KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

825953

To __D.A. Lowrie__   From __W.M. Sirola__

Subject __CONSOLIDATED CINOLA (Specogna Gold Property) 105F__ Date __March 4, 1982__

I.D.B.
A.H.C.
P.S.C.
D.M.H.
W.J.
J.B.S.

FILE

Herewith a plan and four sections depicting the two areas of quartz veining which contain the highest grades (.08 Au) on the Specogna property.

Two of the sections 12 + 78 and 14 + 89) are drawn along $N66^{o}E$ grid lines crossing each zone and cutting the strike of the quartz veins at 52°.

The other two (77 - 5 and 77 - 8) are drawn on grid lines trending $N64^{o}W$ and looking $N26^{o}E$ which is only 2° off the strike of the veins or in other words, they are nearly true cross sections.
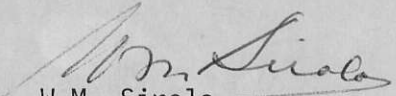
I should point out that we made these sections from available diamond drill hole data. The Consolidated Cinola people may have a different interpretation.

Both the north and south zones are outlined in red on the plan and together they contain approximately 6,000,000 tons. The north zone needs better definition by angle drill holes and it has not been investigated by underground work. We don't know if it is metalurgically the same as the south zone; there could be a difference in carbon content.

The areas shown in red on the plan have been calculated by Consolidated Cinola to have average grades of 0.08 Au but we have not checked these figures.

I consider the higher grades mineable at $500 gold (Canadian) and I would be interested in the type of arrangement wherein we could further evaluate the north zone and then agree to production or put the property on ice until gold prices improve. There would be no problem with Energy Reserves in as much as that is the type of arrangement that company has with Consolidated Cinola.

In the meantime I will contact Dr. R.A. Brooks of Energy Reserves in Golden, Colorado, in an effort to determine whether or not he would agree with such a compact.

W.M. Sirola
Regional Exploration Manager

WMS:mr

Enclosures

FEB 26 1982

Hold for maps and drawing

CKW

NES LIMITED

(USE ONLY)

Mr. W.M. Sirola

Date   February 23, 1982

103 F 9E

29th, 1982, we contacted Ken Sanders, ...ff Burril who represents Energy Resources

was in December, 1977 at which time reserves was 8.8 MM tons of 0.059 Au. % - 60% at that time.

ly permitted Fred Chow to copy data from simpler to print them). The data on ...ese sheets indicated that the deposit contained a total of 45 MM tons with an average grade of 0.055 Au. The plant size was to be 13,500 t.p.d. or 4,725,000 t.p.y. The mill head grade would be 0.08 Au in the first year, 0.061 in the second year, 0.059 in the third year, and then gradually reducing to a final grade of .050 Au. For these various grades, recoveries were indicated to be 80%.

Present value calculations on the same sheets imply that if interest payments were not deducted during production years, the pay-back of $179.1 MM would be made in 7½ years at 15% interest if the price of Au remained at $400.00 U.S. The fallacy of this method of calculation is that financial institutions require at least regular payment of interest which should be shown for calculation purposes as an operating cost, thereby reducing cash flow and in consequence extending the pay-back period.

We found in discussing the deposit with Geoff Burril both on the telephone and during a visit to the property on February 10th and 11th, that his version of metal recoveries was quite different from that of Sanders. Indeed we found him to be honest and candid about the economics as a whole.

FEB 26 1982

Hold for maps and discussion

To Mr. D.A. Lowrie   From Mr. W.M. Sirola

Subject CONSOLIDATED CINOLA DEPOSIT   Date February 23, 1982
PORT CLEMENTS, QUEEN CHARLOTTE ISLANDS 103 F 9E

Prompted by your enquiry of January 29th, 1982, we contacted Ken Sanders, President of Consolidated Cinola and Geoff Burril who represents Energy Resources (Canada) Ltd.

Our previous study of this deposit was in December, 1977 at which time Fred Chow's estimate of drill indicated reserves was 8.8 MM tons of 0.059 Au. Recoveries of Au were in the order of 50% - 60% at that time.

Two weeks ago, Ken Sanders graciously permitted Fred Chow to copy data from computer sheets (it would have been much simpler to print them). The data on these sheets indicated that the deposit contained a total of 45 MM tons with an average grade of 0.055 Au. The plant size was to be 13,500 t.p.d. or 4,725,000 t.p.y. The mill head grade would be 0.08 Au in the first year, 0.061 in the second year, 0.059 in the third year, and then gradually reducing to a final grade of .050 Au. For these various grades, recoveries were indicated to be 80%.

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To......... Mr. D.A. Lowrie   *From*.......... Mr. W.M. Sirola

Subject........ CONSOLIDATED CINOLA DEPOSIT ....*Date*..... February 23, 1982

PORT CLEMENTS, QUEEN CHARLOTTE ISLANDS 103 F 9E

(2)

Burril's version of Au recoveries is that only the quartz vein zones exhibit recoveries of 80% and between them, they contain some 6 MM tons of 0.08 Au. Possibly this could be expanded to 8 MM tons by further surface drilling and by extending the present underground workings. For lower grades, the recoveries fall into the 50% - 60% range. Even in the vein zones, the grades estimated from diamond drilling in the north zone are suspect inasmuch as vertical drill holes were used to drill numerous veins which contain the bulk of the higher grade values and which dip 85° southeast. In consequence, only the grades estimated from underground work including underground diamond drilling are meaningful. To corroborate this impression, we examined core from numerous vertical surface drill holes and found that the quartz veins were cutting the core at very acute angles.

The concept of vertical drilling may well have had credence when the price of Au was in the $700. - $800. range and the deposit as a whole appeared to be minable. It is certainly not valid in terms of today's Au price ($365.00 U.S.) and pilot plant recoveries.

The two quartz vein zones are separated by approximately 40 metres of low grade material at adit level. Their dimensions are as follows:

South Zone: 90m x 80m x 135m c 2.55   = 2.48 Million
North Zone: 120m x 150m x 90m x 2.55   = 4.13 Million

These dimensions are determined by the Specogna fault on the west and the Sandspit fault on the east. While the Specogna fault may well have guided the course of the Miocene rhyolite breccia in pre-mineral time, the last movement appears to have been post mineral. This applies equally well to the Sandspit fault.

(3)

In simple terms, only the 0.08 grade material has any chance of being mined at a profit. We have tried various plant sizes from 2,500 t.p.d. to 5,000 t.p.d. but none of these would return the capital costs at 15% compound plus repay the $14 MM of pre-production expenses. The minimum requirement would be either an improvement in Au recoveries from 80% to 90% or an increase in the price of Au from $450.00 to $500.00 in Canadian funds. Such an increase would add $3.00 per ton to profits which would mean an additional $18 - $24 MM over the life of the quartz vein zones depending on whether the total reserve was 6 or 8 MM tons. The following figures are an estimate of the outcome of a 5,000 t.p.d. operation:

Mineral Reserve 8 MM tons averaging 0.08 Au

Capital Cost $50 - 100 MM

Recoverable grade 0.08 x 80% = .064 or $28.80 per m.t. at $450.00 Canadian.

Operating Cost $15.00 per m.t.

Interest Cost at 15% for 1.5 years = $11.25 MM or $1.40 per m.t.

___

Total Operating Costs Plus Interest   = $16.40

Operating Profit per m.t.   = $12.40

Total Operating Profit (8 MM m.t. = $99,200,000.00)

p.v. at 15% (4.57 years) 99.2 x .67043   = $66.50 MM

One year deferral 66.5 x .869   = $57.79 MM

Capital Cost plus pre-production cost   = ($50 - $100 MM) + $14 MM = $64 - $114 MM

These figures indicate that mining of the entire deposit would not return the minimum estimated capital costs plus the $14 MM in pre-production expenditures.
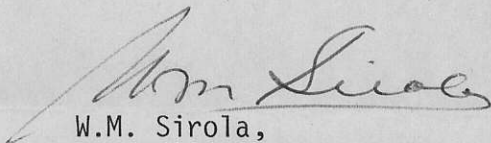
(4)

CONCLUSIONS AND RECOMMENDATIONS

Inasmuch as the deposit does not appear to be profitable in today's terms, the only feasible arrangement which might be made with Energy Resources would be an agreement to continue to further delineate the tonnage and grade of the north zones with the understanding that production could be deferred until such time as a profitable operation could ensue. At the same time, some one could study the outcome of the pilot plant operations to determine if these are meaningful and if they could be improved upon. Considering the number of interested companies, it seems unlikely that any organization could obtain any sort of position without being prepared to spend some money.

Since Geoff Burril has been entirely forthright with his information, we should respond in kind and tell him precisely what, if anything, we are prepared to do.

W.M. Sirola,
Regional Exploration Manager.

P.S. Maps to follow in a few days.

From the desk of:
Bill Sirola

Nov. 1/82

MAR 4 1982

Dave:

The higher grabs (0.08g)
Should be mineable @ 410
US. or 500 Canadian.

If you think these
prices are attainable in
the near future, we should
try to stay in the picture
by contacting R. A. Brooks
@ Golden Colorado.

Otherwise we should
tell Geoff.
Let me know what
you think.
Regards
Bill

Φ Energy Reserves Canada, Ltd.

February 23, 1982

to see you again in Vancouver and appreciated.

...ior metallurgist who you met on ...ucted to coordinate the results ...ant, laboratory scale studies and the Autoclave, etc. Various aspects program have been carried out in Golden and, of course, on the Island.

I will advise you as soon as this work has been completed and arrange for a copy to be sent to you. If you wish to approach Energy Reserves in regard to a possible interest in this project, please contact:

Dr. R. A. Brooks
Vice President, Energy Reserves Group
Suite 250
1746 Cole Boulevard
GOLDEN, Colorado   80401
Ph: (303) 277-0250

Yours sincerely,

G. H. R. Burrill

GHRB/dz

Energy Reserves Canada, Ltd.
Suite 606
224 - 4 Avenue South
Saskatoon, Saskatchewan S7K 5M5
Phone 306 664 8983

Φ Energy Reserves Canada, Ltd.

William M. Sirola   February 23, 1982
Regional Exploration Manager
Kerr Addison Mines, Limited
703 Fidelity Life Bldg.
1112 West Pender Street
VANCOUVER, B.C.
V6E 2S1

Dear Bill:

    RE: Cinola Mines

    It was very pleasant to see you again in Vancouver and
your hospitality was much appreciated.

    Peter Kresin, the senior metallurgist who you met on
the Island, has been instructed to coordinate the results
obtained from the pilot plant, laboratory scale studies and
other related work such as the Autoclave, etc. Various aspects
of the metallurgical test program have been carried out in
Vancouver, Salt Lake City, Golden and, of course, on the
Island.

    I will advise you as soon as this work has been completed
and arrange for a copy to be sent to you. If you wish to
approach Energy Reserves in regard to a possible interest in
this project, please contact:

        Dr. R. A. Brooks
        Vice President, Energy Reserves Group
        Suite 250
        1746 Cole Boulevard
        GOLDEN, Colorado   80401
        Ph: (303) 277-0250

        Yours sincerely,

        G. H. R. Burrill

GHRB/dz

CONSOLIDATED CINOLA MINES LTD.

PROGRESS OF BIG B.C.   - K.G. Sanders, president of Cinsolidated Cinola Mines Ltd., reports
GOLD PROJECT REPORTED   that the data base for the final feasibility study of the company's
                         gold project on Graham Island, B.C., has now been completed at a
cost of more than $14,000,000. The feasibility study base case is taking shape on schedule,
as project details emerge on a weekly basis. The data analysis and economic evaluation
will be in final bankable form later in the first half of 1982.

Simultaneously, project financing alternatives are under active negotiation, as well
as continuing liaison with the permitting authorities to ensure continuity between receipt
of the feasibility report and Stage II Environmental Impact Report and start-up of the
construction phase.

Mr. Sanders says feasibility study estimates to date indicate that the project will
economically produce over 2,000,000 ounces of gold through 10 years. This can be accompl-
ished through a milling capacity of some 13,500 metric tonnes per day. In terms of both
recovered ounces and daily mill capacity, analysis to date indicates the mine will be one
of the three largest gold mines in North America,

For comprehensive background review of this project, see GCNL235(81).

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

To _____ D. Lowrie _____ From _____ W. M. Sirola

Subject _____ Consolidated Cinola, Specogna Gold Property

(103 F- 9E) _____ Date _____ Feb. 5, 1982

At your request we have begun to pursue the economics of this deposit whichis owned jointly (50-50) by Consolidated Cinola and Energy Reserves of Whichita, Kansas.

Fred Chow was allowed to hand copy some of the computer sheets assembled by ERTC - a conslting firm with offices in San Francisco and Denver.

These studies evision a 50 million ton deposit with an average re-coverable grade of 0.043 Au which is 80% of 0.0538 Au.

Assuming a capital cost of $179.1 million, and a mill capacity of

13,500 T.P.D., the money is returned in 7 years with $6 million left over at the end of 10 years of operation.

Theoretically, Cinola has a free ride for 50% and the financing obligations are entirely with Energy Reserves. In consequence, Ken Saunders of Cinola states that he does not have to give up a damn thing, and he advocates buying 24% of Cinola shares that are in the hands of the public. He does not want to sell the 26% that the principals of Cinola hold at the present time.

I spoke with Geoff Burrill who is Energy Reserves' representative in Saskatoon and he puts it this way:
(1)   Neither Cinola nor Energy has the expertise to operate a large gold mine and hence Energy is prepared to divest themselves of 25% - 30% of their equity. They are trying to convince Cinola to do the same but have no agreement yet.

(2)   The final feasibility and environmental impact studies are due in mid-May.

(3)   The maximum gold recovery is 80% on material grading 0.08 oz. Au. Lower grade mineraliZation is harder to recover presumably because of more graphitic material at lower grades. *65% at 0.06 oz Au/ton*

(4)   Higher grades result from auriferous veins in the topogrphically higher parts of the property. This is hard ground, the gold is fine and grinding costs will be high.

(5)   Some dilution and milling problems may be expected on the peripheries of the deposit because of the Specogna Fault on the west side and soft sandstones on the east side.

Power Diesel generating (their estimate 6-9¢/kwh)
don't believe it

@ .043 tons
= 70% recov
= .0378 grade

~ .016 tons

Using a tons grade of 0.016 oz. Au. @ 15% N.P.V. - everything else same.
still negative in 1975.   @ Au US$ 500 Break even in 1987 @ 15% NPV.
CAN$ 600
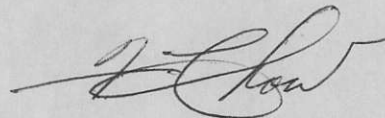
KERR ADDISON MINES LIMITED
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To _____ From _____

Subject _____ Date _____

My own sentiments are:

(1) There are problems which cause some doubt as to the viability of the project at today's gold prices.

(2) A gold price of $450 U.S. per oz. would take most of the sweat out of this situation, a $500 price would enable you to laugh all the way to the bank.

(3) The project, because of its size, is an interesting gamble.

for

W.M. Sirola
Regional Exploration Manager.

Enclosures:
  Equity in property
  Production Statistics & Operating Profit
  Cash Flow Analysis
  Prod. Schedule, Capital Costs & Operating Costs

WMS/fc

Data on attached sheet is in error
Should be loan repayment in 7·5 years
if 90% recovery is achieved

$400.00 US Au and 15% interest on loan
$180 million capital cost
of this $15 million has been expended
$165 million

Summary Of The Cinola Project
January 25, 1982.

Equity In The Property

Energy Reserves Canada   50% — A portion may be for sale — Cons. Cinola has first rights to acquire.

Cons. Cinola Principals   26% — Not for sale at this time   (- possibly negotiable)

Cons. Cinola Public Shareholders   24% — All of this is for sale — every day on the open market.

Operating Rights — Cons. Cinola Mines — This right may be for sale.

Financing Obligations — Energy Reserves 100%

Cons. Cinola — 5,000,000 shares issued

1% property equity = 100,000 shares

2,400,000 shares = 24% property equity.

Model Projection 4725, Jan 13/82
13,500 tonnes pd, 4.725 MM TPY for 10 years
0.028 oz/t cut-off grade
Production: 2.026 mm oz Au, 1.267 MM oz/Ag (assumed)

PRODUCTION STATISTICS AND OPERATING PROFIT (M$)
Consolidated Cinola Mine's S'PECOGNA GOLD PROPERTY, Queen Charlotte Is., B.C. (103F-9E)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	TOTAL
Waste (M tons)							247.0	103.9	610.9	953.0	2655	7462	7462	7462	7462	4193	0	38 614
Total Mined to Ore Ratio							1.053	1.022	1.129	1.202	1.562	2.579	2.579	2.579	2.579	2.579	0	
Ore Mined (M tons)							4725	4725	4725	4725	4725	4725	4725	4725	4725	2655	0	45 130
Gold Grade (oz/ton)							0.081	0.061	0.059	0.055	0.052	0.050	0.050	0.050	0.050	0.050		
Silver " (")							0.091	0.061	0.059	0.055	0.052	0.050	0.050	0.050	0.050	0.050		
Gold Recovery %						?	80	80 ?	80 ?	80 ?	80 ?	80 ?	80 ?	80 ?	80 ?	80 ?		
Silver " %							50	50	50	50	50	50	50	50	50	50		
Gold Price ($US/oz)							400	400	400	400	400	400	400	400	400	400		
Silver " (" /.)							10	10	10	10	10	10	10	10	10	10		
Exchange Rate (Can vs US)							1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15		
							✓	212	203	184	170	160	160	160	160	90		
Gold Production (M oz)							306.2	230.6	223.0	207.9	196.6	189.0	189.0	189.0	189.0	106.2	0	2 026
Silver " (M oz)							191.4	144.1	139.4	129.9	122.8	118.1	118.1	118.1	118.1	66.37	0	1 267
							97520	93380	84640	78200	73600	73600	73600	73600	61400			
Net Gold Revenue (M$)							140 843	106 067	102 589	95 634	90 418	86 940	86 940	86 940	86 940	488.52	0	932 162
" Silver "							2 201	1 657	1 603	1 494	1 413	1 358	1 358	1 358	1 358	763.3		14 565
Total Revenue							143 043	107 724	104 192	97 128	91 830	88 298	88 298	88 298	88 298	49 615	0	946 727
Mining Cost							6 922	6776	7318	7684	9 915	16 275	16 275	16 275	16 275	9 145	0	112 859
Milling "							42 336	42 336	42 336	42 336	42 336	42 336	42 336	42 336	42 336	23 789	0	404 813
General + Administration							1 748	1 748	1 748	1 748	1 748	1 748	1 748	1 748	1 748	982	0	
Total Operating Costs							51 006	50 860	51 402	51 768	53 999	60 359	60 359	60 359	60 359	33 916	0	534 288
Pre-tax Operating Profit							92 037	56 864	52 790	45 360	37 831	27 939	27 939	27 939	27 939	15 699	0	412 337
							68 317	43 581	36 366	25 613	14 599	14 599	14 599	14 599	14 599	8 247		
Processing Plant					25 100	50 200												75 300
Misc. Support Services					16 000	16 000												32 000
Mining Equipment					6 372	5 470	100	100	1259	1034								14 375
Engineering + Management					8000	16 000												24 000
Project Administration					1500	2500												4 000
Employee Housing + Camp					4500	5 000												9 500
Exploration, Property Feasibility	641	4756	9500	4000	50	50												18 997
Preproduction Development						963												963
Working Capital							8 500									-8 500		0
Total Project Capital Costs	641	4756	9500	4000	61 522	96 183	8 600	100	1259	1034						-8 500	0	179 135

CASH FLOW ANALYSIS (M #(CAN.))

Consolidated Cinola Mines' SPECOGNA GOLD PROPERTY

Years	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1984	1995	TOTALS
Gross Revenue							143 043	107 724	104 192	97 128	91 830	83 298	88 298	88 298	88 298	49 615	0	746 727
Operating Costs							51 006	50 860	51 402	51 768	53 999	60 359	60 359	60 359	60 359	33 916	0	334 388
Pre-tax Operating Profit							92 037	56 864	52 790	45 360	37 831	27 939	27 939	27 939	27 939	15 699	0	412 339
Federal Income Tax Paid	·									3 812	8 068	3 523	2 017	5 670	6 713	3 179	- 2 568	33 182
B.C. Income Tax Paid										3 002	4 143	1 994	1 140	1 778	1 776	997·9	199·1	15 030
Prov. Mining Tax Paid										2 047	4 764	3 911	2 608	2 613	2 613	2 613	1 006	22 175
Total Tax Paid										8 861	16 975	9 428	5 765	10 061	11 302	6 790	1 205	70 387
Cash Flow Before Cap. Costs							92 037	56 864	52 790	36 499	20 857	18 511	22 175	17 878	16 637	8 909	-1205	341 953
Project Capital Costs	- 641	- 4756	- 9500	- 4000	-61 522	- 96 183	8 600	100	1 259	1 034	0	40	0	0	0	-8 500	0	179 135
Savage			0							0	0	0	0	0	0	0	0	0
Cash Flow Before Financing	- 641	- 4756	- 9500	- 4000	-61 522	- 96 183	84 437	56 764	51 531	35 465	20 857	18 471	22 175	17 878	16 637	17 409	-1205	162 818
								48 217	42 322									
Bank Loan Drawdown																		
Financing Interest Chgs.																		
Bank Loan Reduction (excl. interest paid)																		
Capitalized Interest																		
Expensed Interest																		
Net Equity Cash Flow	- 641	- 4756	- 9500	- 4000	-61 522	- 96 183	84 437	56 764	51 531	35 465	20 857	18 471	22 175	17 878	16 637	17 409	-1205	162 817
							(92 165)											
Net PV (8%)	- 616·8	- 4237	- 7837	- 3055	-43 513	- 62 989	50 595	31 871	26 790	17 072	9 296	7 623	8 474	6 326	5 450	5 281	- 338·5	46 188
Net PV (10%)	- 611·2	- 4122	- 7486	- 2865	- 40 065	-56 943	44 906	27 773	22 921	14 341	7 667	6 173	6 737	4 938	4 177	3 974	- 250·0	31 264
Net PV (12%)	- 605·7	- 4012	- 7156	- 2690	-36 944	-51 570	39 943	24 263	19 666	12 085	6 345	5 017	5 378	3 871	3 217	3 005	- 185·7	19 626
Net PV (15%)	- 597·7	- 3857	- 6699	-2453	-32 801	-44 592	33 637	19 899	15 709	9 401	4 808	3 702	3 865	2 710	2 193	1 995	- 120·1	6 799
Net PV (20%)	- 585·2	- 3618	- 6022	- 2113	-27 084	-35 286	25 508	14 462	10 940	6 274	3 075	2 269	2 270	1525	1 183	1 031	- 59·5	- 6229
Net PV (30%)	-562·2	- 3209	-4930	-1597	-18 892	-22 720	15 161	7 934	5 541	2 933	1 327	903·9	843·8	517·7	370·6	298·3	- 15·88	-16 105
Net PV (40%)	-541·7	- 2871	-4096	- 1232	-13 535	-15 115	9 365	4 551	2 951	1 451	609·4	385·5	330·6	190·4	126·5	94·58	- 4·675	-17 340
Net PV (50%)	-523·4	- 2589	-3447	- 967·7	- 9 922	-10 342	5 981	2 713	1 642	753·2	295·3	174·4	139·5	75·0	46·53	32·46	- 1·98	-15 941
After tax Payable Period - Yrs.	2.706																	
% Equity Returned (pre-tax)	232·1							16 902	12 901									
% Equity Returned (after tax)	192·2					15%	(·57362)	40 460	27 559									
DCF Rate of Return (pre-tax)	·2121																	
DCF " " (after tax)	·1769																	
							(40 680)	(13 372)										

SCHEDULE 0.028 $^{g}/_{т}$ CUT-OFF   4,725,000 Tonnes Ore/year

YEAR	ORE Tonnes x 1000	GRADE g/t	Gold Recovery x1000 g @ 80%	WASTE x1000 tonnes	Waste/Ore Ratio	Total Tonnes x 1000
Pre strip				249		249
1	4725	0.081	306.2	249	.05 : 1	4 974
2	4725	0.061	230.6	104	.02 : 1	4 829
3	4725	0.059	223.0	611	.13 : 1	5 336
4	4725	0.055	207.9	953	.20 : 1	5 678
5	4725	0.052	196.6	2655	.56 : 1	7 380
6 – 9.6	21 555	0.050	859.8	34 039	1.58 : 1	55 594
Totals	45 180	0.056	2 024.1	38 860	0.86 : 1	84 040

CAPITAL COST X 1000

	YR-2	YR-1	YR+1	YR+2	YR+3	YR+4	YR+5	Y+6-9.6	TOTALS
Engineering + Construction	8 000	16 000							24 000
Townsite + Camp	4500	5 000							9 500
Mine Facilities	16 000	16 000							32 000
Mill	25 100	50 200							75 300
Pre-strip overburden		632							632
Pre strip Waste		331							331
Mine Equipment	6 372	5 470	100	100	1259	1034		40	14 325
Project Admin. (Constr)	1500	2500							4 000
Exploration + Sampling	50	50							100
Pre-production Develop.									—
Working Capital			8 500						8 500
Totals	61 522	96 183	8600	100	1259	1034		40	168 738

OPERATING COSTS x$1000

	YR-2	YR-1	YR+1	YR+2	YR+3	YR+4	YR+5	YR+6-9.6	TOTALS
Move O.B.			307	354	221	133	100	300	1415
Mine Waste			331	138	813	1267	3531	45 272	51 352
Mine Ore			6 284	6 284	6 284	6 284	6 284	28 668	60 088
Mill Ore			42 336	42 336	42 336	42 336	42 336	193 133	204 813
Gen. + Admin.			1 748	1748	1748	1748	1748	7975	16 715
Totals			51 006	50 860	51 402	51 768	53 999	275 348	534 383
$ per ton of ore			10.79	10.76	10.88	10.96	11.43	12.77	11.83
$ per oz Produced			166.58	220.56	230.50	241.00	274.66	320.25	264.01

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)
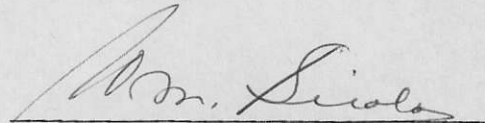
To   D. Lowrie   From   W.M.Sirola, Vancouver

Subject   CONSOLIDATED CINOLA - Specogna Gold Prospect,   Date   February 7th, 1979.
Masset, Queen Charlotte Island

Herewith two sketches showing in plan the location of the current drilling (Holes 78-6 - 78-8) and to the northwest of that area the locations of the 1977 drill program.

Fred Chow has indicated in green colour those areas known to contain rhyolite in one form or another and if we are to believe that there is some agreement between the various people who logged the core, then it would appear that the areas of rhyolite extrusion are separated in places by areas of Skonun sandstone and conglomerate. The implication is that there may be more than one volcanic vent.

It would appear for the present anyway, that the deposit will have to live or die as a low-grade deposit with an occasional patch of high-grade here and there. I say that because eight of the drill holes completed in 1977 actually reached the Specogna fault without finding the sort of grades encountered in drill hole 78-6.

W.M. Sirola

WMS:lg
Encls.

The assay results appear to be very erratic DHL

ASSAY LEGEND

▭	Trace – 0.01 °/ton
▭	0.01 – 0.02
▭	0.02 – 0.03
▭	0.03 – 0.04
▭	0.04 – 0.05
▭	> 0.05

→ N67E

GEOLOGICAL LEGEND

MIO- PLIOCENE	1a / 1b	SKONUN FM.	Conglomerate / Sandstone
PALEOCENE-EOCENE	2a / 2b / 2c	MASSET FM.	Porphyritic Rhyolite / Rhyolite Ash Flows / Rby Breccia, Brecciated Rhyolite
CRETACEOUS	3	QUEEN CHARLOTTE GROUP	Argillite

800 EL.

X

40° NW
78-8

Location as
Quintana map

600'

Location as
Quintana map

78-7   72-8

K-2
(9.2 NW)

.042   .15/22
          .026/10
  2b   .072/55
.255/27' .03/25
          .016

.101/282

.20/26'   .00/55

PS-3   .03 033
         .025
1b   .05/50'
25 NW   .03/20
         .025

.072/33
.029/59
          1a
.225/
19.7
.03/39.4

.19/52.5

.014   2 B
.034/25

z.02

.23/19
  1b

.030/110
.008/20
.053/30'
.03/10
.012/30

.024/91.8

.136/19.7

400

UNIT 1a+b
by Quintana + CM&S

Stratigraphic Fault

50/55

.034/157.5

.032/231'

.033/269'

Absolute

8-75-1

2a   .02

200'

00'
SEA LEVEL

.43/13.1

.02/91.8 ?

688.8' (210 m)

78-8
40° NW

?

X

N67E

ASSAY LEGEND

▭ (green)	Trace – 0.01 °?/ton
▭ (dark green)	0.01 – 0.02
▭ (yellow)	0.02 – 0.03
▭ (orange)	0.03 – 0.04
▭ (pink)	0.04 – 0.05
▭ (red)	> 0.05

GEOLOGICAL LEGEND

MIO – PLIOCENE	1a 1b	SKONUN FM.	Conglomerate Sandstone
PALEOCENE – EOCENE	2a 2b 2c	MASSET FM.	Porphyritic Rhyolite Rhyolite Ash Flows Siltstone, Mudstone
CRETACEOUS	3	QUEEN CHARLOTTE GROUP	Argillite

800 EL.

600

400

(11'NW)
78-6

5 A¹ Ø.6

.084/72'
.087   .50 .56   .074 A²
98'
.069/26'

A³   A6   N.S.¹/4
A4   .03   .147/46'
.03/20'
A⁷   .02
A⁵   .025   .020/40'
.05 A8   .008/20'
.03   .053/20'
.013/20'
.03   SOLUM   .025
.034/15n5
.025

Q-75-1   Ab vein

.025

.864/79'

586' (178")

SPECOGNA FAULT

Argillite

3

3

200'

00'
Sea-Level
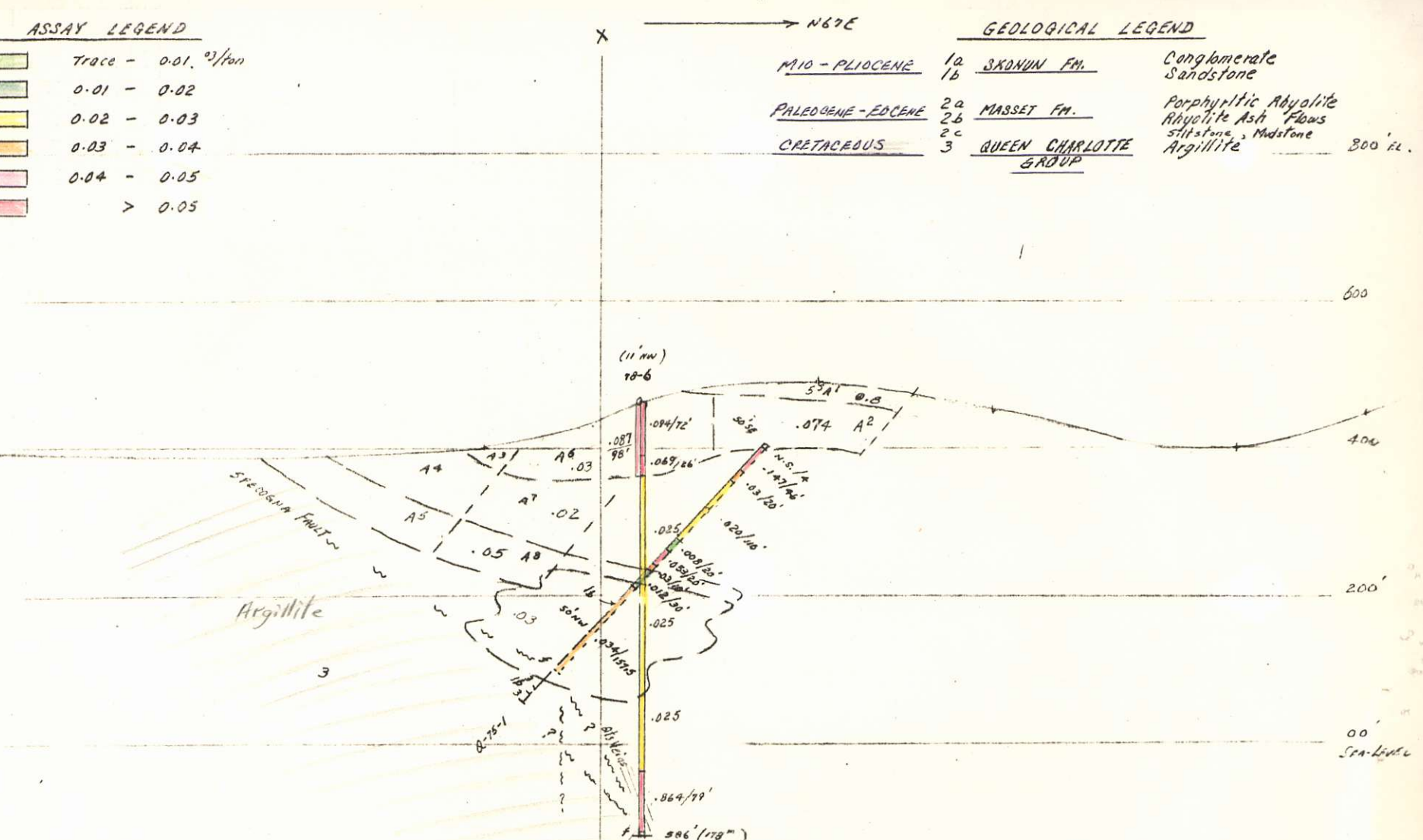
Note:

1. All drill holes 100' N+S of this section have been logged as unit 1 (a+b) by Cominco and Quintana.

2. Kennco D.D.H. #K-2, located 100' NE, drilled to depth of 100' was logged as Unit 2bc.

3. Quintana #Q-75-1 on this section was logged as Unit 1b, and as Unit 3 west of fault.

4. Cinola's D.D.H. #78-6 was reported as a multilithological pile comprising of volcanics, sandstone, mudstone, wood, ash, and breccias containing two or more of the rocks listed above. (by B.Seraphim, Dec/78)

SPECOGNA GOLD DEPOSIT
103 F-9E

LINE 5+70 S X-SECT.

1" = 200'

Dec. 12/77
revised Jan 7/79
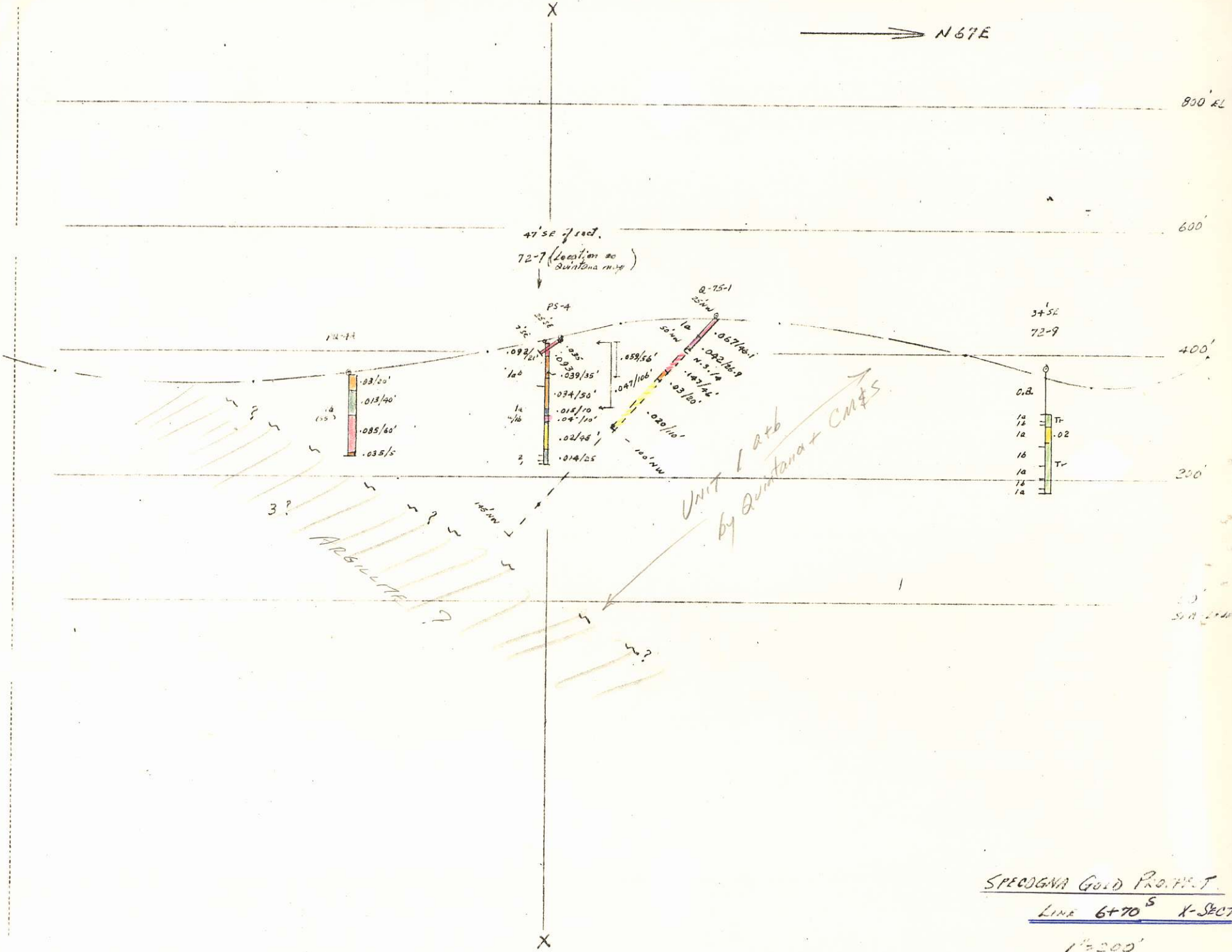
N67E

X

800' EL

600'

47' SE of road.

72-7 (Location on Quintana map)

Q-75-1

PS-4

3+ SE
72-9

400'

.03/20'
.013/40
.085/60'
.035/5

.092/21'
.025
.039/35
.074/50
.018/10
.04/10'
.02/48'
.014/25

.059/56
.047/106'
.020/110'

.067/48.1
.042/86.9
.047/46
.03/20

O.B.
1a
1b
1a
1b
1a
1b
1a
Tr
.02
Tr

200'

3?

Argillite?

Unit 1 a+b
by Quintana + Cuffs

Sea level

SPECOGNA GOLD PROJECT

LINE 6+70 S X-SECT.

1" = 200'

Dec/77

X
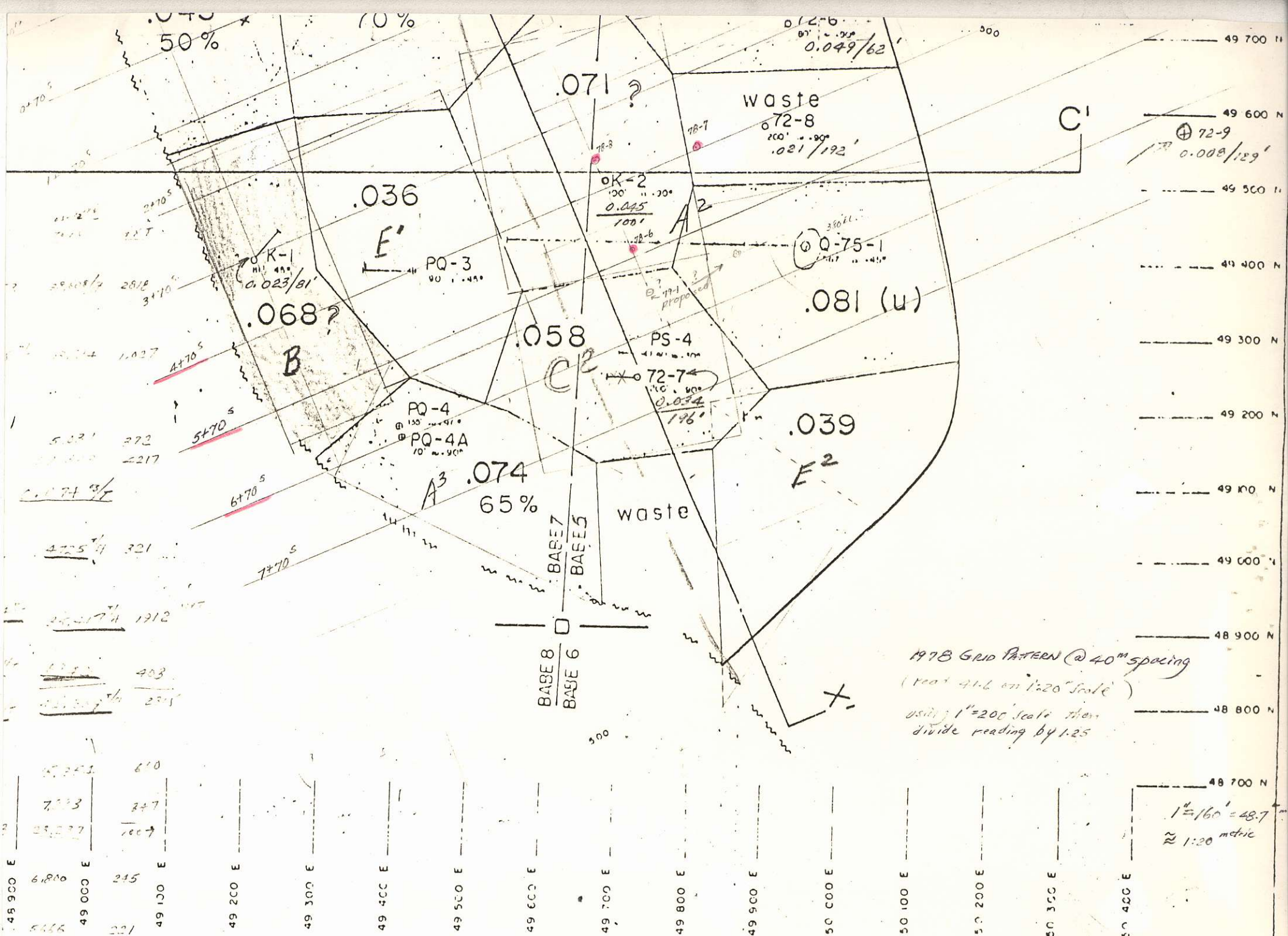
FIGURE 3

PLAN MODIFIED BY D.W. TULLY, P. Eng.

QUINTANA MINERALS CORPORATION

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

Attach to previous
of Nov '77

To ___ D.A. Lowrie   *From* ___ W.M. Sirola

Subject ___ SPECOGNA GOLD PROSPECT, GRAHAM ISLAND,
SKEENA MINING DIVISION, QUEEN CHARLOTTE   *Date* ___ December 23, 1977
ISLANDS, B.C.

Fred Chow has spent considerable time assembling the enclosed report and cross-sections on this property.

We are unable to envision the 50 ml. tons of potential described by Quintana and Fred has come up with proven and probable reserves of 7,555,900 tons containing 0.060 oz/ton.   The cut off grade used was 0.04 oz and the strip ratio was no greater than 1 : 1.   *N.B. Dec 22/81*
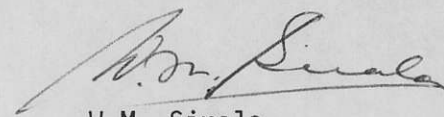
Cash flow projections for a 2,000 TPD operation at $160, $175 and $200 per oz of gold failed to provide a satisfactory rate of return.   For example, at $200 per oz, the payback period is 7.6 years and the rate of return is approximately 7%.

The core of the deposit contains 1.75 ml. tons of the 0.078 ozs per ton, but a minimum requirement would be 5 ml. tons of that grade and even then, the payback period would be seven years at current gold prices.

In making these calculations, Fred has used a capital cost of $10,000 per unit of capacity, or $20 ml. total.   Total operating costs shown in the attached calculation sheets are shown at $5 per ton with no escalation with time.

It is difficult to recommend optioning of this property in the light of this review.

W.M. Sirola

Encls.:   (1) Report by F. Chow, December 22, 1977

           (2) Report by Donald W. Tully, May 16, 1977

           (3) Report on Babe Gold Prospect by A. Sutherland Brown
                and T.G. Schroeter.

KERR ADDISON MINES LIMITED

SUITE 703 - 1112 WEST PENDER STREET
VANCOUVER, B.C. V6E 2S1
PHONE 682-7401

December 22, 1977

TO: W.M. Sirola

FROM: F. Chow

SUBJECT: REPORT ON MINERAL RESERVES OF SPECOGNA GOLD PROSPECT,
PORT CLEMENTS, GRAHAM ISLAND, SKEENA M.D., B.C.
NTS 103F - 9, 53° 31.5' Lat./132° 13' Long.

INTRODUCTION

Recent diamond drilling during the past few months by Consolidated Cinola Mines
Ltd. on the Specogna Gold Prospect has prompted another examination by Kerr
Addison Mines as to the viability of the gold prospect. This report will deal
mainly with mineral reserves plus a projection of the economical aspect based on
the calculated reserves.

All the drilling to date is within BABE 5, 7, 9 and 10, four claims. Most of
the drilling has been within an area 1200 feet NW - SE on strike and 1300 feet
NE - SW in width, centred around the SE quadrant of BABE 10 M.C. and the NE
quadrant of BABE 7 M.C.

DATA

This study is based on drilling information from the following sources:-

1971	Kennco Exploration,	2 Packsack D.D. Holes	- 181 feet (55.2m)
1972	Cominco	9 (BQ) " " " "	- 1557 feet
1974	Quintana	4 Packsack Holes	- 191 feet)
	"	16 Percussion Holes	- 1967 feet) (657.8m)
1975	"	5 (BX) D.D. Holes	- 2357 feet (718m)
1977	Consolidated Cinola	13 (BQ) "" "	- 2226 feet

CLASSIFICATION OF MINERAL RESERVE

The following parameters were used in blocking out and classifying the mineral
reserves:-

1. Cut-off grade is 0.04 oz./ton.

2. Overlying or internal 0.03 - 0.04 oz./ton reserve is included as milling
   material provided the overall grade is above 0.04 oz./ton.

3. Stripping ratio does not exceed 1 : 1 @ 0.04 oz/ton.

4. Mineral reserve block - volume based on 50 feet strike length (NW - SE) on either side of drill hole multiplied by cross-sectional area surrounding each drill hole, extending in width to mid point between drill holes but not exceeding 200 - 300 feet away, and thickness based on intersected assay values and calculated combined grades.

5. Proven reserves   - parameters bounded by conditions 1 to 4 above.

6. Probable reserves   - parameters bounded by conditions 1 to 3 above, within blocks greater than 50 feet away on strike and/or greater than 200 - 300 feet away on cross-sections, provided a drill hole exists not greater than 400 feet away.

7. Possible reserves   - based on widely scattered drill holes, but bounded by conditions 1 to 3 above.

8. Grades of reserves are separated into plus 0.05 oz/ton, 0.05 to 0.04 oz/ton, 0.04 to 0.03 oz/ton, less than 0.03 oz/ton and greater than 0.04 oz/ton (incl. 0.04 - 0.03 oz/ton grade material which has to be stripped).

9. Reserves are separated into two zones = "A" zone in conglomerate - sandstone host rock and "B" zone in rhyolite breccia and rhyolite porphyry host rock.

MINERAL RESERVES

A. Mineral Reserves over a strike length of 1800 feet from $9 + 80^N$ to $8 + 20^S$ (Kerr Addison's Cross Sections).

ZONE	GRADE INTERVAL	PROVEN Tons x 10^2	oz/ton	PROBABLE Tons x 10^2	oz/ton	POSSIBLE Tons	Grade	WASTE Tons x 10^2	Tons O.B.
A	> 0.05	25,861	0.064	10,025	0.054				
	0.05 to 0.04	13,990	0.047	13,114	0.047				
	> 0.04	39,851	0.058	23,139	0.050				
B	> 0.05	22,477	0.071						
	0.05 to 0.04			3,473	0.050				
	> 0.04	22,477	0.071	3,473	0.050				
A & B	> 0.04	63,328	0.063	26,612	0.50				
A & B	> 0.04 Proven + Prob.	= 8,894,000 tons of 0.059 oz/ton						60,349*	8969

*6,034,900 tons waste rock incl. approx. 5% overburden

B. Mineral Reserves over strike length of 1200 feet from $5+80^N$ to $7 + 20^S$, to maximum depth of 470 feet below surface, averaging 160 feet below surface.

| ZONE | GRADE INTERVAL | PROVEN | | PROBABLE | | POSSIBLE | | WASTE Tons x 10^2 | |
		Tons x 10^2	oz/ton	Tons x 10^2	oz/ton	Tons	Grade	Rock	O.B.
A	> 0.05	23,894	0.065	6,091	0.052				
	0.05 to 0.04	13,990	0.047	9,107	0.047				
	> 0.04	37,884	0.059	15,198	0.048				
B	> 0.05	22,477	0.071						
	0.05 to 0.04								
	> 0.04	22,477	0.071						
A & B	> 0.04	60,361	0.063	15,198	0.048				
A & B	> 0.04 Proven & Prob. = 7,555,900 tons of 0.060 oz/ton							51,295*	7717

* 5,129,500 tons waste rock incl. approx. 5% overburden

C. Mineral Reserves over strike length of 400 feet from $0 + 80^N$ to $4 + 80^N$ within Zone "B" contains 1,751,600 tons of 0.078 oz/ton to an average depth of 170 feet below surface, maximum 300 feet.

D. Re-calculation of Mineral Reserve "B" upon separating the higher grade core Mineral Reserve "C" give the following figures:-

	7.5^M tons of 0.060 oz/ton Au
becomes	1.75^M tons of 0.078 oz/ton Au
plus	5.75^M tons of 0.055 oz/ton Au

CASH FLOW PROJECTIONS

Cash flow projections I, II, III and IV are shown on separate sheets, attached to the report. They are based on mining the higher grade in the early years, at 2,000 T.P.D., 1 : 1 waste/ore ratio, capital cost of $20 million, and interest on borrowed capital at 9% per annum.

Sheets I, II and III show the cash flow for a 2,000 T.P.D. operation at $160, $175 and at $200 per oz Au. Sheet IV shows the calculations for a 1,000 T.P.D. plant at $160 per oz gold price.

The projections are based on fixed operating profits, with price and costs adjusting equally.

A summary of these projections are tabulated below:-

PROJECTION	CAPACITY T.P.D.	GOLD PRICE $/oz. $	YEARS OPERATING	TONS MILLED	RECOVERY OF CAPITAL	BALANCE $
I	2,000	160	10.5	7.35^M	No	-7.11^M
II	2,000	175	9.1	6.66	Yes	Nil
			10.5	7.35	Yes	+2.54
III	2,000	200	7.6	4.27	Yes	Nil
			10.5	7.35	Yes	+15.97
IV	1,000	160	20.5	7.18	Yes	+0.28

SUMMARY AND CONCLUSIONS

At $200 per oz. Au, the payback period takes 7.6 years; the operation ending with a $15.97 million operating profit at the end of 10.5 years. This operating profit represents a 7% (approx.) rate of return on the $20 million invested capital, which is not satisfactory. Also, a price of $200 per oz. gold is unrealistically high.

At $175 per oz. gold, the payback period takes 9.1 years, leaving only $2.54 million in operating profit after 10.5 years on a $20 million investment. The rate of return is too low.

At $160 per oz. gold, the capital investment cannot be paid off before the 7.5 million tons of mineral reserves are mined out.

At $160 per oz. gold, the operation requires about 5 million tons of 0.078 oz/ton Au for payback in 7 years. Thereafter, a milling grade of 0.055 oz/ton Au will give a modest profit. An additional 3.25 million tons of 0.078 oz/ton Au reserves need to be found and proven.

A possible 1.5 million tons may be found along the strike and down the dip of the higher grade core. Another half a million tons may be found 900 feet south, where 0.55 million tons has been classifed as probable reserves, but not included in the cash flow projections. One million tons or more will have to be located by further exploration, preferably near surface mineralization. The chance of success is only fair.
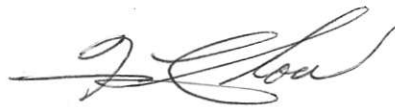
Work to date has indicated that this prospect is a low grade deposit.

RECOMMENDATIONS

At present, the Specogna Gold Property at best could only be a marginal operation at a gold price of $160 per ounce. Therefore, it is not recommended that Kerr Addison Mines invest money into Consolidated Cinola Mines' treasury for an option on the property.

Kerr Addison Mines should keep abreast of any new developments on the property which may enhance its economic viability.

Also, should the cost figures in the cash flow projections prove to be too high, then another estimate should be made.

F. Chow

FC:meb

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

To......... D. A. Lowrie   From......... C. K. Wilton

Subject.... Specogna Gold Prospect, Queen Charlotte Islands, ...Date.. November 8, 1977
B.C.

Past work on this property has been done by Kennco in 1971, Cominco in 1972, Quintana in 1974 and Consolidated Cinola, in 7 holes, recently. The 1971 and 1972 work was done while gold was rising from about $40/oz. at the end of 1971 to about $63/oz. in late 1972. In 1974, Quintana's work was probably prompted by the price which varied from $140 - $196/oz. No doubt the recent work has been prompted by expectations of a higher price which is currently equivalent to about $180/oz. in Canadian funds.

This prospect has had about 19 holes, in an area 2,000' x 1,000', which vary in grade according to Quintana from 0.031 ozs. gold/ton to 0.075 ozs. gold/ton over core lengths of the order of 100 - 200 ft. Chow notes that these grades are higher than those quoted by Kennco and Quintana who may have used larger sections.
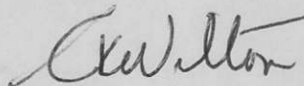
Using a 0.05 ozs. Au/ton cutoff, Chow calculates 22,000,000 tons at a grade of 0.064 ozs. Au/ton ($11.52/ton @ $180/oz. Au) to a depth of 200 feet.

Sirola estimates the cost of a 5,000 tpd plant at $80 - $100 million. Carrington thinks it could be as high as $125 - $150 million. Carrington puts the mining cost at 60¢/ton. Milling might cost $3.50 per ton.

Assuming pre-production costs of $120 million, 4 year playback including interest charges would require profits of $30 million/year, or $16.50 a ton at 5,000 tons treated per day.

This means the ore would have to contain $20.50/ton gold, i.e. a grade of 0.114 ozs. Au/ton at $180 oz./Au.

It appears that the price of gold would have to be about $350/oz. to convert this property into a marginally attractive situation.

C. K. Wilton

CKW:LFR   C. K. Wilton

WEST—CENTRAL BRITISH COLUMBIA

BABE GOLD PROSPECT
QUEEN CHARLOTTE ISLANDS
(103F/9E)

By A. Sutherland Brown and T. G. Schroeter

The Babe prospect, that now consists of approximately 102 claims and fractions including BABE, RIC, and BEE, was visited independently by the writers for brief visits. The showings are on a hill overlooking the lowlands of the Yakoun River, 17.6 kilometres south of Port Clements.

It was discovered by Efrem Specogna and Johnny Trico while prospecting along the trace of the Sandspit fault zone. They were attracted to the locality by a visible jarositic-coated bluff in which veins were visible but sulphides were sparse. Fortunately, they sampled veins and wallrocks which had some gold values. They located the property in 1971 and optioned it first to Kennco Explorations, (Western) Limited who conducted silt and soil surveys and geological mapping, and drilled two packsack diamond-drill holes totalling 55.2 metres. The geochemical surveys (Assessment Reports 2890 and 3517) reveal a considerable mercury anomaly as well as weak gold and arsenic anomalies of crudely annular shape. Since the Kennco work the property has been optioned repeatedly — to Cominco Ltd., Canex Placer Limited, Silver Standard Mines Limited, and from the latter to Quintana Minerals Corporation. In 1972 Cominco drilled nine holes shown on Figure 12, totalling 500 metres. Quintanna drilled four packsack diamond-drill holes totalling 57 metres and 16 percussion holes totalling 623 metres in 1974 (Assessment Report 5284) and also undertook a considerable program in 1975.

REGIONAL GEOLOGY

The Babe property is situated at the boundary between the Skidegate Plateau and the Charlotte Lowlands — the locus of the Sandspit fault. The precise location of the main strand of the fault is not obvious in the vicinity of the property. West of the fault is an area underlain by gently west-dipping rhyolite ash flows of the basal Masset Formation of Early Tertiary age, which unconformably overlie folded argillites of the Queen Charlotte Group of Cretaceous age. East of the main strand of the fault is a lowland largely covered by Pleistocene and Recent deposits with some exposures of poorly consolidated sands of Mio-Pliocene Skonun Formation along the Yakoun River.
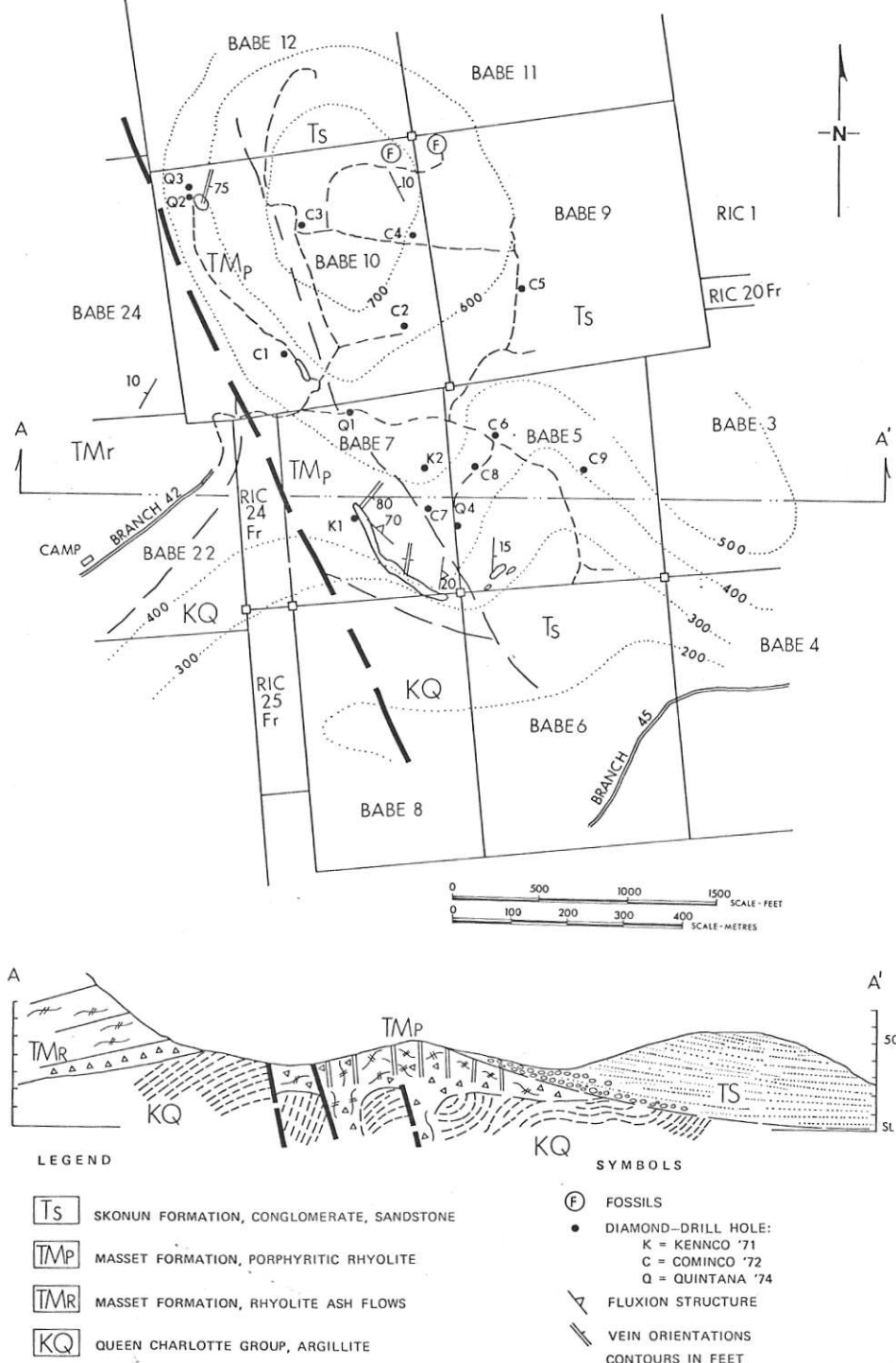
Figure 12. Geological sketch map and section, Babe gold prospect.

Map labels: BABE 12, BABE 11, BABE 9, RIC 1, Ts, BABE 10, BABE 24, TMp, C3, C4, C5, RIC 20 Fr, Q3, 75, Q2, C2, C1, BABE 7, Q1, BABE 5, BABE 3, TMr, K2, C6, C8, C9, TMp, BABE 22, RIC 24 Fr, CAMP, BRANCH 42, K1, 80, 70, C7, Q4, 15, Ts, 20, KQ, 400, 300, 200, 500, BABE 4, RIC 25 Fr, KQ, BABE 6, BRANCH 45, BABE 8, -N-

Section labels: A, TMr, KQ, TMp, Ts, KQ, SL, 500, A'

LEGEND

Ts	SKONUN FORMATION, CONGLOMERATE, SANDSTONE
TMp	MASSET FORMATION, PORPHYRITIC RHYOLITE
TMr	MASSET FORMATION, RHYOLITE ASH FLOWS
KQ	QUEEN CHARLOTTE GROUP, ARGILLITE

SYMBOLS

F   FOSSILS
●   DIAMOND–DRILL HOLE:
    K = KENNCO '71
    C = COMINCO '72
    Q = QUINTANA '74
    FLUXION STRUCTURE
    VEIN ORIENTATIONS
CONTOURS IN FEET

SCALE - FEET 0 500 1000 1500
SCALE - METRES 0 100 200 300 400

GEOLOGY OF THE CORE CLAIMS

The units previously described all occur within the core of the Babe claims shown on Figure 12. Outcrop is sparse in hills east of the scarp of Masset Formation, and virtually non-existent in the lowlands. Exposure on the well-forested hills is limited to the bluff along which a trench has been blasted south of Kennco DDH 1, some bulldozed trenches, and rare natural outcrops. No drill core was available for either writer to see.

The bluff outcrop is freshly exposed and is the most revealing exposure of the rhyolite porphyry body within which the deposit occurs. The exposure on the Babe 7 claim is about 210 metres long and the rhyolite here exhibits a highly varied character. The least modified rock is a very fine-grained porphyritic rhyolite which is composed of about 5 per cent phenocrysts of partly resorbed quartz up to 4 millimetres in diameter together with fewer and smaller, completely kaolinized and silicified feldspars. Primary fluxion structures are evident in some specimens which resemble the eutaxitic textures of collapsed pumice fragments in ash flows. These laminae now consist of streaks of fine mosaic quartz. Commonly the rhyolite porphyry is brecciated with fragments as large as 15 centimetres across contained in a white to black siliceous matrix. Exotic fragments of argillite or charred wood may be present and even abundant.

Along the bluff most of the rhyolite is brecciated, and exhibits both primary and secondary fluxion structures in fine breccia. In general primary fluxion structures are oriented northwestward and dip steeply, but at the southeast end of the bluff they strike northward and dip about 20 degrees eastward. In this vicinity there are abundant flattened clasts of wood that have been charred in place and infilled on dessication by cherty mosaic quartz. Throughout the length of this trench there are numerous multiple quartz veins that strike northward and dip steeply. These veins are true fissures up to 1 metre wide with outer white crystalline quartz and inner cherty quartz that exhibits cockade structure and patterned combs coated with spongy chalcedony. The lineations of the patterns in the comb structures tend to be either vertically or horizontally oriented. Relatively minor sulphides occur in the veins but adjacent silicified breccias particularly the dark matrix breccias carry fine pyrite and marcasite. In addition to the major veins a fine quartz stockwork is commonly evident that merges in places into zones of complete silicification. Gold mineralization is not visible but is present principally in the dark silicified breccias where it occurs with marcasite rather than within the veins.

To the northwest a few exposures of porphyritic rhyolite occur. The largest outcrop, called the Marino showing by Specogna, is at the northwest part of the Babe 10 claim. Here buff-coloured, rusty weathering rhyolite porphyry that is relatively unsilicified or textured is cut by a stockwork of very fine cherty quartz veinlets. The larger veinlets are commonly about 2 centimetres wide and these strike north 20 degrees east and dip about 75 degrees eastward. Smaller veinlets are randomly oriented. The main stockwork veinlets have margins of fine sugary quartz that have visible fine spongy gold in interstices. The inner part of the vein consists of fine clear quartz some of which is chalcedonic.

On the Babe 5 claim nearly 100 metres to the east of the end of the bluff trench are some other blasted outcrops that superficially resemble the rhyolite since they consist largely of clasts of rhyolite, many of which however are rounded. The rocks are crudely bedded, striking northward and dipping 15 to 20 degrees to the east. They may be compact with the clasts cemented with silica or very much less lithified. Exotic granitic clasts as well as argillite occur. Veinlets are very rare and appear to be mostly chalcedonic. No large multiple veins were observed. Cubic pyrite grains up to 2 millimetres on an edge are relatively common in the siliceous matrix and as replacements of certain clasts. The writer interprets these rocks as belonging to the Skonun Formation.

Along strike on the hilltop scattered outcrops and trenches expose siliceous sandstones identical in petrographic character to those of the Skonun Formation at the type locality although they have a siliceous matrix. In a number of localities these contain casts of clams mixed with leaf fossils that resemble alder leaves. Good specimens could not be collected but the assemblage closely resembled those typical of the Skonun Formation (Sutherland Brown, 1968, pp. 118-127). Rare small cherty veins occur in these sandstones.

TENOR OF MINERALIZATION

The mineralization observed has been described previously with the rocks. In the bluff area mineralization is contained within the brecciated wallrocks. It is highly variable in tenor, ranging from trace to 50.7 ppm gold and 245 ppm silver in selected samples by the writers. At the Marino showing where the wallrock is virtually barren, Specogna has hand-cobbed vein material and shipped it to the Tacoma smelter. One shipment this year of selected vein material weighing 0.59 tonne assayed: gold, 559.3 ppm; silver, 228.5 ppm. Another weighing 2.43 tonnes assayed: gold, 115.6 ppm; silver, 51.68 ppm.

CONCLUSION

The Babe prospect is of interest from several aspects. The structural section shown on Figure 12 is the writers' interpretation. In our view the rhyolite porphyry and breccia is part of the Masset Formation of Paleocene age that formed a flow dome at the base of the unit and which is consanguineous with the rhyolite ash flows in the scarp to the plateau to the west.

The Skonun Formation onlapped the eroded flow dome at some later date. The age of mineralization appears to predate the Skonun onlap but it is not known whether it is closely related to the rhyolitic volcanism, or is younger, perhaps related to siliceous hotsprings emerging from the regional fault. Some geologists feel that the rhyolite breccia intrudes the Skonun Formation. If this is the case the Babe prospect represents one of the youngest mineralizing events known in the Province.

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REFERENCES

Assessment Reports 2890, 3517, 5284.

Sutherland Brown, A. (1968): Geology of the Queen Charlotte Islands, British Columbia, *Dept. of Mines & Pet. Res.,* Bull. 54.

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

To _____ D.A. Lowrie _____ *From* _____ W.M. Sirola

Subject _____ SPECOGNA GOLD PROSPECT, QUEEN CHARLOTTE _____ *Date* _____ October 27, 1977

ISLANDS, B.C.

Data on this prospect were submitted by Consolidated Cinola Mines Ltd. who now have the property under option from the owner, Ephram Specogna.

You may recall that this property has been investigated by Kenco, Canex and Quintana in the past and Consolidated Cinola has recently done approximately 1000 ft. of diamond drilling in seven drill holes.
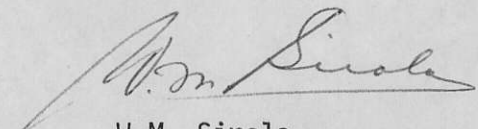
The enclosed mineral reserve map by Quintana has been divided into a series of polygons around individual drill holes and the grade from each drill hole involved has been estimated to be a grade of the polygonal block.

Consolidated Cinola investigated two of the higher grade blocks (.07 to .075 ozs. au) and their average grade was .067 au plus .127 ozs. ag.

Fred Chow has worked up a tonnage for each of the polygons using a cut off grade of .05 ozs. per ton and he arrives at a figure of 111,000 tons per vertical ft. averaging .064 ozs. per ton. If we can assume that mineralization persists to 200 ft. of depth, then the total tonnage in the drilled area would be 22,200,000.

The accompanying report by A.F. Roberts quotes Quintana as having made an estimate of 50 ml. tons at 0.06 ozs. per ton on the claims. This figure would have been derived by taking the geochemically anomalous area east and north of the drilled area and assigning a tonnage to those areas. Unfortunately we do not have a copy showing the outline of the rhyolite mass with its attendant geochemical anomalies. We also do not as yet have a copy of Quintana's report. Apparently Morris Black snatched this report last week and I suspect that he has Ed Scholz looking at the data.

If we were looking at a 5000 TPV plant for this property, that plant in its entirety could cost between $80 ml. and $100 ml. which would mean a capital cost of $4 to $5 per ton of mineralization within the area drilled. This is patently prohibitive and it would be useless to pursue the matter any further. We will, however, try to obtain Quintana's report and make a final recommendation regarding the property.
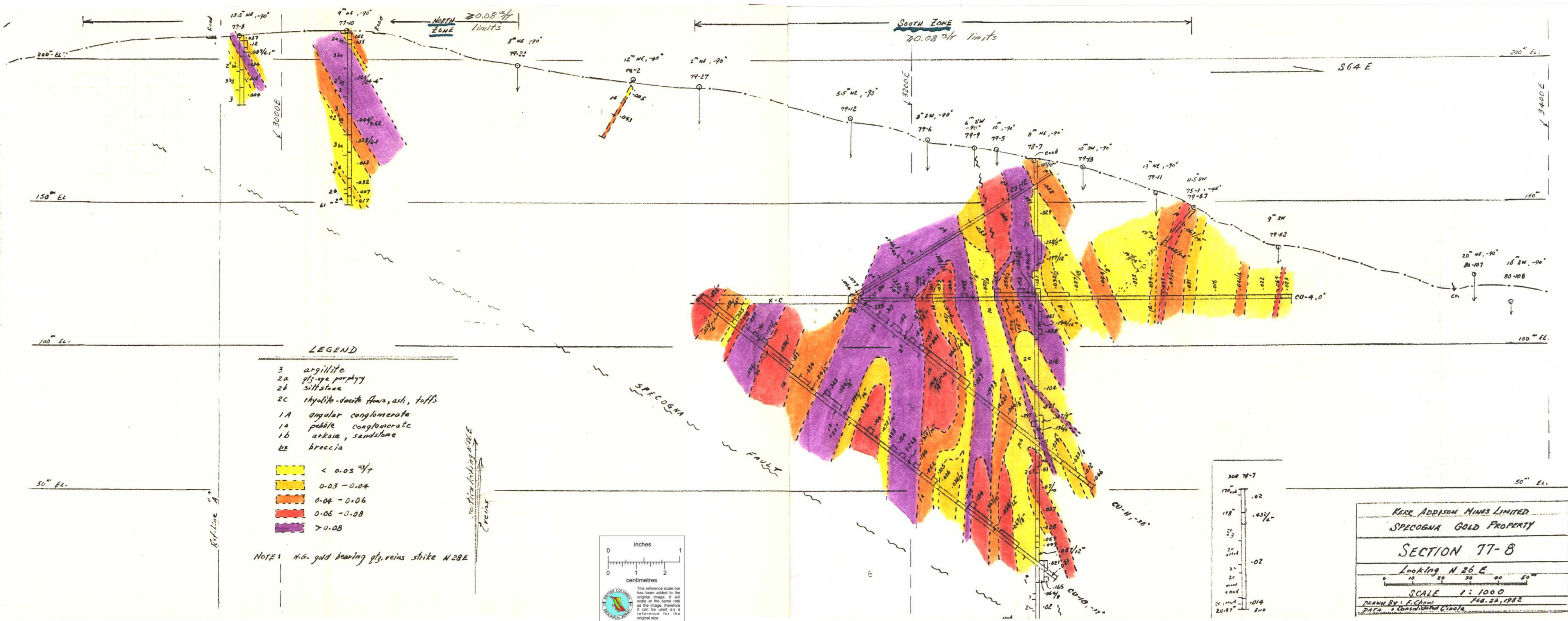
W.M. Sirola

Enc.

WMS:meb
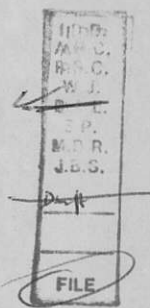
SECTION 77-5, Looking N 26 E

North Zone, Limits of ≥ 0.08 % Au, as Consol. Circle's plan

SOUTH ZONE
≥ 0.08 %t Au
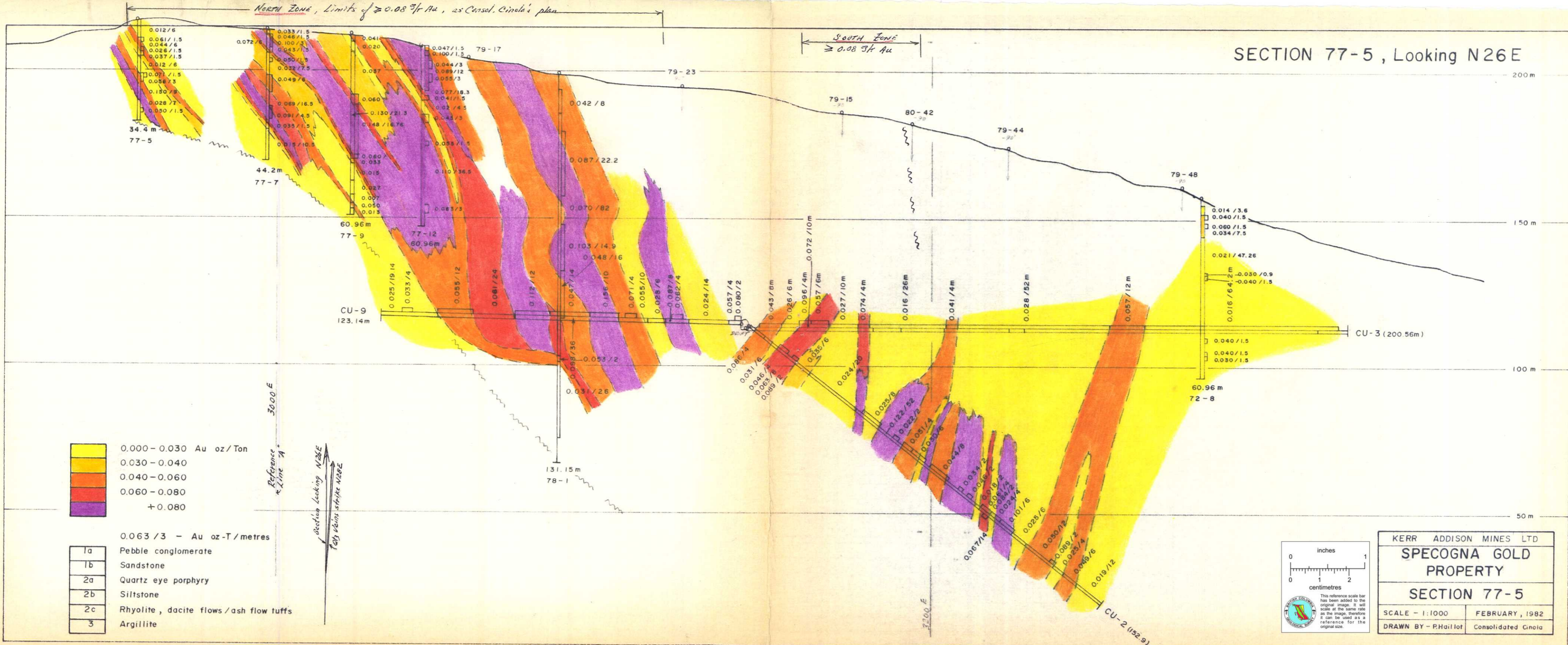
KERR ADDISON MINES LTD.
SPECOGNA GOLD PROPERTY
SECTION 77-5
SCALE - 1:1000 | FEBRUARY, 1982
DRAWN BY - P. Haillot | Consolidated Cinola

Legend:
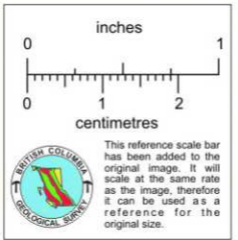- 0.000 - 0.030 Au oz/Ton
- 0.030 - 0.040
- 0.040 - 0.060
- 0.060 - 0.080
- + 0.080

0.063/3 — Au oz-T/metres

1a	Pebble conglomerate
1b	Sandstone
2a	Quartz eye porphyry
2b	Siltstone
2c	Rhyolite, dacite flows / ash flow tuffs
3	Argillite

200 m
150 m
100 m
50 m

Reference Line "A"
Section Looking N26E

inches
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

SECTION 77-8
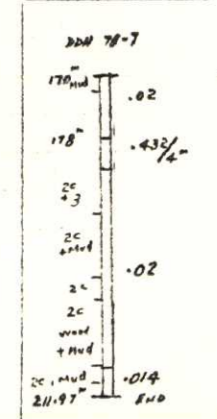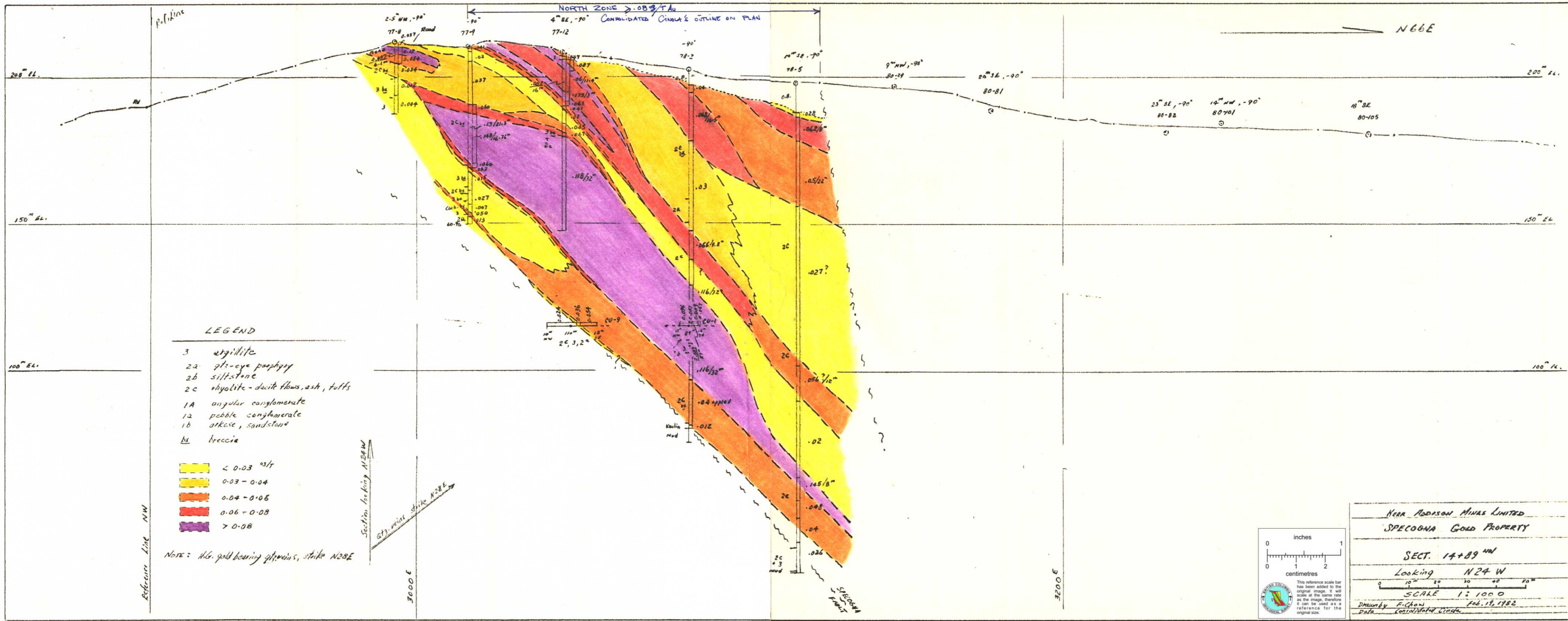
LEGEND

3	argillite
2a	qtz-eye porphyry
2b	siltstone
2c	rhyolite-dacite flows, ash, tuffs
1A	angular conglomerate
1a	pebble conglomerate
1b	arkose, sandstone
bx	breccia

	< 0.03 ᵒᶻ/ᵗ
	0.03 - 0.04
	0.04 - 0.06
	0.06 - 0.08
	> 0.08

NOTE: H.G. gold bearing qtz. veins strike N 28 E.
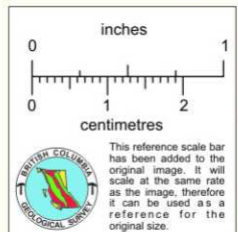
NORTH ZONE
≥ 0.08 ᵒᶻ/ᵗ limits

SOUTH ZONE
≥ 0.08 ᵒᶻ/ᵗ limits

SPECOGNA FAULT

S 64 E

LEGEND

3 argilite
2a qtz-eye porphyry
2b siltstone
2c rhyolite - dacite flows, ash, tuffs

1A angular conglomerate
12 pebble conglomerate
1b arkose, sandstone

bx breccia

	< 0.03 oz/t
	0.03 - 0.04
	0.04 - 0.06
	0.06 - 0.08
	> 0.08

NOTE: the gold bearing qtz veins, strike N28E

NORTH ZONE >.08g/t Au
CONSOLIDATED Cinola outline on plan

N66E

SECTION 12+78, Looking N 24 W

SOUTH ZONE

Zone 7.08 oz/fr Au
Consolidated Cinola's outline on plan
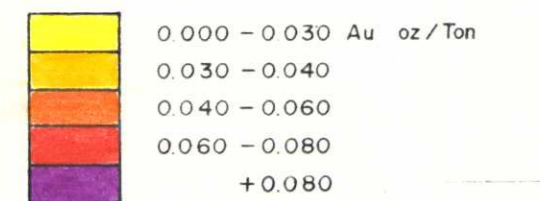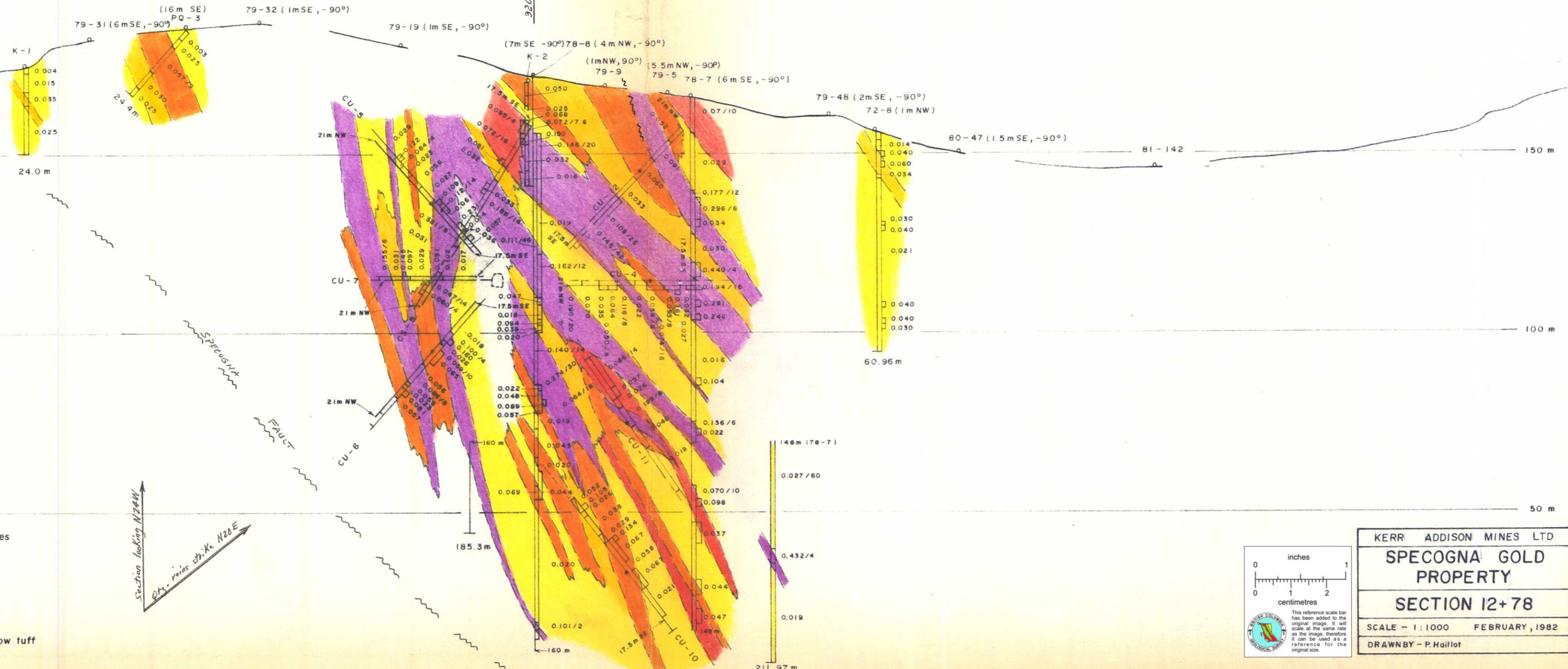
Legend:

- 0.000 – 0.030 Au oz/Ton
- 0.030 – 0.040
- 0.040 – 0.060
- 0.060 – 0.080
- +0.080

0.063/3 — Au assay/metres
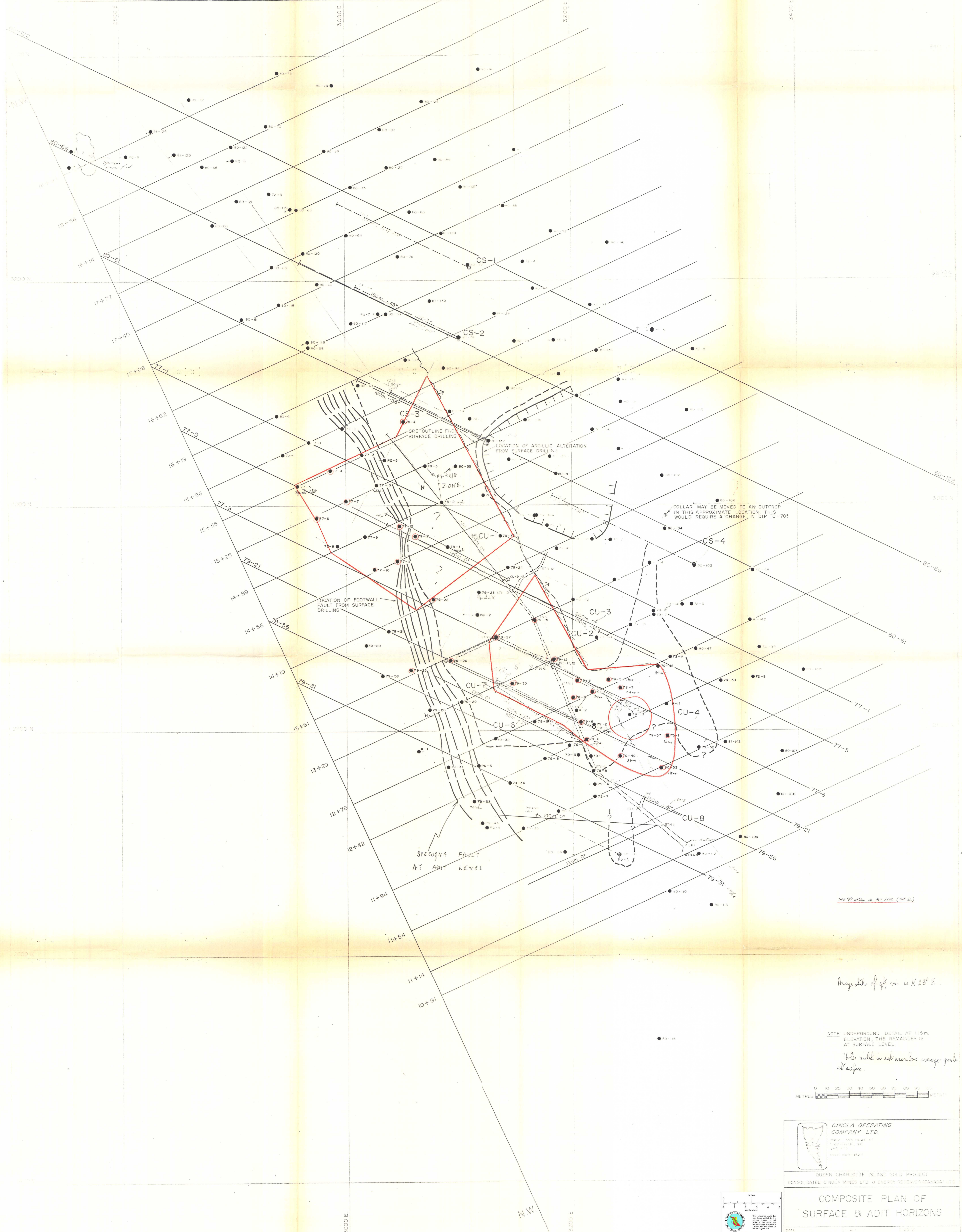
1a	Pebble Conglomerate
1b	Sandstone
2a	Quartz eye porphyry
2b	Siltstone
2c	Rhyolite, dacite flows / ash flow tuff
3	Argillite
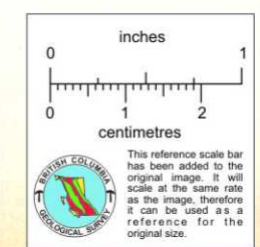
KERR ADDISON MINES LTD

SPECOGNA GOLD
PROPERTY

SECTION 12+78

SCALE – 1 : 1000   FEBRUARY, 1982

DRAWN BY – P. Haillot

CS-1

CS-2

CS-3

ORE OUTLINE FROM
SURFACE DRILLING

LOCATION OF ARGILLIC ALTERATION
FROM SURFACE DRILLING

'N' ZONE

CU-1

CS-4

COLLAR MAY BE MOVED TO AN OUTCROP
IN THIS APPROXIMATE LOCATION. THIS
WOULD REQUIRE A CHANGE IN DIP TO 70°

LOCATION OF FOOTWALL
FAULT FROM SURFACE
DRILLING

CU-3

CU-2

'S' ZONE

CU-7

CU-4

CU-6

CU-8

SPECOGNA FAULT
AT ADIT LEVEL

NOTE: UNDERGROUND DETAIL AT 115 m.
ELEVATION, THE REMAINDER IS
AT SURFACE LEVEL
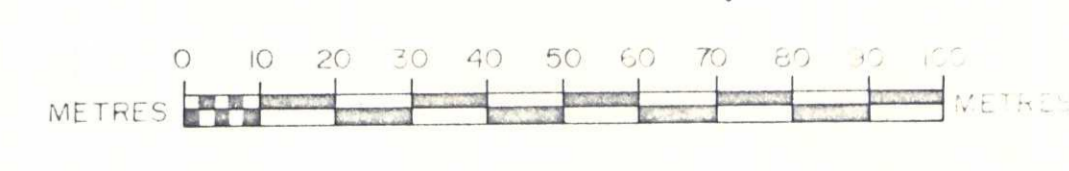
METRES

COMPOSITE PLAN OF
SURFACE & ADIT HORIZONS

N.W.