
COR 1-7 Fr.	1378-84	7	Nov 7, 2001

Statements of Work filed in 1990 to keep the claims in good standing are included in Appendix I.

D. <u>History</u> (to the end of 1989)

The Lara Property was staked by Laramide Resources in 1981 and optioned to Abermin Corporation in 1982. During 1981-83, exploration work included linecutting, geological mapping, geophysical and soil geochemical surveys, and backhoe trenching to test anomalous areas. In 1984, 12 diamond drill holes totalling 1346 metres tested targets defined by the backhoe trenching. The last drill hole of this program, DDH 84-12, intersected economically significant mineralization that graded 0.68% Cu, 0.45% Pb, 3.01% Zn, 67.54 g/T Ag and 3.46 g/T Au, over a true thickness of 7.95 metres. This mineralized horizon was named the Coronation Zone, after its occurrence on the south slope of Coronation Mountain.

In 1985, sixty-one (61) diamond drill holes totalling 7437 metres tested the Coronation Zone over a strike length of 990 metres and up to 160 metres down-dip.

The 1986 exploration program tested both the Coronation Zone and reconnaissance targets throughout the property. Seventy -five (75) diamond drill holes totalling 11,339 metres were completed. The Coronation Zone mineralization was tested over a strike length of 2100 metres and the reconnaissance drilling tested geophysical, humus geochemical and geological targets in the East, Far East, and North Grid areas. In addition, one backhoe trench (86-43) exposed a high grade massive sulphide pod of the Coronation Zone which assayed 3.04% Cu, 43.01% Zn, 8.30% Pb, 513.60 g/T Ag and 24.58 g/T Au over a true thickness of 3.51 metres.

The 1987 exploration program tested the Coronation Zone, Randy Zone and reconnaissance targets throughout the property. Eighty-three, (83) diamond drill holes totalling 15,038 metres were completed and one backhoe trench (87-44) was excavated in the Coronation Zone area. Ten diamond drill holes in the Randy Zone area traced a zone of weak zinc stringer mineralization over a strike length of 2 km. The reconnaissance drilling tested geophysical, humus geochemical and geological targets located west and north of the Coronation Zone. Weakly mineralized horizons were intersected in holes 87-214 (1.02% Zn over 1.55 m) and 87-216 (0.13% Cu, 0.25% Pb, 0.67% Zn over 0.7 m) but appear to have no down-dip or strike extent.

In 1988, an underground exploration program tested the continuity of the Coronation Zone, evaluated rock conditions for mining cost estimates and provided a bulk sample for metallurgical tests.

In 1989, 43 diamond drill holes totalling 10,327.8 meters were completed on the Lara property. Twenty-seven holes (6457.1 m) tested the extent of the Coronation Zone mineralization and 16 holes (3870.7 m) tested other mineralized horizons and geophysical targets. Preliminary metallurgical and mineralogical studies on the Coronation Zone mineralization were completed and its open pit potential was evaluated by Mintec. Field work included geological and structural mapping, lithogeochemical sampling, linecutting (68.3 km including 27.5 km that is surveyed) and Mag-VLF-IP

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surveys. Other work done in 1989 included reclamation associated with Abermin's 1988 underground program.

#### 2. <u>1990 Exploration Program</u>

In 1990, 49 diamond drill holes totalling 11,167.1 meters were completed on the Lara property. Nineteen holes (4138.6 m) tested the eastern extent of the Coronation mineralization, 26 holes (6188.2 m) tested the 262 Felsic sequence and four holes (840.3 m) tested reconnaissance targets. Field work included linecutting (19.3 km), humus and lithogeochemical sampling, IP (18.8 km) and downhole PEM (7 drill holes). Water quality sampling was continued around the portal site. Lastly, all of the drill core has been moved from the Chemainus warehouse to the portal site. Mineralized sections are stored in an enclosed core rack and the remaining core is cross-piled and stacked.

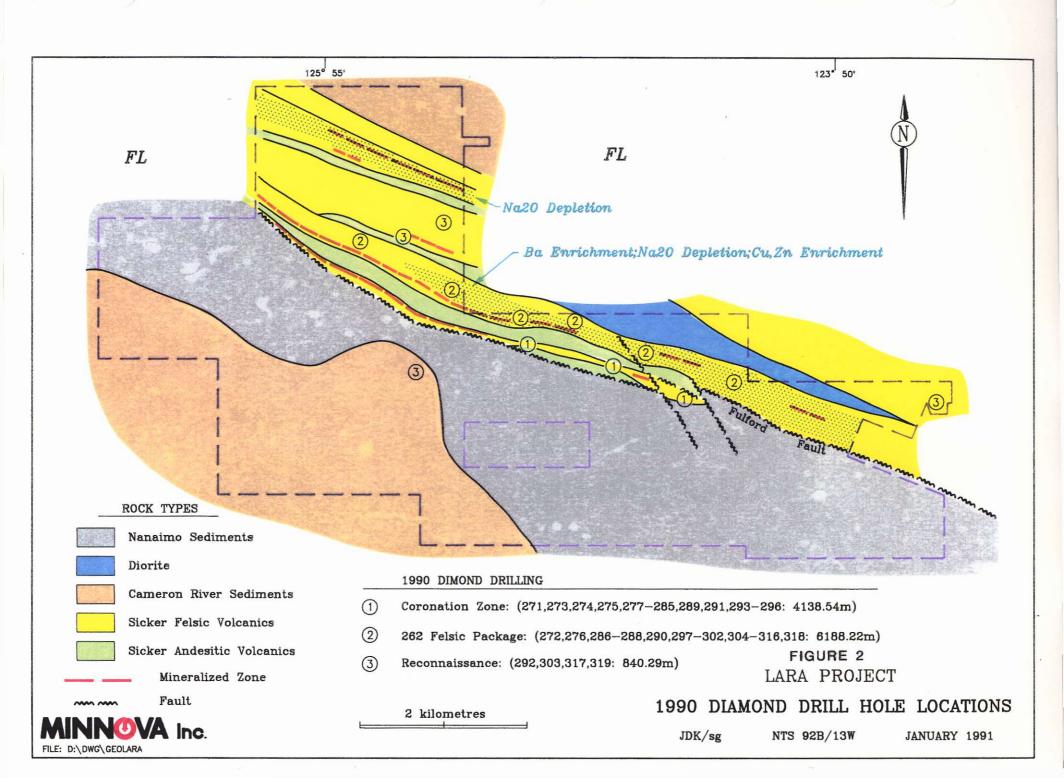
#### 3. <u>Results</u>

#### a. Diamond Drilling

The diamond drilling was carried out in two phases - a spring and fall program. Location of the holes is given in Figures 2 and 3 and specific drilling details are presented in Table 1. Diamond drill logs are included in Appendix II.

#### i. <u>CZ Felsics</u>

The northerly dipping  $(60^{\circ})$  CZ Felsic sequence was tested over a strike length of 2.7 km and to vertical depths of 250 meters. The purpose of this drilling was to evaluate the eastern extent of the Coronation Zone mineralization. The only mineralization exposed in the area is found at the Road showing where sulphide stringers have yielded assays as high as 0.2% Cu,



Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	sults
1. CZ Fels	i <u>cs</u>							
90-271	90+02W; 104+14N	658 m	208	-55	206.34 m	cz		No significant results
90-273	83+50W; 106+54N	648 m	208	-50	197.20 m	cz	95.80-96.30	Argillite over 0.50 m, CZ equivalent
90-274	83+00W; 108+80N	675 m	208	-70	425.81 m	CZ		No significant results
						262	33.50-34.46	1340 ppm Cu over 0.96 m
							56.21-64.74	Minor pyrite in a felsic ash to chert horizon over 8.53
90-275	81+60W; 106+84N	660 m	208	-60	175.87 m	cz	101.40-101.70	0.36% Cu, 1.0% Pb, 1.63% Zn, 20.80 g/T Ag, 0.37 g/T Au over 0.30 m
							101.70-109.66	906 ppm Zn over 7.96 m
							139.10-140.65	730 ppm Zn, 1400 ppb Au over 1.55 m
90-277	81+00W; 108+30N	690 m	208	-55	252.07 m	CZ	227.69-235.65	572 ppm Zn over 7.96 m
							107.24-110.64	0.23% Cu, 131 ppm Zn over 3.40 m cp,py stringers
90-278	69+00W; 108+67N	684 m	208	-45	163.70 m	cz	54.85-61.30	374 ppm Zn over 6.45 m
90-279	77+45W; 107+40N	695 m	208	-52	178.90 m	CZ	94.40-96.40	1091 ppm Cu, 418 ppm Pb, 1416 ppm Zn, 5.2 ppm Ag, 159 ppb Au over 2.00 m
90-280	68+00W; 109+27N	675 m	208	-55	148.40 m	CZ	86.75-93.57 includes	239 ppm Cu, 577 ppm Zn, 53 ppb Au over 6.82 m; 93.37–93.57: 0.19% Cu, 0.12% Pb, 0.62% Zn, 273 ppb Au
90-281	77+00W; 108+50N	720 m	208	-62	291.69 m		188.57-189.20 218.9-224.7 248.40-255.02	245 ppm Cu, 0.54% Zn, 620 ppb Au over 0.63 m 104 ppm Pb, 492 ppm Zn, 60 ppb Au over 5.80 m 1.09% As over 6.62 m, Tertiary overprint
90-282	67+00W; 109+10N	661 m	208	-45	93.60 m	CZ	74.75-74.95	0.07% Cu, 0.19% Pb, 1.15% Zn, 5.5 g/T Ag over 0.20 m

## Table 1: Summary of the 1990 Diamond Drilling Program-Lara Project

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Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	sults
90-283	72+00W; 110+90N	716 m	208	-61	348.40 m	cz	304.32-304.65 324.50-327.40	0.11% Cu, 0.09% Pb, 1.0% Zn, 9.7 g/T Ag over 0.33 m 70 ppm Cu, 147 ppm Pb, 303 ppm Zn, 0.95g/T Ag over 2.90 m
90-284	76+00W; 107+59N	699 m	208	-70	212.44 m	CZ	114.90-116.50	200 ppm Cu, 200 ppm Pb, 1800 ppm Zn, 2.36 g/T Ag, 2200 ppm Ba over 1.60 m
90-285	74+00W; 109+46N	716 m	208	-70	335.59 m	cz	272.00-284.56	87 ppm Cu, 51 ppm Pb, 509 ppm Zn, 0.87 ppm Ag, 43 ppb Au, 1928 ppm Ba over 12.56 m
90-289	67+00W; 110+24N	668 m	208	-60	175.87 m	CZ		No signficant results
90-291	65+62W; 110+55N	667 m	208.	-60	148.44 m	CZ		No signficant results
90-293	57+67W; 111+00N	705 m	208	-53	145.39 m	CZ		No signficant results
90-294	59+60W; 111+90N	720 m	208	-50	76.20 m	CZ		No significant results; intersected Nanaimo
90-295	62+00W; 113+00N	725 m	208	-50	212.45 m	262 CZ	48.63-50.93 180.41-185.01	1800 ppm Cu, 52 ppm Pb, 260 ppm Zn, 1.8 ppm Ag over 2.30 m 131 ppm Cu, 227 ppm Zn over 4.60 m
90-296	64+41W; 113+19N	731 m	208	-73	350.22 m	262	103.28-106.50	1429 ppm Cu, 37 ppm Pb, 129 ppm Zn, 2.5 ppm Ag, 74 ppb Au over 3.22 m
						CZ	293.28-297.20	553 ppm Cu, 739 ppm Pb, 3500 ppm Zn, 4.7 ppm Ag, 70 ppb Au over 3.92 m includes 295.80-296.69 1.31% Zn over 0.89 m
							299.20-303.49	522 ppm Cu, 331 ppm Pb, 7300 ppm Zn, 2.8 ppm Ag, 41 ppb Au over 4.29 m includes 300.0-301.19: 2.0% Zn over 1.19 m
19 Drill Ho	  les 		subtotal		4138.58 m			

### Table 1: Summary of the 1990 Diamond Drilling Program – Lara Project (cont.)

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Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	sults
2. 262 Fels	sics							
90-272	88+00W; 107+00N	648 m	208	-70	160.63 m	262	56.99-64.97	2685 ppm Cu, 82 ppm Pb, 149 ppm Zn, 1.33 ppm Ag, 25 ppb Au over 7.98 m includes 58.34-59.05: 2.37% Cu, 6.4 ppm Ag, 170 ppb Au
							95.50-99.88	over 0.71 m 2736 ppm Cu, 26 ppm Pb, 131 ppm Zn, 1.62 ppm Ag, 39 ppb Au over 4.38 m
90-276	81+00W; 109+30N	722 m	208	-75	193.54 m	262	69.00-71.06 87.00-100.00 130.20-136.10 140.66-142.34	556 ppm Zn over 2.06 m: py-sph stringers 404 ppm Cu, 118 ppm Zn over 13.0 m: py stringers 424 ppm Cu, 98 ppm Zn over 5.95 m: py stringers 1.44% Cu, 373 ppm Pb, 378 ppm Zn, 4.28 ppm Ag, 141 ppb Au over 1.68 m: 262 Horizon
90-286	74+00W; 111+11N	730 m	208	-75	175.56 m	262	6.70-15.90 94.30-97.80	"High Zinc Andesite", a litho sample from 8.20-11.20 m: 631 ppm Cu, 33 ppm Pb, 3906 ppm Zn, 2.10 ppm Ag over 3.0 m 811 ppm Cu, 10 ppm Pb, 84 ppm Zn, 1.66 ppm Ag, 14 ppb Au Au over 3.50 m: 262 Horizon
90-287	66+33W; 113+46N	711 m	208	-55	172.51 m	262	115.30-121.59	596 ppm Cu, 21 ppm Pb, 89 ppm Zn, 1.21 ppm Ag, 5 ppb Au over 6.29 m: 262 Horizon
90-288	76+00W; 110+74N	739 m	208	-75	191.10 m	262	36.85-47.50 117.90-125.20 150.40-157.40	"High Zinc Andesite", between 40.90-43.20: 562 ppm Cu, 24 ppm Pb, 4461 ppm Zn, 1.50 ppm Ag, 20 ppb Au over 2.30 m 880 ppm Cu, 25 ppm Pb, 330 ppm Zn, 1 ppm Ag over 7.30 m: 262 Horizon 683 ppm Cu, 30 ppm Pb, 176 ppm Zn, 1 ppm Ag over 7.0 m: py ash,chert
90-290	78+36W; 110+01N	739 m	208	-75	179.20 m	262	133.20-135.20	469 ppm Cu over 2.0 m: 262 Horizon

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## Table 1: Summary of the 1990 Diamond Drilling Program – Lara Project (cont.)

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Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	sults
90-297	97+80W; 105+12N	723 m	208	-75	288.0 m	262	145.60-147.80 152.00-157.60 193.20-207.60 includes	142 ppm Cu, 4912 ppm Zn over 2.20 m: py-sph stringers 224 ppm Cu, 3473 ppm Zn over 5.60 m 498 ppm Cu, 142 ppm Zn over 14.40 m 193.20-201.20: 733 ppm Cu, 140 ppm Zn over 8.0 m 205.17-205.75: 555 ppm Cu, 96 ppm Zn, 1.0 ppm Ag, 230 ppb Au, 3500 ppm Ba over 0.58 m: 262 Horizon
90-298	74+00W; 112+19N	748 m	208	-75	218.50 m	262	121.30-123.50	2065 ppm Cu, 7198 ppm Zn, 48 ppb Au over 2.20 m : High Zinc Andesite includes 1.74% Zn over .85 m
90-299	98+80W; 104+37N	697 m	208	-75	215.50 m	262	77.45-79.30 134.55-139.45	653 ppm Cu, 4648 ppm Zn over 1.85 m 437 ppm Cu, 469 ppm Zn over 4.90 m
90-300	78+36W; 111+21N	762 m	208	-75	320.00 m	262	237.95-243.85 includes 249.05-249.48	579 ppm Cu, 98 ppm Zn over 5.90 m 242.35–242.77: 4130 ppm Cu, 328 ppm Pb, 146 ppm Zn, 2.50 ppm Ag, 100 ppb Au over 0.42 m: 262 Horizon 188 ppm Cu, 130 ppm Pb, 106 ppm Zn, 75 ppb Au over 0.43 m: 45% py
90-301	98+80W; 105+52N	723 m	208	-77	185.0 m	262	111.0-112.2	64 ppm Cu, 178 ppm Zn over 1.2 m: 262 Horizon
90-302	101+00W; 104+94N	703 m	213	-74	182.0 m	262	90.75-96.00 111.60-112.40	565 ppm Cu, 184 ppm Zn over 5.25 m 202 ppm Cu, 62 ppm Pb, 638 ppm Zn, 105 ppb Au over 0.80 m
90-304	81+00W; 110+68N	744 m	208	-65	289.26 m	262	215.18-216.15 includes 226.08-226.86 includes 229.20-230.04	745 ppm Cu, 222 ppm Pb, 464 ppm Zn over 0.97 m 215.23–215.45: 30% py 1540 ppm Cu, 84 ppm Zn over 0.78 m 226.08–226.16: 40% pyrite 297 ppm Cu, 112 ppm Zn over 0.84 m
90-305	105+00W; 105+94N	782 m	208	-70	349.61 m	262	243.45-266.58 includes	262 Horizon, intensely silicified felsic ash 246.0-249.0: litho sample: 17 ppm Cu, 18 ppm Pb, 35 ppm Zn,

# Table 1: Summary of the 1990 Diamond Drilling Program – Lara Project (cont.)

Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	esults
90-306	83+00W; 110+10N	700 m	200	-65	328.27 m	262	35.60-36.12 42.35-55.50 includes 179.63-181.85 187.49-192.6 includes 194.20-195.38 196.74-197.69 202.18-206.30 220.65-221.10 includes	150 ppm Cu, 122 ppm Pb, 622 ppm Zn, 0.5 ppm Ag, 30 ppb Au over 0.52 m: cherts 4421 ppm Cu, 255 ppm Zn, 2.78 ppm Ag over 13.15 51.38-52.59: 2.23% Cu, 233 ppm Zn, 3.10 ppm Ag, 45 ppb Au 271 ppm Cu, 323 ppm Pb, 1601 ppm Zn, 0.5 ppm Ag, 21 ppb Au over 2.22 m 572 ppm Cu, 77 ppm Zn over 5.11 m 187.49-190.54: 781 ppm Cu, 105 ppm Zn over 3.05 m 293 ppm Cu, 320 ppm Zn, 30 ppb Au over 1.18 m 1220 ppm Cu, 2740 ppm Zn, 75 ppb Au over 0.95 m 130 ppm Cu, 313 ppm Zn, 35 ppb Au over 4.12 m 240 ppm Cu, 1640 ppm Zn, 744 ppm Pb, 45 ppb Au over 0.45 m 220.88-220.96: 262 Horizon, massive pyrite
90-307	103+60W; 105+44N	693 m	208	-70	328.27 m	262	304.00-312.31 236.10-242.90	701 ppm Cu, 151 ppm Zn over 8.31 m 262 Horizon, silicified ash, litho sample: 14 ppm Cu, 37 ppm Zn,
90-308	76+00W; 111+76N	752 m	208	-75	316.10 m	262	117.10-124.45 includes	High Zinc Andesite, 230 ppm Cu, 1558 ppm Zn over 7.35 m 119.0-123.0: 251 ppm Cu, 168 ppm Pb, 2559 ppm Zn
90-309	93+05W; 105+10N	717 m	208	-80	254.51 m	262	36.0-37.22 132.89-135.85	249 ppm Cu, 2470 ppm Zn, 3000 ppm Ba over 1.22 m 354 ppm Cu over 2.96 m
90-310	91+00W; 106+00N	723 m	208	-65	197.21 m	262	107.75-108.80 108.80-114.30	1215 ppm Cu, 58 ppm Zn, 50 ppb Au over 1.05 m: 262 Horizon 241 ppm Cu, 73 ppm Zn over 5.50 m
90-311	109+00W; 103+59N	684 m	208	-75	148.44 m	262	28.32-29.71	381 ppm Cu, 130 ppm Zn, 20 ppb Au over 1.39 m :262 Horizon

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## Table 1: Summary of the 1990 Diamond Drilling Program – Lara Project (cont.)

Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Re	sults
90-312	89+68W; 107+10N	684 m	208	-75	218.54 m	262	23.47-25.70 72.24-73.05 87.55-89.90 105.65-110.35 153.40-157.15	146 ppm Cu, 2683 ppm Zn over 2.23 m 559 ppm Cu, 236 ppm Zn over 0.81 m 272 ppm Cu, 461 ppm Zn over 2.35 m 340 ppm Cu, 109 ppm Zn, 3 ppm Ag, 47 ppb Au over 4.70 m 67 ppm Cu, 57 ppm Zn over 3.75 m: 262 Horizon
90-313	106+94W; 105+25N	657 m	208	-75	349.30 m	262	131.26-146.64 167.59-175.46	21 ppm Cu, 95 ppm Zn over 15.38 m: 262 Horizon 1 ppm Cu, 28 ppm Zn over 7.87 m: 262 Horizon
90-314	88+85W; 106+74N	665 m	208	-76	140.51	262	42.85-43.75	499 ppm Cu, 176 ppm Zn, 45 ppb Au over 0.90 m
90-315	88+00W; 107+90N	651 m	208	-84	215.49 m	262	42.25-44.05 91.05-94.80 includes 121.20-121.45 146.53-146.85 includes	222 ppm Cu, 176 ppm Pb, 221 ppm Zn over 1.80 m 3653 ppm Cu, 146 ppm Zn over 3.75 m 92.05-93.31: 9640 ppm Cu over 1.26 m 3570 ppm Cu, 64 ppm Pb, 6420 ppm Zn, 60 ppb Au over 0.25m 6020 ppm Cu, 48 ppm Pb, 4940 ppm Zn, 80 ppb Au over 0.32 m 146.53-146.70: 25% pyrite
90-316	109+00W; 105+79N	705 m	208	-75	303.89 m	262	232.69-238.16	litho sample: 15 ppm Cu, 139 ppm Zn: 262 Horizon
90-318	112+00W; 105+10N	743 m	208	-80	267.28 m	262	113.54-150.31	litho sample 6 ppm Cu, 31 ppm Pb, 47 ppm Zn
26 Holes			subtotal		6188.22 m			
3. Reconna	aissance							
90-292	39+48W; 123+11N	188 m	208	-43	212.14 m		112.20-114.50	1568 ppm Cu over 2.30 m
90-303	105+90W; 108+80N	700 m	208	-51	263.0 m			No significant Results

# Table 1: Summary of the 1990 Diamond Drilling Program – Lara Project (cont.)

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Table 1: Summary	of the 1990 Diamond Drilling Program – Lara Project (cont.)	

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Hole	Location	Elevation	Azimuth	Collar Dip	Final Depth	Zone	Significant Results	
90-317	105+18W; 113+91N	809 m	208	-50	227.69 m		75.30-75.67	Cherty argillite, no significant results
90-319	96+00W; 93+00N	579 m	208	-45	137.46 m			No significant Results
4 Holes			subtotal		840.29 m			
49 holes			TOTAL		11,167.09 m			

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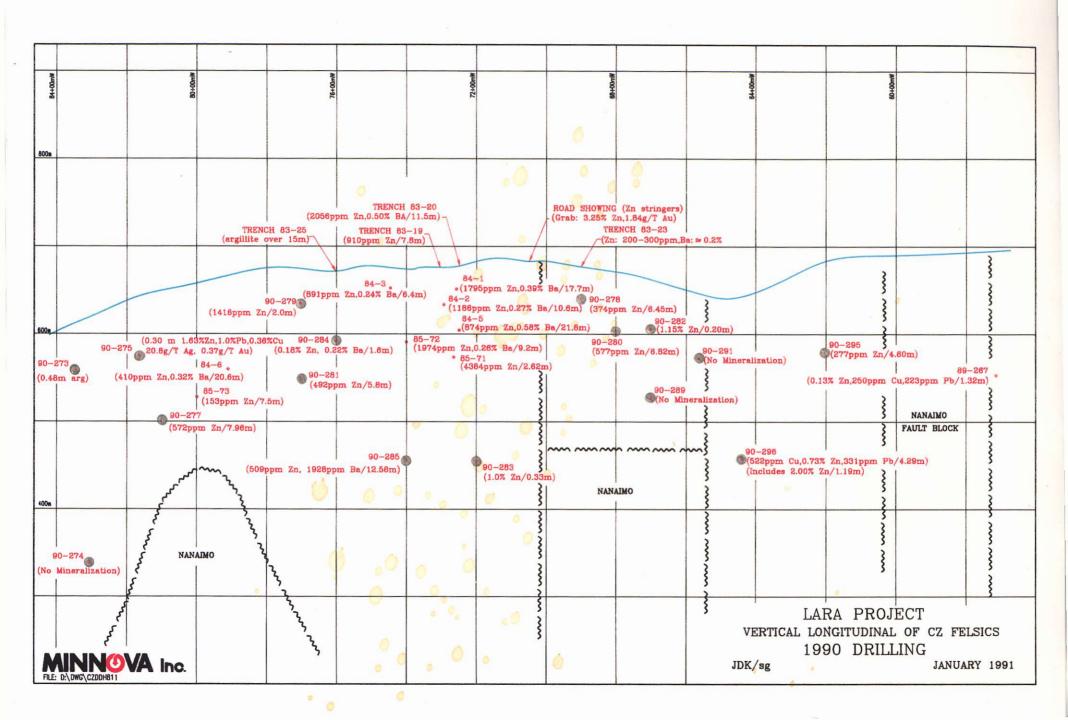
0.85% Pb, 3.25% Zn, 25 g/T Ag, 2.94 g/T Au and 1.84% Ba. Nineteen holes totalling 4138.6 meters tested the down-dip extent of the Road showing mineralization and weak IP anomalies associated with the CZ Felsics. Weak zinc stringer mineralization was intersected in a number of holes (i.e. 90-296: 0.73% Zn over 4.29 m) (Figure 4) but no zones of economic sulphide mineralization were discovered. Drill testing of the CZ sequence also failed to identify an extensively developed exhalative horizon. Hydrothermal alteration reflected by  $Na_2O$  depletion and Cu, Zn, and Ba enrichment is restricted to the sulphide stringer zones that have been intersected.

The down-dip extent of the CZ Felsic package is locally cut-off at depth by the Nanaimo sediments which are in fault contact with the Sicker volcanics. In fact, the entire CZ sequence is missing between holes 90-295 and 89-267 as holes 90-293 and 294 both collared in a wedge of Nanaimo sediments.

#### ii. <u>262 Felsics</u>

The majority of the 1990 drill program tested exhalites in areas of hydrothermal alteration that occur in the 262 Felsic sequence. Initial interest in these volcanics was prompted by the intersection of thin, copper-enriched, massive to semi-massive sulphides that are associated with pyritic cherts and intensely sericitic felsic volcanics (89-262: 1.42% Cu, 0.12% Zn over 1.15 m). In a regional context, it appears that the 262 Felsics also host the Anita barite-massive sulphide occurrence and the Lenora-Tyee deposits located to the west and east of the Lara property respectively.

The 262 Felsic sequence was tested at variable depths over a strike length of 6.5 km by 26 holes totalling 6188.2 meters. The 262 horizon, which consists of pyritic ashes, cherts and sulphide zones occurs near (within 40 m) or at the contact between the 262 Felsics and the underlying 262 Andesites. This contact  $\frown$ 



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dips at 30° to 40° to the north but does steepen to 60° further to the north. Pierce points of the 262 Andesite-Felsic contact have been plotted in a plan longitudinal in Figure 5 and significant intersections from the 1990 drilling have been added. The best development of exhalitive sulphides, cherts and stringer mineralization is found in shallow, near surface holes. Deeper cuts of the 262 Horizon intersected a fine-grained, siliceous felsic ash that is depleted in base metals and hosted in unaltered felsics.

Thin, massive to semi-massive sulphide zones have been intersected in six holes (Figure 5 - holes 272, 276, 300, 304, 306, 315). The best results are from hole 272 (2.37% Cu over 0.71 m) and hole 276 (1.44% Cu over 1.68 m). These intersections define a sulphide zone that has been traced over a strike length of 1.1 km and to depths of 220 meters below the surface. It may mark the up-dip fringe of a larger massive sulphide body. The near surface potential of this zone appears to be limited and the down-dip extension occurs on ground held by Falconbridge Ltd.

A zinc-enriched, andesite crystal tuff is locally present in the immediate hanging wall to the 262 pyritic ash and chert sequence. Reddish brown sphalerite and chalcopyrite occur as blebs and disseminations. Significant assays for this mineralization are as follows:

> 90-286 - 3906 ppm Zn, 631 ppm Cu over 3.0 m -litho sample 90-288 - 4461 ppm Zn, 562 ppm Cu over 2.3 m 90-298 - 7198 ppm Zn, 2065 ppm Cu over 2.2 m 90-306 - 255 ppm Zn, 4421 ppm Cu over 13.15 m 90-308 - 1558 ppm Zn, 230 ppm Cu over 7.35 m

#### 3. <u>Reconnaissance\_Targets</u>

Four holes totalling 840.3 m tested reconnaissance targets on the Lara property. Hole 90-292 tested a well-defined IP chargeability (30-40 msec) anomaly with a strong coincident Cu -Zn soil anomaly located in the eastern part of the Lara property (Figure 3). The IP response is due to pyrite-chalcopyrite stringers that have anomalous copper contents (0.16% Cu over 2.30 m).

Hole 90-303 tested a well defined VLF-IP anomaly that occurs north of the CZ and 262 Felsic sequences. The geophysical response is due to disseminated pyrite zones that occur in chloritic andesite crystal tuffs.

Hole 90-317 tested a weak IP and VLF anomaly located 1000 meters north of the Coronation Extension Zone (Figure 3). The hole intersected a 32.4 m thick sequence of epiclastic rocks which include pyritic cherts and graphitic argillites. No economic sulphides are present.

Hole 319 tested a strong IP anomaly (30-40 msec.) that occurs 800 meters south of the Coronation Zone. The geophysical anomaly is due to a graphitic shear zone hosted in Fourth Lake volcaniclastics. No zones of Sicker volcanics or economic mineralization are present.

#### b. <u>Soil Geochemistry</u>

A total of 614 humus soil samples were collected along the reconnaissance IP lines located south of the Fulford Fault and from the detailed IP grid located at the eastern edge of the Lara property. Samples were analyzed for Cu, Pb, Zn, Ag, Au, As, and Sb at Min-En Labs in North Vancouver using ICP and AA techniques. No anomalies were detected on the reconnaissance lines. However a strong Cu-Zn anomaly is associated with a 700 meter long IP chargeability high located on the detailed IP grid. This anomaly was tested by drill hole 90-292 and is caused by zones of pyritechalcopyrite stringers hosted in andesite crystal tuffs.

#### c. <u>Geophysics</u>

Pole-dipole IP surveying was carried out over parts of the Lara property in 1990 by Scott Geophysics Ltd. Part of this work was done on 1 km long reconnaissance lines which were cut at 400 meter intervals to the south of the existing Mine and exploration grids. The objective of this survey was to try and identify slivers of Sicker volcanics which may be present south of the Fulford Fault. A 1200 meter long IP chargeability anomaly which was defined 800 meters south of the Coronation Zone appears to due to graphitic and pyritic Fourth Lake sediments rather than Sicker volcanics. The best part of the anomaly was tested by drill hole 90-319 as described above.

A 4.8 km IP survey was conducted at the eastern edge of the Lara property near the Chemainus mainline logging road. A well-defined IP chargeability anomaly (30-40 msec) was traced over a strike length of 700 meters. It was drill tested in an area of anomalous Cu and Zn soil geochemistry (90-292) and is caused by pyrite-chalcopyrite stringers in andesite crystal tuffs.

Downhole PEM surveys were done in seven diamond drill holes which tested the 262 Felsic sequence (holes 262, 272, 274, 276, 286, 288, 290). The purpose of this work was to determine if there are any conductive sulphide zones in close proximity to the drill holes. No anomalies were detected.

#### d. <u>Reclamation Work</u>

Water quality monitoring in the vicinity of the portal site was continued on a quarterly basis. Since the waste and ore piles were levelled and clay and limestone capped there has been a general improvement in water quality. To date, the work done at the portal site has not affected the water quality of Solly Creek. A more detailed account of the water quality monitoring is presented in the quarterly reports prepared by Bob Hallam.

#### 4. <u>Conclusions</u>

The 1990 exploration program was directed primarily towards evaluating the near-surface massive sulphide potential of the CZ and 262 Felsic sequences. Nineteen diamond drill holes (4138.6 m) tested the CZ Felsics to the east of the Coronation Zone. Wide zones of anomalous zinc stringer mineralization were intersected but no economic zones were discovered. There is no indication that there is a continuous exhalite horizon in the CZ Felsic package. In addition, no areas of hydrothermal alteration have been outlined. Consequently the CZ Felsics do not appear to be a favourable host unit for proximal VMS deposition.

The 262 Felsics occur to the north of the CZ Felsics and are separated by the 262 Andesite crystal tuffs and ashes. The 262 Felsics host a distal exhalite comprised of pyritic cherts, ashes and thin, copper-rich, semi-massive to massive sulphides. This horizon occurs within 40 meters of the contact between 262 Felsics and Andesites. In 1990, the 262 Horizon was tested over a 6.5 km strike length by 26 holes totalling 6188.2 m. Six of the drill holes intersected thin, massive sulphide zones. A massive sulphide sheet appears to be developing to the east of Silver Creek but the down-dip extent of this zone occurs claims on owned by Falconbridge. The mineralization, pyritic exhalites and hydrothermal alteration in the 262 Felsics appear tb be confined to shallow levels (<100 m vertical). At depth, the 262 Felsics are unaltered and pyritic exhalites are thin or absent. The 1990 drilling has limited the near surface potential for the discovery of an economic, massive lens in the 262 Felsic sequence.

Reconnaissance IP to the south of the Fulford fault failed to define any additional slivers of Sicker volcanics. A 1200 meter long IP chargeability anomaly is due to graphitic and pyritic shears in the Fourth Lake volcaniclastics. Other isolated IP and VLF anomalies tested on the Lara property are due to zones of disseminated pyrite. The 1990 exploration program has greatly decreased the potential for discovering a near-surface, economic, massive sulphide deposit on the Lara property. Any future work will require deeper drilling. The most favourable target for this type of program would be the 262 Felsic sequence which is known to host zones of hydrothermal alteration and distal sulphide exhalites. Appendix I <u>Statements of Work</u>

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Appendix II 1990 Diamond Drill Logs v

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