SEL 7439

FINNISS RANGE, NORTHERN TERRITORY

SUPPLEMENTARY ANNUAL REPORT FOR PERIOD ENDING 20 MAY 1992

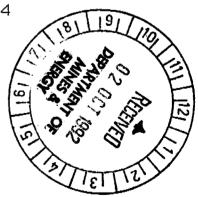
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JOHN A EARTHROWL MSc MAUS IMM CONSULTING GEOLOGIST PO BOX 13 BATCHELOR 0845

FOR

CORPORATE DEVELOPMENTS PTY LTD

24 HARROW RD SOMERTON PARK 5044



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Batchelor October 1992

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Summary

This Supplimentary Annual Report for SEL 7439 was requested by the N.T Department of Mines and Energy in order to supply additional information on field sampling locations, methods and results. The report has been compiled with data supplied by Corporate Development Pty Ltd staff.

1. Introduction

This report by Consulting Geologist, John A Earthrowl, is a suppliment to an earlier report submitted by the tenement holder. (Chrisp Sept. 1992)

This report describes in more detail with maps, the field activities carried out on SEL 7439 for the year ending 20 May 1992. The reader is referred to (Chrisp Sept. 1992) for details of

- * Location and Access
- * Geological Setting
- * Exploration History
- * Resource Potential
- * Mining Plans

1.1 Sources and Acknowledgements

The author visited SEL 7439 on 28/09/92 to sight as many target pegmatites as possible, examine sample sites and watch sample methods used in the field. The tour also allowed a familiarization of the regional setting of the Tenement. The author visited the following pegmatite prospects; Sandra, Martins, Turners, TW4, TW5, Saffums 1, Fred 1, Saffums 2. All of this was done accompanied by Mr. John Crago, Field Technician for Corparate Developments Pty. Ltd.

Mr. Crago has vast experience in exploration methods for tin-tantalum from working in North Queensland, southwestern Western Australia and the Northern Territory. His and the authors Curriculum Vitae are included in the Appendix of this report.

This supplimentary report, of necessity, has been compiled using data from (Chrisp Sept. 1992) aswell as from original field data supplied by Mr. J. Crago and to a small extent from the authors brief visit.

2. Current Exploration Program

2.1 Target

The primary target mineralization on the tenement is tantalite in insitu pegmatite, eluvium or alluvium form. The presence of associated tin and lithium minerals is recognised but not targeted.

2.2 Planned Program

The 1991/92 program in decreasing order of priority was defined as follows:

- 1. To locate and sample new pegmatites.
- 2. To further test known pegmatites to define those high in tantalum.
- To carry out volume / grade calculations on known eluvial deposits.
- 4. To locate and test potential alluvial deposits.

2.3 Work Completed and Methods Used

During the year, 12 known pegmatites were subjected to various types of sampling.

- * 8 of the pegmatites produced 57 rock samples
- * All of the pegmatite eluvials were sampled producing 209 samples.

In addition some paleochannel and modern Quarternary, alluvium sites were sampled.

More than half of the area of SEL7439 was traversed by vehicle and on foot searching for new pegmatites.

2.3.1 Sampling Methods

Except for those examples that were assayed by Classic Laboratories Ltd (Appendix 2) all samples were processed by J. Crago using orthodox tin- tantalum heavy mineral seperation methods.

A consistent 6 litre of rock / soil is gathered from each site. This is wet-panned using a 3 ltr plastic dish and the volume of produced heavy minerals estimated accurately. If visual examinations of the 'heavies' shows significant tin- tantalite mineralisation the heavies are acid washed in a zinc crucible. This treatment with HCl acid differentiates the cassiterite from the tantalite. Further lens examinations of any tantalite allows J. Crago to estimate the Nb: Ta ratio based on mineral form.

2.3.2 Regional Exploration

- J. Crago carried out regional exploration for new pegmatites in two main areas:
 - 1. Northern Area: between the Long Valley and Range faults traversing across the strike of pegmatite linearity.
 - 2. Southern Area: the four southern blocks of the SEL, 120 55' to 120 57's and 1300 46' to 130048' E, similarly traversing eastwest across the likely strike of any pegmatite.

Samples were taken where ever any outcrop/sub-outcrop or rubble of quartz, quartz-muscovite or greisen was encountered - the possible surface expression of a concealed pegmatite.

A total of 74km of carborne and 120km of footborne traversing was done producing 140 samples.

2.3.3 Pegmatite Sampling

Table 1 lists the 8 mineralised pegmatites that were systematically sampled in 1991/92 to produce 57 rock samples.

Pegmatites were sampled either on trench walls or from excavated material depending on access.

Channel samples were 15 cm wide, 5 cm deep and a maximum of 1 metre long.

An arbitrary 30 metre depth limit has been used in volume calculations of insitu pegmatite material.

2.3.4 Eluvium Sampling

209 Eluvium samples were taken during the year, some from each of the 12 mineralised pegmatite samples in 1991/92.

Samples of eluvium were always taken from 50cm deep holes to avoid the near surface tantalite enrichment. They can be sited over the pegmatite or on the adjacent flanks.

2.3.5 Alluvium Sampling

The potential for alluvial Ta/Sn deposits being present in the area has been recognised for years.

Paleochannels have been recognised at several locations viz Annies Prospect and east and west of Saffums. The distribution of alluvium from air photo interpretation is shown on Figure 2.

In 1991/92 J. Crago systematically sampled the alluvial deposits in Gorge Creek, 12^0 54'E, 130^0 45'E Six samples were taken from along the 2.5km valley.

2.3.6 Sampling Controls

In order for J. Crago to maintain accuracy in his field Ta/Sn estimates a selection of heavy mineral (concentrate) samples were sent for XRF Ta/Sn assaying – thus allowing comparison between field and laboratory values. Locations of these samples are shown on the various maps. Appendix 2 gives assay results and Table 2 source of samples.

3. Results

3.1 General

The grades and volumes listed in these results are those estimated/calculated by J. Crago for Corparate Developments P/L using methods described elsewhere in this report.

3.2 Regional Exploration

The large recconnaisance program only resulted in the discovery of two new pegmatites.

- 1. One north of Gorge Creek at 12^o 53' 50"s 130^o 45' 30"E.
- 2. One immediately north of Freds 1 Prospect

Both had minor tantalite and less tin with tourmaline as an accessory.

3.3 Pegmatite and Eluvium Prospects

(Grades listed in kg per tonne)

At the <u>Turner Mine</u> the 3 pegmatite and 20 eluvium samples taken to test the remnant possible are resulted in an estimate of $5.000 \, \text{m}^3$ at $0.15 \, \text{Ta}_2 \, \text{O}_5$. (Figure 3).

At the Martins Mine a volume calculation has shown that 10 $000m^3$ of pegmatite and 5 $000m^3$ of eluvials remain. (Figure 4).

The <u>TW4 Prospect</u> returned grades of 0.04 Ta₂05 and 0.05 SnO₂ from 8 pegmatite and 10 eluvium samples (Figure 5).

The <u>TW5 Prospect</u> was sampled to establish grade and volume and gave $20~000m^3$ at $0.02~Ta_2O_5$ and $0.5~SnO_2$ (Figure 6).

From the <u>Annie Prospect</u> the five alluvial samples gave an average of 0.6 SnO₂ and 0.02 Ta₂O₅ (Figure 7).

The <u>Freds1 Prospect</u> returned an indicated geological resource of $15-20~000m^3$ at grades of 0.2 SnO₂ and 0.15 Ta₂O₅ from 38 samples (Figure 8).

The <u>Freds 2 Prospect</u> tested with three pegmatite and 6 eluvial samples, is estimated to contain 10 000m³ of 0.1 Ta₂0₅(Figure 9).

The three eluvial samples from the <u>Chiastolite Prospect</u> produced an average of 0.1 Ta₂05 from a volume of 1 000m³. (Figure 10).

The <u>Saffums 1 Mine</u> eluvials on the eastern flank of the main pegmatite averaged 0.15 Ta₂05, 0.2 SnO₂ from 15 samples (Figure 11).

The <u>Saffums 2 Mine</u> 25 eluvium and 3 pegmatite samples averaged 0.15 Ta₂05. Volume calculations 10,000m 3 eluvials and 2,000m 3 pegmatite (Fig 12).

The <u>Sandras Mine</u>, deeply weathered pegmatite averaged 0.04 Ta₂05 and 0.25 SnO₂ from 52 samples. Volume calculation was $15,000m^3$ (Fig 13).

3.4 Alluvium Samples

The six samples from Gorge Creek produced no significant Ta205 or Sn02 values.

3.5 Assay Results of Control Samples

The results indicate that the J. Crago panned heavy mineral grade estimates are sufficiently accurate for geological reserve estimates.

His ability to differentiate tin from tantalum by acid wash and then the Niobium / Tantalum ratio by visual inspection saves considerably on assaying costs.

4. Conclusions

The 1991/92 field program has almost been completed as planned. The extensive regional exploration was unsuccessful in locating any new significant mineralised pegmatites.

The program of pegmatite and pegmatite eluvium sampling has corroborated previous years sampling and mining results.

The alluvial sampling program has been least successful.

5. Expenditure

The total expenditure for 1991/92 in SEL 7439 has been \$20,420. Details are given in Table 3.

6. Recommendations

In anticipation of an increase in the tantalum price from the current US\$30-33 per lb, further work in SEL 7439 and environs is warrented. Further regional prospecting using satellite imagery, conventional and infra-red photography should be used.

The auger drill, expected to be available late 92, is planned to test for on strike continuation of known pegmatites as well as potential alluvial areas.

7. Year 1992/93 Program and Budget

A proposed budget to complete the program listed in Recommentations is as follows:

Contact Field Personnel	7250
Vehicles / Auger Rig	3000
Laboratory Costs	500
Travel / Accommodation	2000
Consumables	500
Darwin Overheads	500
Adelaide Overheads	300

TOTAL \$ 14050

REFERENCES

Chrisp G.M. (Sept 1992) Annual Report

SEL 7439 20pg Unpublished Report

N.T. Dept of Mines and Energy

Chrisp G.M. (June 1992) Annual Report

SEL 7439,ELS 4493, 6805, 7079, 7622, MCN 1052, 3216-3218. 16pg, 4pg App.

Unpublished Report

N.T. Dept of Mines and Energy

Chrisp G.M. (Aug 1991) Final Report

ELS 4906, 4954, 5469, 6217

16pg + plans

Unpublished Report

N.T. Dept of Mines and Energy

Chrisp G.M., Cohen C.J. Annual Report

(Sept 1990) ELS 4906, 4954, 5469, 6217, 6805

33pg, 7 Fig

Unpublished Report

N.T. Dept of Mines and Energy

Chrisp G.M. (Dec 1987) Annual Report

EL 4954 11pg, 2 Fig Unpublished Report

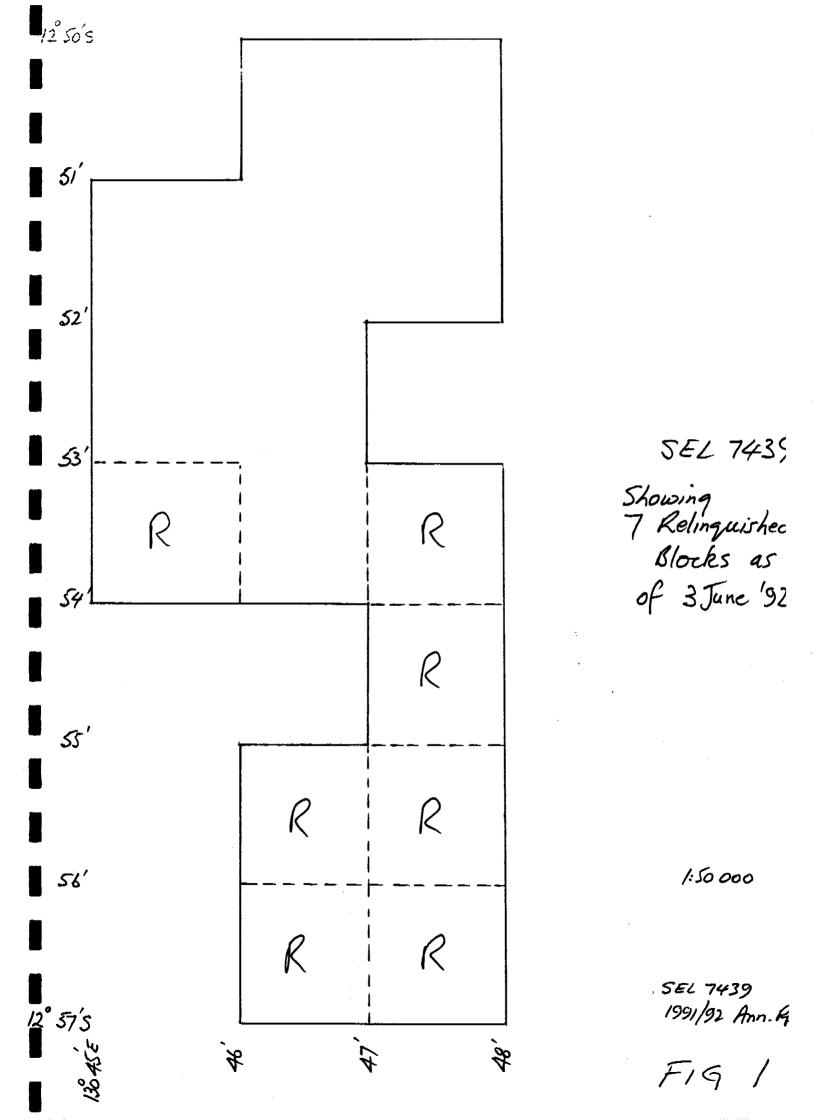
N.T. Dept of Mines and Energy

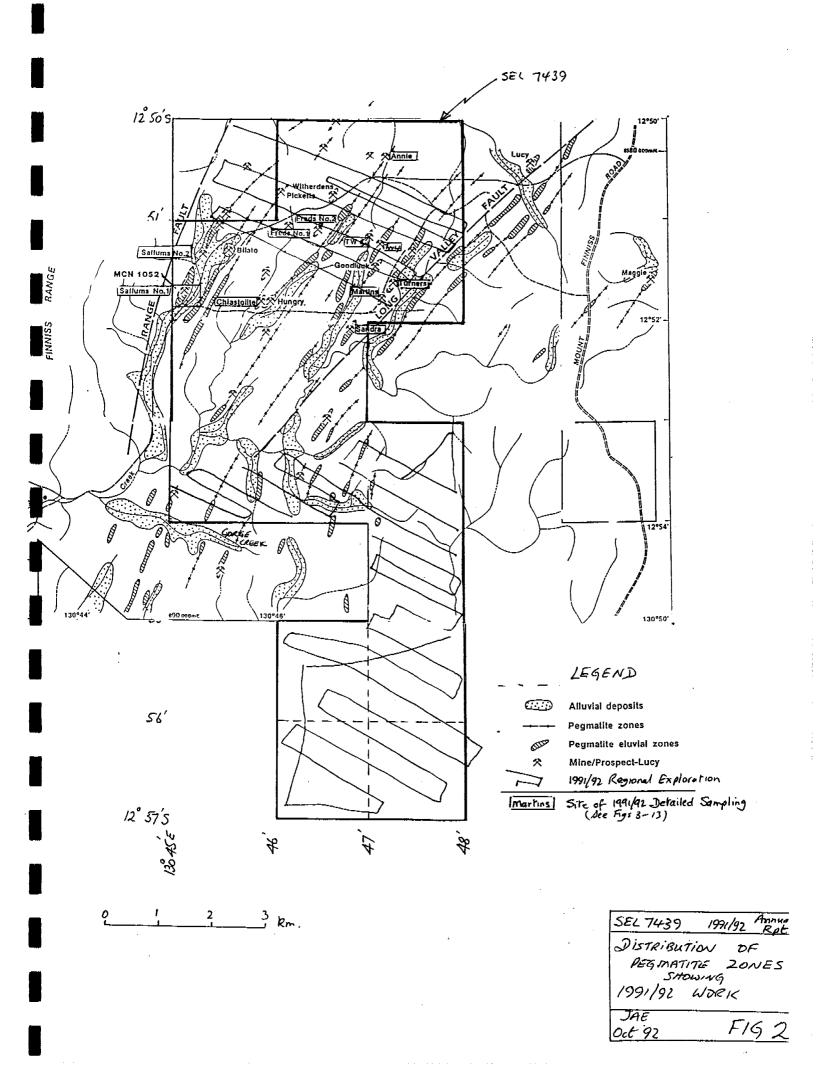
Talmina Trading Pty Ltd Annual Report

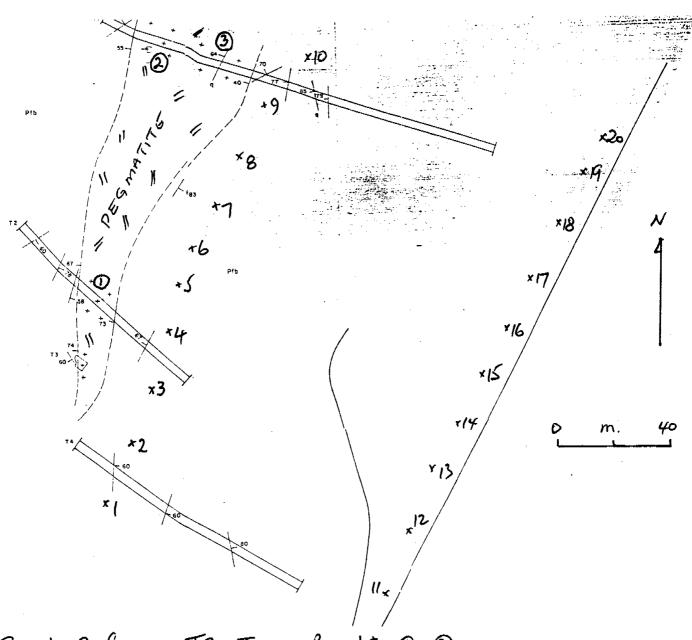
(1984) EL 2613 9pg, 8plans, 2 Fig

Unpublished report

N.T. Dept of Mines and Energy







Sample Prefixes TP = Turners legnatite 0-3

TE = Turners Eluvials 1-20.

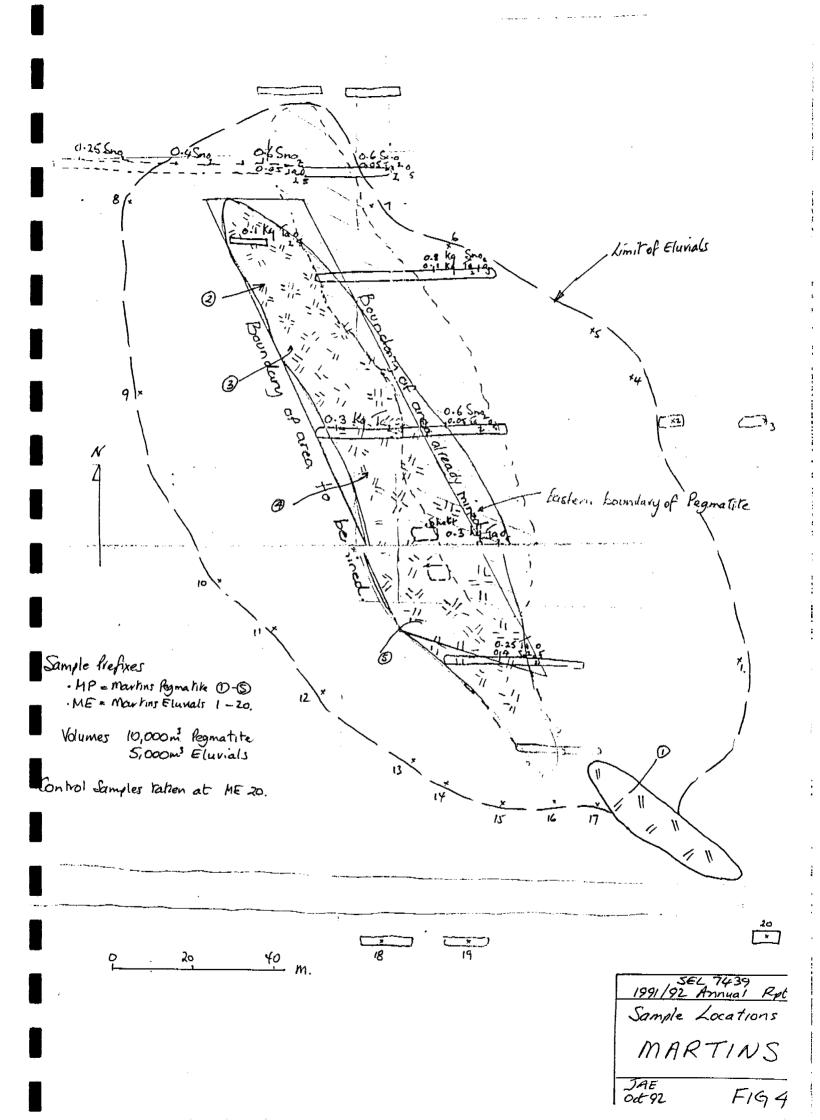
Volume calculation (combined) 5,000 m3

Base Map by Talmina Trading P/L Nov. 1984

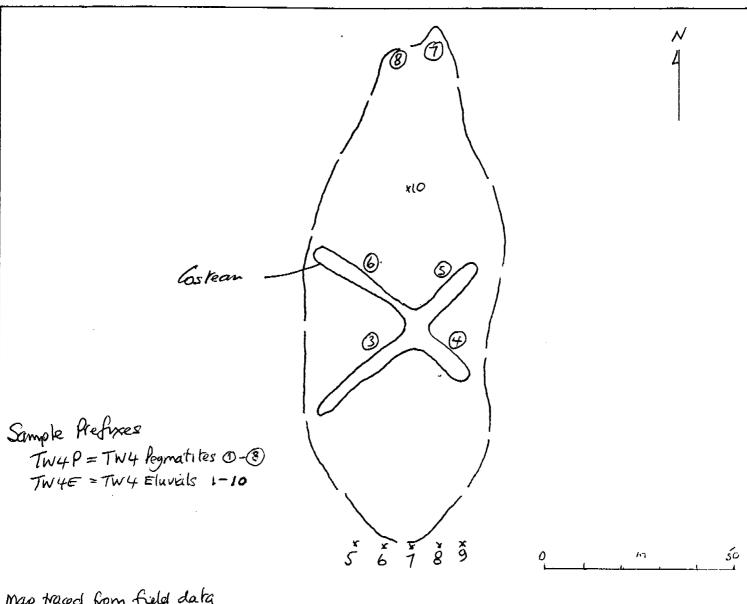
Sample Locations TURNERS

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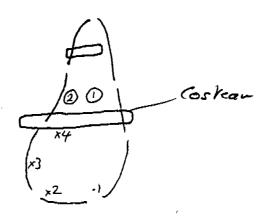


JOHN A EARTHROWL Consulting Geologist MSc MAusIMM



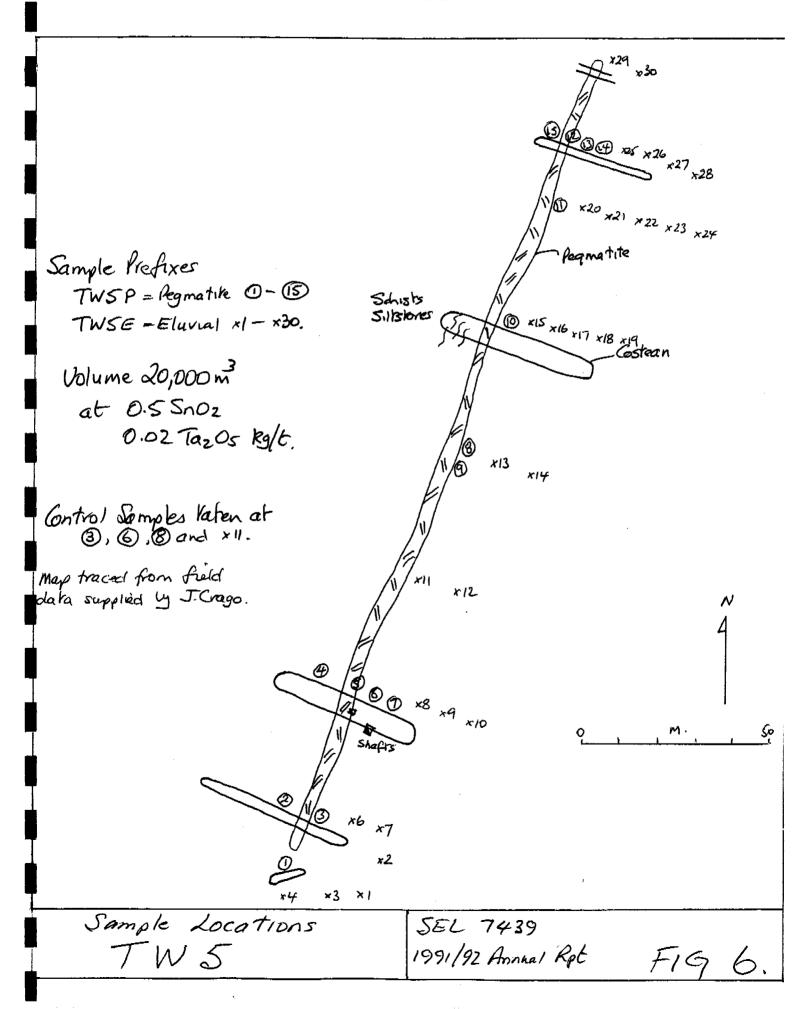
map traced from field data Supplied by J. Crago

Control Samples Yaken at 5, x7,

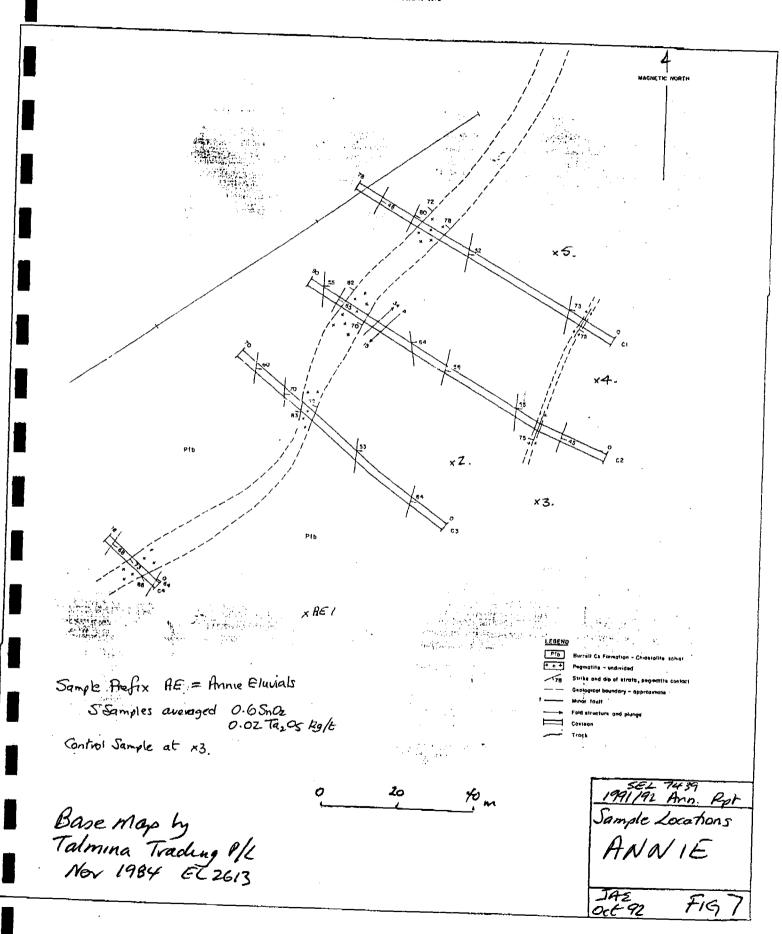


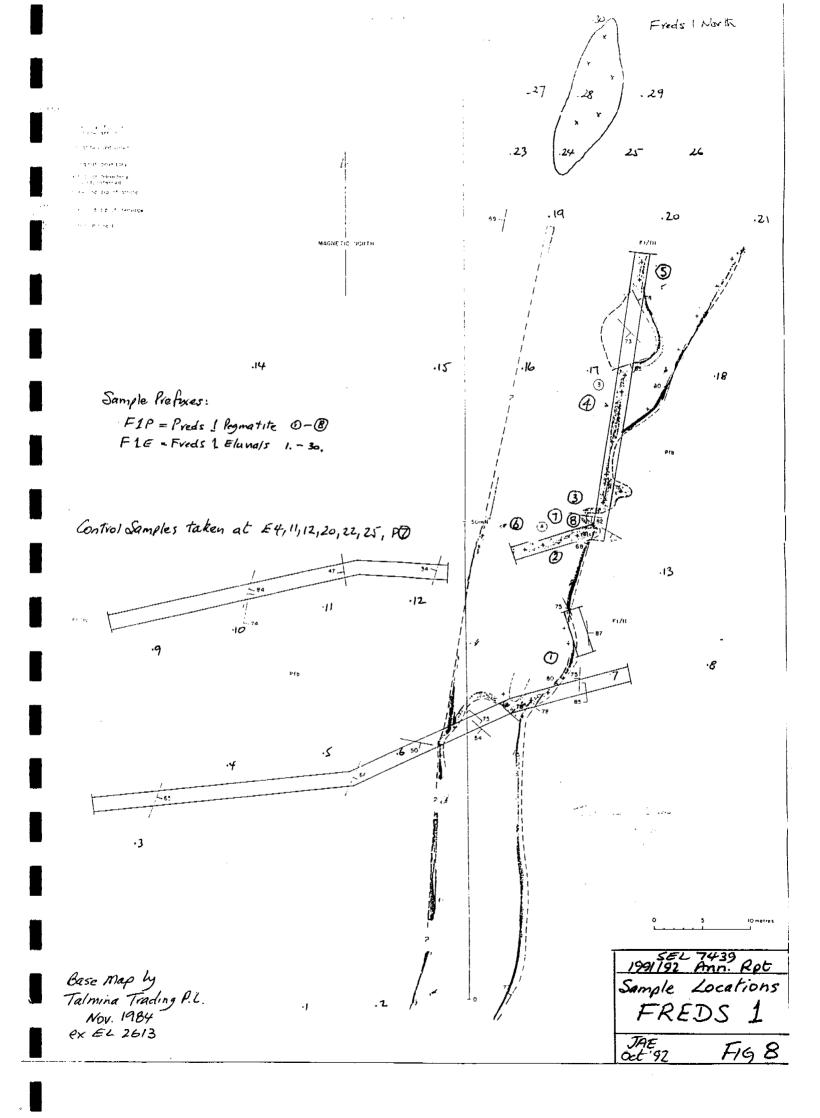
Sample Locations TWA SEL 7439 1991/92 Annual Rpt.

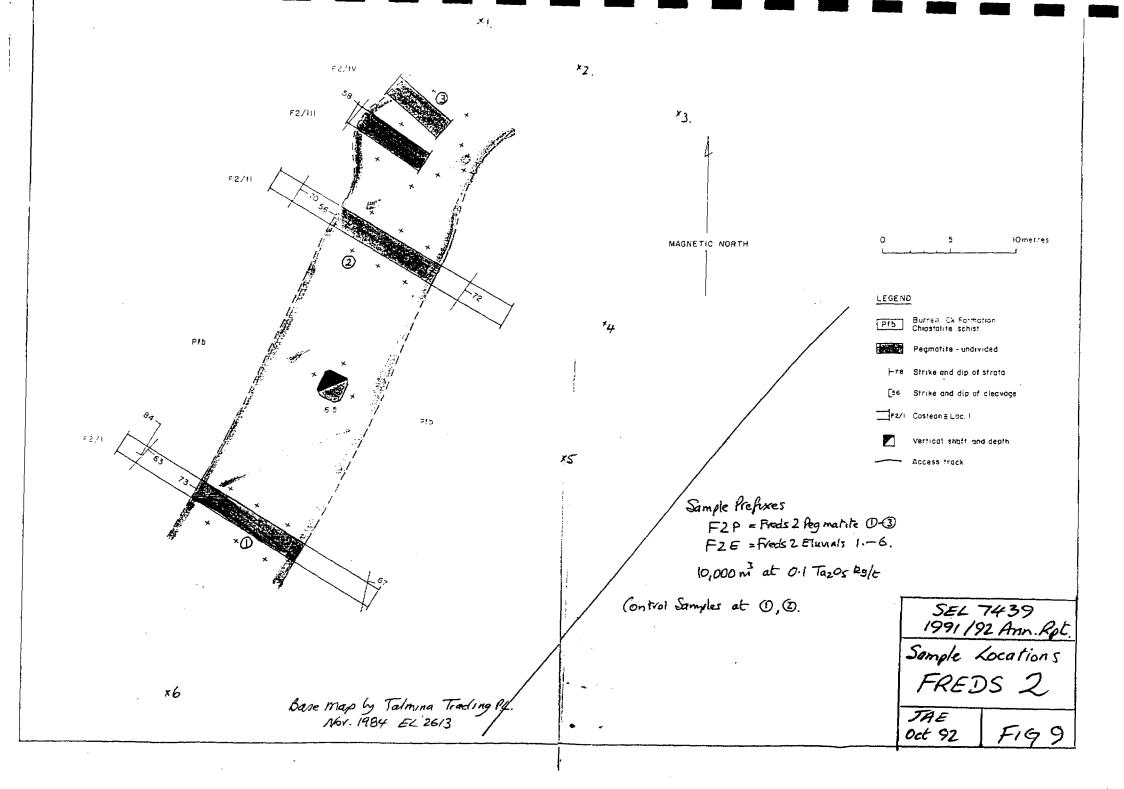
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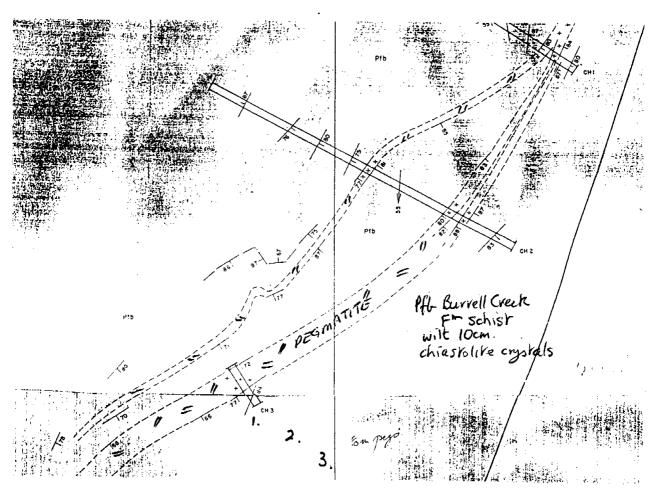


Consulting Geologist MSc MAusIMM









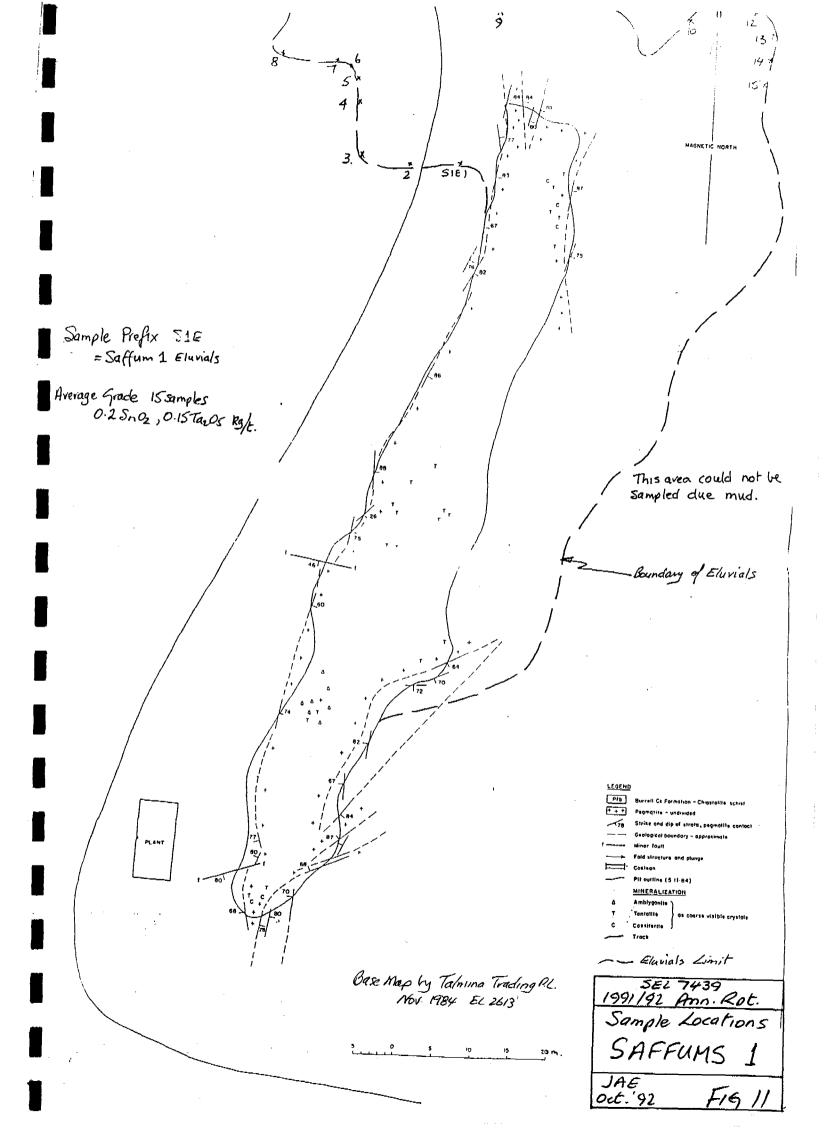
Sample Prefixes Ct E = Chiastolite Eluvials 1-3

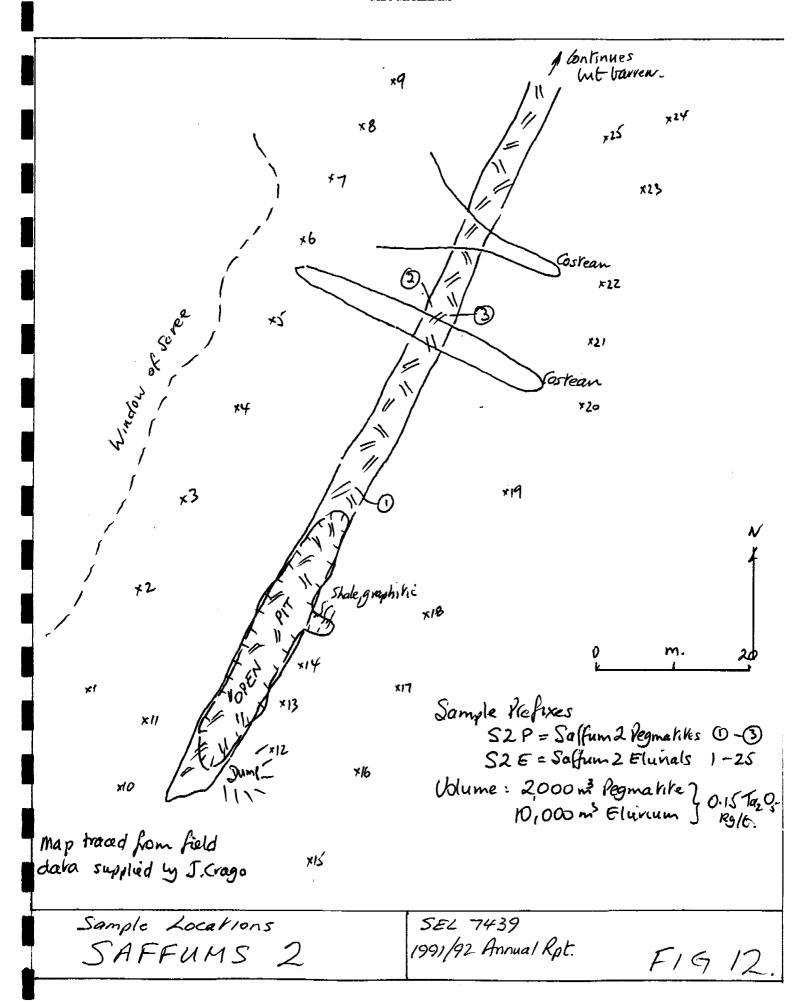
Volume 1000 m @ 0.1 Taz05 kg/t

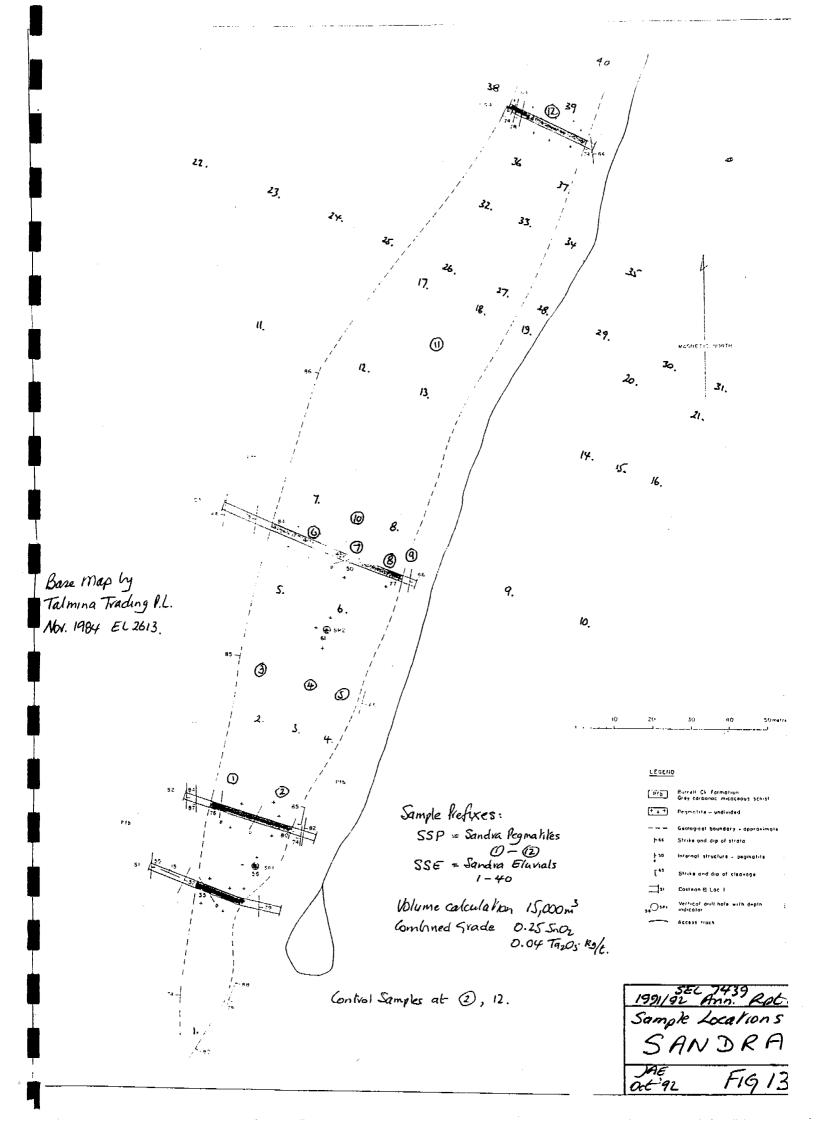
Base Map by Talmina Trading Pty Ltd Nov 1984

Sample Locations CHIASTOLITE SEL 7439 1991/92 Annual Rpt.

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JOHN A EARTHROWL Consulting Geologist MSc MAusIMM

TABLE 1

SEL 7439 1991/92 SUMMARY OF SAMPLING

PROSPECT	SAN	NPLE	TYPE	REASON FOR SAMPLING
		Eluvium		
		Total NOS	ł	
TURNERS	3 11-1-3	20 TE1-20		Establish goode/volume remnants
MARTINS	5 MP 1-5	20 ME 1-20		Establish volume of remnants.
TW5	15 TWSP1-15	30 TWSE1-30		Establish gade and volume
TW4	8 TW4P18	10 TW4E1-10		Establish grades
		5 AE 1-5		Establish grades
		30 FIE 130		Establish grade/volume
Freds 2		6 F2E1-6	E	Establish grade /volume
Chiastolite		3 CEE1-3		Grade calculation
		15 SIE1-15		Test exposed alluvials
Softums 2	3 SzP1-3	25 S2E1-25		Volume calculation
Sandras	12 SSP1-12	40 SSE 1-40		Test degoly weathered pagmatite
Gorge Creek			6 samples	·
				carborne, 120 km footborne

Control Samples 19 samples (see Appendix 2)

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TABLE 1

TABLE 2

CONTROL SAMPLE ASSAY RESULTS

SAMPLE (Lab Nº)	Weight	Sn	Nb	Ta	Prospect	Field Sample No	-T
C1	12.9	8100	6100	1.27%	TWU	P5	†.
C2	16.9	10.1%	1880	3150	TIV5	P3	
KS1	62.9	6.70%	1200	1880	TWS	P 6	Ī
LC1	14.9	5.95%	2950	1.50%	mertins	m €20]
LC2	8.8	29.3%	1.08%	5.55%	Sundras	5512	7.
· LC3	11.4	2.05%	8.45%	9.75%	Sandras	55E12	Ţ.
LSA1	74.9	7.85%	1940	4550	TW5	P8	1
MRl	27.5	6600	8300	3.20%	TW4	£7	
NP1	55.9	7.15%	1540	2900	TW5	E11	†
NRI	20.6	4450	4150	1.40%	Fred 1	E 4	†.
P.2	27.4	6700	5700	1.28%	Fredi	P 7	†-
P3	24.0	2600	3600	7200	Fred 1	E 11	† .
P4	34.2	1880	2050	2900	Fiech	E 12	†
P5	32.0	4200	1.34%	3.05%	Fred 1	E 20	_
Tl	61.4	3.25%	1880	2450	Annie	Ε̈́З	
WS06	32.5	3.50%	1640	5000	Fredi	E 22	1
WS08	29.9	2.85%	1900	1.17%	Freel	E 25	ľ
WS10	23.1	9400	1100	1950	Fred 2	P1	
WS 1.2	21.1	5400	1660	2550	Fred I	P 2	<u> </u> •
,	grams		Ppm/%		1 10-11 1		

SEL 7439 1991/92 Annual Rpt.

TABLE 2

SEL 7439 1991/92 EXPENDITURE

Major activity	Staff salarles	Staff wages	Consultants/ contractor's fees	Vehicles	Travel Other	Accom.	Fleid Accom.	Fleid Equip.	Office Equip.	Other	Sub- totals
Geology		10,525	1,000	1,190				1,225	220	:	14,160
Geochemistry				·	:			:			
Geophysics					:			· · · · · · · · · · · · · · · · · · ·		(
Access											
Gridding											
Drilling:						! !					!
- diamond '						;		· · ·			
Drafting					:						
Metallurgy			460	, , , , , , , , , , , , , , , , , , , 							460
Engineering			-			: 	:			-	
Environmental			<u> </u>			<u>.</u>				1	:
Other	2000				3280	520	72.	<u> </u>			5,800
SUBTOTALS	2000	10,525	1,460	1,190	3,280	520		1,225	220		5,800 20,42

TOTAL	20 420
LOCAL OFFICE OVERHEADS	
HEAD OFFICE OVERHEADS	
GRAND TOTAL	\$ 20,420

TABLE 3

NORTHERN TERRITORY OF AUSTRALIA

MINING ACT

EXPLORATION LICENCE

EL No. 7439

Corporate Developments Pty Ltd are hereby licensed, for a period of three (3) years from the date hereof, to explore in accordance with the provisions of the Mining Act, the regulations thereing and the terms and conditions specified in the First Schedule, all the area of land delineated in red in the Second Schedule excluding therefrom all land vested in the Commonwealth and all radio repeater sites held by the Australian Telecommunications Commission.

C P SMITH

Principal Registrar

as delegate of the Minister

DATE 21/5/91

FIRST SCHEDULE

- 1. The licensee shall ensure that a minimum amount of \$12 000 is expended in carrying out exploration on the licence area during year one (1) of the licence.
- 2. The licensee shall comply with the provisions of and directions lawfully given under this Act and all other laws in force in the Territory in relation to his activities on the licence area.
- 3. Not later than one (1) month after the expiration of each 12 month period of this licence, the holder shall submit in writing a statement specifying the details of the exploration programme reflecting expenditure for the next year of the licence.

21.5.11 - 20

Appendix 1



CLASSIC LABORATORIES LTD

Job: 2DN0048 O/N:

ANALYTICAL REPORT

SAMPLE	Weight	Sn	Nb	Ta
C1	12.9	8100	6100	1.27%
C2	16.9	10.1%	1880	3150
KS1	62.9	6.70%	1200	1880
LC1	14.9	5.95%	2950	1.50%
LC2	8.8	29.3%	1.08%	5.55%
· LC3	11.4	2.05%	8.45%	9.75%
LSA1	74.9	7.85%	1940	4550
MR1	27.5	6600	8300	3.20%
NP1	55.9	7.15%	1540	2900
NR1	20.6	4450	4150	1.40%
P2	27.4	6700	5700	1.28%
P3	24.0	2600	3600	7200
P4	34.2	1880	2050	2900
P5	32.0	4200	1.34%	3.05%
T1	61.4	3.25%	1880	2450
WS06	32.5	3.50%	1640	5000
WS08	29.9	2.85%	1900	1.17%
WS10	23.1	9400	1100	1950
WS12	21.1	5400	1660	2550

UNITS grams ppm ppm ppm
DET.LIM 0.1 100 100 100
SCHEME PREP1W XRF2 XRF2 XRF2

Page 1 of 1

APPENDIX 2

JOHN CRAGO

Arrived in the Northern Territory 19.1.67.

Fished for Barramundi and hunted crocodiles with J. Wilson around NT coast.

May 1967 commenced work at Rum Jungle as field assistant for Territory Enterprises Pty.

August 1967 resumed hunting with J. Wilson .

Spent wet season 1967-68 on wharf.

March, April, May 1968 fishing with J. Wilson.

June 2 1968 purchased a share in David Lease, Mt Wells.

With J. Langley, produced 900 kilograms alluvial tin.

December 1968 pegged Mavis tin mine and commenced work at Moline as mill operator, Pb Zn.

September 1969 mined 30 tonnes at Mavis for 0.5 tin concentrate.

Met S.B. Hyman at Albury NSW and was employed to acquire prospects in the Northern Territory.

About March 1969 acquired option over Mt Wells tin mine and pegged adjacent alluvials.

June 1969 commenced rehabilitation of the old workings and the east lode drive.

Acquired option over Maranboy tin field from H. Brennan.

1979 with G.S. Beatty pitted and tested Mt Wells alluvials with R. Mookey sampled underground workings and outcrops at Mt Wells.

1972 Jingellic scaled back Northern Territory exploration.

April 1972 commenced prospecting on my own at Maranboy and produced 70 tonnes ore from King River.

1973 took option over Mt Bonney for Horizon Exploration and produced tin from old tailings at Mt Wells.

Took option for Jingellic over Pine Creek, Union Reefs and Spring Hill gold mines whilst on retainer from Jingellic who were attempting to joint venture gold properties.

In 1974 and 1975 mined tin ore at Mt George and gold ore from Union Reefs and continued treating tailings at Mt Wells.

In 1976 commenced work at Goldsworthy WA and in September returned and mined 130 tonnes tin ore near Mavis.

Appendix 3

1977 worked on grade control at Emerald Hill for B. Forter and prospected for Sn and Ta at Hillside, Marble Bar.

In 1977 commenced grade control at Collia for Ken Day. Took out A to P at Bynoe for Sn Ta. In 1978 secured option over Pine Creek, Union Reefs with Ken Day. In 1979 prospected Horseshoe Creek for Ken Day. Grade controller at Mt Wells alluvial mining operations from December 1979 to October 1980, during which time 248 tonnes of tin concentrate were produced.

Went to North Qld and looked for tin mines for sale. With R. Birrell carried out first systematic prospecting at Bynoe for Greenex. Also inspected Kangaroo Creek, North Qld property and negotiated option from Ned Fitzgerald.

1981 grade controller at Tate River and continued prospecting Kangaroo Creek.

Joined Aurex NL and found Torwood heavy mineral deposit and with Ron Lees found Larsens Creek alluvial gold deposit in Cape York.

1985 evaluated Talmina properties for J. Benger and Robert Cleaver. Rejoined Ken Day as prospector for Territory Resources NL and found the east lode at Spring Hill.

1986 prospected and costeaned Copper Flower, Eva Valley. 1990 formed partnership with Andrew Jettner and commenced tenement acquisition at Maude Creek and Tooheys.

Undertook prospecting for Corporate Development Pty Ltd in 1991 and found Tooheys South for Trescabe Pty Ltd.

July to January 1992 prospected Finniss Range Tantalum prospects for Corporate Developments.

Throughout 1992 continued prospecting for Corporate Developments in the Wingate Mountains and the Finniss Range areas.

SUMMARY CURRICULUM VITAE

JOHN ANTHONY EARTHROWL

PERSONAL

1960 - 64

Lot 11 Windmill Road, Batchelor NT 0845 Residence GPO Box 3307, Darwin, NT Mail (089) 760246 and (089) 818801 Phone 28/01/41 UK, Arrived Australia 1965, naturalised 1981 Born **PROFESSIONAL** Member of Australian Institute of Mining and Metallurgy **EDUCATION** Master of Science (Applied), McGill University, Montreal 1963 - 65 Canada 1958 - 62 Bachelor of Science (Honours Geology), McGill University 1947 - 58 High School and Primary School Education in Canada, England and Germany **EMPLOYMENT** 1988 - Current Self Employed Consultant 1980 - 88 Resident Geologist, Total Mining Australia Pty Ltd Darwin, NT. Supervising uranium exploration programmes throughout the NT mainly in the Pine Creek Geosyncline. Maintaining contact with the NT Dept. of Mines & Energy, NT Geological Survey, Bureau of Mineral Resources, Northern Lands Council and the NT Chamber of Mines. Resident Geologist, Uranerz Australia Ltd, Darwin NT. Supervising 1977 - 80 uranium exploration programmes in the Rum Jungle Uranium Field. 1973 - 77 Self Employed and employed as consulting geologist with Cornish Dale and Partners. Clients with gold, 1970 - 71 industrial minerals, base metals, fuels and gemstone properties. 1971 - 73 Senior Geologist, International Nickel Company of Canada 1965 - 70 and subsidiaries in Australia, New Caledonia and British Solomon Islands Protectorate. Various projects for nickel laterite.

nickel sulphides, base metals, Cu-Pb-Zn, uranium, Cu-Mo

Various student jobs in Ontario, Quebec and Newfoundland

hospitality industry. Part-time tutor in minerology course.

beach sands and asbestos.

Canada. Various student jobs in tourism/

Appendix 4