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TASMINEX N.L.

EXPLORATION LICENCE 17/78

DRSG

REPORT COVERING THE PERIOD FROM 1st NOVEMBER 1981
TO 30th APRIL 1982

Date of Report: May 1982

Authors: A.B. Daly, Geologist (Bsc.Hon)
E.N. Charlton, M.(Aus).I.M.M.

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TASMINEX N.L.

EXPLORATION LICENCE 17/78

REPORT COVERING THE PERIOD 1st NOVEMBER 1981 TO 30th APRIL 1982

CONTENTS

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Mineralographic Specimens

The following specimens were prepared for microscopic examination and are retained at the Burnie office of Tasminex N.L. :-

(a)Seventeen thin sections as described in SECTION (A)

(b)Sixteen polished grain microscopic sections of sand from the New Golden Gate tailings dump, Mathinna, as described in SECTION (B)

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EXPLORATION LICENCE 17/78

SUMMARY OF COMPLETED WORK PROGRAMME

PERIOD 1st NOVEMBER 1981 - 30th APRIL 1982

INTRODUCTION

Exploration Licence 17/78 covers an area of 100 sq. km in north-eastern Tasmania, and includes the Mathinna, tower Hill and Mangana goldfields.

Previous reports have detailed work done in testing alluvial deposits at Mathinna and Mangana, on research and examination of all accessible old gold mines, and on research leading to the selection of sites for diamond drilling in the vicinity of the New Golden Gate Mine and the City of Hobart and Jubilee Mines near Mathinna.

At the beginning of the period covered by this report a position had been reached where Tasminex N.L. considered that no further work in exploration for gold on the E.L. was warranted except for the diamond drilling programmes already outlined. Because of the large expense involved in diamond drilling, and also because any potential mining operation resulting from such drilling would require a large capital outlay, Tasminex have been actively seeking a joint venture partner.

Since the end of December 1981, when geologist Mr. Adrian Daly resigned from his position as field geologist on E.L. 17/78, no work has been carried out.

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During November and December 1981 Mr. Daly continued research in the vicinity of the New Golden Gate Mine which included an attempt at detailed gelogical mapping, in the hope of obtaining more information on faulting and shear zones which might have some influence on the proposed diamond drilling. This report gives details of the work carried out.

Mr. Daly also carried out a survey and sampling of all the old gold mine tailings dumps within the E.L. to ascertain whether any of these might be of interest in connection with the proposed heap-leach cyanidation of the New Golden Gate Mine tailings at Mathinna.

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SECTION (A)

E.L. 17/78

EXPLORATION FOR LODE GOLD

Geological Study of a 4 sq. km Area in the Vicinity of the New Golden Gate Mine Shear Zone, Mathinna.

a. The Mathinna Beds

The Mathinna Beds are a regional characteristic of the north east of Tasmania. They consist of conformable sequences of mudstone and interbedded turbidite quartz-wacke, siltstone, mudstone and their metamorphic equivalents. They are of pre-Permian age and have been transported from the western margin by turbidity currents (i.e. early Devonian). The Mathinna Beds co-relate to the Eldon Group of western Tasmania. Folding in the north east correlates with western Tasmania and is related to the Tabberabberan Orogeny of East Australia.

Folding due to granite intrusion is not evident. Folding is intense in the goldfields shear zone. A spatial relationship between granitoid outcrop and shear zone exists. However, folding may be due to post granite intrusion wrench faulting. Joints in the granite to the north east and north west of the goldfield appear related to shear planes.

Fold axis normally trend NW, and are usually gently plunging to the SE; folds are typically asymmetrical, long limbed. A slaty cleavage is evident. Kink folding

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is a result of recurring shear movement. Maximum fold wavelength is 1 - 2 km (Threader, 1967; Groves, 1977), and dislocated by large undetected normal faults.

b. New Golden Gate Mine District, Mathinna

The area consists of a number of mylonite shear zones, with intensely folded zones between. Owing to a lack of outcrop, which is invariably weathered, geologist A. Daly did not attempt to subdivide lithotypes into discrete mappable units. There is no obvious change in lithotype across the New Golden Gate shear zone except for an increase in graphite, mylonite and brecciation associated with this fault zone as observed in the Golden Hinges Adit.

Threader (1966) designates two lithotypes:

i. lutite with subordinate arenite content
ii. arenite with subordinate lutite content.

"The association may be facies equivalents or separate formations, but structural evidence suggests the latter ....." (Banks, 1962)

In the mapped area bedding is not evident due to metamorphic overprint, shearing, lithologic layering and the lack of outcrop. The degree of metamorphic print is variable with virtually unmetamorphosed quartz-wacke (TX009, TX024)*, lutite (TX016) and metamorphosed schistose quartzwacke (TX003, TX007) and phyllite (TX010b, TX008) occurring throughout the mapped area.

* Note: the numbers in brackets are identification numbers of mineralogical thin sections prepared from samples indicated on Plan No.2

Thin quartz veinlets are not uncommon, tending to show orientation in a number of directions, parallel with joint surfaces. Throughout the mapped area, four (possibly five) sets of joints appear to be evident.

Foliation is variable in a narrow range (generally NNW) occurring as a wide-spaced (incipient) cleavage to a penetrative cleavage, and phyllitic rocks tend to split parallel with this cleavage. A micaceous sheen is developed on the cleaved surface of phyllite units, and a crenulation lineation (TX008) is sometimes well developed compared to the cleaved surface of quartzwacke units.

c. Petrography

The mineralogy of quartzwacke units (~90% quartz) varies little throughout the mapped area. A significant proportion of all rocks consists of argillaceous material (10 - 30%). Quartz grains are cemented by silica which is in optical and crystallographic continuity. The sharp extinction, well sorted and rounded nature of the mono-crystalline quartz grains suggests a high degree of textural and compositional maturity within the sediment pile. Although quartz grains are subrounded, angular grains due to metamorphic granulation are not uncommon (TX005, TX024).

Quartz (Qu) and Muscovite (Mv/white mica) are ubiquitous phases. Graphite (Gf) is almost a ubiquitous phase, and is more common in the phyllitic lithologies. In thin section, graphite occurs as opaque dusty trails (TX001, TX003, TX006), and with micas it defines the S_1 foliation.

Muscovite (Mv) has a characteristic flakey habit, and usually weathers to sericite (TX006). Digenetic Chlorite (Chl) is not uncommon in phyllites, although clastic chlorite (TX002, TX 003, TX008) is common. Epidote group minerals (Ep & Czo-clinozoisite) are uncommon. Carbonate (Calcite (Cc)) is uncommon, and usually associated with vein filling (lamellar twinning). Albite (Ab) (An0-5) is uncommon. Apatite (Ap), and opaques (Op) such as ilmenite, pyrite and limonite (Lm) are present, but usually in accessory amounts. Some mineral phases (chlorite) show pressure solution shadows (TX009, TX002) and stylolitic seams (TX012).

No mineral zonation is evident across the small area mapped. Mineralogy would suggest marginal lower Greenschist facies regional metamorphism, although spatial relationship of shear zone to granitoid bodies would suggest a dynamic/contact component of metamorphism.

Mineralogical Assemblages & Lithotype

TX001:	Qu-Fs-Mv-Gf-Cc-Op	Phyllite
TX002:	Qu-Mv-Gf-Zr-Lm-Ap(clast chl)	Schistose quartzwacke
TX003:	Qu-Mv-Gf-Ap-Op-Chl(" ")	Sub-schistose "
TX004:	Qu-Mv-Chl-Gf-Ap-Op(" ")	Quartzwacke
TX005:	Qu-Mv-Chl-Ap-Op	Quartzwacke
TX006:	Qu-Mv-Lm-Op-Ap	Quartzwacke
TX007:	Qu-Mv-Op-Lm-Ap(clast. Chl)	Schistose quartzwacke
TX008:	Qu-Mv-Chl	Phyllite
TX009:	Qu-Mv-Ap (clast, Chl)	Quartzwacke
TX010a:	Qu-Mv-Gf-Op-Ap-Ab-Ep/Czo	Schistose quartzwacke
TX010b:	Qu-Mv-Chl-Op	Phyllite
TX012:	Qu-Mv-Lm-Gf	Phyllitic schist
TX015:	Qu-Mv-Ab-Op-Gf(clast. chl)	Schistose quartzwacke
TX016:	Qu-Mv-Op	Lutite
TX019:	Qu-Mv-Ab-Chl-Ep/Czo-Op-Gf	Quartzwacke
TX023:	Qu-Mv-Ep-Lm-Op-Gf	Sub-schistose quartzwacke
TX024:	Qu-Mv-Gf-Op	Quartzwacke

Note: the above refers to thin sections produced from samples taken in the mapped area. These samples are indicated on Plan No. 2 and details of them are given on the following pages.

Geological Mapping - Fault Zone, New Golden Gate Mine

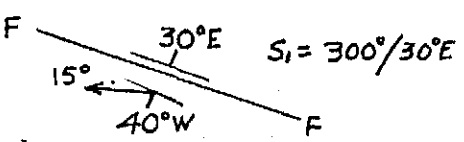
Field Notes

Rock Sample Locations

RW = West of fault zone
RM = Within fault zone
RE = East of fault zone

RE-1 (TX001) Phyllite
a. Gate Extended Shaft
b. Dominantly green phyllite (also grey) with subordinate schist (psammo-pelite)
c. $S_0=S_1= 345^0/75^0W$

RE-2 (TX002) Schistose quartzwacke
a. Creek bank
b. mesoscopic fault outcrop , delineated by A strike phyllite. No obvious displacement.
c. Grey phyllite, subordinate schist (psammopelite)
d. $S_o = S_1 = 355^0/40^0W$
L_1 = plunge 15^0N



RE-3 (TX003) Sub-schistose quartzwacke
a. Caledonian Adit
b. Slate
c. $S_o = S_1 = 340^0/65^0W$

RE-4 (TX004) Quartzwacke
a. Central Golden Gate Shaft
b. Slate, fine-grained grey.
c. $S_o = S_1 =$ (?)

RE-5 (TX005) Quartzwacke
a. East Golden Gate Main Shaft
b. Dominantly grey (pelite) phyllite, with subordinate schist (psammopelite).
c. $S_o = S_1 = 325^0/53^0E$
L_1 = plunge 25^0N

011

RE-6 (TX006) Quartzwacke
a. Adit
b. Phyllite - slate
c. $S_o = S_1 = 332^o/50^oE$
L_2 = plunge 25^oN

RE-7 (TX007) Schistose quartzwacke
a. vehicle track outcrop
b. green/grey phyllite
c. $S_o = S_1 = 002^o/23^oW$

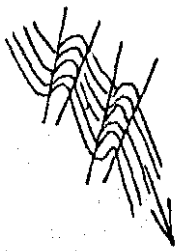
RE-8 (TX008) Phyllite
a. vehicle track outcrop
b. No sample
c. $343^o/90^o = S_1 = S_o$

RM-9 (TX009) Quartzwacke
a. Miners Dream - Main Shaft
b. green/grey phyllite; uncommon (psammopelite) schist.
c. $S_o = S_1 = 348^o/85^oE$

RM-10 (TX010a) Schistose quartzwacke/phyllite
a. South Golden Gate Dumps
b. green/grey phyllite/slate

RM-11
a. Open Cut - Upper West Reef, New Golden Gate Mine
b. No sample
c. chevron kink folding & open mesoscopic folding.
d. grey-green phyllite
e. $S_o = S_1 = 000^o/85^oW$

RM-12 (TX012) Phyllitic schist
a. Black Horse Gully 150m south of Golden Hinges Adit, near Stream Bank.
b. Intense chevron kink folding;
$S_o = S_1 = 265\text{-}295^o$/variable dip
L_2 = plunge ~60° S
c. grey phyllite



RM-13

a. Golden Hinges (GH) Adit

b. Slate; graphitic phyllite east of fault contact.

c. $S_o = S_1$ = variable; general strike 340 - 350°.

d. Intense folding and brecciation.

e. West of fault, slate fold structures appear to be oblique to S_1; i.e. S_2 schistosity is developed.

RM-14

a. South Miners Dream Adit

b. Slate, grey phyllite

c. S_o = S, 290°/45°NE

RW-15 (TX015) Schistose quartzwacke

a. North Eldorado Adit

b. dominantly slate, massive. Phyllitic at fold structures.

c. Subordinate schist with uncommon porphyroblasts.

RW-16 (TX016) Lutite

a. New Eldorado Adit

b. Slate, massive

c. $S_o = S_1$ = 345°/77°W

RW-17

a. Phyllite

b. No sample

c. $S_o = S_1$ = 344°/85°W/90°

RW-18

a. Phyllite

b. No sample

c. $S_o = S_1$ = 344°/80°W

RW-19 (TX019) Quartzwacke

a. New Eldorado Main Shaft

b. grey phyllite with subordinate schist (psammopelite, quartzwacke)

013

RW-20

a. Phyllite

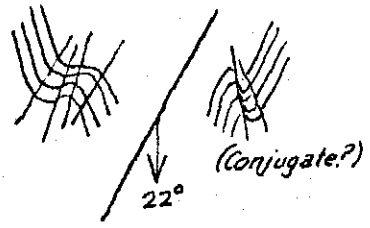
b. $S_o = S_1 = 340^o/85^oW$

RW-21

a. grey phyllite

b. $S_o = S_1 = 343^o/84^oE$

$L_2 = 340^o$ plunge 22^oS



RW-22

a. Phyllite

b. $S_o = S_1 = 345^o/80^oW$

$L_1 = 24^oN$ plunge

RW-23 (TX023) Sub-schistose quartzwacke

a. Victorian Golden Gate

b. $S_o = S_1 = 338^o/83^oW$

RW-24 (TX024) Quartzwacke

a. City of Hobart Mine

b. Phyllite, subordinate schist (psammopelite)

c. $S_o = S_1 = 340^o/80^oW$

The Argyle No.2 South Adit (Mangana)

a. Introduction

The Argyle Mine/quartz reef is the south-easternmost known continuation of the Golden Entrance Mine/quartz reefing. The Argyle quartz reefing attitude is generally N 45° W / 64° NE.

Because of the apparently rich nature of this reef as observed in the Argyle No.1 South Adit (located above and south-east of the No.2 South Adit) it was recommended that the No.2 South Adit should have supports renewed at the entrance, and be drained by pumping to provide safe access for sampling.

b. The Argyle No.1 South Adit

Sampling of this adit has been previously reported, but may be summarised as follows:

The reef in this adit has an average thickness of 0.44m (range 0.1m to 0.9m). Seventeen points of sampling (5 - 10kg samples across the reef width) were reported from the drive, overhand stopes, and winzes. The average grade was 31.2 ppm (range 0.3ppm to 133ppm). The adit workings do not penetrate beyond the zone of secondary enrichment.

Because of these high Au values, and the limited amount of stoping, and the scarcity of recorded information on this mine, it was considered to be worth further investigation, and to this end it was necessary to enter the lower (No.2) adit to sample the reef at this lower horizon.

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c. The Argyle No.2 South Adit

Supports at the entrance of this adit were renewed, and it was necessary to install a pump for dewatering as the adit was not free-draining. The water level was lowered by 1.5m, and the drive made accessible beyond an area of collapsed roof to 38m from the entrance. At this point a further area of collapsed roof and a further accumulation of water was encountered, so exploration was terminated at the 38m distance.

It is believed that a further 80m of drive exists, and that the extent of this drive would penetrate the zone of weathering/secondary enrichment. No stoping was observed in the first 38m of the drive.

The quartz reef followed by the drive appears to be an integral part of a shear zone. Reef thickness varies from an area of intense mylonitisation, clay pug, quartz transposition to a solid body of quartz exceeding 2m wide (drive width). In the area of mylonite transposition there exists substantial leaching/precipitation of $CuSO_4.7H_2O/CaSO_4.5H_2O$ and carbonate to form aesthetic crystal formations - slender curling needles of selenite ($\sim$15cm long), joint fillings. Sulphide mineralisation is not uncommon throughout the quartz reef, and typical of the Golden Entrance Reef, the reef is split by a pug seam.

Geological details of the first 38m of the Argyle No.2 South Adit are as follows:

0 m (Entrance)= 2.3m wide (1.2m Qtz + 0.3m pug + 0.8m Qtz)
9 m = +0.9m Qtz (only east side of pug seam exposed)
13m = +0.75m Qtz(" " " " ")
18m = 0.5m Qtz (" " " " ")
32m = mylonite, quartz transposition, clay pug, slickensides, rare sulphides, common precipitates CO_3^{2-} SO_4^{2-}.
38m = 0.3m Qtz seam

Sampling (5kg - 10kg samples)

	Sample No.	Location	ppm Au
*	A2 - 1a	0m - Entrance No.2 North	1.3
	A2 - 1	9m from entrance No.2 South	<0.3
	A2 -2	12m " " " "	<0.3
	A2 - 3	18m " " " "	<0.3
	A2 - 4	23m " " " "	<0.3
	A2 - 5	30m " " " "	<0.3
	A2 - 6	32m " " " "	<0.3
	A2 - 7	36m " " " "	<0.3

* Note: Sample A2 - 1a was taken at the entrance to Adit No.2 North, located opposite No.2 South Adit in Sailors Gully.

Conclusions

Nothing of significance was found in Adit No.2 South despite the high grade (>1 ounce per tonne) recorded in the No.1 South (upper) adit. No further work is therefore proposed at the Argyle Mine.

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SECTION (B)

Tailings Dumps Within E.L. 17/78

The major tailings dump within the E.L. is that at the New Golden Gate Mine, Mathinna. Details of a survey of this dump were given in the Tasminex N.L. Report for the period 1st May to 30th October 1981. That report also contained information, including estimated volumes, of other tailings dumps within the E.L.

During the period covered by this report a more detailed examination has been made of these dumps, which are listed as follows in order of size:

a. Mangana Reefs Mine, Mangana (Map Ref. 744924)
b. City of Hobart Mine, Mathinna (" 738070)
c. Volunteer Mine, Mathinna (" 726082)
d. Twilight Mine, Tower Hill (" 740020)
e. City of Melbourne Mine, Dan Rivulet(" 730111)
f. Fingal Mine, Mangana (" 742946)

All of the above tailings deposits have been located, theodolite surveyed (tacheometer), and sampled for fire assay analysis. With the exception of the Fingal Mine dump, which is of low volume and negligible gold content, all of the above deposits contain significant amounts of gold. The twilight Mine deposit is of exceptionally high gold content when compared with the others, including the main New Golden Gate tailings.

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Evidence of cyanide treatment exists at the Twilight Mine, but there is no record of gold recovered from this mine when in operation.

The tailings dump at the City of Melbourne Mine is also of fairly high grade, although the quantity is very small. This dump is situated beyond the northern boundary of E.L. 17/78, near the Dan Rivulet.

Tests were also made to determine the average densities of the material in these dumps.

Summary of Volume, Average Density, Tonneage and Mean Gold Contents.

Deposit	Volume(m^3)	Avg.Density (moist) tonne/m^3	Tonnage	Mean Au content ppm
New Golden Gate	175,263	1.44	264,888	~1.5
City of Hobart	4,617	1.39	6,418	~0.43
Mangana Reefs	6,515	1.35	8,795	~0.82
Volunteer	2,606	1.43	3,727	~0.65
Twilight	1,284	1.42	1,823	~2.38
City of Melbourne	520	1.43	750	~2.07
Fingal	-	-	-	<0.30

Petrographic Study of Tailings Dump Sediment, New Golden Gate Mine, Long Gully, Mathinna

Introduction

A total of sixteen samples was collected from the New Golden Gate Mine tailings dump, each sample being selected according to its variable nature and spatial relationship. Polished grain microscope sections of each sample were prepared and assessed in connection with proposals for heap-leach cyanidation of these tailings.

It has been stated that for such a process to be successful "....the ore must be amenable, meaning that it should be relatively free of carbonaceous, cyanide-consuming, and acid-forming agents, as well as excessive fines which clog percolation routes."

Petrography

A Vickers Reflector Ore Microscope was used, and the following sand (S), slime (SL) and residue (R) samples mounted for examination:

R - 1	S - 4	S - 8	S - 13
R - 2	S - 5	S - 9	SL - 14
R - 3	S - 6	S - 10	S - 15
R - 4	S - 7	S - 12	S - 16

Sand represents crushed ore not subjected to cyaniding. Residue and slime represent cyanide-treated sand.

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a. Mineralogy

All samples are monotonous in terms of mineralogy and texture. Felsic grains (dominantly quartz) invariably represent ~99% of all mineral phases in each sample. Sulphides are present in most samples, except in some of the residues and the single slime sample, to the extent of $\leq$1%.

Pyrite (FeS_2) is the dominant sulphide, with minor arsenopyrites (Fe As S), and uncommon chalcopyrites ($CuFeS_2$). Galena (PbS) and sphalerite (ZnS) were not observed. Gold (Au) was recorded in only one sample, occurring as a single included grain. In sand samples, sulphides usually occur as localised inclusions in quartz grains, or as distinct grains mantled by an alteration halo (hydrated carbonate?). Alteration haloes are especially evident in the finer grained cyanide-treated residue samples, to the extent where the sulphide is completely altered. The amount of carbonaceous material present in sections is negligible.

i. Pyrites: (FeS_2) (most samples)

Moderately high reflectivity; white - pale yellow colour; no reflective pleochroism; very hard (non-cratched); occasional cubic habit; isotropic; inclusion trails along cleavage planes.

ii. Arsenopyrites: (FeAsS) (S - 9)

Moderately high reflectivity; white - yellow colour; weak bireflectance; very hard; sparce network fractures; strongly anisotropic (blue, yellow).

021

iii. Chalcopyrites: ($CuFeS_2$) (S - 16)

Moderately high refectivity; brassy yellow colour; weak bireflectance; weakly anisotropic (pale blue - yellow)

iv. Gold: (Au) (S - 10)

Very high refectivity; golden yellow colour; isotropic; swirls in cloudy yellow mass; very soft.

v. Quartz: Very low reflectivity (10%); grey colour.

b. Conclusion/Summary

The low percentage of heavy minerals could reflect deletion during section manufacture, due to density settling in the sample. However, heavy minerals occur as inclusions in quartz grains, and all samples were homogenised during section mounting.

The low percentage of sulphides, and indeed of gold, could reflect the low average grade of the material (~ 1.5 ppm Au).

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SECTION (C)

EXPLORATION LICENCE 17/78

Total Expenditure by Tasminex N.L.
for the Six Months Period
1st November 1981 to 30th April 1982

Services, Rentals	$371.89
Wages, Salaries, Fees	$3,972.06
Accommodation	$440.00
Transportation	$940.00
Assays	$195.00
Total	$5,981.95

Note: This Statement of Expenditure is the same as that given with the Progress Report dated 2nd February 1982, there having been no further expenditure since that date.

PERSONNEL EMPLOYED ON E.L. 17/78

During the period 1st November to 18th December, geologist Mr. A.B. Daly was fully employed in exploration and research in respect of E.L. 17/78. He was assisted by one field assistant.

The programme of exploration continued to be guided by geological consultant Dr. M. Solomon of the University of Tasmania, and directed by Mr. E.N. Charlton of Tasminex N.L.

No replacement has yet been obtained for Mr. Daly. Tasminex N.L. considers that no further field work is justified until a decision to carry out a diamond drilling programme at Mathinna is made, and in this connection attempts are being made to interest other parties in a joint venture.

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APPENDIX I

024

DEPARTMENT OF MINES—TASMANIA

LAUNCESTON OFFICES
287 WELLINGTON STREET
SOUTH LAUNCESTON 7250

TELEPHONES:
Metallurgical Research .. ..
Laboratory .. .. ..
Mines Inspection .. .. ..
Explosives & Inflammable Liquids
} 44 2431-2 (2 lines)

25th November 1981

Tasminex N.L.,
P.O. Box 123,
St. Marys 7215
TASMANIA

Attent A. Daly

Reg. Nos 814428-455

Dear Sir,

Please find below results of samples submitted to this laboratory on the 11th Nov'81.

Reg. Nos	Description			Au g/t
814428	TMR	1	Tailing sand	1.2
429	TMR	4	Mangana Reefs Mine	0.80
430	TMR	6		0.65
431	TMR	8		0.78
432	TV	5	Volunteer Mine, Mathinna.	0.82
433	TV	6		0.44
434	TV	7		0.58
435	TV	8		0.63
436	TV	9		0.69
437	TV	10		0.67
438	TW	2	Twilight Mine, Tower Hill	0.58
439	TW	3		0.72
440	TW	4		0.58
441	TW	6		0.46
442	TW	7		1.5
443	TW	9		1.3
444	TW	10		7.0
445	TW	11		1.5
446	TW	13		<0.3
447	TW	14		1.5
448	A1 - 1a		Quartz Reef	1.3
449	A1 - 1			<0.3
450	A1 - 2			<0.3
451	A1 - 3			<0.3
452	A1 - 4			<0.3
453	A1 - 5			<0.3
454	A1 - 6			<0.3
455	A1 - 7			<0.3

(H.K. Wellington)
Chief Chem. & Met

Analyses by H.K.W.

GEOLOGY - MINES - REEFING, MATHINNA DISTRICT. TASMINEX N.L E.L 17/78

PLAN Nº 1

82-1160

4022

777026

A.B. Daly. April, 1981.

LEGEND

- Mathinna Post Office.
- Location of main feature for each mine.
- 300 m Contour (metres)
- Trace of quartz reef & direction of dip.
- Tailings sand.
- Fault trace & direction of dip.
- Stream course.
- Fold axis. Direction of plunge.
- Arenite / psammitic pelite. } Mathinna Beds.
- Lutite / pelite. } Mathinna Beds.
- Eluvial gravels / Alluvial.

TN

5 cm

0 500m

Scale 1: 5000

* Geology is according to Threader (1965)

* Structural features, quartz reefing is projected to surface, if not outcrop.

THE MINES

N.G.G.	NEW GOLDEN GATE shaft.
T.C.	TASMANIAN CONSOLS shaft.
G.H.	Golden Hinges adit.
G.E.	Gate Extended shaft.
C.	Caledonian adit.
G.L.	Golden Ladder shaft.
E.G.G.	East Golden Gate shaft.
S.M.	Star of Mathinna shaft.
G.S.	Golden Spur shaft.
E.T.	Enterprise shaft No 1.
C.H.	CITY of HOBART main shaft.
V.S.	Volunteer Sons main shaft.
Y.B.	Yellow Boys main shaft.
O.B.	Old Boys main shaft.
H.A.	Hatherton main shaft.
S.P.T.	Saint Patrick shaft.
P.H.	Pride of the Hills shaft.
S.P.	Scott & Pickett shaft.
C.O	Commercial shaft.
V.G.G.	Victorian Golden Gate adit
N.E.	North Eldorado adit.
E.	ELDORADO, NEW adit.
G.	Gladstone adit.
H.	Horseshoe U. shaft.
T.	Telegraph shaft.
M.D.	MINERS DREAM U. shaft.
S.M.D	South Miners Dream adit.
S.G.G.	South Golden Gate shaft.
C.T.	City P.A. adit.
J.	JUBILEE main shaft.
M.	Mountaineer shaft.

PLAN Nº 2

4023
82-1760

GEOLOGY - sample location map - MATHINNA.

777027 Tasminex N.L E.L 17/78

LEGEND

- Contour (topographic)
- Road
- Stream
- Sample point.
- Fault trace / dip.
- antiformal fold axis.
- synformal " " .
- Quartz reef / dip.
- s°= s' schistosity & l' lineation.
- Geological contact.
- Recent alluvial.
- Mathinna Beds. (siluro-devonian)

5 cm

T N

060

0 200m

Scale 1 : 5000

Mathinna Road

Dump

Long Gully Tailings

750

740

070

060

4024

PLAN Nº 3

82-1760

777028

LOCATION MAP.

Polished slide sample sections.

TASMINEX N.L.

4025
82-1760

PLAN No 4

GOLDEN HINGES MINE ADIT, MATHINNA.

TASMINEX N.L. E.L 17/78.