

LOG NO: 17-01 RD.

ACTION:

FILE NO:

KOKANEE EXPLORATIONS LTD.

REPORT ON DIAMOND DRILL HOLE E90-3

ENG PROPERTY

YAH 1 Claim

FOR STEELE MINING DIVISION

YAHK AREA

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

LAT: 40°05'N

LONG: 116°05'W

20,829

OWNER

KOKANEE EXPLORATIONS LTD.

Suite 104, 135 - 10th Avenue South
Cranbrook, B.C.
VIC 2N1

Work Performed From August 15, 1990 to August 23, 1990

Report by: L. Stephenson
Submitted: December, 1990

TABLE OF CONTENTS

		PAGE
1.00	Introduction	1
2.00	Claims	1
3.00	Access and Location.	1
4.00	Regional Geology	1
5.00	Property Geology	1
6.00	1990 Work Program.	2
7.00	Diamond Drilling	2
	7.10 Drill Hole E90-3	2
8.00	Conclusion	3
	Exhibit "A" - Statement of Expenditures.	4
	Affidavit	5
	Author's Qualifications	6
	Location Map	7
	Section B-B1	8
	Drill Log	9

KOKANEE EXPLORATIONS LTD.

REPORT ON DIAMOND DRILL HOLE E90-3

YAH 1 CLAIM

FORT STEELE MINING DIVISION

L. Stephenson

December, 1990

1.00 Introduction

This report has been written to outline the exploration drilling work and results on the Eng claim group, at Yahk, British Columbia, 50 kilometres south of Cranbrook.

2.00 Claims

The property consists of three 4-post claims (Eng 1 = 15 units, Eng 2 = 16 units and Eng 205 = 20 units) and 206 2-post claims (Eng 3 to Eng 204 and 205 to 209) held directly by Kokanee Explorations Ltd. and eight 2-post claims (Yahk 1 to 8), under option.

3.00 Access and Location

These claims are located astride British Columbia Highway 3/95 around the town of Yahk, in southeastern British Columbia (see Location Map). Kokanee has built access roads into the main areas of the claim groups.

4.00 Regional Geology

The claims lie within the central portion of the Purcell Anticlinorium, which consists of sedimentary argillites, quartzites and related intruded gabbro sills and dykes of the Aldridge Formation. This formation hosts both the Sullivan deposit and the St. Eugene deposit approximately 72 kilometres north and 25 kilometres north respectively.

5.00 Property Geology

The property is located within the Middle Aldridge rocks with the southern portion closely associated with the Lower Aldridge/Middle Aldridge contact (stratigraphic time horizon of the Sullivan Mine) (Map 3).

Limited exploration mapping of the property by Cominco Ltd. and Kenneco Inc. have shown the presence of Moyie gabbro intrusive within the Aldridge quartzites. The reports also indicate presence of quartz veins with sulphides and some disseminated pyrrhotite and sphalerite in samples taken on the northern part of the property.

6.00 1990 Work Program

Kokanee commenced exploration work on this project in early July of 1990. The exploration work consisted of base linecutting, soil geochem, geophysical surveying, geological mapping and diamond drilling of five drill holes.

7.00 Diamond Drilling (Plates 14 - 17)

Five diamond drill holes were spotted to test the coincident geochem and geophysics anomalies on both the north and south grids and to drill test the Yahk vein at depth. A total of 1550 metres of core was drilled. Geologically, the rocks were typically Middle Aldridge quartzites and argillites.

7.10 Drill Hole E90-3

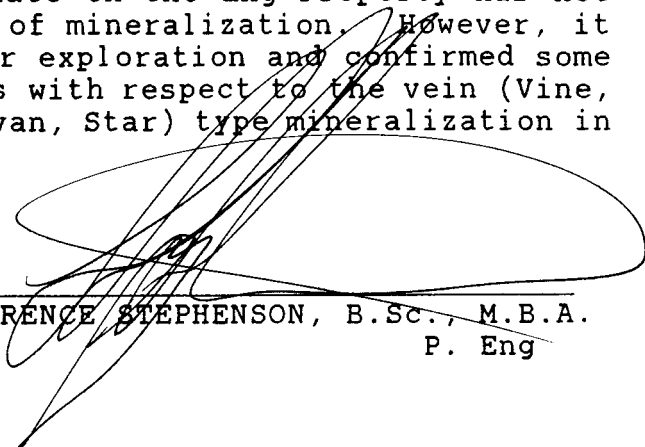
E90-3	-45°	100°	Line 5315N, 3210E (Plate 15)
-------	------	------	---------------------------------

This hole was designed to test below the surface showing to the north of the town of Yahk. Samples from this vein had run up to 2% lead in grab sample. Some thin quartz rich veins with pyrite and arsenopyrite with very minor sphalerite and galena were intersected. Some thin laminae beds with pyrite and pyrrhotite were also intersected. The rock units were much more maroon in colour and with a higher percentage of argillite content. It was interpreted to be lower Aldridge equivalent units. The amount of disseminated sulphide mineralization tends to confirm this interpretation.

Although no distinct correlation of the down dip extension of the vein showing has been confirmed, the presence of similar veins could be related. The presence of major faulting deeper in the hole could also be related to the showing or in displacing the down dip extension of the zone. The repeating of beds (inferred in the hole) is very probably related to the major fault system proposed through the Yahk Valley.

8.00 Conclusion

The work completed to date on the Eng Property has not delineated any substantial zones of mineralization. However, it has outlined two areas for further exploration and confirmed some of the regional geological factors with respect to the vein (Vine, North Star) and stratiform (Sullivan, Star) type mineralization in the area.



LAURENCE STEPHENSON, B.Sc., M.B.A.
P. Eng

EXHIBIT "A"
STATEMENT OF EXPENDITURES
DIAMOND DRILLING PROGRAM
(E90-3)
ON YAH 1 CLAIM
FT. STEELE M.D.

Covering the period of August 15th to August 23rd, 1990

INDIRECT

SALARIES:

R. Edmunds - Geologist - Supervision/core
logging, sampling - 9 days @ \$200/day \$ 1,800.00

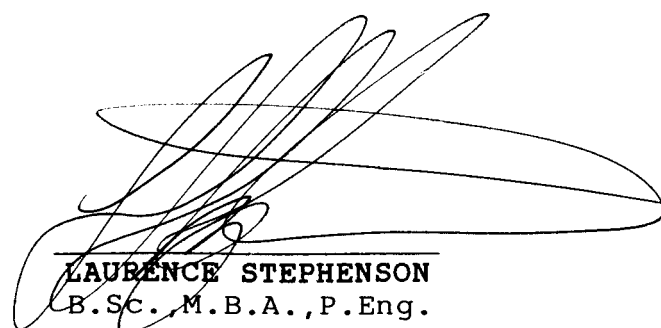
DOMICILE: 9 days @ \$65/day 585.00

TRANSPORTATION: 1 - 4X4 truck; 9 days @ \$50/day 450.00

DIRECT

Connor's Drilling Ltd.
2007 West Trans Canada Highway,
Kamloops, B.C. 41,138.25

TOTAL INDIRECT AND DIRECT = \$43,973.25



LAURENCE STEPHENSON
B.Sc., M.B.A., P.Eng.

IN THE MATTER OF THE
B.C. MINERAL ACT
AND
IN THE MATTER OF A DIAMOND DRILLING PROGRAM
CARRIED OUT ON THE ENG PROPERTY
YAHK AREA

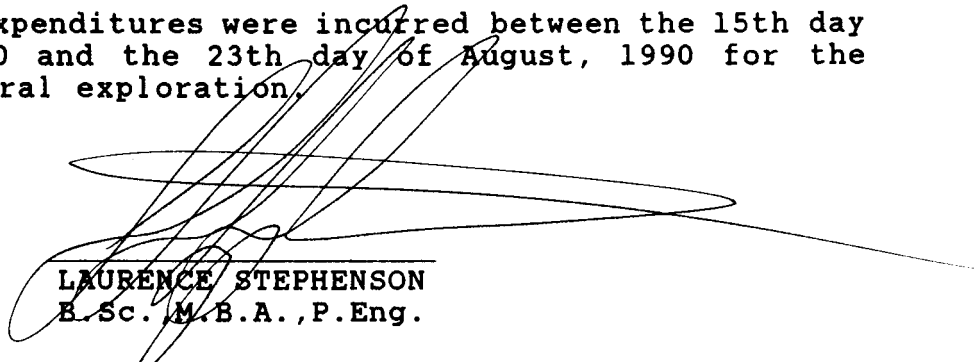
in the Ft. Steele Mining Division of
of the Province of British Columbia

More Particularly N.T.S. 82G/11W

A F F I D A V I T

I, L. Stephenson, of the City of Cranbrook, in the Province of British Columbia, make oath and say:

1. That I am employed as a Geologist by Kokanee Explorations Ltd. and as such have a personal knowledge of the facts to which I hereinafter depose:
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is a true copy of expenditures incurred on a diamond drilling program, on the Eng mineral claims;
3. That the said expenditures were incurred between the 15th day of August, 1990 and the 23th day of August, 1990 for the purpose of mineral exploration.

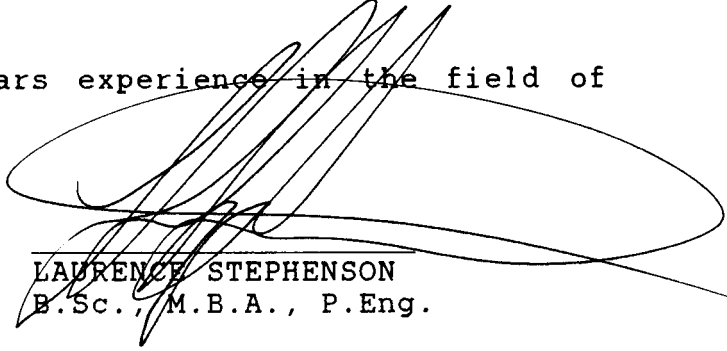


LAURENCE STEPHENSON
B.Sc., M.B.A., P.Eng.

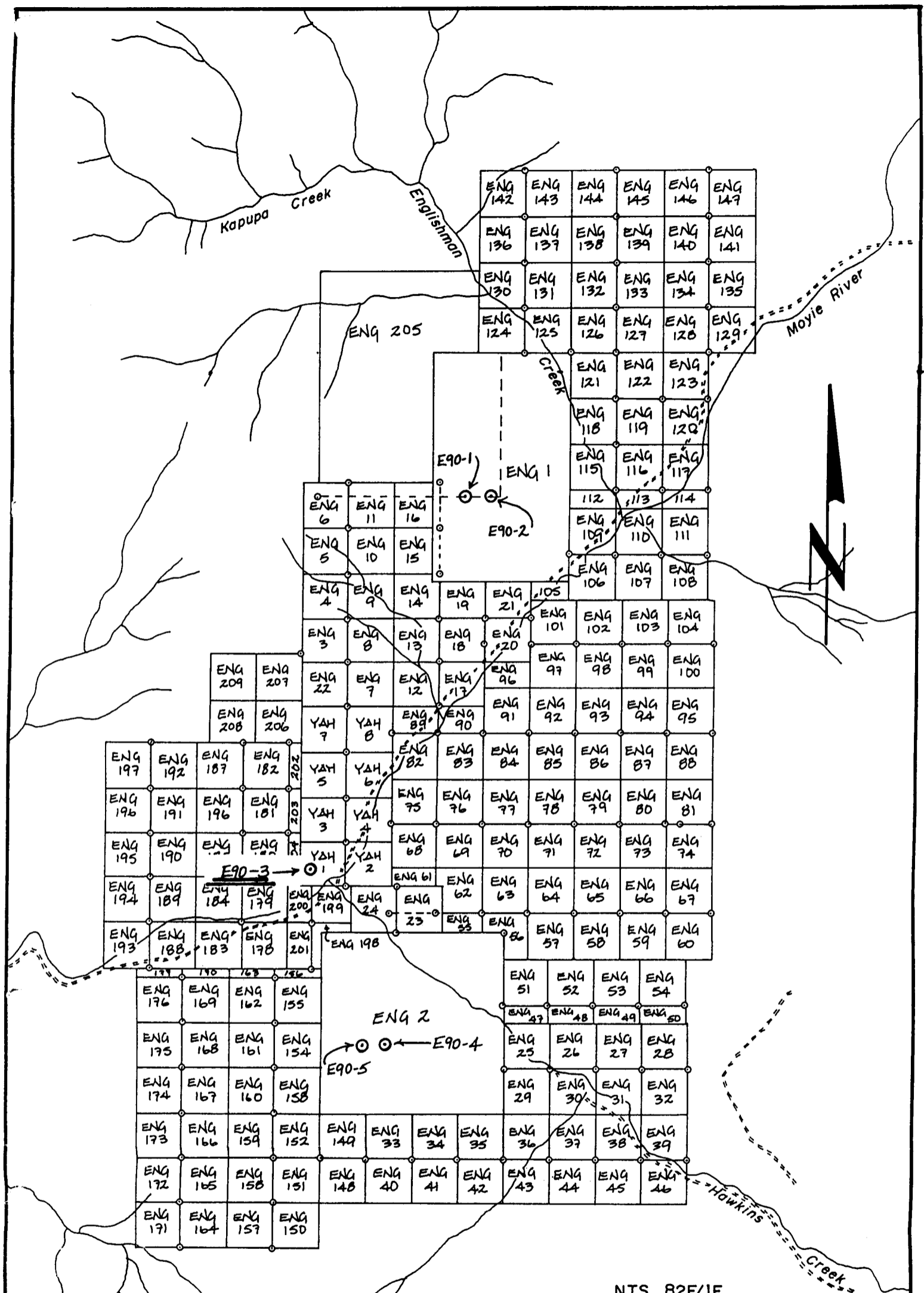
AUTHOR'S QUALIFICATIONS

I, Laurence Stephenson, of Cranbrook, B.C., in the Province of British Columbia, do hereby certify that:

1. I graduated from Carleton University in 1975 with a Bachelor of Science degree in Geology then, in 1985, graduated from York University with a Masters of Business Administration;
2. I am registered as a Professional Engineer for the Province of Ontario (1981) and currently a member in good standing;
3. I have had over 23 years experience in the field of mining exploration.



LAURENCE STEPHENSON
B.Sc., M.B.A., P.Eng.



N.T.S. 82F/1E

KOKANEE EXPLORATION
ENG PROPERTY

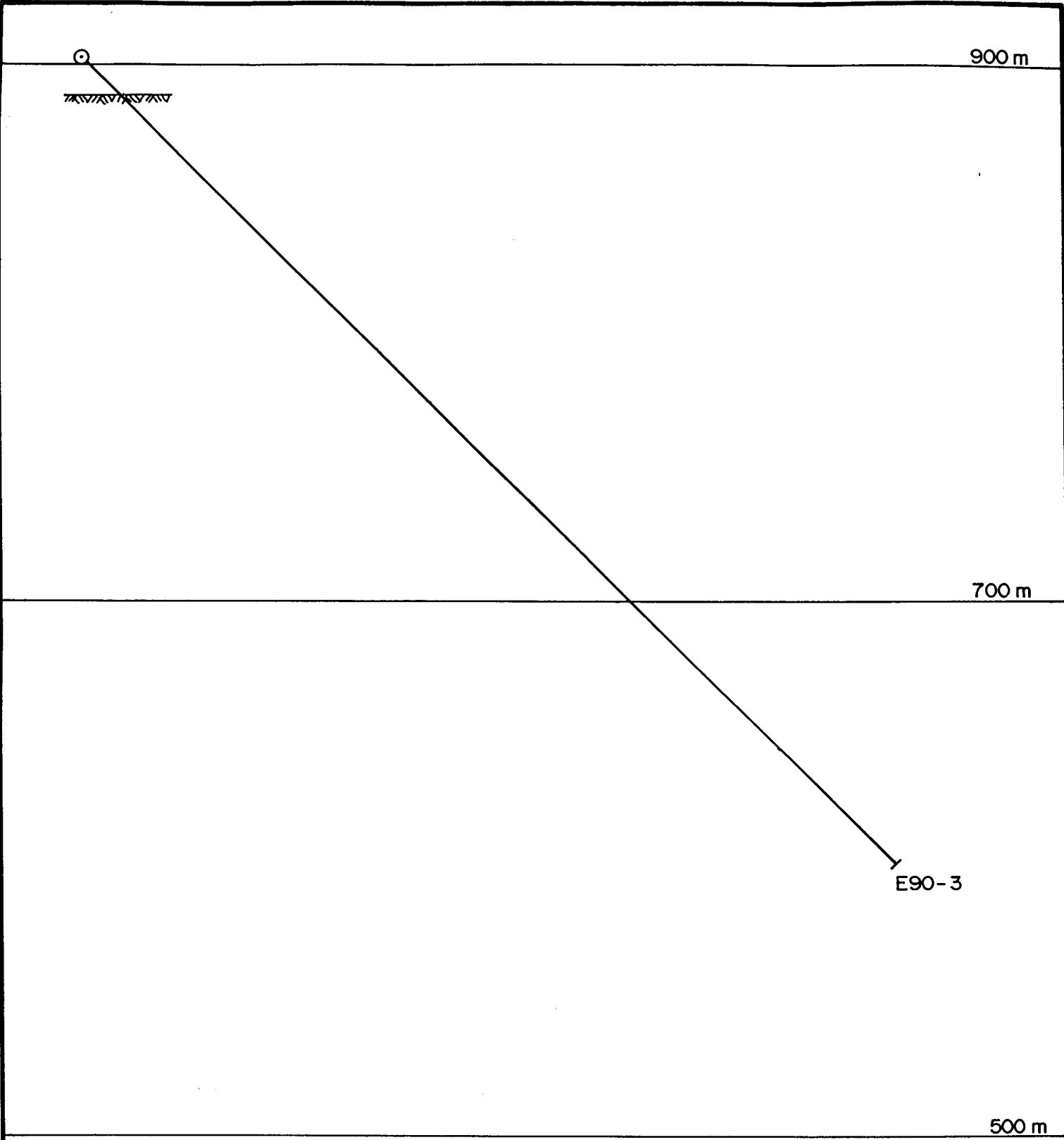
LOCATION MAP

DRILL HOLE E90-3

Scale: 1:50 000

Date: Dec/90





KOKANEE EXPLORATIONS LTD.	
ENG PROPERTY	
SECTION B-BI	
Scale: 1:2000	Date: DEC. 1990

KOKANEE EXPLORATIONS LTD.

DRILL HOLE RECORD

Page No. 1

Name of Property: ENG	Corr. Dip: -45°	Remarks:
Hole No: E90-3	Length: 427.02m	
Location: Yah 1 Claim	Start Date: August 15, 1990	Finish Date: August 23, 1990
Elevation: 900m	Azimuth: 100°	Collar Dip: -45°
Core Size: NQ	Tests at:	Logged by: FRE Date: Aug.17/90

M E T E R A G E		D E S C R I P T I O N	S a m p l e							
From	To		No.	From	To	Au ppb	Ag ppm	Pb %	Zn %	Cu ppm
0.00		Casing.								
23.06	51.00	<p><u>Lower Middle Aldridge:</u> Medium to thick bedded (± 1.5m) units 40 - 60% quartzite grading into quartzitic argillites and local argillites. Unstable slope conditions: generally disturbed argillaceous units and rare laminations; load cast bases. High grade of thermal metamorphism (coarsely crystallized biotite, pink garnets, spotting of metamorphic feldspars) locally overprinted by a fabric cleavage = slatly cleavage. Very little fracturing. Frequent patches of pale cream, fine grained, alteration and garnets and feldspar and biotite clots in quartzites. 23.06 - 51.50: occasional rust coated fractures, increasing below 42.60. 23.06 - 27.00: local zones of short,dark,irregular</p>								

KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD

Page 3

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N	S a m p l e			Au	Ag	Pb	Zn	Cu
From	To		No.	From	To	ppb	ppm	%	%	ppm
		some faces, approximately parallel core axis. Looks like a carbonate clay mineral aggregate.								
51.00	70.00	<p><u>Base of Quartzite:</u> actually runs along core for about 1m.</p> <p><u>Quartzitic Argillite:</u> argillaceous quartzite variation. Metamorphic fabric with coarse biotite and evenly distributed specks of decomposed feldspar phenocrysts (~0.5mm). Lamination mostly disaggregated by incipient slumping and fluidization. Sericitization of argillaceous sections throughout. Unit bases represented by slightly more quartzitic sections and no load casting. Below <u>56.78</u> disturbed intervals between 5cm and 20cm (true) amount to ~35% and coarse (up to 4cm) laminated quartzitic argillite and argillite predominate. <u>58.30 - 63.11:</u> sections of cracks as 42.15 - 42.35. Coarser and more dense locally. Trend is about 10° to bedding in argillaceous rocks; perpendicular or irregular in the more quartzitic sections. Rare visible pyrite is pale or arsenopyrite. Sporadic repetition below. <u>65.45 - 65.55; 66.92 - 3cm; 67.60 - 67.68; 68.30 - 4cm; 69.00 - 69.15:</u> cracks as above limited to quartzitic sections, where</p>								

KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD

Page 4

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N	S a m p l e			Au	Ag	Pb	Zn	Cu
From	To		No.	From	To	ppb	ppm	%	%	ppm
		more dense and irregular network and associated with increasing pyrite, arsenopyrite and fine, grey metallic (possibly galena). 69.15: faintly laminated, completely sericitized argillite, grading out below 70.00 into quartzitic argillite. Frequent seams of cream clay mineral parallel bedding. ± 1mm veins of the crack-fill described above at 10° to bedding.								
		Transition over interval 65.00 - 70.00.								
70.00	78.70	As above, but including thin quartzite bases to units (±20%)(±20cm). Downward - increasing sericitization of argillaceous component, with local development of feldspar phenocrysts (<1mm, <3%), biotite. Chlorite absent. Subtle increase in fine and coarse crack network as 58.30 - 63.11, concentrated in quartzitic argillites and quartzites, with pyrite, pyrrhotite or very fine pyrite, and arsenopyrite (+ grey metallic). 72.00: brittle fracture zone in quartzite. Principal trend ~50° to core - 8cm. Pyrite and arsenopyrite open space fill. 73.26: gouge and chip-filled 6cm fracture associated with very fine pyrite in streaks and disseminations. 75.55: 7mm sulphide	1007	71.0	72.0	/	-	.005	.01	62
			1008	72.0	73.0	/	-	.005	.01	34
			1009	73.0	74.0	/	-	.005	.01	45
			1010	74.0	75.0	/	/	.02	.02	28

KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD

Page 7

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N	S a m p l e			Au	Ag	Pb	Zn	Cu
From	To		No.	From	To	ppb	ppm	%	%	ppm
		quartz-feldspar matrix. <u>101.88</u> -								
		<u>104.30</u> : as 85.42 - 98.08, thin bedded quartzite sequence with short (5cm) sections of dense dark cracks of very fine pyrite in five of the quartzites.								
		<u>106.00</u> : 15cm fracture zone with core of crushed rock and muddy gouge. Low confining pressure. <u>107.52</u> - <u>111.83</u> : frequent short sections of pyrite bearing cracks as described above.								
		<u>110.19</u> (9cm); <u>110.53</u> (1cm): dense network of very fine cracks as above and ~20% pyrite as disseminated aggregates to 0.5mm. <u>111.03</u> (5mm); <u>111.19</u> (3mm); <u>111.27</u> (4mm): bedding plane seams of quartz, cream clay mineral, aggregates of pyrite and rare chalcopyrite to 3mm.								
		<u>113.12</u> - <u>118.15</u> : unit size ±2m, argillite content <5%. <u>122.68</u> - <u>123.70</u> : pyrite bearing cracks through quartzitic argillite @ ±10° to bedding. Cracks are coarser than above; 0.5mm wide and exceed core in length, 48° to core axis.	1011	122.5	123.5	1	-	.005	.01	85
		<u>124.10</u> - <u>127.10</u> : core very blocky. Much of the breakage is along fine planes in quartzite bordered by whitish quartz (<<0.5mm) @ 60° to core axis. Probably bedding. More argillaceous sections display soft-rock convolution.								
		<u>127.25</u> - <u>153.00</u> : more or less as above. Very fractured, but no coatings. In	1012 1013	140.1 141.2	141.2 142.4	1 1	- -	.005 .005	.01 .01	25 41

**KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD**

Page 10

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N	S a m p l e			Au	Ag	Pb	Zn	Cu
From	To		No.	From	To	ppb	ppm	%	%	ppm
		<p><u>161.30 - 163.25</u>: largely laminated argillite as described; occasional quartzitic bases 5cm - 10cm thick. <u>163.65</u>: CAVE recorded within quartzite; but no apparent gap in core. <u>166.65 and 166.90</u>: balling of silty units within thin bedded sequence. Unit thickness and content of medium grained quartzite increases below <u>167.00</u> to 2 - 3m and 80%. Possible candidate for base of Middle Aldridge Formation,</p>								
171.68	190.00	<p><u>Thin to Medium Bedded Argillites</u>: 5cm - 50cm, well bedded sequence of argillites and quartzitic argillites. Lamination is coarse (1 - 4cm) frequent sections containing the dark, pyrite-bearing cracks described previously. Commonly about 10 - 15° to bedding, locally variable. <u>171.68</u>: 16cm of intense sericitization of argillite. <u>175.55 - 176.70</u>: dark homogeneous argillite containing local sections of dark cracks and about 2% pyrite throughout as an even dissemination of occasionally bedded aggregates to 1.5mm in length. <u>176.70</u> (6cm): pyrite bearing concretion. <u>176.84</u>: pyrite aggregates to 1cm long and 1mm wide form two bedded</p>	1014	175.5	176.7	1	-	.01	.02	34

KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD

Page 11

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N	S a m p l e			Au	Ag	Pb	Zn	Cu
From	To		No.	From	To	ppb	ppm	%	%	ppm
		bands about 1mm thick and 1cm apart. <u>181.20</u> : 1.5cm band of quartz and cream clay mineral in plane of bedding. <u>188.66</u> : 2cm vuggy crush zone parallel bedding. <u>189.89</u> : 10cm of mild alteration (silicification?) with 15 - 20% irregularly distributed aggregates of pyrite to 3mm, patches of fine pyrite, a 2cm patch containing aggregates of chalcopyrite to 3mm long.								
190.00	221.00	<u>Transitional From Above</u> : as from 156.10 to 171.68. But the sericitization and biotite development is less obvious. Quartzites are dark grey and fine to medium grained. Frequent batches of concretionary material. <u>195.00</u> - <u>197.50</u> : principally laminated argillite. Fractured, mainly in bedding plane, with loci at <u>196.00</u> and <u>197.10</u> . <u>198.95</u> - <u>201.20</u> : similar to 175.55 - 176.70. Dark, siliceous argillite streaked with bedded aggregates and very fine lenticular laminae of very fine pyrite to about 3%. Incipient development of dark cracks as described previously. <u>200.10</u> : 6cm bed of quartz-sericite (? = decayed feldspar?) veined with ultra-fine pyrite bordered with 1cm - 2cm of maroon argillite. <u>204.52</u> - <u>205.56</u> : CAVE	1015	199.0	201.20	2	-	.01	.02	40

KOKANEE EXPLORATIONS LTD.
DRILL HOLE RECORD

Page 16

Property: ENG

Hole No.: E90-3

Location: Yah 1

M E T E R A G E		D E S C R I P T I O N			S a m p l e					
From	To	No.	From	To	Au ppb	Ag ppm	Pb %	Zn %	Cu ppm	
			<p>locally intense in quartzites. Argillites occasionally mildly sericitic and rarely disturbed by soft sediment disaggregation. Rare sections of fine, pyrite bearing cracks in argillaceous rocks. <u>276.27 - 280.00</u>: relatively intense brecciation as described above, gradually dying out downwards. <u>282.06 - 282.36</u>: fracture or slip zone. Minor gouge, but frequent dark chlorite, striated slip faces. Majority at about 20° to bedding and 50° to core axis. <u>290.48 - 295.26</u>: single composite turbidite - 98% quartzite. Occasional quartzite bed to about 2m thick below here. <u>310.95 - 312.53</u> and <u>313.45 - 314.25</u>: fracture zones of variable brecciation as 234.30 - 240.50, minor gouge seams and fractured core with occasional striated face. The prevailing trend appears to be approximately parallel to bedding. <u>315.08 - 316.90</u>: as above, but less intense. At <u>316.16</u>, 15cm band in which feldspars of quartzite completely sericitized. <u>317.35 - 326.14</u>: blocky, fractured. One fracture direction is parallel bedding. The other is between 8 and 15° of core axis - about 90° to bedding. The former are striated faces of slip. The section is 95% quartzite</p>							

