

THE
MONARCH
AREA
by
T. D. Hughes

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MICROFILMEDTHE MONARCH AREAABSTRACT

After a drilling campaign in 1964-5, the B.H.P. Co. estimated that alluvial deposits in the Monarch area, consisting of 3 million cu. yds of material, contained 450 tons of tin of an average grade of 5.6 oz per cu. yd of 70% Concentrate. I consider this figure too low in both amount and grade, principally because the heads of the leads were not drilled. There was also a possibility of payable tin in deeper ground in the neighbouring Bonser Creek area. Very limited drilling failed to find a payable lead in the Bonser Creek Area, but no drilling was carried out in the Monarch Area.

LOCATION AND ACCESS.

The Monarch Area is situated on the north west slopes of Mt. Cameron, a granite mass rising to nearly 2,000 feet in North East Tasmania. A fair road (8 miles) connects with Herrick the railhead, 70 miles from Launceston.

HISTORY AND TITLE

Although Mines Department records show only tin production from this area from 1928-1936 (71.5 tons of metallic tin) mining operations here have been carried out from the beginning of the century.

In 1964 the B.H.P. Company took an option from Mr. V. Wood, the holder of S.P.L. No. 399 of 14^{50. FILES} acres of Crown Land, but abandoned it the next year after carrying out geological and geophysical surveys and a drilling program. Later in 1965 a similar option was taken up by Austminex Pty. Ltd., but after a short drilling program this, too, was abandoned.

In March, 1966, Kathleen Investments (Australia) Limited signed an option agreement with Mr. Wood, which was a free option of 1 year, a 12 months extension for £1,000 and a purchase price of £20,000.

In the Autumn of 1966, the Company carried out a short testing campaign by backhoe and in early summer of the same year a limited drilling program in the Bonser Creek Area. Winter investigation is not satisfactory on the flat water-logged leads.

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GEOLOGY

The area covered by the S.P.L. consists of a sedimentary series of rocks (the Mathinna Group) intruded by Devonian granite. It is considered that Mt. Cameron itself formed a granite dome covered during the Tertiary by a thin layer of sediments. Later in the Tertiary, these sediments were eroded away, together with the tin veins occurring near the contact. Tertiary streams concentrated this tin in leads running from the mountain to the East, South and West. To the North, that is in the North-western part of the area, there was a later marine transgression which diluted the tin values.

PRESENT CAMPAIGN

After an examination of the area and a study of the work done by the B.H.P. Company it was felt that the assessment by that Company was too low because;

1. The drilling in the vicinity of the leads was too widely spaced.
2. The upstream portions of the leads above the old workings were not tested.
3. Further reserves might be obtained in the Bonser Creek Area.

During the Autumn of 1966 a limited testing campaign was undertaken with a back-hoe. In a period of 2 weeks about 50 holes were dug. Unfortunately in the most promising areas the hoe could not bottom the leads. In one hole that bottomed at 11'6 only the last foot showed tin to the value of 10 lbs. per cu. yd.

In October, 1966 a percussion plant was hired from the Department of Mines. At this time of the year the flats are too wet for a heavy drilling plant, so it was decided to commence drilling the terraces in the vicinity of Bonser Creek. Only 7 holes were put down before the plant was removed for other commitments at the end of the year. Although drilling revealed good wash stones and plentiful pyrite, tin values were very low (see appendix)

RECOMMENDATIONS

The very limited exploration carried out by this Company has added little to the previous information, principally because no drilling was carried out during the summer months. Consequently the area is still worthy of investigation using a suitable drill - a Caldwell Type should be satisfactory.

a. Monarch Area

Drilling should proceed along the lines indicated on the plan at 100' intervals. Most of this drilling is to test the leads higher up than where previous Companies have bored. This program would involve about 60 bores averaging 15 - 20' in depth.

b. Bonser Creek Area

The drilling, on the terrace ground at Bonser Creek failed to show interesting tin values, but a short campaign of shallower holes may indicate better values.

There is no surface indication of the direction of a Tertiary tin-bearing lead and it may be, that like the Endurance Lead to the South, it parallels the hill side. Consequently a line of holes (6 - 10), 100' apart should be drilled out from the granite contact in the vicinity of the previous drilling. A line of holes should also be put down along the line of back-hoe holes where some prospects, but no bottom, were encountered.

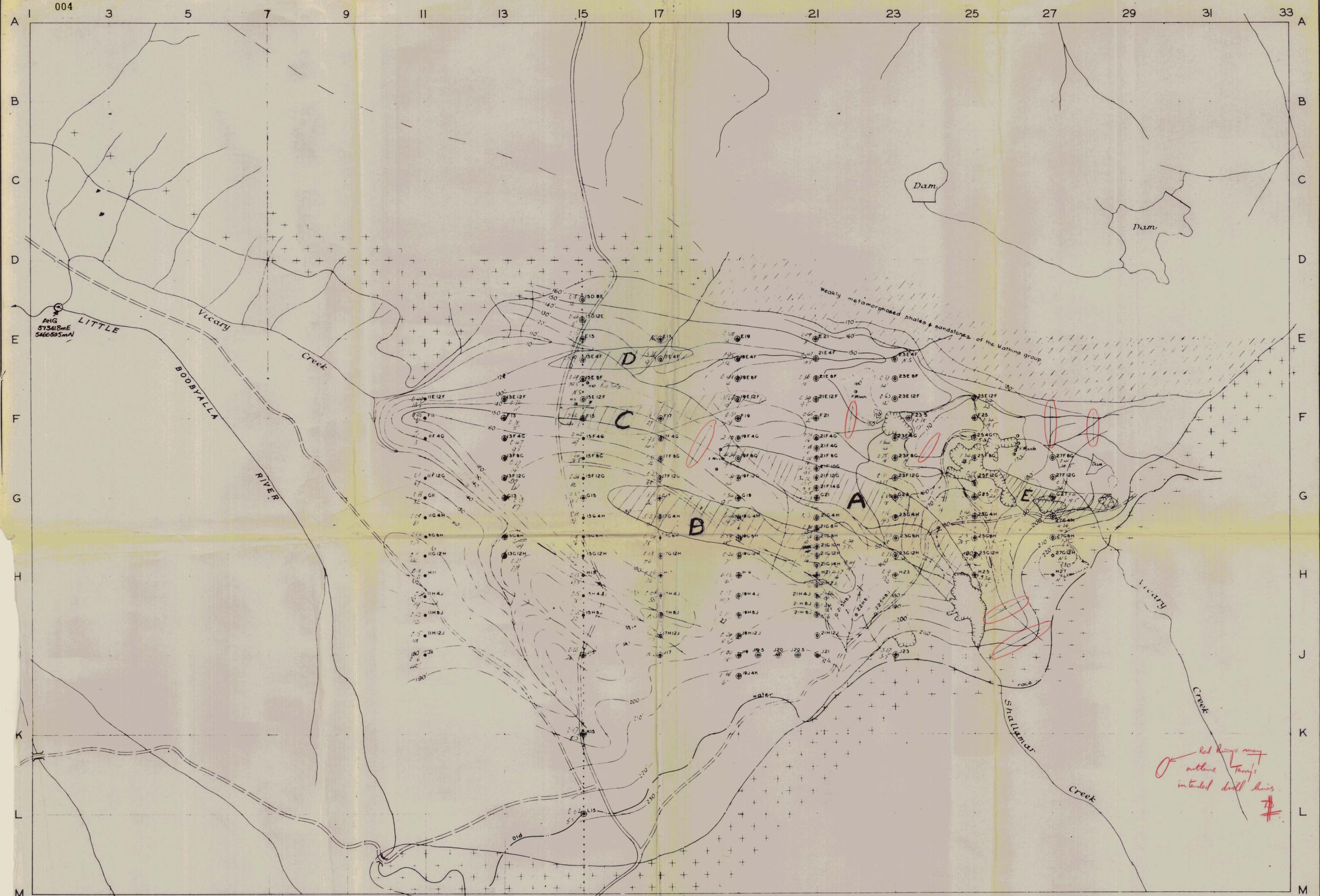
These holes are situated between the road & the little Bookmyalla River ~~about~~ some 1 1/2 miles S.W of the main Monarch Workings

APPENDIX

<u>BORE NO</u>	<u>FOOTAGE</u>	<u>MATERIAL</u>	<u>TIN (OZ/CU.YD)</u>
K1	0 - 5	Sand	0.1
	5 - 10	Sand and Gravel	0.1
	10 - 15	Clay and Sand	0.1
	15 - 20	" "	0.2
	20 - 25	Sand and Clay	2.4
	25 - 30	Gravel, Clay & Sand	1.2
	30 - 35	Gravel and Sand	1.3
	35 - 40	" "	1.8
	40 - 45	Gravel, Sand & wash	0.6
	45 - 50	Gravel and Sand	0.2
	50 - 55	" "	0.1
	55 - 60	Clay and Sand	Trace
	60 - 65	Clay and Water	Trace
	65 - 70	" "	Trace
	70 - 75	" "	Trace
	75 - 80	" "	0.2
	80 - 85	Clay, Sand & Gravel	0.3
	85 - 90	Gravel, Sand & pyrite	0.4
	90 - 95	Gravel & Clay	1.1
	95 - 100	Gravel & Wash	0.3
100 - 105	" "	0.1	
105 - 108	" "	1.0	
	108	Granite Bottom	
K2	0 - 10	Sand and Gravel	Trace
	10 - 15	Sand	0.5
	15 - 20	"	2.3
	20 - 25	Sand, Clay and Pebbles	1.6
	25 - 30	" " "	0.9
	30 - 40	Sand, Clay, wash, pyrite	Trace
	40 - 55	Water, Sand, Clay, pebbles	Trace
	55 - 60	Heavy Wash and Blue Clay	Trace
	60 - 66	Wash and clay	Nil
		66	Granite Bottom
K3	0 - 5	Surface	Trace
	5 - 10	Sand and Gravel	0.2
	10 - 15	Sand and Clay	2.0
	15 - 20	Sand, Clay and wash	0.4
	20 - 25	Sand, Gravel, Clay and wash	0.3
	25 - 30	" " " "	0.1
	30 - 35	Blue Clay	0.1
		35	Soft Granite Bottom
K4	0 - 5	Surface	Trace
	5 - 10	Sand and Gravel	0.8
	10 - 15	Gravel	0.1

<u>Bore No</u>	<u>FOOTAGE</u>	<u>MATERIAL</u>	<u>TIN (OZ/CU.YD)</u>
K4	15 - 20	Gravel and wash	0.4
	20 - 30	Heavy wash	0.7
	30 - 35	Clay, Wash and pyrites	0.5
	35 - 47	" " "	0.1
	47	Soft Granite Bottom	Trace
K5	0 - 15	Sand and Gravel	Trace
	15 - 20	Wash, Sand and Gravel	Trace
	20 - 35	Wash and Clay	Trace
	35 - 45	Water and Clay	Trace
	45	Soft Granite Bottom	
K6	0 - 5	Surface	0.3
	5 - 10	Dense white clay, sand, gravel	0.2
	10 - 15	Sandy clay	0.2
	15 - 20	Sandy clay and wash	1.8
	20 - 25	Gravel and some pebbles	1.4
	25 - 30	Granite wash and gravel	0.4
	30 - 35	" " "	0.2
	35 - 43	Dense Blue Clay	0.1
	43	Soft Granite Bottom	
K7	0 - 25	Sandy Clay	0.2
	25 - 45	Gravel and Sand	0.3
	45 - 60	Sand, Gravel and clay	0.5
	60 - 80	Brown Clay and pyrite 75 0 80 heavy wash, water	Trace
	80 - 90	Wash, Gravel & sand	0.2
	90 - 108	Sand, Gravel and wash	0.4
	108	Granite Bottom	

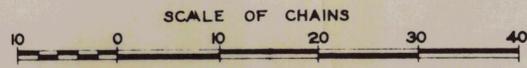
James D. Hughes
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 31.3.67.



- Road
- Creek
- Topographic contour
- Granite
- Metamorphics
- Bore
- Seismic traverse
- Tailings dump

- Hand auger hole (2")
- Sides 6' percussion
- Conrad hole deepened by sides
- Conrad 16' pit
- Old drill hole (Rio Tinto - V Woods)

**SURFACE PLAN
VICARY CREEK AREA
MONARCH TIN PROSPECT - N.E. TASMANIA**



Red lines may outline Terry's intended drill lines.

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BLOCK	APPROX. VOL. & YDS	NO. DRILL HOLES	NO. OF PITS	TWS
A	1,304,380	20	60	218
B	745,160	15	60	125
C	522,720	17	58	85
D	174,240	9	35	17
E	162,600	21	56	25
TOTAL	2,909,300			470