COMINCO EXPLORATION PTY LTD

Final Report – Scamander River
January 14, 1972

C W Ward

Contents

List of Maps

AMG REFERENCE POINTS ADDED

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DR66 S.P.L. 102 787002

COMINCO EXPLORATION PTY. LTD.

D & M	A.O.		CC & M	D.S.M.E.
				Registrar
RECEIVED 26 JAN 1972				E & IL
ANSWERED	D.W. OF MINES			
REF. No.				

Subject: Final Report - SCAMANDER RIVER
Date: January 14, 1972
By: C.W. Ward

1. SUMMARY

The possibility of an alluvial tin deposit occurring in the area held under Special Prospector's Licence 102 has been tested by hand augering. This completes phase 1 of the programme as set out for the Department of Mines, Tasmania.

There is no encouragement for further work.

It is recommended that SPL 102 be relinquished.

2. INTRODUCTION

The area held under Special Prospector's Licence 102 is located in the land district of Cornwall, in the vicinity of Scamander (plate 901/71).

Reports by J.H. Rattigan (1957), D.J. Jennings (1966) and L. Denholm (1968) all mention the presence of cassiterite in the alluvials of the Scamander River. The area, therefore, was considered by CEPL to have potential for a dredging operation.

3. EXPLORATION AND DEVELOPMENT

Three sub-parallel lines, 1 and 1½ miles apart respectively, were surveyed (plate 901/71). These are at right angles, approximately, to the direction of sediment transport. The middle line (line 1) crosses the "Jenning's Target" area. This survey, comprising 2 lines of 10,000' and one of 6,000' totals 26,000'.

Scout holes, generally 1000' apart, were augered, by hand, along these lines. (Plates 1284a,b,c/71). Over the "Jenning's Target" hole spacing was closed to 200'. Difficulty was experienced in some holes in penetrating hard cemented layers.

The drilling figures are;

	No. samples taken	No. Holes	Footage drilled
Line 1	52	23	255.1
Line 2	10	9	66.1
Line 3	8	6	60.8
Totals	70	38	382.0

The holes were sampled over 5' intervals unless changes in the sediment composition were observed. Then, samples were taken to correspond with the composition boundaries. The samples were then washed free of clay, sieved (-12 BSS) and if large, reduced by panning. They were later washed in fresh water to remove any salt.

Due to compaction of the sediments the measured volume of the sample was substantially greater than expected. The volumes, therefore, were calculated using the figure of 0.0001263 cu. yds. per 1/10th foot drilled.

The samples were then submitted to McPhar Geophysics Pty. Ltd. in Adelaide. The heavy minerals were separated using tetrabromoethane (S.G. 2.95). The total weight of each sample and the weight of the heavy mineral fraction were determined. The weight of the heavy mineral fraction was expressed as a percentage of the total weight.

A mineralogical examination was made of the heavy mineral fraction. This was done for at least one sample from each hole. The constituent minerals were identified and a visual estimate made of their relative abundance.

The approximate abundance in ounces per cubic yard each heavy mineral was calculated according to the formula,

$$\frac{W \times H \times A \times 0.0353}{V \times 10{,}000}$$

where W = total weight of sample
H = weight % of heavy mineral fraction
V = volume of sample in cubic yards.
A = estimated abundance of mineral as % H.M.F.
0.0353 = constant to convert grams to ounces
10,000 = constant derived from the two values expressed as %

The results obtained give only a qualitative estimate of the mineral content. No allowance has been made for the different specific gravities of the various minerals, It is felt, however, that these results are adequate to assess the potential for economic deposits.

The results are listed in tables 1, 2 and 3.

4. RESULTS AND CONCLUSIONS

The programme carried out, has tested the area for possible alluvial tin deposits.

Cassiterite is present, in minor amounts, in the alluvials of Scamander River. Seldom is the concentration of cassiterite greater than 1 oz. per cubic yd. (economic grade is considered to be 6 ozs/cu. yd.). There is, therefore, little likelihood of an economic concentration of heavy minerals occurring in the area covered by SPL102

Submitted: Clark W. Ward
C.W. Ward
Exploration Geologist

CWW:ik

APPENDIX

EXPENDITURE - for total period

Geology	$ 343
Survey	72
Geochemistry	4,046
Drilling equipment	507
Tenure	270
Total	$5,238

Submitted: Clark W. Ward

C.W. Ward
Exploration Geologist

CWW:ik

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Project

Table 1 Line 1

Date

Values given as ozs/cu yd.
Tr means trace.

Sample No.	Position	Depth from to	Cassiterite	Rutile	Ilmenite	Magnetite	Zircon	Tourmaline
95789	0	0.0-3.4	Tr	0.1	0.7	tr	0.4	0.7
90	1000	0.0-2.4	Tr	tr	1.8	tr	0.5	0.8
91	2000	10.0-15.0	0.2	0.3	7.7	-	1.1	2.7
92	2000	20.0-23.0	0.9	1.8	34.0	-	9	8.5
95817	2300	5.0-10.0	0.75	1.0	25.0	tr	2.0	2.5
18	2300	15.0-20.0	0.75	1.0	25.0	tr	2.0	2.5
19	2700	5.0-10.0	tr	tr	0.3	-	0.1	0.6
20	2700	15.0-20.0	tr	tr	2.1	-	0.1	0.4
95793	3000	10.0-15.0	tr	0.86	9.5	-	2.3	5.7
94	4000	7.5-10.0	tr	0.5	18.1	-	2.0	4.0
95	4000	10.0-12.5	tr	0.9	19.1	-	2.2	4.4
95751	4400	0.0-1.3	0.3	0.3	0.6	0.2	1.2	0.3
52	"	1.3-2.6	0.7	0.7	1.4	0.4	2.8	1.4
53	"	2.6-3.4	0.6	0.6	1.2	0.3	2.4	1.2
54	"	3.4-8.5	0.2	0.2	0.4	0.1	0.8	0.4
55	"	8.5-12.5	0.3	0.3	0.6	0.2	1.2	0.6
56	"	12.5-14.5	0.8	0.8	1.9	0.3	5.0	1.8
57	4600	0.0-5.0	tr	0.5	2.6	0.1	3.0	1.5
58	4600	5.0-6.5	tr	1.9	7.9	0.5	11.4	4.7
59	4800	0.0-2.6	0.7	0.7	1.5	tr	3.5	1.7
60	"	2.6-3.9	0.6	0.6	1.3	tr	3.0	1.5
61	"	3.9-9.0	0.5	0.5	1.2	tr	2.5	1.3
62	"	9.0-14.0	1.1	1.1	2.2	tr	5.5	2.4
63	"	14.0-19.0	0.4	0.4	1.0	tr	2.0	1.2
64	"	19.0-22.5	0.8	0.8	2.0	tr	3.9	2.6
65	5000	0.0-2.3	0.1	0.5	1.0	tr	3.0	1.5
66	5000	2.3-7.1	0.3	1.3	2.2	tr	7.8	3.4
67	5200	0.0-5.0	0.6	1.9	2.5	0.6	3.2	3.0

"Jennings Target" 200' + indicated by magnetic + electronic

004

787006

Cont. ..2/.. .

Project Table 1 Line 1 Date

Job Type

Operator

Sample No.	Position	Depth from to	Cassiterite	Rutile	Ilmenite	Magnetite	Zircon	Tourmaline	
95768	5200	5.0-10.0	0.2	0.8	1.0	0.2	1.3	1.0	
69	"	10.0-14.0	0.5	1.2	1.8	0.4	2.0	1.4	
70	5400	0.0-5.0	0.3	0.1	0.1	0.2	0.3	0.4	
71	5400	5.0-8.1	0.5	0.3	0.4	0.8	1.2	1.4	
95772	5600	0.0-3.6	0.1	0.3	0.6	0.2	1.8	0.9	
73	"	3.6-4.9	0.6	0.4	0.8	0.5	2.4	1.2	
74	"	4.9-10.0	0.1	0.5	1.0	0.3	3.0	1.5	
75	"	10.0-14.9	0.1	0.5	0.8	0.2	2.4	1.1	
76	5800	0.0-4.4	tr	0.4	0.7	0.2	2.1	1.7	
77	"	4.4-5.8	tr	0.7	1.4	0.4	4.2	3.5	
78	"	5.8-10.0	tr	1.3	2.6	0.7	7.8	6.5	
79	"	10.0-15.0	tr	0.6	1.2	0.3	3.6	3.0	
80	"	15.0-16.1	tr	0.9	1.6	0.4	5.1	4.3	
81	6000	0.0-5.1	2.8	0.9	1.9	1.0	1.4	1.4	
82	6200	0.0-5.0	2.0	1.2	3.5	0.4	10.5	5.2	Best results
83	6200	5.0-6.2	2.4	1.5	3.3	0.6	11.8	4.9	
84	6400	0.0-5.0	tr	tr	0.6	0.4	2.1	1.5	
85	6400	5.0-8.4	tr	tr	1.0	0.8	3.5	2.5	
86	6600	0.0-5.0	tr	tr	1.5	0.9	5.2	3.7	
87	6600	5.0-6.7	tr	tr	3.0	2.0	9.1	6.5	
88	6800	0.0-3.5	tr	0.5	1.0	-	3.8	2.2	
95796	8000	0.0-3.0	0.2	0.3	3.7	0.3	0.7	0.8	
97	9000	12.5-15.8	tr	0.2	5.3	-	0.3	1.2	
98	9800	0.0-3.8	0.6	0.6	27.0	tr	2.4	4.5	

"Jennings Target"

Values given as ozs/cu yd.
Tr means trace.

7/71

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Project Table 2 Line 2 Date

Area

Operator

Sample No.	Position	Depth from to	Cassiterite	Rutile	Ilmenite	Magnetite	Zircon	Tourmaline
95799	0	10.0-15.5	Tr	0.3	6.7	Tr	0.5	2.7
95800	1000	0.0 -2.8	1	0.1	2.0	-	0.2	0.5
	2000		Slate outcrop					
	3000		Heavy slate scree. No drilling possible					
95801	4000	0.0-4.6	Tr	-	0.08	Tr	Tr	0.1
02	5000	0.0-4.6	Tr	-	19	Tr	1.0	1.5
03	6000	0.0-3.7	Tr	Tr	40	Tr	5.0	2.0
04	7000	5.0-7.5	Tr	-	5.8	-	Tr	-
05	7000	10.0-13.6	Tr	Tr	21.2	-	0.6	-
06	8000	7.5-11.5	1	1	30.5	-	1	3.0
08	10,000	0.0-4.9	Tr	-	Tr	-	-	-
07	9000	2.5-5.6	1	0.5	13.1	-	0.5	1.5

Values given as ozs/cu. yd.

Tr means Trace

71

006

787008

Project Table 3 Line 3 Date

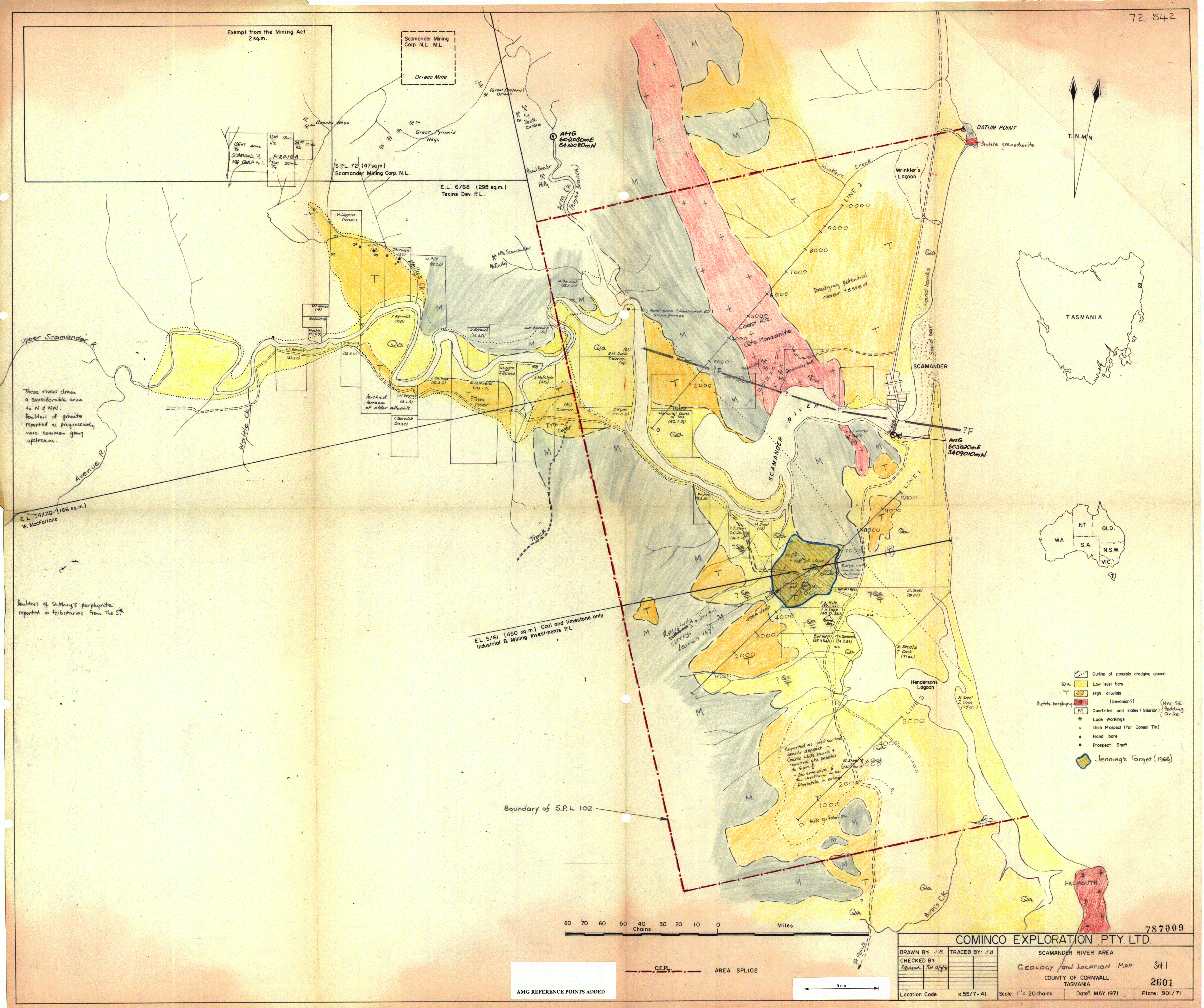
Author

Operator

Sample No.	Position	Depth from to	Cassiterite	Rutile	Ilmenite	Magnetite	Zircon	Tourmaline
95809	0	50-7.5	Tr	0.1	1.95	-	0.4	0.6
10	0	7.5-10.2	Tr	Tr	0.03	-	Tr	0.1
11	1000	5.0-10.2	Tr	0.8	18	-	1.0	2.0
12	2000	0.0-2.9	Tr	-	0.83	-	Tr	Tr
13	3000	10.0-15.0	Tr	0.02	1.37	-	0.03	0.3
14	4000	10.0-13.8	0.1	0.3	5.0	-	0.5	0.8
15	4000	13.8-17.5	0.1	0.1	2.2	-	0.1	0.5
16	5000	0.0-5.0	Tr	0.3	12.5	-	0.4	2.1

Values given as ozs/cu. yd

Tr means Trace



72-842
Exempt from the Mining Act
2 sq.m.
Scamander Mining Corp. N.L. M.L.
Orieco Mine
S.P.L.72 (47sq.m.)
Scamander Mining Corp. N.L.
E.L. 6/68 (295 sq.m.)
Texins Dev. P.L.
AMG
602050mE
5420080mN
DATUM POINT
Biotite granodiorite
T.N.
M.N.
Wrinkler's Creek
Wrinkler's Lagoon
LINE 2
Dredging potential never tested.
Coast Ra.
Qtz Monzonite
SCAMANDER
SCAMANDER RIVER
TASMANIA
AMG
605030mE
5409010mN
LINE 1
Upper Scamander R.
These rivers drain a considerable area to N & NW. Boulders of granite reported as progressively more common going upstream.
Avenue R.
Wattle Ck.
Arched terrace of older alluvials.
E.L. 34/70 (166 sq.m.)
W. MacFarlane
Track
Boulders of St. Mary's porphyrite reported in tributaries from the S.
E.L. 5/61 (450 sq.m.) Coal and limestone only
Industrial & Mining Investments P.L.
Hendersons Lagoon
LINE 3
Boundary of S.P.L. 102
Outline of possible dredging ground
Low level flats
High alluvials
(Devonian?)
Biotite porphyry
Quartzites and slates (Silurian)
NW-SE Bedding Strike
Lode Workings
Dish Prospect (for Consol Tin)
Hand bore
Prospect Shaft
Jenning's Target (1966)
FALMOUTH
Binns Ck.
80 70 60 50 40 30 20 10 0
Chains
Miles
C.E.P.L.
AREA SPL102
AMG REFERENCE POINTS ADDED
5 cm
787009
COMINCO EXPLORATION PTY. LTD.
DRAWN BY: J.B.
TRACED BY: J.B.
CHECKED BY
SCAMANDER RIVER AREA
GEOLOGY and LOCATION MAP
COUNTY OF CORNWALL
TASMANIA
2601
Location Code: K55/7-41
Scale: 1" = 20 chains
Date: MAY 1971
Plate: 901/71

72-842

Exempt from the Mining Act
2 sq.m.
Scamander Mining Corp. N.L. M.L.
Orieco Mine
S.P.L. 72 (47 sq.m.)
Scamander Mining Corp. N.L.
E.L. 6/68 (295 sq.m.)
Texins Dev. P.L.
E.L. 34/70 (166 sq.m.)
W. MacFarlane
E.L. 5/61 (450 sq.m.) Coal and limestone only
Industrial & Mining Investments P.L.
DATUM POINT
Biotite granodiorite
T.N.
M.N.
TASMANIA
WA
NT
QLD.
S.A.
N.S.W.
VIC.
Upper Scamander R.
Avenue R.
Wattle Ck.
Wrinkler's Creek
Wrinkler's Lagoon
SCAMANDER
SCAMANDER RIVER
Coast Ra.
Qtz Monazite
Dredging potential never tested.
Sand banks
Sand bar
Hendersons Lagoon
Binn's Ck.
FALMOUTH
These rivers drain a considerable area to N & NW. Boulders of granite reported as progressively more common going upstream.
Boulders of St Mary's porphyrite reported in tributaries from the S.
Perched terrace of older alluvials
Track
Outline of possible dredging ground
Qa Low level flats
T High alluvials
Biotite porphyry (Devonian?)
M Quartzites and slates (Silurian)
NW-SE Bedding Strike
Lode Workings
Dish Prospect (for Consul Tin)
Hand bore
Prospect Shaft
Jenning's Target (1966)
80 70 60 50 40 30 20 10 0
Chains
Miles
C.E.P.L.
AREA SPL102

I suspect that the tortuous course of the river thro' the flats is dictated by bars of bedrock sm omitted from the map.

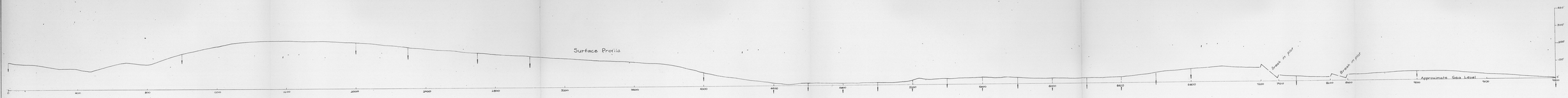
787010

COMINCO EXPLORATION PTY. LTD.

DRAWN BY: J.B.	TRACED BY: J.B.	SCAMANDER RIVER AREA
CHECKED BY:		GEOLOGY & LOCATION MAP Sht 2
Revised Feb 12/7/71		COUNTY OF CORNWALL TASMANIA
Location Code: K55/7-41	Scale: 1" = 20 chains	Date: MAY 1971
		Plate: 901/71

2602

72-842



SW

NE

Geological Logs

JENNING'S TARGET AREA

LINE 1

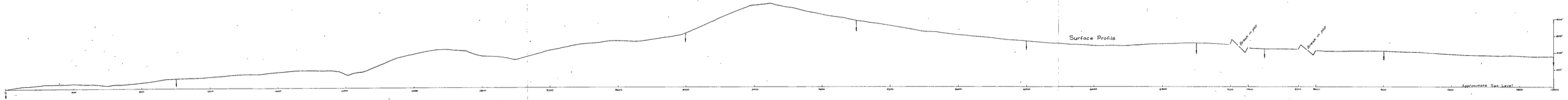
787011

5 cm

NOTES:
For mineral, number given is ozs./cubic yard (approx.)
Tr. - Trace.
N.B. - not bottomed.
R.B. - Rock bottom.

COMINCO EXPLORATION PTY. LTD.			
DRAWN BY H.L.F.	TRACED BY G.E.R.	SCAMANDER RIVER SPL/102	
CHECKED BY	REVISED BY / DATE	HAND AUGER TRAVERSE LINE 1	
REVISED BY / DATE		COUNTY OF CORNWALL	2603
		TASMANIA	
Location code: K55/7-41	Scale: V 1"=8' H 1"=200'	Date: NOVEMBER 1971	Plate: 1284c-71

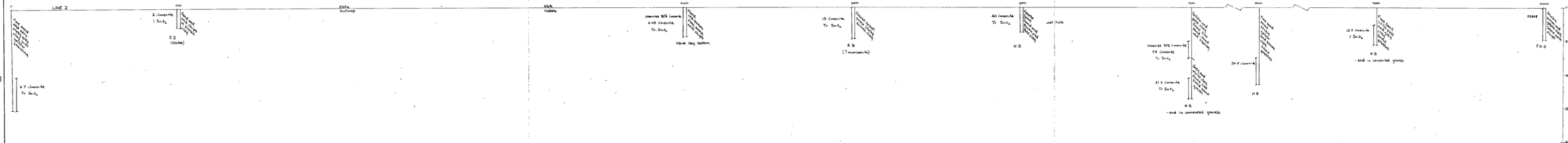
72-8442



SW

NE

Geological Logs



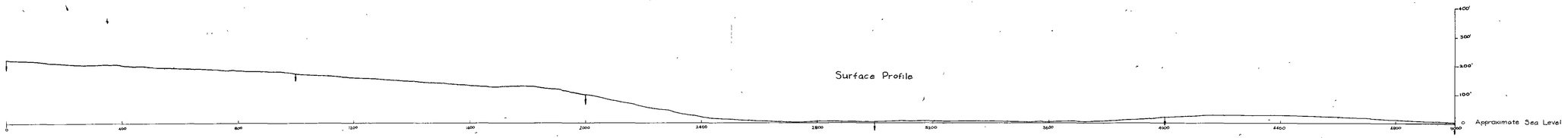
787012

5 cm

NOTES -
For material, monazite given in gms / cubic yard (approx.)
Tr - Trace
N.B. - Not bottomed
R.B. - Rock bottom
Line 2 at 40°M bearing, through the Upper Schmander Road about 1½ m above main creek road

COMINCO EXPLORATION PTY. LTD.			
DRAWN BY H.L.F.	TRACED BY G.E.R.	SCAMANDER RIVER SPL/102	
CHECKED BY	REVISED BY / DATE	HAND AUGER TRAVERSE LINE 2	
REVISED BY / DATE		COUNTY OF CORNWALL	2604
		TASMANIA	
Location code: K55/7-41	Scale: H 1"=5" V 1"=1000"	Date: NOVEMBER 1971	Plate 1284 o /71

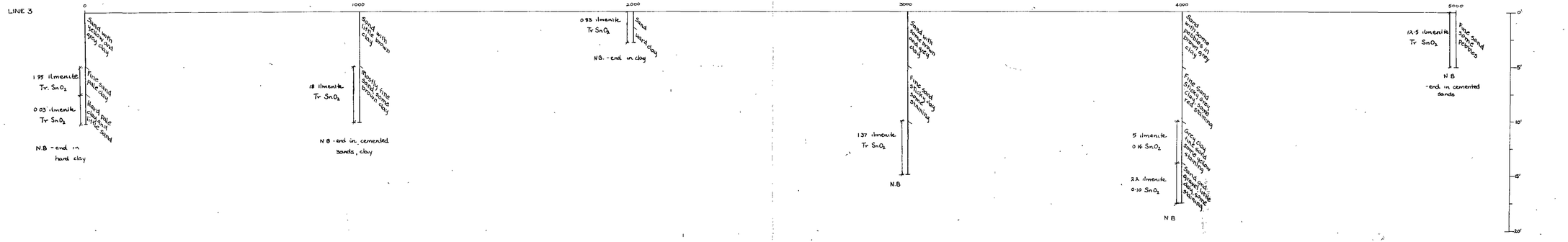
72-842



S.W.

N.E.

Geological Logs



787013

5 cm

NOTES -
For mineral, number given is ozs / cubic yards (approx)
Tr - Trace
N B - Not bottomed
R B - Rock bottom

Line 3 at 45° m Bearing, through the "Swansea 63" mile post on the main road, south of Scamander

COMINCO EXPLORATION PTY. LTD.			
DRAWN BY H.L.F.	TRACED BY G.E.R.	SCAMANDER RIVER SPL/102	
CHECKED BY F.L.H.	REVISED BY / DATE	HAND AUGER TRAVERSE LINE 3	
REVISED BY / DATE		COUNTY OF CORNWALL	
		TASMANIA	
Location code K55/7-41	Scale V 1"=5' H 1"=200'	Date NOVEMBER 1971	Plate 12848/71

2605