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NEW DORSET AREAS

GLADSTONE,
NORTH EASTERN TASMANIA.

MICROFILMED

Prepared by:

H. KEITH TURNER
J. VOLKER

March, 1963.

AMG REFERENCE POINTS ADDED

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NEW DORSET AREAS.

In the development phases of the Black Duck, McGregor and Aberfoyle Sections, no group-name was used. For this Report, and in the future, it is proposed to adopt "NEW DORSET" for titling purposes.

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NEW DORSET PROJECT

REPORT ON TRANSFER OF DORSET DREDGE TO THE NEW DORSET AREAS

1. Table of Attachments.
2. Summary and Conclusions.
3. Preamble.
4. Brief History, Tin Occurrences, etc.
5. Mining Titles.
6. Testing of New Dorset Areas with Bore Hole Data.
7. Summary of Reserves of Dredgeable Ground.
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9. Tin Markets and Prices.
10. Value of Tin in Concentrates.
11. Overall Valuation of New Dorset Areas.
12. Summary of Capital Requirements.
13. Estimates of Capital Expenditure.
14. Schedule of Transfer.
15. Statement of Operating Costs.
16. Notes on Operating Costs.
17. Staff and Employees. (MISSING)
18. Notes on Construction and Dredging Programme.
19. Economic Summary.
20. Outcome over 14 year period.

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NEW DORSET PROJECT

TABLE OF ATTACHMENTS

Schedule

A. Report by Consulting Engineer, F. Grey Wilson.

B. Memorandum by I. L. Gerke, Chief Engineer, Aberfoyle Holdings Ltd.

C. Copy of Report - Scotia Lead, P. B. Nye.

D. Extract from Tasmanian Mines Department Report 1905.

E. Assessments by Department of Mines, Tasmania:
(a) New Dorset Areas. not so — Scotia
(b) Scotia Lead (1/8/1962 and 24/9/1962).

F. Estimates - Dredge Removal and Modifications - Phoenix Foundry Ltd., 13/9/1962.

G. Quotations -
(a) Consolidated Home Industries Ltd.
(b) Cyclone Company of Australia Ltd.

12(d) Schedule - Establishment of Operations.

H. Plan of Dredging Areas.

I. Geological Plan of Areas.

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NEW DORSET PROJECT

SUMMARY AND CONCLUSIONS

1. Profit Summary and Return on Capital Investment:

Assume: 14 year life.
Repayment of Loan funds, £50,000, over 10 years at 5% Interest
Taxation at current rates.

Value of Production			£1,527,260
Deduct	Operating Costs	£1,146,180	
	Interest on Loan	13,750	
	Income Tax	78,200	1,238,130
Net Operating Profit			289,130
Add	Recoupment of Working Capital		6,000
	Residual Plant Value		20,000
			315,130
Deduct	Repayment of Loan	50,000	
	Original Equity Capital	70,000	120,000
	Net Surplus		£195,130

Average annual return over 14 years on capital of £70,000 = £13,930 (to nearest £10)

Tax Exempt	£3,640	5.2%
Taxable	10,290	14.7%
	£13,930	19.9%

2. Provision of Funds and Capital Construction:

Cash Capital required	£120,000
Provision of Cash requirement:	
Equity Capital	£70,000
Loan from Tasmanian Government	50,000
	£120,000

3. Dredging Reserves and Metal Recovery:

The New Dorset Areas have been carefully tested in the sections - Black Duck, McGregor and Aberfoyle.

Proved and probable reserves in these sections total 23,000,000 cubic yards with the following tin and gold -

Tin = .20 lb./Tin Concentrates per cubic yard - 72%-74% Sn.

Gold = 1 oz. Gold/ton of Tin Concentrates = .045 grains/cubic yard.

The Conrad drilling and pilot plant clean-up practice shows .209 lb./tin concentrates per cubic yard, containing 70% Sn.

Estimation of gold content in these extremely small amounts (a few colours of gold per cubic yard) is based on observations of recovery from other areas dredged in the Ringarooma Valley.

4. Tin Prices:

Future prices for tin metal appear stable, fluctuating between £850-£900 Sterling whilst United States stockpile disposals are in progress. Thereafter, prices should move upwards.

£850 Sterling has been applied in this report.

5. Services:

The re-establishment of Dorset Dredge in the New Dorset Areas, approximately 10 miles from Dorset Flats where nearly 30,000,000 cubic yards have been dredged in the past 18 years with the same manpower and plant, means that operations will continue as in past years after transfer of the dredge. Some advantages in terms of volume handled per hour can be anticipated in the New Dorset Areas and alterations to the dredge being planned will be in support of this factor.

6. Capital and Operating Costs:

Capital requirement is calculated at £120,000 - details are included in this report.

The main part of the reconstruction will be placed in the hands of a Contractor who will draw manpower from Dorset work force. Estimates for this work have been carefully drawn. Schedules provide for commencement of operations in the New Dorset Areas in January, 1964.

Costs are based on comprehensive data compiled in the past 18 years and allowing for an increase of 7% in throughput per annum, the total cost of operations, before tax and amortisation, is assessed at 11.96 pence per cubic yard.

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NEW DORSET PROJECT

P R E A M B L E

1. The proposals for the transfer of Dorset Dredge to the New Dorset Areas are based on the following factors:-

   (a) The general world supply and demand position for tin metal, as well as the short supply in Australia.

   (b) The certainty that world prices for tin will remain steady and tend to rise in the next few years.

   (c) The stable wages and materials cost position in Australia.

   (d) The results of dredging operations in the Dorset Extended during the past three years where satisfactory profits have been maintained from dredgeable ground carrying around .20 lb./ tin concentrates per cubic yard.

   (e) That capital made available by the Tasmanian Department of Mines for the re-establishment of Dorset Dredge allows equity capital to remain at a practical level.

2. In the overall picture, Dorset Dredge should achieve results in the New Dorset Areas similar to that achieved in the past eighteen years.

NEW DORSET PROJECT

BRIEF HISTORY, TIN OCCURRENCES, ETC.

The New Dorset areas, about three miles west of the small town of Gladstone, are swampy river flats in the Ringarooma Valley and are bounded on the south by the high granite country of the Mt. Cameron massif. On the northern side, a large alluvial plain conserves some of the weathered products of the granites and the Ordovician slates to the east and along the flanks of Mt. Cameron. Sea level in pre-Tertiary times varied considerably and the varying conditions have provided some of the old stream system beds which dissected the alluvial plain. The Scotia lead is perhaps the principal and it pre-dates the Ringarooma River by a vast period of time.

With the basalt flows of the Tertiary period, the Ringarooma River, draining the high country on the western flanks of the Blue Tiers and to the south of the present town of Ringarooma, was isolated from its course to the western side of Mt. Cameron and broke a new course through a gap on the eastern wing of Mt. Cameron.

This relatively new river system redistributed the older alluvials and brought down the steep gradients the heavy minerals weathering principally from the tin-bearing granites of the Tiers.

Dorset Flats, Dorset Extended and the New Dorset Areas are wider river valley sections than normal and accordingly provide areas suitable for dredging on a fairly large scale.

Tin was discovered in the Ringarooma Valley near Gladstone in the 1870's but the river alluvials were too low grade to be mined for the means available in those times. It is worthy of note, however, that a bucket dredge of New Zealand design was established near Gladstone in an attempt to recover the tin in the low grade shingle wash. (Refer Appendix D) The plant was unsuccessful, but has the distinction of being probably the first bucket dredge operated for tin recovery.

Small parties and syndicates in the area surrounding Gladstone have operated the older leads from time to time since their discovery in the 1870's. Few have achieved other than a living from hydraulic methods employed.

Surrounding the New Dorset Areas are a number of mines long abandoned - The Canary, McGregor, Aberroe, Aberfoyle, etc. - their location is recorded on the attached Geological Plan (Appendix I). These leads are too small for dredging but were rich in tin values at some points. An estimate of recovered values of .50 lb./tin concentrates per yard could be reasonably close to the overall value of the ground sluiced in past years.

Gladstone is the centre of these activities and is a small town of perhaps 300 inhabitants. Most of the residents are descendants of the independent type of prospector-miner whose efforts and energy contributed greatly to the development of the country in the latter part of last century.

From these people, a work force has been trained to operate and maintain Dorset Dredge which has operated profitably since its establishment at Dorset Flats in 1944. It is a fair statement that Dorset Dredge has an excellent crew, and compares more than favourably with any crew from any dredging enterprise.

NEW DORSET PROJECT

TITLE POSITION

Since 1961, an Exploration Licence No. EL.3/61 has been held by Storeys Creek Tin Mining Co. N.L. over an area of 20 square miles covering most of the alluvials of the Great Northern Plain including the Ringarooma Valley downstream from the twon of Gladstone for several miles.

The Black Duck, Aberfoyle and McGregor Sections prior to the expiration of the present Exploration Licence in August, 1963, will be pegged as mining leases.

The leases to be pegged total 760 acres and comprise:-

8 leases	each 80 acres
4 leases	each 30 acres

No options are held over any of the areas concerned and no purchases of leases will be made to secure the necessary areas.

A further Exploration Licence will be secured over the Scotia Lead and its possible extensions to the north during August, 1963.

NEW DORSET PROJECT

TESTING OF THE ABOVE AREAS.

The testing practice employed was identical with that developed for the examination of the Dorset Extended area, on which the Dredge is presently operating.

Details of Plant, etc.

Drilling Plant:

Diesel powered Conrad rig using 16" dia. heavy casing. The casing is rotated downwards and the core extracted with grab and pivoting bucket. Casing shoe is kept ahead of the alluvials being removed so that a perfect sample is secured. Samples are collected in sections of 5 feet to ensure full knowledge of the tin-bearing horizons.

Pilot Plant for Clean-up of Samples:

This consists of a small scale treatment plant similar in every respect to that equipment of the dredge. Recoveries can be accepted from the clean-up plant as typical of those on the full-scale basis.

With the above equipment, the following important aspects in the testing of alluvials are completely established:-

1. Knowledge of horizons of various alluvials, their exact nature, and full control of volumes removed.
2. Location of tin values.
3. Class and type of tin being recovered, as well as other minerals associated.
4. Type of bottom below alluvials.

In low grade tin bearing wash, it is considered the Conrad rig is the only plant suitable to provide satisfactory answers.

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NEW DORSET AREAS

BORE HOLE DATA

16" CONRAD PLANT

Bore No.	Depth	Wash Depth	Value	Bottom
1	29'	4'	.11	Slate
2	37'	9'	1.07	Slate (crumbly)
3	37'	5'	.47	Slate (crumbly)
x 4	25'			Slate
5	48'	-	-	Slate
6	56'	-	-	Slate
7	56'	16'	.12	Slate
8	53'	7'	.02	Slate
9	45'	15'	.58	Soft Granite
10	45'	3'	.38	Hard Granite
11	49'	4'	.15	Not Bottomed
12	45'	5'	.13	Slate (hard)
13	34½'	21½'	.31	Hard Granite
x 14	11'			Soft Granite
x 15	10'			Hard Granite
x 15a	12'			Granite
16	31'	4'	.33	Soft Granite
17	30'	3'	.37	Soft Granite
18	31'	11'	.47	Soft Granite
19	29'	old tails	.19	Soft Granite
20	20'	5'	.147	Slate
x 21	18'			Soft Granite
22	50'		.24	Soft Granite
23	42'	3'	.34	Soft Granite
24	44'	-	-	Slate
25	30½'	2½'	.12	Granite
26	26'	3'	.13	Soft Granite
27	30'	3'	.81	Soft Granite
28	47'	-	-	Slate (hard)
29	47'	3'	.22	Soft Granite
30	45'	1'	.12	Hard Granite
31	46'	12'	.47	Soft Granite
32	44'	6'	.19	Hard Granite
33	49'	11'	.16	Soft Granite
34	51'	8'+4'	.10	Soft Granite
35	43'	4'	.15	Slate
36	44½'	3½'	.20	Granite (crumbly)
37	37½'	2½'	.12	Granite (crumbly)
38	40'	9'	.34	Granite (crumbly)
39	50'	-	.01	Hard Granite

Bore No.	Depth	Wash Depth	Value	Bottom
40	43'	9'	.09	Soft Granite
41	44'	9'	.34	Soft Granite
42	50'	9'	.15	Soft Granite
43	50'	6'	.05	Soft Granite
44	46'	1'	tr	Slate (hard)
45	44'	-	-	Slate
46	36'	16'	.49	Slate (soft)
47	37'	10'	.09	Slate
48	50'	7'	.02	Slate (soft)
49	42'	3'	.02	Slate (hard)
50	42'	1'	.15	Slate (hard)
51	6'	-	-	Slate (soft)
52	25'	-	-	Slate (soft)
53	15'	6'	.49	Slate (soft)
54	7'	3'	-	Slate (soft)
55	49'	2'	.03	Slate (hard)
56	33'	12'	.92	Slate (hard)
57	31'		-	Slate (hard)
58	40'	9'	.23	Slate
59	30'	-	-	Abandoned
x 60	40'	10'	.34	Slate
x 61	40'	13'	.31	Slate
x 62	50½'	12½'	.23	Slate
x 63	18'	-	-	Slate
x 64	38'	11'	.40	Slate
65	51'	9'	.40	Granite (soft)
66	42½'	1'	.08	Granite (hard)
67	44½'	10½'	.04	Granite (hard)
68	46½'	1½'	.03	Granite (soft)
69	39½'	12'	.18	Granite (soft)
70	37½'	6½'	.08	Granite (soft)
71	40½'	8' 2½'	.03	Granite (soft)
72	50½'	2'	.13	Granite (soft)
73	44'	9'	.16	Granite (soft)
74	49'	6½' 3'	.18	Slate (hard)
75	46'	4½' 7'	.41	Slate (soft)

X (Not included in average value)

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Bore No.	Depth	Wash Depth	Value	Bottom
5" 1	35'	6'	.28	Hard
5" 2	34'	5'	.12	Hard
6" 3	46'	6'	.10	Granite/Slate
6" 4	40'	5'	.35	Granite (hard)
6" 5	30'	2'	.08	Hard
6" 6	33'	8'	.02	Granite (soft)
6" 7	22'	3'	.04	Granite (soft)
6" 8	32'	-	-	Granite (hard)
5" 9	38'	4'	-	Granite
5" 10	42'	2'	.09	Granite (soft)
5" 11	49'	10½'	.28	Granite (soft)
6" 12	41½'		tr	Granite (hard)
6" 13	45'		.13	Granite (hard)
6" 14	48'	11'	.11	Hard
6" 15	47'	6' 2'	.03	Hard
6" 16	46'	11'	.01	Hard
6" 17	48'	8'	.35	Granite (soft)
6" 18	52'	10'	.11	Not bottomed
6" 19	50'	5'	.15	Not bottomed

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CALCULATION OF GRADE.

G. I	f	Cumulative f	Mp	f x Mp	
.00 - .09	2	2	.05	.10	
.10 - .19	5	7	.15	.75	
.20 - .29	2	9	.25	.50	
.30 - .39	3	12	.35	1.05	ABERFOYLE
.40 - .49	1	13	.45	.45	av. grade
.50 - .59	-	-	.55		
.60 - .69	-	-	.65		$\frac{3.70}{14} = .264$
.70 - .79	-	-	.75		
.80 - .89	1	14	.85	.85	
				3.70	
.00 - .09	11	11	.05	.55	
.10 - .19	18	29	.15	2.70	
.20 - .29	3	32	.25	.75	MCGREGOR
.30 - .39	6	38	.35	2.10	av. grade
.40 - .49	3	41	.45	1.35	
.50 - .59	1	42	.55	.55	$\frac{8.00}{42} = .19$
.00 - .09	11	11	.05	.55	
.10 - .19	3	14	.15	.45	
.20 - .29	1	15	.25	.25	
.30 - .39	-				BLACK DUCK
.40 - .49	3	18	.45	1.35	av. grade
.50 - .59					
.60 - .69					$\frac{4.20}{20} = .21$
.70 - .79	1	19	.75	.75	
.80 - .89	1	20	.85	.85	
.00 - .09	24	24	.05	1.20	
.10 - .19	26	50	.15	3.90	
.20 - .29	6	56	.25	1.50	
.30 - .39	9	65	.35	3.15	Average
.40 - .49	7	72	.45	3.15	
.50 - .59	1	73	.55	.55	$\frac{15.90}{76} = .209$
.60 - .69	-				
.70 - .79	1	74	.75	.75	
.80 - .89	2	76	.85	1.70	

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G. I	f	Cumulative f	Mp	f x Mp
.00 - .09	19	19	.05	.95
.10 - .19	18	37	.15	2.70
.20 - .29	4	41	.25	1.00
.30 - .39	8	49	.35	2.80
.40 - .49	3	52	.45	1.35
.50 - .59	3	55	.55	1.65
.60 - .69	1	56	.65	.65
.70 - .79	1	57	.75	.75
.80 - .89	1	58	.85	.85
.90 - .99				
1.00 1.09	1	59	1.05	1.05

DORSET EXTENDED

$$\frac{13.75}{59} = .233$$

NEW DORSET PROJECT

SUMMARY OF RESERVES OF DREDGEABLE GROUND

Section	Area Acres	Average Depth	Cubic Yards	Lb./Yd. Average Value	Tons Concentrates
1. McGregor	214	45'	15,500,000	.19	1,310
2. Aberfoyle	33	37'	2,000,000	.248	220
3. Black Duck	83	40'	5,500,000	.21	520
	330		23,000,000	.20	2,050

Averaging by statistical methods as on attached statements shows overall tin content of .209 lb./yd. for 23,000,000 cubic yards, in concentrates assaying 70% Sn.

For the purposes of this report, the figure of .20 lb./yd. is applied.

Run-of-Mine concentrates assaying 73%-74% Sn.

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NEW DORSET PROJECT

OTHER AREAS AVAILABLE FOR PROSPECTING ADJACENT THE NEW DORSET AREAS

The Scotia Lead:

Reference is made to Appendices:-

(1) Appendix I - Geological map showing the Scotia Lead.

(2) Appendix C - Extract from a report dated 4/7/1932 by P. B. Nye, at that time Government Geologist in Tasmania.

(3) Appendices E(a) and E(b) - Letters from the Director of Mines dated 1/8/1962 and 24/9/1962, with an assessment of gravel reserves.

During the early 1940's, the Mines Department conducted an extensive drilling programme using their own drilling rigs - from this data, the Department has calculated the Scotia Lead as -

1. 4,400,000 cubic yards - .49 lb./yd. on Hobart
2. 11,400,000 cubic yards - .34 lb./yd.

At the time of these assessments, consideration was being given to the possibility of dredging the lead in the final stages of the Dorset Dredge programme in the Black Duck-McGregor sections. This possibility has now been set aside, but scope for a separate operation using modern earth moving plant exists. At present tin prices, .49 lb./yd. is equal to 3/3d. per yard. A well managed operation, using scrapers and a modern treatment plant, could be anticipated to cost around 2/6d. per yard, providing a gross profit of 9d. per yard.

Some check drilling will be necessary before decision can be reached, but an operation could be established within 2 years after commencement of dredging in the Black Duck-McGregor areas.

On the basis of a throughput of 500,000 cubic yards per annum, with a recovery of .49 lb./yd -

Tin Concentrates produced	=	109 tons/annum
Value @ £730 net	=	£79,570
All-in Operating Costs @ 2/6d. yard	=	£62,500
Profit before Tax	=	£17,000 per annum

Capital requirements for establishment (assuming mining by contract) would not exceed £40,000, and be related chiefly to jigs and other specialised plant for tin recovery.

The Scotia area is held under Exploration Licence No. EL/3/61.

No.

Reserve Area

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NEW DORSET PROJECT

TIN MARKETS AND PRICES

Dr. John A. Dunn recently prepared a statement on Tin Markets and Prices for the Prospectus of Ardlethan Tin N.L. The following is quoted directly from this statement:-

"The deficiency between Free World tin production and consumption is at present probably of the order of 10,000 tons per year. It is quite unlikely that Communist countries have sufficient tin in excess of their own requirements to make good this deficiency. Furthermore, mainly because of depletion of world reserves, there is little prospect that Free World mine production can be increased to the extent of meeting fully the demand, bearing in mind that consumption will continue to expand above the present level of 160,000-170,000 tons at the long term increment of about 4,000 tons annually. But this trend may be expected to flatten off eventually as the shortage begins to have effect on consumption. The deficiency can only be made good from the U.S. stockpile.

If the U.S. Administration is influenced by the political pressure of U.S. consumers, then the U.S. tin releases in the early stages will keep the London Metal Exchange price down towards £850 a ton, the level at which the Buffer Stock Manager can buy tin so long as he has funds at his disposal.

No matter what lower price the U.S. Administration have in mind for the present, it must eventually recognise the necessity of a higher price level to encourage new production. In my opinion, this level is the Buffer Stock selling range £910-£965. Within the present decade, I would expect the level to move possibly above £1,000 as production becomes necessary from lower grade properties. There will be some (at present indeterminable) price level at which consumption will ultimately fall away."

The London Metal Bulletin of 12/3/1963 quotes provisional figures of the International Tin Council for 1962 -

World Mine Output	143,000 tons
World Consumption	155,000 "
Difference	12,000 tons

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NEW DORSET PROJECT.

VALUE OF TIN IN CONCENTRATES

PRESENT TARIFF ARRANGEMENTS

The present sales arrangement existing between Storeys Creek Tin Mining Co. N.L. and two Sydney Smelting Companies (Lempriere's and Sydney Smelting) provides for alternate shipments, usually of 5 tons, to be sold to each smelter.

The basis of sale contract is the same with each smelter, and is shown in the following example:-

1.	Singapore Quotation 428.50 Malayan dollars/picul (7/3/1963)	=	£E.843:12: 2
2.	London Price - same day	=	£E.855: 0: 0
	Difference		£E. 11: 7:10

Assume 72% Assay

Tariff calculation 1.2% unit deduction

70.8% x $428.50 Malayan

= $303.378 Malayan

Less monetary fixed deduction 4.550

$298.828 Malayan per picul

Conversion: One $M. = 2/10 15/16

16.8 piculs = 1 ton.

£A. = £E. x 1.25

= £A.730.8197 per ton of concentrates

Less Returning Charges 4.5000

£A.726.3197

Additional payment:

Difference	L.M.E. and Singapore 7/3/1963		£E.11: 7:10
	Less 70%		8: 0: 0
			£E. 3: 7:10
	Add	=	£A. 3: 0: 0
			726: 6: 5
			£A.729: 6: 5 per ton of Concs. 72%

Deduct Rail freight, shipping and handling charges Dorset-Sydney = £11:10:0/ton

Net payment = £717:16:5 = 199/6d. per l.t.u.

(This report applies £10 per l.t.u. on average grade concentrate shipped from Dorset 73% Sn.) = £730 per ton net.

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NEW DORSET PROJECT

OVERALL VALUATION OF NEW DORSET AREAS.

70 ? See "Summary of Reserves" supra

Factors:

1. Cubic yards = 23,000,000.
2. Recoverable Tin .20 lb./yd. in 73% Concentrate.
3. Recoverable Gold 1 oz./ton of Tin Concentrates.
4. Tin price - 200/- net per l.t.u.
   = £730 per ton of Concentrates net.
5. Gold at £15 per ounce.

$23,000,000 \times \frac{.20}{2,240} \times £730$	=	£1,496,510
2,050 ounces Gold	=	30,750
		£1,527,260

On 14 year dredging life, throughput per annum is 1,643,000 cubic yards. With recovered value per annum of Tin and Gold equal to £109,090.

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NEW DORSET PROJECT

SUMMARY OF CAPITAL EXPENDITURE

Item No.	Materials	Wages	Total	Man/ Weeks	
1			£32,000		By Contract
2			43,000		" "
3	£300	£200	500	10	
4	1,950	1,950	3,900	107	
5	1,350	150	1,500	7	
6	400	100	500	5	
7	225	75	300	4	
8	1,550	150	1,700	7	
9	2,100		2,100		
10	2,400		2,400		
11	900	400	1,300	20	
12	1,000	1,500	3,000	75	
13	250	1,000	1,250	50	
14	2,850	100	2,950	5	
15	2,200		2,200		
16	2,900	100	3,000	5	
17	9,450	300	9,750	15	
18	2,200	100	2,300	5	
19	500	100	600	5	
20	3,000		3,000		
21	200	160	360	8	
22	975	160	1,135	8	
	£36,200	£6,545	£117,745	336	

Total	£117,745
Working Capital	6,000
Contingencies	5,255
	129,000
By Transfer Dorset Cottages to Dorset Kaolin	9,000
Total Capital required	£120,000

NEW DORSET PROJECT

ESTIMATES OF CAPITAL EXPENDITURE

			Landed on Mine Materials	Wages	Man Weeks
1.	Pontoon Construction	By tender	£32,000		
2.	Dismantling & Re-erection	" "	43,000		
3.	Alteration Screen Drive	Materials - 40 h.p. gear box 750 r.p.m.-30 r.p.m. steel framing	300	£200	10
4.	Alterations to Jigs Primary	New Plates - removal each 4"	1,000	1,000	50
	Secondary	New 3½" shafts	500	500	25
		New Plating			
		Repairs to grids	200	200	10
		Launders	250	250	22
5.	Alterations to Main Drive (Lower)	2 new Bearings & Pedestals 3½"	150	-	
		Alterations to foundation and brackets	50	50	2
		New Pulley - lower Assembly, etc.	150	-	
		Spare 150 h.p. Motor 750 r.p.m.	1,000	100	5
6.	Upper - Main Drive	New Spider & Arms - Friction Gear	100	100	5
		1st Motion Pinion	150	-	
		2nd " "	150	-	
7.	Top Tumbler Bearings	4 cwt. White Metal	150		
		Casting and machining	75	75	4
8.	H.P. Pump 14/12"	New unit - Harland 3750 g.p.m. @ 80' head	1,200	100	5
	6" Service Pump	New unit - Harland 500 g.p.m. @ 120' head	350	50	2
9.	Ladder Rollers	6 off complete with pedestals	2,100	-	
10.	Dredge Buckets	6 off complete Hadfield's pattern	2,400	-	
11.	Rubber lining Tail Chutes ¼" Armortex	Port and Starboard Tail Chutes Jig launders Screen casing Total 1,200 sq.ft. = @ 15/- sq.ft.	900	400	20

			Landed on Mine Materials	Wages	Man Weeks
12.	Electrical Alterations New Cables New Switchgear	Removal, transfer and reconditioning	£1,000	£1,500	75
13.	Painting and General	Reconditioning, painting, etc.	250	1,000	50
14.	Power Lines 3¼ miles	Hydro Commission £875/mile & clearing by wages	2,850	100	5
15.	Launching Paddock	By Contract - 17,500 c.yds. Dragline @ 2/6d.	2,200		
16.	Mine Buildings	Workshop £700 Store £1,000 Garage £500 Tinshed £700 } Cyclone Co. quotes	2,900	100	5
17.	Houses	3 Staff Houses at Gladstone	9,000		
		Purchases of Land	150	200	10
		Fencing	300	100	5
18.	Workshop Equipment	1 Lathe (second-hand)	1,500		
		1 Drill Radial	500		
		Incidentals	200	100	5
19.	Tin Shed Plant	Jig, Launders, Bins, etc.	500	100	5
20.	Transport	1 second-hand 5-ton Truck 1 Utility	3,000	-	
21.	General Services	Transfer Stores, equipment, offices, etc.			
		General Expenses	200	160	8
22.	Roads	By Contract - Bulldozer 200 hours/£4 Grader 40 " /£2:10:0 Culverts £75	975	160	8

285025

024

NEW DORSET PROJECT

SCHEDULE OF TRANSFER

The above is based on:-

1. Decision for transfer of Dredge reached by March, 1963.
2. Productive operations on Dorset Extended terminated April, 1963.

1963

March 31 Tenders called for -

1. Construction of Pontoon and transfer of superstructure.
2. Erection of Staff Houses in Gladstone.

April
- Commence and complete - road to site
  power line to site
  launching paddock.
- Select and accept tender for (a) pontoon and transfer.
  (b) erection of staff houses.
- Purchase land, clear and fence (Staff houses, Gladstone)
- Commence dismantling dredge.

May
- Continue dismantling dredge.
- Transfer transformer station to new site.
- Auxiliary power to dredge - preliminary work pontoon construction.

June
- Commence reconditioning of jigs.
- Continue and complete dismantling of dredge.
- Commence construction of pontoon at site.
- Commence erecting Mine buildings.
- Commence erecting Staff houses.

July
- Continue reconditioning of jigs.
- Continue and complete construction of pontoon.
- Commence transferring superstructure to site.
- Continue erection of Staff houses.
- Complete construction of Mine buildings.

August
- Launch pontoon.
- Commence erecting superstructure on pontoon.
- Continue transfer of superstructure.
- Continue reconditioning of jigs.

September
- Complete Staff houses.
- Transfer staff to Gladstone.
- Commence transfer of stores to site.
- Complete reconditioning of jigs.
- Continue erecting superstructure.
- Commence electrical re-wiring.

October
- Continue erection of superstructure.
- Continue electrical re-wiring.

November
- Continue erection of dredge.
- Continue electrical re-wiring.

December
- Complete erection of dredge.
- Complete electrical wiring.
- Commence and complete transfer of tinshed.

1964

January
- Completion of test runs.

025

NEW DORSET PROJECT

STATEMENT OF OPERATING COSTS

The following estimates are based on costs at the Dorset Extended Area during the past 2-3 years, and an annual throughput of 1,600,000 cubic yards in the New Dorset Area.

		Cost per annum	Cost per yard
1.	Salaries and Wages	£44,000	6.60d.
2.	Power	12,735	1.91d.
3.	Heavy Spares, Materials and Services	20,000	3.00d.
4.	Head Office and all overheads	3,000	.45d.
		£79,735	11.96 pence

285027

026

NEW DORSET PROJECT

NOTES ON OPERATING COSTS AT NEW DORSET AREAS.

1. Performance in the past three years in the Dorset Extended Area shows all-in operating costs at approximately 13 pence per cubic yard dredged.

2. The throughput per hour has averaged for the past 5,000,000 yards, at the rate of 306.6 cubic yards and related entirely to two factors -

   (a) Narrow dredging faces - average being carried has been only 200 ft. (This is related to the valley width and rock exposures.)

   (b) Heavy concentrations of river sand.

3. At Dorset Flats over 15 years of operations, face widths averaged around 400-500 feet, throughput per hour was 326 cubic yards for nearly 25,000,000 cubic yards.

4. New Dorset Areas provide dredging conditions which should allow 320-330 cubic yards per hour and annual throughputs on average running time basis of 110 hours per week of 1,650,000 cubic yards.

5. Costs per yard at New Dorset Areas are stated at 11.96 pence/yard based conservatively on 1,600,000 cubic yards per annum.

   Power costs, materials and services, etc., are based on the last two years' work at Dorset Extended.

NEW DORSET PROJECT

NOTES ON CONSTRUCTION AND DREDGING PROGRAMME IN NEW DORSET AREAS.

1. The proposed erection site for the dredge is adjacent to Hole No. 65, the first paddock being excavated to a depth of around 15 ft. below the contour level approximately 93 feet. A good entry to the site is available from the terraces to the north. Old tailings cover the area and it is a well-drained position for construction of the pontoon, laying down of launching ways and locating of cranes.

2. Mine buildings will be eventually erected to the north of the erection site on higher terrace ground. High tension power lines will be extended to the same point with transformer station.

3. Bush roads are already available from Gladstone to this site and require widening and drainage with a number of culverts.

4. The first dredge course planned will follow a north-westerly course, the paddock widening out to around 5-6 chains as rapidly as possible.

   The course takes in bore holes 11, 67, 10, 9 and 31, with average values well above the base figure of .20 lb./yd.

   With an average depth of 45 ft. equal to 70,000 cubic yards per acre, the acreage dredged will be 22 acres per annum. The McGregor section should provide three years' dredging before turning south-west and downstream to the Aberfoyle section. During this time, river control can be developed and drainage of swamps completed where possible.

5. From the dredging viewpoint, it is considered that these areas will provide, once river control is established, better digging and operating conditions than either the Dorset Flats or Dorset Extended areas.

6. At this stage, planning for the first three years' dredging is adequate.

NEW DORSET PROJECT

ECONOMIC SUMMARY

OUTCOME OVER 14 YEAR PERIOD

Total Profit per attached Statement			£289,130
Add	Working Capital	£6,000	
	Plant Residual Value	20,000	26,000
			315,130
Deduct	Funds Borrowed	50,000	
	Original Capital	70,000	120,000
	Return on Investment		£195,130

Return on £70,000 Investment:

	Total	Per Annum	%
Tax Exempt	£51,066	£3,640	5.2
Taxable	144,064	10,290	14.7
	£195,130	£13,930	19.9

(to nearest £10)

NEW DORSET AREAS

ECONOMIC SUMMARY - 14 YEARS

Year -	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Value of Production	£109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	109,090	£1,527,260
Deduct Operating Costs	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	81,870	1,146,180
Gross Operating Profit	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	381,080
Deduct Interest on Loan	2,500	2,250	2,000	1,750	1,500	1,250	1,000	750	500	250					13,750
Operating Profit before Tax	24,720	24,970	25,220	25,470	25,720	25,970	26,220	26,470	26,720	26,970	27,220	27,220	27,220	27,220	367,330
Deduct Tax	5,100	5,180	5,260	5,340	5,420	5,500	5,580	5,660	5,740	5,820	5,900	5,900	5,900	5,900	78,200
Profits available for distribution or appropriation	£19,620	19,790	19,960	20,130	20,300	20,470	20,640	20,810	20,980	21,150	21,320	21,320	21,320	21,320	£289,130

031

NEW DORSET AREAS

ESTIMATE OF INCOME TAX PAYABLE - 14 YEARS

Year -	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Operating Profit before Income Tax	£24,720	24,970	25,220	25,470	25,720	25,970	26,220	26,470	26,720	26,970	27,220	27,220	27,220	27,220	£367,330
Deduct Division 10 Unrecouped Capital	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	112,000
	16,720	16,970	17,220	17,470	17,720	17,970	18,220	18,470	18,720	18,970	19,220	19,220	19,220	19,220	255,330
Deduct Section 23A (20% Tax Exemption)	3,344	3,394	3,444	3,494	3,544	3,594	3,644	3,694	3,744	3,794	3,844	3,844	3,844	3,844	51,068
Assessable Income	£13,376	13,576	13,776	13,976	14,176	14,376	14,576	14,776	14,976	15,176	15,376	15,376	15,376	15,376	£204,264
Income Tax Payable:															
7/- on £5,000	£1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	24,500
8/- on Balance	3,350	3,430	3,510	3,590	3,670	3,750	3,830	3,910	3,990	4,070	4,150	4,150	4,150	4,150	53,700
	£5,100	5,180	5,260	5,340	5,420	5,500	5,580	5,660	5,740	5,820	5,900	5,900	5,900	5,900	£78,200

SCHEDULE A

032

285032

Proposal to transfer the Dorset Tin Dredge to a new area known as "Black Duck - Macgregor " area

I have been kept fully advised during the progress of prospecting by boring this area, which comprises swamps along the Ringarooma River, down stream from the present dredging site.

Bores 16" in diameter were put down , and the wash recovered from these bores was treated by exactly the same method as that used in prospecting the Dorset Extended area.

The nature of the ground has been proved to be very similar to that dredged at Dorset Flats and Dorset Extended, and an area has been selected comprising 23,000,000. cubic yards having an average tin value of 0.20 lbs per cub. yd.

It is proposed that while transfering the dredge to this new area some alterations be made to increase its capacity, and to improve the treatment plant, and it is estimated that this property will give the dredge a further life of at least 14 years.

I am confident that profitable operations comparable with those achieved at Dorset Flats and Dorset Extended will result.

I first inspected the district in 1943 and have visit-it many times since then. A considerable amount of tin has been won from the terraces, where sluicing methods could be applied, but no attempt has been made to dredge the swamp.

Dredging conditions should be ideal. The ground will be free digging, with little clay. Unlimited clean water is available, and there are no restrictions upon returning dirty water

to the river.

Although it has been estimated that the selected area will have a life of 14 years, I have little doubt that this period will be considerably extended. I record that the area originally selected by me at Dorset Flats was estimated to give the dredge a life of 10 years, whereas the dredge was very profitably operated continuously for 15 years, and then floated to the Extended area , where it has operated for a further 3 years. This is accounted for by the fact that marginal areas were found to be profitable.

Mr Keith Turner and the Mine Superintendent, John Volker, have had wide experience in dredging this type of ground and in controlling the Ringarooma river. They have accurate records of actual dredge performances , costs of dredging and maintenance etc. and are therefore able to make a very safe estimate of what profit can be earned on this property.

The Staff and Employees are almost all local men, trained on this dredge, with their homes and families in the district.

During the eighteen years of dredging operations there has been no industrial trouble, which is a fact to be taken into consideration when endeavouring to arrange for the continuation of operations.

F Grey Wilson

F Grey Wilson
A.S.A.S.M. M. A.I.M.M.

15/3/03.

034

SCHEDULE B

255034

STOREYS CREEK TIN MINING COMPANY N.L.

19th March, 1963.

MEMORANDUM TO: H. K. Turner.

FROM : I. L. Gerke.

PROPOSED RECONSTRUCTION AND RESITING OF DORSET DREDGE.

I have examined the specification prepared by Phoenix Foundry for the reconstruction and resiting of the Dorset Dredge.

This specification is an outline of the work only and in the absence of detail, I would suggest, that the estimated 200 tons of steel fabrication could be carried out for £35,000:0:0.

Alterations and transfer would probably cost a further £45,000:0:0, giving a total cost of £80,000:0:0.

I. L. GERKE.

SCHEDULE C

285035

035

REPORT ON THE SCOTIA MINE
DATED 4/7/1932

by P. B. Nye, Government Geologist,
Mines Department of Tasmania.

(Extract from Report on Mt. Cameron Water Race)

Scotia Mine:

The face of this mine and the ground ahead of it is included in lease 10857/M of 20 acres held by T. Stanley, the remainder of the workings not being leased.

This mine was formerly one of the most productive in the district, and approximately 35 acres of ground have been worked out. It was one of the earliest found, the Scotia Tin Mining Company being formed in 1881. Little or no information is available in connection with the earlier workings. In 1891, the Scotia Company and J. W. Brown were working six faces on what is now the southern part of the workings. These workings were 10 to 15 feet deep and the slate bottom was generally flat with a gentle slope to the north-west. These workings were apparently payable, but later the production decreased. In 1901, however, deeper ground was found in the northern part of the workings, and the mine under Mr. Galloway became the leading producer. The deposit eventually assumed the form of a deep lead with a narrow gutter towards the face. Active mining was carried on until 1905, but the production dwindled in 1906, 1907 and 1908, when it appears to have stopped.

The northern part of the workings have, therefore, been on the Scotia lead, while the southern part was partly on the lead, but also largely on the lead deposits resorted and redistributed by the Ringarooma River when eroding its present course across the Scotia lead.

The lead consists of alternating layers of clayey sand and granitic quartz sand. Gravels are absent except in the surface layers where rounded quartz pebbles are present on the western side. These gravels, however, have probably been formed subsequent to the lead. On the sides of the gutter the bottom "wash" consists of angular quartz pebbles, associated with brownish sandy clay. As far as can be seen from unworked portions of the lead, lignitic clayey aand fills the gutter, while in places large boulders (up to 5 feet) of quartz with rounded edges rest directly on the bottom (slates and quartzites). Roach's No. 1 bore into the bottom layers near the face shows 17 feet of gravel, wash and small wash. At the face, the depth of material above the gutter is approximately 50 feet, while the bores ahead show ground at least 72 feet deep.

The production from the mine is not known with any certainty. According to local hearsay, the Scotia Company produced 500 tons and J. Galloway 500 tons. No records of the workings of the company are available but from 1901 (when the deeper ground was discovered) until 1908, departmental records show a production of 185.35 tons, the greatest yield being 94 tons during 1904.

As regards the continuation of the lead, this has been determined to a large extent by bore holes. Mr. C. E. Ryan bored

3 east-west lines ahead of the face, there being 12 holes in the Nos. 1 and 2 lines, and 4 holes in the No. 3 line - a total of 28 bore holes. In 1917, Mr. H. Roach put down 13 holes as part of a Government boring campaign. One hole was in the bottom wash near the face; the No. 2 line, continued easterly from Mr. Ryan's No. 2 Line, while the No. 3 line was 10 chains ahead of Mr. Ryan's No. 3 line, the position of both sets of bore holes being shown on the attached plan. These boring campaigns prove that the gutter continues in a direction west of north somewhere between Nos. 6 (68.5' 21 (68'), and 28 (68') of Mr. Ryan's bores and No. 13 (72' unbottomed) of Mr. Roach's bore holes. Its further course is not definite, but it is tentatively shown as passing near No. 15 hole of the Government No. 5 line to the north-west. It is probable, however, that it bends towards Mallison's workings and may then cross the No. 5 line at either No. 15 or No. 21 bore.

As regards values, Mr. Roach's campaign showed a value of 0.48 lb. per cub. yd. in No. 1 bore in the workings, and "nil", "Traces", and "little tin" in the other holes. However, none of the other holes were in the gutter except possibly No. 13 and that was not bottomed. It appears from the boring that the upper layers contain little or no tin ore. Mr. Ryan's holes were closer and crossed the lead at close intervals (40 feet) and gave higher results. On No. 1 line bore No. 11 gave 1.78 bore 8 gave 1.028 and bore 9 gave 0.87 lb. per cub. yd., while the remainder yielded from traces up to 0.33 lb. per cub. yd. On No. 2 line, bores 19, 21, 22 and 23 gave respectively 0.317, 0.121, 0.04 and 0.443 lb. per cub. yd. On No. 3 line bore No. 28 gave 0.524 lb. per cub. yd. Excepting for No. 11 which appears to be in a parallel gutter or a bend of the main gutter, the values were obtained in or about the main gutter. Thus the possibility of extending the existing workings depends upon the existence of a narrow width of payable ground following the gutter of the Scotia lead. Some of the holes suggest payable values while others do not and it would appear that a boring campaign with closely spaced holes in and near the gutter is necessary to determine if any extent of payable ground exists.

The mine could only be worked with water from the Mt. Cameron Water Race (either from the Scotia branch race or by delivery by an inverted syphon from the face on the Gladstone side of the river) or pumped from the Ringarooma River. The existing workings were worked with a tail race going through a tunnel to the south-west into the Ringarooma River. This became long and owing to the fall of the gutter to the north, it was necessary to use hydraulic elevators near the face in order to bottom the lead. It is probable that a considerable advantage would be gained by bringing in a new tail race from the river to east of the mine. This would necessitate a tunnel some 15 chains in length, but the tail race would be shorter and might avoid elevators for some time, or would at least lessen the height necessary to elevate the material.

In addition to the deep ground of the Scotia lead, some of the shallow ground at the southern and western sides of the worked-out ground may contain sufficient values to enable it to be worked. Thus on the fall to Newhaven Creek, on the western side of the workings, H. Roach put down 24 bore holes. The

ground ranged in depth from 4 to 9.5 feet, and the values from a little tin ore to 1 lb. per cub. yd. Two holes had a value of 1 lb. per yd., six others had values between 0.5 and 1 lb. per cub. yd., seven others had values between 0.25 and 0.5 lb. per cu. yd., and five more between 0.1 and 0.25 lb. per cub. yd. With a water supply some at least of this shallow ground would be profitably worked.

(Extract from Report of Secretary for Mines)

Year ended December 31st, 1905.

REPORT BY MINES INSPECTOR GRIFFIN

on

BUCKET DREDGING AT GLADSTONE

NORTH-EAST TASMANIA.

The Gladstone Tin Development Company started their No. 1 bucket-dredge on the Ringarooma River, near Gladstone, in the early part of August. A series of breakages took place at the commencement, and it was found that the one high-speed engine employed could not be employed to drive the fast-running centrifugal pump and slow-working buckets and trommel successfully. A second engine was obtained for the buckets and trommel. A further delay was caused through having to dredge a way through a clay and slate point before getting into the regular stope of wash-dirt. Progress has since been made, with varying success. The flat was formerly heavily timbered, and now being covered by tailings from 3 to 5 feet in depth, it is most difficult to cope with the stumps, tree-trunks, and branches buried up therein. Some fairly-good weekly returns have been obtained, and I think it may be fairly predicted that bucket-dredging will prove a success on our tinfields. The dredge under review was badly designed to commence with; this, followed by faulty workmanship, has caused much trouble, and has no doubt given rise to an erroneous impression that bucket-dredging is not suitable for tin-getting. I am not of this opinion, and see no reason why bucket-dredging, which I hold is the only means by which the river beds and adjacent flats can be worked, should not be a success on the Ringarooma River.

039

PMJ/1

Department of Mines, Tasmania

SCHEDULE E (a)

Hobart, 1st August, 1962

A

285039

TELEPHONES:

Administration and Accounts ... ...
Mines Inspection ... ... } Hobart 2 4041 - 2 lines.
Explosives and Inflammable Liquids ... ...
Geological Survey ... ...

Assaying and Metallurgical Research ... Launceston 4 2421

Mr. H.K. Turner,
Director
Storeys Creek Tin Mining Co. N.L.,
100 Collins Street,
MELBOURNE C.I.
Vic.

Dear Sir,

POSSIBLE DREDGING GRAVELS

I thank you for your letter of 31st July and note that you propose to do some more drilling in the Aberfoyle - MacGregor - Black Duck area.

In further consideration of the possible gravel reserves for your dredge in the area north-west of Gladstone an appraisal has been made of the Scotia lead. This was on the basis of stripping and battering with earth-moving equipment down to a level whence it could be dredged. The following estimates emerge :-

	c.y.	lb/c.y.
Gravel Reserves (6 blocks) including direct overburden to be stripped	4,400,000	0.49
Side Batter plus Dredge Courses between blocks	5,000,000	-
	9,400,000	0.23

If these could be added to your above reserves the proposition may become economic, and more so as it would lead the dredge to the edge of the marshes.

However the great unknowns to me are means of passage for the dredge from Black Duck to Scotia and thence from the vicinity of Brown's Prospect into the Marshes. On these questions you may have some information.

Sheet No.

From Department of Mines, Tasmania, to H.K. Turner SCHEDULE E (a)

285040

040

I enclose a plan of the Northern Plains which shows the leads. It seems to me there is room for a considerable amount of testing.

Yours faithfully,

(J.d.Symons)
DIRECTOR OF MINES

Kindest Regards & I look forward to discussing this with you.

c.c. The Superintendent,
Dorset Tin Division
[illegible]ICK

NOTE.—All communications on Departmental business to be Addressed to the Director of Mines, G.P.O., Box 124 B, G.P.O. Hobart.

SCHEDULE E (b)

B

Department of Mines, Tasmania

PMJ/1

Hobart, 24th September, 1962

TELEPHONES:

Administration and Accounts ....
Mines Inspection ....
Explosives and Inflammable Liquids ....
Geological Survey ....
} Hobart 2 4041 - 2 2 lines.

Assaying and Metallurgical Research ....Launceston 4 2481

285041

Mr. H.K. Turner,
Director
Storeys Creek Tin Mining Co. N.L.,
100 Collins Street,
MELBOURNE C.I.
Vic.

Dear Sir,

SCOTIA LEAD

I refer to my letter of the 1st August in which I quoted the gravel reserves in these leads. The estimate has been revised using a lower cut-off grade and this has more than doubled the gravel reserves. Details are as follows :-

	c.y.	lb/c.y
Gravel Reserves (2 blocks) (Area 65 ac. Av.Depth 108 ft)	11,400,000	0.34
Dredge Course between blocks (1,750 feet)	300,000	-
Side Batter	1,400,000	-
	13,100,000	0.30

This now becomes, I think a more interesting proposition, especially as a few more lines of holes might well prove a considerable extension of payable gravels in the lead, to the north. The dredge course between the blocks which is a considerable obstacle to the working, is not fully tested and further holes could improve the picture there also.

Yours faithfully,

(J.G.Symons)
DIRECTOR OF MINES

SCHEDULE F

285042

ESTABLISHED 1847
TELEPHONE 2 2167
AFTER HOURS 4 1079, 4 2381
P.O. Box 13, South Launceston

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MINING PLANT

156-164 Wellington St.
LAUNCESTON
TASMANIA

13th September, 1962.

Mr. H.K. Turner,
Storey's Creek Tin Mining Co. N.L.,
100 Collins St.,
Melbourne, Vic.

Dear Keith,

Dorset Dredge.

Following discussions with yourself and Mr. Volker and our subsequent visit to your mine on Thursday, 6th September, I now take pleasure in advising that we have investigated the problem of modifying and moving your dredge to the new site at Black Duck, and submit hereunder our comments and proposals for your consideration.

Firstly, the cost of carrying out our investigations in accordance with Mr. Volker's letter dated 24th August on buoyancy, strength of main drive, extensions to bucket ladder, tailing disposal and screen drive, etc., and the preparation of the necessary tender documents and drawings (approximately ten sets off) would be £485 Os. Od. This does not include for full working drawings, but does include for the preparation of adequate tender drawings. The possible redesign of treatment plant is not included either, as we do not know what you require in this regard. We would also ask you to supply, free of charge, the necessary number of dyeline prints for us to modify in red pencil or ink for submission with the tender documents.

The carrying out of these investigations and the subsequent preparation of these drawings and documents would require five weeks from receipt of your notification to proceed. However, should it be found necessary to greatly modify the main drive, additional time and cost for preparation of drawings could be involved.

Storey's Creek Tin Mining Co. N.L. 13th September, 1962.

As far as the pontoon is concerned, preliminary estimates show the cost of a new pontoon, erected on site, lengthened approximately twelve feet at the fore end to give additional bouyancy and to suit the extra length of ladder, would be approximately £32,000. The new pontoon would also have a depth of 8'6" instead of 8'2" to give the additional freeboard as desired by yourselves. Bottom plating would be 5/16" thick, deck, sides, well plating and bulkheads would be ¼" thick.

The cost of dismantling, moving and re-erecting the old pontoon, including lengthening as aforesaid, replacing fifty per cent. of deck and bottom plating, all well plating, and twenty per cent. of outside plating, and the installation of additional transverse bulkheads in the pontoons forward, would be approximately £30,000. As the actual condition of the structure is imperfectly known it is possible that this figure could be exceeded, although a contingency sum has been included in the £30,000 to make some allowance for this eventuality.

It is estimated that the time saving in building a new pontoon as against shifting the old one would be six months, providing the new pontoon were ready on the Black Duck site for upper erection work to start immediately.

Should we be successful in obtaining the contract for the construction of the new pontoon we would make no additional charge for drawings and design for this item, but should we not be successful we would require the sum of £500 0s. 0d. for design and working drawings additional to the £485 mentioned above.

Further, should we be successful in obtaining the contract for shifting and re-erecting the remainder of the dredge we anticipate that the total time required would be six months from date of order for the construction of the new pontoon, and a further six months for dismantling and re-erecting the remainder of the dredge, utilising certain of your men to assist ours with the dismantling and re-erection work. We understand that you would do all the electrical installation and wiring, and presume your men would also do any miscellaneous timber work and affixing of corrugated iron sheeting to walls and roof, etc., as well as rendering general assistance.

We have already prepared full preliminary estimates of what we consider the job is likely to cost, and would be very happy to discuss them with you at any time. As previously advised, I will be in Launceston on Friday, 21st instant, and will be available in Melbourne on 25th and 26th instant for discussions should you so desire. I feel that by joint effort between your company and ourselves costs could be kept to an absolute minimum.

Storeys Creek Tin Mining Co. N.L. 13th September, 1962.

I trust that the aforegoing is of interest to you, and thank you for the opportunity of investigating your proposals.

With kind regards,

Yours sincerely,
PHOENIX FOUNDRY LIMITED.

Bruce S. Thompson

B.S. Thompson
GENERAL MANAGER.

c.c. Mr. J. Volker.

CONSOLIDATED HOME INDUSTRIES LIMITED
Incorporating
CONTEMPORARY HOMES PTY. LTD.

SCHEDULE G(a)

In Reply Please Quote ES/JMF

285045

Build Better for Less

Reg. Office: LOWER DANDENONG ROAD, BRAESIDE, VICTORIA. Mailing Address: P.O. Box 52, MENTONE, S.11. Phone: Office 919791 (9 lines). Sales 919793

15th March, 1963

Mr. H.K. Turner,
Aberfoyle Tin N.L
11th Floor, 100 Collins Street,
MELBOURNE C.1

Dear Sir,

We have pleasure in submitting our quote for the supply and erection of 3 home units in Gladstone, Tasmania.

	The "President"	The "Colorado"	The "Californian"
Price per Unit	£3,089	£3,275	£3,622

With the exception of 3 variations, these units are identical to Ardlethan and contain all fittings and additional cupboard space for the "President" as requested by your Company.

The three variations to the Tasmanian units are as follows:-

1. The Builder to install a septic tank and internal toilet to each unit.
2. Floor tiles to wet areas are not included and all internal floors to be fine sanded and covered with a plastic sealer.
3. White Ant treatment not required.

Attached please find two copies of each Plan as requested.

Yours faithfully,

CONSOLIDATED HOME INDUSTRIES LIMITED

E. Schmidt

(E. Schmidt) Cost Accountant

SCHEDULE G(b)

285046

Please address letters to BOX 621, P.O., LAUNCESTON, TASMANIA. Telephone: 4—2481

Telegraphic and Cable Address: "WOVENWIRE", LAUNCESTON, TASMANIA.

CYCLONE COMPANY OF AUSTRALIA

LIMITED

(INCORPORATED IN VICTORIA)

FAWKNER AVENUE, KING'S MEADOWS, TASMANIA

KEH/jh

11th October 1962

Storeys Creek Tin Mining Co. N.L.,
HERRICK.

Attention Mr. J. Volker

Dear Sir,

Buildings & Security Fence, South Mount Cameron

Thank you for your letter dated 27th September. We are pleased to quote for your requirements as follows:-

1. Workshop Building. 30' span 40' long 11'7" high to eaves. Including 1 x 10' slide door on Bangor track, with 2 louvre windows 3' x 2'6" and four sheets of Alsynite for roof lighting. £633.15. 0 erected on site.

1. Store Building incorporating Office. 30' span 50' long 11'7" high, office covered hardboard 20' x 10', 1 Personal access door, 1 10' x 11' slide door on Bangor track, 6 louvre windows, 5 sheets alsynite for roof lighting. £905. 0. 0 erected on site.

1. Building. 20' span 30' long, 11'7" high including 1 10' x 11' slide door on Bangor track, 1 personal access door, 2 louvre windows, 3 sheets of alsynite for roof lighting. £471. 8. 9 erected on site.

1. Building. 30' span x 40' long x 11'7" high including, 1 10' x 11' slide door on Bangor track, 1 personal access door, 2 louvre windows, 4 sheets alsynite for roof lighting. £647. 7. 6

Security Fence. To supply and erect 7' railless security fence to standard Cyclone specification, forming a square 210' x 210' including 1 pair of gates 14' wide. £565. 7. 0.

All prices are quoted on an F.O.R. Launceston basis. Gravel and cement has not been taken into account and it is anticipated that this would be supplied on site by your goodselves. Erection includes pouring of foundations but does not include concrete floor.

285047

Mr. J. Volker

4th October 1962

It is expected that work could commence within 14 days of acceptance of firm order and completion within 30 days of commencement.

Thank you for the opportunity of quoting and we look forward to your early reply.

Yours faithfully,

CYCLONE COMPANY OF AUSTRALIA LIMITED

K. E. Hendstock
Sales Supervisor

Schedule 12 (d)

285018

4217

ABERFOYLE HOLDINGS LTD

Establishment of Operations - In Terms of Time and Finance

TRANSFER OF DORSET DREDGE

PROGRAMME	1963 QUARTER ENDING				1964 QUARTER ENDING				1965 QUARTER ENDING				CAPITAL	REMARKS
	March 31	June 30	Sept 30	Dec 31	March 31	June 30	Sept 30	Dec 31	March 31	June 30	Sept 30	Dec 31		
OPERATIONS } PRESENT LEASES														
DECISION & FINANCE														
TENDORS CALLED														
PONTOON CONSTRUCTION		30 000	2 000										32 000	
DISMANTLING DREDGE		7,000	8 000										15,000	
SITE PREPARATION	2 000												2,000	
ROADS	2,000				PRODUCTIVE OPERATION →								2 000	
POWER SUPPLY	2,000												2 000	
DREDGE ERECTION & NEW EQUIPMENT			20,000	29 000									49,000	
MINE BUILDINGS				5 000									5,000	
HOUSING		7 000	4 000										11 000	
CONTINGENCIES					7 000								7,000	
WORKING CAPITAL					6,000								6,000	
EXPENDITURE	6 000	44,000	34,000	34,000	13 000								131,000	
QUARTER ENDING	March 31	June 30	Sept 30	Dec 31	1964 March 31									
												Less Transfer	11,000	
													£ 120 000	

NOTES Housing £ 11,000 - transfer arrangement with Dorset Kaolin

——— ——— Indicates commencement of productive operation

▬▬▬▬ Indicates period of time for each segregation

A K ... MAIMM

4218

BELTZ

MACGREGOR

CANARY

ROY

WORKINGS

ABERFOYLE

RINGAROOMA

BLACK DUCK

Swamp

Pond

Swamp

No Levels available

RIVER

VULCAN

N

5 cm

4218

SCHEDULE (H). 63-354

PAUL A PHELPS 1 YORK ST	AUTHORISED SURVEYOR LAUNCESTON		11/62
PROSPECTING MACGREGOR AREA FOR DORSET TIN DIVISION			
SCALE	SHEET NO	DATE	
3 CHNS — 1"	1 OF 1	7th March 1963	Paul A. Phelps

Note!
All measurements by Stadia

16" Boreholes Depth 47' No. 15 0 0 0 3 Value 9004 R.L.

6" Boreholes Depth 47' No. 15 0 0 3 Value 9004 R.L.

285619

SCHEDULE (I)

AMG 577550 mE, 5475200 mN

AMG 585580 mE
5467580 mN

BOOBYALLA PORT (abandoned)

FOSTERS MARSHES

RINGAROOMA RIVER

Edge of marshes

The Dog Scrub

Maytield

BROWN'S PROSPECT

WORKINGS

DELTA WORKINGS

MACGREGOR WORKINGS

BELT

TAYLOR

CANARY

ROY (granite bottom)

Mac Gregor Lagoon

GREAT NORTHERN PLAIN

MT. CAMERON WATER RACE

Dugarde Ck

DUGARDE CK. WORKINGS

DRY CUT WORKINGS

ABERFOYLE WORKINGS

RICHARDSON'S WORKINGS

HOME RULE WORKINGS

BLACK DUCK WORKINGS

ECHO

BOOMERANG

Shallow superficial deposits over Sm

VULCAN

NATIVE LASS WKGS

DOONE WORKINGS

SCOTIA WKGS

SCOTIA LEAD

LOCHABER WORKINGS

Big Whistle Ck

Tamar Ck

RINGAROOMA RIVER

Native Lass Ck.

Sm with some superficial Tertiary & Quaternary deposits

Alhambra Ck.

GLADSTONE

APPROX. NORTH

LEGEND

QUATERNARY

- Qrs — Aeolian sands, unfixed dunes and drifting sands
- Qrb — Beach sands
- Qa — Alluvial deposits, sands, muds and shingle
- Qb — Heavy black clay soil flats
- Qc — Older coastal deposits, fixed dune and interdune sands and interdune lagoon muds
- Qp — Loose or consolidated pebble deposits, marine or alluvial terraces
- Qs — Residual sandy soil derived from Tertiary drifts
- Qf — Grey and black swamp soils of button grass flats and swampy watercourses

TERTIARY

- Td — Alluvial, lacustrine and estuarine deposits (drifts), sands, gravels, pebble beds, clays and lignite

JURASSIC ?

- Jd — Dolerite

PERMIAN

- Pm — Marine and estuarine sandstones, conglomeratic sandstones and siltstones

DEVONIAN?

- Dg — Granite

SILURIAN ?

- Sm — Quartzites micaceous quartzites and slates
- Fossil locality

BLACK DUCK / MACGREGOR TESTING OF ALLUVIALS

APPROX. SCALE

0 20 40 80 120 160 hains

0 ½ 1 1½ 2 miles

AMG REFERENCE POINTS ADDED

4219

285050 63-354

STOREYS CREEK TIN MINING N.L.

DORSET TIN DIVISION

GEOLOGICAL MAP
FOSTERS MARSH — GREAT NORTHERN PLAINS AREA

DRAFTING BY R.HARE & ASSOCIATES		APPROX. SCALE: 1 inch = 30 chains
Drawn: I.R.	REVISION	5 cm
Date: 14. 3. 63.		