COMALCO LIMITED

EXPLORATION DEPARTMENT

E.L. 25/76 LISLE.

FINAL REPORT ON EXPLORATION

P. ASKINS

October, 1977.

001

287002

CONTENTS

I INTRODUCTION

Several areas in the Silurian Mathinna Beds of Eastern Tasmania were thought to be prospective for gold. Accordingly two areas, over Lisle and Lefroy, were applied for.

E.L. 25/76 at Lisle was originally granted on 17th November, 1976. The location of the E.L. is as shown on Fig.1.

As a result of initial investigations only the top 92 km^2 of the original 130 km^2 licence area were retained at the first renewal on 17th May, 1977.

The licence will not be renewed at the next renewal date, 17th November, 1977, because investigations have indicated that the chances of locating economic concentrations of gold are remote.

II GEOLOGY

The geology of the region has been well described elsewhere, so there is little point in a detailed treatment here. The most recent comprehensive reference to geology is Marshall (1969), and the goldfields themselves are treated in detail in Reid (1926) and Twelvetrees (1909).

The regional geology of the area is shown on the Pipers River 1 inch to 1 mile geological map. A sequence of well cleaved siltstones, sandstones and black shales comprising part of the Silurian Mathinna Beds is intruded by Devonian granite. An extensive contact metamorphic aureole is present around the granite.

Almost all gold produced from the Lisle field was won from alluvial and eluvial deposits, particularly along Lisle Creek on the east side of the valley, and from Bessells and Thomas Creeks on the west side. There are only rare gold bearing quartz veins in the area, and no economic gold concentrations were ever found in the contact metamorphosed rocks, so a long standing quandary exists concerning the origin of the alluvial/eluvial gold.

III EXPLORATION AIMS AND PROGRAM

The Mathinna Beds were thought to be prospective for gold, and the aim of exploration in the area was to locate stratabound gold mineralization. An approximate economic target would be an open pittable body of greater than 10 million tonnes of 4.5 g Au/tonne.

Gold in veins was not an attractive target because of their historically established rarity in the Lisle goldfield and their small tonnages and patchy grades elsewhere.

No attempt was made to assess alluvial and eluvial gold deposits which have been worked and investigated in the area in the past. This is because such deposits are likely to be very patchy and very difficult to assess, and, economic mining grades would probably be unattainable due to the high costs of stringent environmental protection and rehabilitation, and the need for re-afforestation of existing pine plantations which now cover most of the area.

The hypothesis upon which exploration was based in the area is that gold occurs originally and syngenetically within certain beds of the Mathinna beds as very fine grained gold. During intrusion of the granite hydrothermal fluids were generated from connate waters and gold was remobilized and recrystallized in coarser sized grains in the contact metamorphic aureole.

Eluvial deposits and alluvial deposits derived from rocks in the contact metamorphic aureole contain gold of relatively coarse grain size and this was detected and recovered by the early prospectors. Gold shed from Mathinna beds unaffected by metamorphism or hydrothermal fluids could be so fine grained that it has not been detected by traditional panning methods.

Twelvetrees (1909) was the first author to suggest that Lisle gold was shed from the metamorphic rocks. He discussed the origin of the gold at length. He found free gold within dark hard blue hornfels and took samples of this hornfels remaining after dredging operations. These contained traces of gold on assay. Twelvetrees however believed that the ultimate source of the gold was from the granite.

Reid (1926) refers to bedded gold deposits at the Bessell Reward prospect and also in the Myrtlebank area. For Bessell Reward he states:

...."These consist of narrow beds of sandstone intercalated with wider beds of purple-grey, and bluish-black slates. The strike is north-north-east. They vary in thickness from one to 6 feet, and are uniform both along the strike and dip. Where opened on this property the seams are at every point gold-bearing, but the content varies considerably. A number of samples taken from the several seams of sandstone exposed in the trenches yielded gold in the proportion of 2 dwt. 3 gr. per ton (average of 10 samples), and two in the proportions of 9 and 11 dwt. per ton. One sample of sandstone taken from a shaft 20 feet deep contained gold at 17 dwt. per ton. At the point where Tobacco Creek cuts the seams a development of secondary mica and quartz marks the position of a rich concentration, now exposed in a shaft 50 feet deep."

There are many recently constructed forestry tracks within the area so a first pass approach to exploration of the area was to reconnaissance map the area based on these exposures and sample as many exposures as possible. The aim was to locate a favourable source bed or gold bearing rock type, so that a future exploration program could be planned accordingly. A limited stream sediment sampling program was also attempted, to assess whether stream sediment geochemistry would be useful as a path-finder for gold. Some panning was also done to familiariz ourselves with the nature and distribution of the gold.

All work done by other companies in the region was assesse Previous reports by Hull (1970) and Fleming and Knight (1970) refer to tin and tungsten anomalies in the area. However, these anomalies are almost certainly due to analytical error and no further work on tin and tungsten is considered justified.

IV EXPLORATION PROGRAM AND RESULTS

(i) Panning and Stream sediment sampling.

Panning was carried out and stream sediment samples collected at all points shown on the attached geological map.

Panning revealed that almost all of the alluvial gold is very fine grained. No other commercially valuable heavy minerals were detected.

Stream sediment samples were sieved to minus 80 mesh BSS and analysed for Cu, Pb, Zn by AAS after hot acid digestion and for As with a colorimetric method. Results are tabulated in Appendix I. Only arsenic shows some promise for use as a pathfinder for gold as some streams draining known gold prospects contained more than 10 ppm As. However not all streams known to carry gold contained higher values so the method can best be regarded as a guide only. No further stream sediment sampling has been undertaken because of the lack of encouraging results in other exploration.

(ii) Geological mapping

A reconnaissance geological map was compiled using airphoto enlargements. The dark blue-grey hard hornfels referred to by Twelvetrees (1909) was regarded as important since Twelvetrees had noted the presence of gold in it. Hence its distribution in outcrop was mapped, and an attempt was made to trace this rock beyond the contact metamorphic aureole. However the initial investigations failed to identify the pre-metamorphic equivalent of this hornfels, but it is suspected to be black shale.

A thin section study of this hornfels is attached as appendix II. It was thought that this rock could originally have been a carbonaceous dolomitic siltstone having some similarities to rocks at the Homestake mine, Dakota, (Slaughter, (1968). However it is merely a cordierite-biotite hornfels.

No tuffaceous beds described by Reid (1926) were located.

(iii) Rock sampling

Rock samples were collected initially to test whether the dark hornfels and the rocks near the Bessell Reward prospect contained significant gold.

Analyses of initial samples PA/T/LISLE 1 - 16 by both fire assay and AAS means did not find any significant values - all being less than 0.05 ppm.

A description of samples, and all analyses, are listed in Appendix III and IV.

Because no obvious gold bearing rock type was discovered in this initial sampling, a program of sampling all well exposed areas was commenced. All rock types were sampled; hornfels, shales, black shales, siltstones and to a lesser extent sandstones. Sixty six samples (prefixed SK/T/-) were chipped from the localities shown on the map. All were analysed for gold by fire assay.

Six significant analyses were obtained:-

Sample No.	Gold, ppm	Description
SK/T/L 5	0.94	Quartz off dump
14	0.36	Hard dark hornfels. Chip sample across 25-30 m of outcrop. Minor sugary quartz veins and granite dykes throughout.
18	0.33	Black shale enclosed in earthy brown sandstone.
47	0.41	Light grey spotted sandstone (mildly hornfelsed), with quartz veinlets.
51	0.28	Purplish to light earthy brown shale.
62	0.38	Dump material, mainly hornfels, Fairthorne prospect.

No one particular rock type was found to be gold bearing therefore no efforts to map and sample particular rock units like black shale were justified as this stage.

The samples 14, 18, 47 and 51 were chip sampled over wide areas of outcrop, so these areas were resampled in detail:

Original sample		Resampling
SK/T/L	14	RD/T/L 67 - 81
	18	101 - 113
	47	114 - 123
	51	82 - 100

Five significant gold analyses were obtained from this resampling program, ranging up to 1.3 ppm in a purplish siltstone.

However these values were suspected to be incorrect and so repeat analyses were requested. The repeat values except, for sample 120 which is quartz vein material, indicate that the original values were incorrect, and that none of the resamples contained significant gold.

(iv) Discussion

The sampling program failed to locate any rocks containing significant gold. If the program had found one particular rock type which contained gold, a systematic mapping and sampling program could have been commenced.

Sampling by Comalco at Lefroy in E.L. 26/76 showed that the black shales contain only traces of gold and indicated that these traces were sufficient to account by remobilization for all the known gold in quartz veins in the area. It is also likely that in the Lisle area the black shales and their possible metamorphic equivalent, the dark hornfelses, do not contain economic concentrations of gold but only widespread but sporadic traces of very fine grained gold. During emplacement of the granite this gold was remobilized, deposited in joints, fractures and locally in quartz veins, and subsequently reports in alluvium and aluvium during weathering.

Any further work to locate gold bearing beds would require:-

(a) more very extensive sampling
(b) detailed stream sediment sampling
(c) detailed gridding with soil and rock sampling.

In view of the lack of success of the program to date it is thought the possibilities of success of further work are not high and therefore further work is not warranted.

REFERENCES

FLEMING A.W., KNIGHT J.M. (1970). Report on exploration lease 32/70 for Graham Roberts. Dep. Mines Tas. Open File Rep. Q31/5. 70-668

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SLAUGHTER, A.L. (1968). The Homestake Mine. in Ridge J.D.(ed) Ore Deposits of the United States, 1933 - 1967. Am. Inst. Min. Met. Pet. Engs: 1436 - 1459.

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APPENDIX I

STREAM SEDIMENT GEOCHEMICAL ANALYSES

U11

Phone 3518

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Cairns

287012

CERTIFICATE OF ANALYSIS No. 77/77

Lisle Area
Stream Sediment
Results.

SHEET No. 1

INV. No.

Samples Submitted by COMMONWEALTH ALUMINIUM CORP. LTD.

Samples Received 17-3-77 Request No.

All results in p.p.m. unless otherwise indicated.

SAMPLE MARKINGS	DATA BASE No	Cu	Pb	Zn	As
SK/T/L/L1S	4001	12	17	52	2
2S	4002	16	20	50	2
3S	4003	7	15	29	4
4S	4004	6	11	31	1
5S	4005	9	16	33	2
6S	4006	10	22	42	5
7S	4007	14	19	58	4
8S *		7	18	30	3
9S	4009	9	20	45	2
10S	4010	8	20	32	2
11S *		12	22	55	5
12S *		11	22	47	4
13S	4013	11	17	40	44
14S	4014	11	23	48	6
15S	4015	11	24	67	4
17S	4017	12	17	54	8
18S	4018	10	21	26	4
19S	4019	8	14	28	2
20S	4020	7	17	31	3
21S	4021	6	20	26	12
22S *		22	26	79	17
23S *		11	16	61	3
24S	4024	21	22	63	6
SK/T/LL 25S	4025	17	22	67	17

* locality not given on map.

FOR METHOD DETAILS, SEE PRICE LIST

CHIEF CHEMIST. A. Morgan B.Sc.

DATE 25-3-1977

APPENDIX II

THIN SECTION DESCRIPTION

013

CENTRAL MINERALOGICAL SERVICES PTY. LTD.

Date 10th February 1977

SAMPLE REPORT (Mineralogy, Petrology, Ore Microscopy)

IDENTIFICATION
PA/T/LISLE 9
CORDIERITE-BIOTITE HORNFELS

Job No. CMS 77/2/4 Date Received: 7.2.77

Reference 754.00.E907.011

Sample No. PA/T/LISLE 9

Nature of Sample: Hand specimen

DESCRIPTION **SECTION No20688**

a. Hand Specimen:

Dark, fine-grained, faintly spotted and banded rock.

b. Microscopic:

This is a cordierite-biotite hornfels, representing a contact-metamorphosed semi-pelitic sediment.

The rock consists mainly of interlocking patches of cordierite, unusually fresh and well-developed though typically anhedral, ovoid composite crystals; these give the rock a spotted appearance and an almost "clastic" fabric which is misleading. The dark color is due to ultrafine and occasional coarse grains of graphite.

Interstitial material between cordierite patches is composed of small biotite flakes and microcrystalline quartz. There are also regularly spaced, thin, parallel bands of microcrystalline quartz representing original sedimentary layers (silty quartz). The biotite is typically of random to subparallel orientation, characteristic of hornfelses. Small detrital heavy-mineral grains are seen, and include apatite, zircon, oxide opaques.

Of interest is the occurrence of very occasional patches of chalcopyrite, up to 250μ across. They are too isolated for an interpretation of their origin, and could be recrystallised syngenetic material, or of epigenetic (post-metamorphic) formation.

H.W. Fander, M.Sc.

APPENDIX III

ROCK SAMPLE DESCRIPTIONS

APPENDIX III

ROCK SAMPLES - LISLE AREA

SAMPLE NO.	LOCATION	DESCRIPTION
PA / T / LISLE 1	527200 m E 5435500m N	Cleaned alluvial pebbles from lease 35M/71 (Graham and Imlach).
2	Ditto	Hard dark blue hornfels from same lease.
3	528000 m E 5435300m N	Hard dark blue hornfels from road to Bessells Ridge
4	527400 m E 5435000m N	Granite, HW - CW from lease 30M/76 (Beams).
5	526000 m E 5436500m N	Hard dark blue hornfels from new road cut, road to Lone Star ridge.
6	526000 m E 5436700m N	Ditto but further north
7	Ditto	Paler coloured siltstone, a few metres south of sample 6.
8	525000 m E 5439200m N	Bessell Reward Prospect. Siltstone off dump and from trench.
9	527200 m E 5435500m N	Hard dark blue hornfels - cobble in alluvium, lease 35M/71.
10	Ditto	Specimens of contact metamorphosed sandstones, very micaceous (muscovite) in places. One specimen with minor quartz veining (rare). All specimens cobbles in alluvium.
11	525000 m E 5439200m N	Bessell Reward Prospect. Quartz rich material off dump.
12	Ditto	Sandstone, some weakly iron stained, off dump.
13	Ditto	Sandstone, with minor brecciated gossanous material.
14	Ditto	Sandstone, in black shale unit exposed in road cut just west of Bessell Reward Prospect.
15	Ditto	Some road cut, west side. Black shale chipped over full width of bed (about 2 m)

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SAMPLE NO.	LOCATION	DESCRIPTION
SK / T / L.1	Enterprise Mine Shaft	Spotted hornfels
2	Ditto	Granite and associated hornfels
3	Ditto	Granite
4	Ditto	Coarse granite with quartz veins
5	Ditto	Quartz off dump
6	As marked on map	Grey Hornfels, micaceous (Possible metamorphosed sandstone)
7	Ditto	As above
8	Ditto	Sample of quartz from minor veins in the hornfels
9	Ditto	Sample of hornfels around above quartz veins
10	Ditto	Fine grained cryptocryst alline hornfels, bluish grey, weathering into a light earthy brown spotted sandstone
11	Ditto	As above, with minor quartz veins
12	Ditto	Black shale, with minor spots of chiastolite
13	Ditto	Bleached, black shale chip sample over a wide outcrop, with minor quartz veins
14	Ditto	Dense dark grey hornfels. Chip sample across 25-30 metres outcrop Minor sugary quartz veins and granite dykes in the outcrop
15	Ditto	As above, chip sample over 30-40 metres length of outcrop
16	Ditto	As above, chip sample over 20-30 metres outcrop
17	Ditto	Dense bluish grey hornfels.(Similar to sample 10)
18	Ditto	Black shale within earthy brown sandstone
19	Ditto	Black shale, considerably bleached

SAMPLE NO.	LOCATION	DESCRIPTION
SK / T / L.20	As marked on map	Dark bluish grey dense hornfels (Similar to sample 10).
21	Ditto	As above
22	Ditto	Random chip sample along firebreak, minor hornfels and dominent black shales. Minor Pyrite in sample.
23	Ditto	Black shale outcrop with minor quarts veining
24	Ditto	Black shale, chip sample across 10-20 metres.
25	Ditto	Earthy brown to light brown quartzite rock with minor quartz veining (adjacent to sample 24)
26	Ditto	Samples along two pits, mainly metamorphosed sandstone.
27	Ditto	Metamorphosed sandstone with considerable ironoxides.
28	Ditto	Metamorphosed black shale, with chiastolite or andalusite.
29	Ditto	Dark grey hornfels (Similar to sample 10)
30	Ditto	As above
31	Ditto	Friable sandstone siltstone with small bands of altered (?) material.
32	Ditto	Dark grey hornfels with numerous quartz veins
33	Ditto	Micaceous highly weathered hornfels
34	Ditto	Grey to light grey sandstone mildly metamorphosed, chip across outcrop 15-20 metres.
35	Ditto	Dark grey hornfels (chip sample)
35A	Ditto	As above (Similar to sample 10)
36	Ditto	Dark grey hornfels (chip sample). (Similar to sample 10)
37	Ditto	Ditto

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287019

SAMPLE NO.	LOCATION	DESCRIPTION
SK / T / L.38	As marked on map	Metamorphosed sandstone grey with minor purplish tint.
39	Ditto	Dark grey hornfels. Chip sample along outcrop.
40	Ditto	Dense dark grey hornfels, weathered.
41	Ditto	Shale with minor siltstone and sandstone.
42	Ditto	Chip across outcrop of (?)
43	Ditto	Shale and siltstone with small band of sandstone minor quartz veins in sandstone (chip sample)
44	Ditto	Purple shale and minor sandstone with small quartz veins.
45	Ditto	Friable highly weathered shale and siltstone.
46	Ditto	Dark grey shale. Chip sample across outcrop.
47	Ditto	Light grey spotted sandstone mildly metamorphosed, with small quartz veins.
48	Ditto	Light grey shales and slate with considerable iron oxides in fracture and cleavage planes. Chip sample across 15-20 m outcrop.
49	Ditto	Purple and grey shale and siltstone, random sample from firebreak.
50	Ditto	Random chip sample of purple shale, black shale, minor ironstone, quartz along firebreak.
51	Ditto	Purplish to light earthy brown shale.
52	Ditto	Black shale
53	Ditto	Light earthy brown siltstone and shale adjacent to sample 52.
54	Ditto	Light grey shales with minor black shales, chip sample across outcrop of 10 - 20 metres.

019

287020

SAMPLE NO.	LOCATION	DESCRIPTION
SK / T / L.55	As marked on map	Light grey but mainly purple shales and siltstone
56	Ditto	Olive green shales with very minor black shale.
57	Ditto	Olive green shales with minor purple coloured shales (chip across outcrop).
58	Ditto	As above
59	Ditto	Light grey shales and siltstone with minor olive coloured shales heavily iron stained outcrop with minor quartz veins.
60	Ditto	Chip across outcrop. Bleached light grey to dull white sandstone. Chip across outcrop.
61	Ditto	Spotted earthy brown sandstone, mildly metamorphosed. Random chip sample.
62	Ditto	Dump material Fairthorne prospect. Hornfels.
63	Ditto	Dark grey hornfels. Chip across outcrop 20-30 metres
64	Ditto	As above
65	Ditto	As above
66	Ditto	Re sample of sample PA/T/Lisle 3

120

287021

SAMPLE	LOCATION	DESCRIPTION	WIDTH OF CHIPPED SAMPLE
RD/T/L	Samples 67-81 are detailed resampling of the area around sample SK/T/L.14 at 526300E 5436500N.		
67		Hard dark bluish hornfels	2.85 m
68		Ditto	3.60 m
69		Ditto but darker and softer, some granite veinlets	2.80 m
70		As 67 but more sandy	2.65 m
71		As 67 but paler, more blocky in outcrop	3.00 m
72		Ditto	3.50 m
73		Completely weathered, soft very micaceous rock	3.80 m
74		Similar to 71, 72	4.40 m
75		Similar to 73, but some completely weathered granite	9.20 m
76		Dark finely bedded sandstone	4.00 m
77		Ditto	3.70 m
78		As at 71, 72. Good outcrop	3.40 m
79		Ditto but more silty and poorer outcrop	4.50 m
80		Mostly rubble in dark brown soil	4.90 m
81		Ditto but some subcrop of similar rock to that at 79.	6.00 m
82	Samples 82-100 are detailed resampling of sample SK/T/L.51. 526600E 5440600N	Mod. weathered pale grey siltstone.	3.30 m
83		As 82	3.10 m
84		As 82 but poor outcrop	4.80 m
85		Mod weathered purplish well bedded siltstone	3.70 m
86		As 85	2.60 m
87		As 85	3.40 m
88		As 85	4.20 m
89		As 85 but some mod weathered brown and slightly weathered bluish shale	3.10 m

021

SAMPLE	LOCATION	DESCRIPTION	WIDTH OF CHIPPED SAMPLE
RD/T/L			
90		As 85	3.50 m
91		As 85, but some bluish shale	3.30 m
92		As 85, but less weathered? and mostly khaki colour	3.20 m
93		As 92	2.90 m
94		As 92	3.20 m
95		As 92	4.90 m
96		As 92 but poorer outcrop and more weathered	3.50 m
97		As 92	3.70 m
98		Completely weathered shale, poor outcrop	5.80 m
99		Subcrop of flaggy shaley siltstone	4.20 m
100		As 99	7.30 m
101	Samples 101-113 are detailed resampling of the area around sample SK/T/L.18 at 526900E 5437600N.	Spotted grey hornfels and siltstone, well bedded	4.55 m
102		As 101	5.50 m
103		Darker greenish grey siltstone, not spotted.	6.70 m
104		As 103 but over all more sandy	5.50 m
105		As 104	7.30 m
106		As 104	7.60 m
107		Becoming more shaley, softer, more weathered and more reddish.	5.00 m
108		Ditto	7.70 m
109		Variably coloured and weathered, well bedded silty sandstone	2.20 m
110		Black shale 3 m wide, containing white sandstone lens 0.5m wide	4.90 m
111		Khaki soft sandstone, variably developed bedding.	4.70 m
112		As 111	6.00 m
113		As 111	7.00 m

022

287023

SAMPLE	LOCATION	DESCRIPTION	WIDTH OF CHIPPED SAMPLE
RD/T/L 114	Samples 114-123 are detailed resampling of the area around sample SK/T/L.47 at 527500E 5438000N	Highly weathered sandstone	4.50 m
115		Mod. weathered buff silty sandstone	4.00 m
116		As 115.	3.50 m
117		Mod. weathered pale siliceous sandstone	4.70 m
118		As 117	3.50 m
119		As 117	6.00 m
120		Quartz vein about 10cm wide	.50 m
121		As 117	3.50 m
122		As 117	4.80 m
123		As 117	3.70 m
		Samples 117-123 lie in the same bed, fairly flat lying, gently folded with the quartz vein apparently lying in the axial plane of the fold.	

APPENDIX IV

ROCK SAMPLE ANALYSES

024

THE AUSTRALIAN MINERAL DEVELOPMENT LABORATORIES

287025

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REPORT AN 2812/77

Sample N°	ppm As	ppm Sb
HT/HSLE 1	13	90
2	16	<4
3	12	4
5	4	<4
6	2	<4
7	4	4
8	6	4
11	5	22
12	12	28
13	75	36
14	22	26
15	20	14
16	24	16

METHOD:

025

ANDEE ANALYTICAL SERVICE

JOB 2483/77 — Results in ppm unless otherwise stated — BATCH NO. 287026

TT	Sample No.			Au	Cu	Pb	Zn		
1	PA/T/Lisle 1			<0.05	20	20	60		
2	2			0.05	25	12	95		
3	3			<0.05	28	8	85		
4	STD.								
5	5			<0.05	38	< 5	90		
6	6x			<0.05	25	12	85		
7	7			<0.05	28	15	90		
8	PA/T/Lisle 8			<0.05	12	15	15		
9	6x								
10	BLK.			—	—	—	—		
11									
12				Code C_3	Code C_4				
13				(AAS)					
14									
15									
16									
17									
18									
19									
20									

026

AMDEL ANALYTICAL SERVICE

CODE 6 JOB 2812/77 *Results in ppm unless otherwise stated* BATCH NO 287027

TT	Sample No.		Cu	Pb	Zn				
1	PA/T/Lisle 11		8	55	5				
2	12		48	18	22				
3	13 x		55	10	13				
4	14		20	48	5				
5	STD.								
6	15		25	22	5				
7	PA/T/Lisle 16		150	45	35				
8	13 x								
9	BLK.		—	—	—				
10									
11									
12									
13			Code C1						
14									
15									
16									
17									
18									
19									
20									

All results too low to be meaningful

Sb might be useful pathfinder for Au.

027

287028

amdel

ANALYSIS
g/tonne

AN 2812/77

FIRE ASSAY METHOD 4U2

SAMPLE MARK	GOLD Au	
PA/T/LISLE		
11	0.05	Qtz - Bessell Reward dump.
12	0.03	ss - " " dump
13	0.015	ss with breccia mudstone. "
14	<0.005	ss in black shale - road cut nea. Bessell
15	0.005	black shale - " Reward
16	0.03	black shale - "
1	0.01	Alluvium from Graham Isaac
2	0.005	Conductor sample " "
3	0.010	" " from mud lane dam
5	<0.005	" " from Lone Star Isaac joiner road (new road
6	0.005	DitHo
7	0.005	Pale siltstone same locality
8	0.020	Bessell Reward dump

023

287029

AN 2981/77

ANALYSIS g/tonne

Sample No.	Gold Au	Sample No.	Gold Au
SK/T/L 1	0.06	SK/T/L 35	0.01
2	0.05	35A	0.05
3	0.06	36	0.02
4	0.02	37	0.03
5	0.94	38	0.02
6	0.03	39	0.02
7	< 0.005	40	0.01
8	0.04	41	< 0.005
9	0.01	42	0.005
10	0.02	43	< 0.005
11	0.02	44	0.01
12	< 0.005	45	0.01
13	0.03	46	0.01
14	0.36	47	0.41
15	0.01	48	0.01
16	0.01	49	< 0.005
17	0.01	50	0.02
18	0.33	51	0.28
19	0.03	52	< 0.005
20	0.01	53	0.01
21	0.01	54	0.01
22	0.02	55	0.01
23	0.02	56	< 0.005
24	0.02	57	< 0.005
25	0.02	58	0.02
26	0.02	59	0.01
27	< 0.005	60	0.005
28	0.01	61	< 0.005
29	0.005	62	0.38
30	0.01	63	< 0.005
31	0.01	64	0.005
32	< 0.005	65	< 0.005
33	0.04	66	< 0.005
34	0.01		

Method: K4/2

Samples SK/T/L1 - SK/T/L5 are received but not listed.

U29

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amdel

ANALYSIS
g/tonne

AN 3612/77

SAMPLE MARK	GOLD Au	SAMPLE MARK	GOLD Au
RD/T/L67	0.005	RD/T/L95	0.010
68	0.005	96	0.41
69	<0.005	97	0.010
70	<0.005	98	0.010
71	<0.005	99	0.015
72	<0.005	100	0.015
73	0.005	101	0.015
74	0.005	102	0.010
75	0.005	103	0.020
76	0.005	104	0.47
77	0.010	105	0.010
78	<0.005	106	0.010
79	<0.005	107	0.005
80	0.025	108	0.020
81	0.020	109	0.060
82	0.020	110	0.015
83	0.015	111	0.015
84	0.010	112	0.010
85	0.075	113	0.010
86	0.11	114	0.015
87	<0.005	115	0.015
88	0.025	116	0.015
89	1.30	117	0.015
90	0.050	118	0.020
91	0.030	119	0.010
92	0.045	120	0.53
93	0.00	121	0.010
94	0.010	122	0.010
METHOD: K4/2		123	0.010

030

amdel

287031

ANALYSIS
g/tonne
GOLD Au

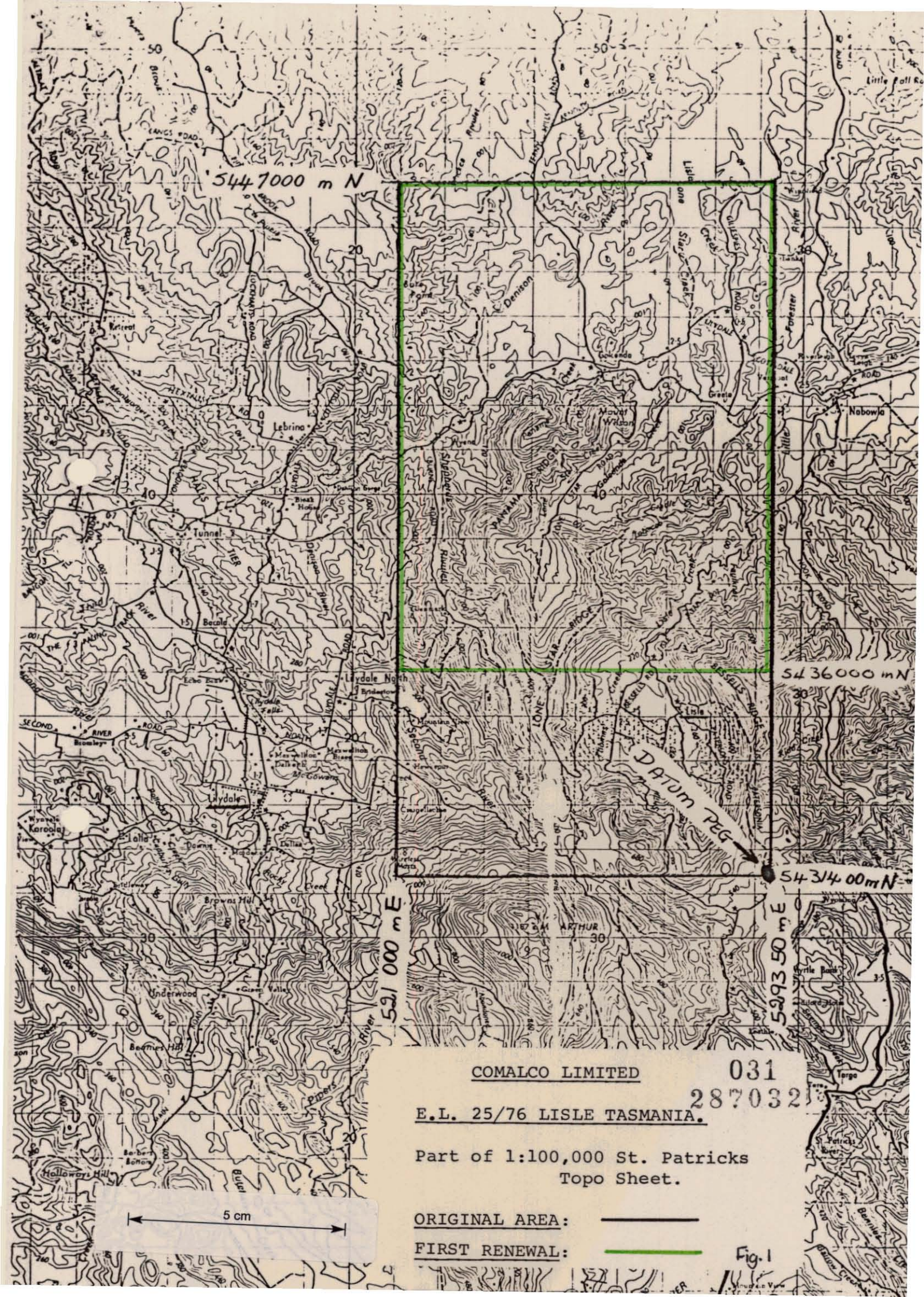
AN 3790/77

SAMPLE MARK	REPEAT VALUES		ORIGINAL VALUES
RD/T/L 86	0.020	0.010	0.11
89	0.020	0.020	1.30
96	0.015	0.010	0.41
104	<0.005	0.010	0.47
RD/T/L 85	0.010	0.015	0.075
90	0.060	0.050	0.050
109	0.005	0.010	0.060
120	0.43	-	0.53

METHOD: K4/2

NOTE: Samples 85, 90, 109 and 120 have also been analysed additional to your requested four samples.

The repeated values indicate that in the majority of cases our original values are in error. We sincerely apologise for this error and the inconvenience we have caused you. All analyses are at no charge.



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031
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E.L. 25/76 LISLE TASMANIA.

Part of 1:100,000 St. Patricks Topo Sheet.

ORIGINAL AREA: ———

FIRST RENEWAL: ———

Fig. 1

(Sample 51, North of this map)

To Golconda

To Nabowla

Fairthorne Prospect

Bessell Reward Workings

LONE STAR RIDGE

Camp

LISLE

To Myrtle Bank

N

0 1 2km

SCALE 1:15,840 Approx.

5 cm

LEGEND

- Scree and minor alluvium
- Shales, siltstones with minor sandstones, Black shales and slates.
- Distribution of Dark grey Hornfels in outcrop.
- Hornfelses
- Granite
- Alluvial Gold Workings
- Pits and shafts.
- ●75 Sample location
- Inferred geological boundaries
- 60° Dip and Strike of bedding
- Forestry tracks.
- L2 Stream sediment sample location (Stream locations are approximate)

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77-1238

TRANS. HELD

COMALCO LIMITED

TASMANIA

EL 25/76 LISLE AREA

GEOLOGY OF LISLE GOLD FIELD

032

Compiled: S.K. Chaku	Revised: P.A. July, 1977	Drawn: M. Attwell
Date: April, 1977	Scale: 1:15840 approx.	Drg. N° Tas - 77 - 59