

REPORT ON MIAMI AND WEST MIAMI MINESFINGAL DISTRICTLOCATION
& ACCESS:

The area is located five miles north-north-west of the Township of Fingal.

Access is gained from Fingal by way of the road to Mathinna for a distance of $5\frac{1}{2}$ miles, thence by cart track in a westerly direction for one mile.

Fingal is connected by rail and road with the principal centres of the State.

PREVIOUS
LITERATURE:

No official reports have previously been made on this area. Short notes relating to the mines occur in the following publications:-

- Mineral Industry of Tasmania - J. Harcourt Smith,
1898 - 1899.
- Mineral Industry of Tasmania - W.H. Twelvetrees,
1900 - 1901.

HISTORY:

The area now covered by Miami Mine was originally leased in two acre sections as Gold Rewards for five years to A.L. Pillgrem and R.J. McKercher respectively in November, 1895. Both sections were transferred to F.M. Clark in August, 1897, and again to T.L. Ingham early in 1898.

In April, 1898, the area was acquired by the Salmon Gold Syndicate of Tasmania Limited, a Company formed in England. The operations of the Company extended chiefly over the years 1898 - 1902. By the end of 1898 two adits had been driven, the lowest at 200 feet below outcrop of reef. Two hundred feet of driving had been undertaken at the latter level and main shaft sunk from surface to a depth of 320 feet. At this period upwards of 300 tons of quartz was stacked at grass.

A 10 head battery driven by a 14 h.p. portable engine was erected in the first half of 1899, but owing to lack of water only one crushing was accomplished up to the end of 1900. By the latter date levels had been opened out from main shaft at 300 and 400 feet levels. It is recorded that the quartz proved payable down to 200 feet, was poor at 300 feet, and at 400 feet contained little or no free gold.

The following returns, not necessarily complete, taken from "The Mineral Industry of Tasmania" show the tonnage and gold content of the ore extracted from Miami workings.

Period	Tonnage	Gold in oz.
3 mths. ended 30th Sept. 1900	575	526
" " " " June, 1901	207	114

Within recent years shallow surface works have been undertaken by Brock Bros. and J. French on veins immediately west of the old workings.

At the present time members of Iris Gold Mining Company, No Liability, are continuing with the prospecting, and in March, 1940, lodged applications for three Mineral Leases 29M/40, 30M/40 and 31M/40 of five acres each covering Miami Mine.

West Miami area was first leased to T.L. Ingham in May 1898, and the mine was later developed by Salmon Gold Syndicate of Tasmania Limited up to 1903. A parcel of stone was treated in the Company's battery during the quarter ended March, 1904, but details of the tonnage crushed and gold content of the ore are not available.

TOPOGRAPHY:

Drainage is effected by means of Mullens Creek and its small tributaries and the water of the system flow easterly to join South Esk River.

Alluvial flats extend along the main valley floor and from the edge, hills rise sharply and attain heights ranging from 300 to 400 feet above creek level. Conditions are thus favourable for the development of lodes, outcropping on the hillsides, by means of adits.

GEOLOGY:

The rocks in the locality consist of Silurian quartzites, sandstones and slates of the Mathinna Group.

The structural features are not clear owing to lack of good exposures, but the general strike is north-westerly and the angle of dip varies for 30° to 75°. The strata dips both towards the north-east and south west.

Folding is indicated from the above and faulting is apparent in the vicinity of the lodes.

MIAMI MINE:

Abandoned sections 146/G, 147/G and 1029/93G.

The outcrop of principal reef is situated in south-east of the area, 3/4 chains south of and approximately 300 feet above Mullens Creek.

This reef consists of a quartz vein containing varying amounts of finely distributed pyrite and arsenopyrite with at least one shoot of gold.

The strike of the vein is W 8° N it dips to the south at 75° to 80°. It is exposed at surface in shafts and trenches over a distance of 225 feet, where it varies in width from 18 to 30 inches.

At the western end the reef appears to split into several branching veins trending westerly and west north-westerly, but insufficient work has been carried out to establish the continuity of these veins. They are exposed at various points in trenches, pits and a shaft spaced along a zone five chains in length. The most important of these veins was opened by the Company to a depth of 25 feet and later deepened by Brock Bros. to 60 feet. This is situated 4 1/4 chains west - north - west of Miami main shaft. The lode extends to the west of shaft in surface stopes and a trench for 70 feet and varies in width from 3 feet to 15 inches. An adit was commenced by Brock Bros. at a point 170 feet to the north east of, and 70 feet below, the shaft with the object of cross-cutting the vein, but was discontinued after 10 feet of driving.

Surface workings are illustrated on the accompanying Plan No. 1.

Underground workings undertaken by the Company on Miami reef consist of two adit cross-cuts with drives, and main shaft passing through the adits to two lower levels. These are shown on Plans No. 2 and 3.

SOUTH ADIT:

This commences 75 feet below outcrop on south side of hill and was driven 185 feet north-north-west to cut reef at main shaft. From the latter a drive extended 70 feet west and the reef was stoped almost to surface, over a length of 45 feet, on quartz reported to have yielded gold at the rate of 1 oz. per ton.

At 176 feet from adit portal an easterly cross-cut reached the objective in a distance of 15 feet and a drive continued on the reef for 45 feet. Where cut the reef is three feet in width but diminishes towards the face to three inches in the back, and splits into leaders below. At west end of drive stoping extends upwards to a height of 12 feet above the level. Fifteen feet east of the stope a winze of unknown depth was sunk below the level. At ten feet further in the same direction a north-west trending formation four feet wide and consisting of numerous quartz leaders, joins the reef on south side.

MAIN ADIT:

This is 125 feet below South Adit, but is located on north side of hill on fall to Mullen's Creek. It represents a cross-cut driven 550 feet south to chamber of main shaft. From the latter, drives were excavated 200 feet easterly and 210 feet westerly, but are now only accessible for approximately 20 feet in each. The small section of the reef exposed at present varies in width from two feet on east side of shaft to four feet of solid quartz on west side. The walls are well defined and the dip constant at 75° to 80° towards the south.

A section of the mine compiled from surveys up to 1902 show stoping commencing 12 feet above the level on east side of shaft. This extends over a length of 40 feet and to a height of 60 feet. On west side of shaft stopes extend upwards from level for 98 feet over a length of 90 feet, except for a small section immediately above the level between two rises.

From end of eastern drive a cross-cut was put out southerly for 130 feet/. At 85 feet in cross-cut, driving in a south-east direction was undertaken over a length of 174 feet. The object of the latter work cannot be ascertained without re-opening the level.

MAIN SHAFT:

This shaft was sunk 200 feet vertically from outcrop to Main Adit level and afterwards continued for a further 200 feet. Cross-cuts were driven to the reef and levels opened at 300 feet (drives 213 feet east and 122 feet west) and 400 feet (drives 187 feet east and 237 feet west) from surface respectively.

Threewinzes, commenced from Main Adit drive, were sunk to varying depths, one of which connected with the 300 feet level.

No stoping appears to have been carried out at either 300 feet or 400 feet.

SAMPLING:

With the object of ascertaining the gold possibilities of the Miami veins under present economic conditions a sampling campaign was undertaken during the examination.

The position of samples taken together with other details are shown on the accompanying plans, Nos. 1 and 2.

The following table shows results of assays for gold and silver carried out on samples by the Government Chemist and Assayer:-

TABLE NO. 1

Sample No.	Regd. No.	Location	Width	Assay Value per ton.	
				Gold oz. dwt. grs.	Silver oz. dwt. grs.
1	134	Shallow shaft 22 ft. east of main shaft.	2'	0. 0. 6.	0. 0. 6.
2	135	Shallow shaft, 66 ft. west of Main shaft.	3' 2"	Nil	Nil
3	136	Vein in surface stopes $4\frac{1}{2}$ chns. N.N.W. of Main shaft.	2'	Trace	Trace
4	137	Vein in pit $3\frac{3}{4}$ chns West of main shaft.	4'	Nil	Nil
5	138	South Adit, west end of east drive	3' 2"	0. 0. 6	0. 0. 6.
6	139	South Adit, east drive 15 ft. west of winze.	1' 9"	0. 0.16	0. 0.15.
7	140	South Adit, east drive 10 ft. east of winze.	4'	Trace	Trace
8	141	Main Adit 22 ft. west of Main shft.	4' 4"	Nil	Nil
9	142	Main Adit, 12 ft. east of Main shft.	1' 10"	"	"
10	143	Quartz dump, Main adit tip.		"	"

It will be seen from the above that the sample values are extremely low and give little encouragement for further work.

An examination of the section of the mine on Plan 3. indicates that a narrow shoot of ore occurred from outcrop down to Main

Adit level (200 ft. from surface) chiefly on west side of Main shaft. Although the reef was tested when winzes were sunk between 200 and 300 feet levels, the ore shoot was apparently not disclosed below the former. It would appear that the upper portion of the reef from surface down to 200 feet constitutes a zone of secondary enrichment in which the gold content decreases downwards. This is illustrated by the recorded returns from battery treatment.

The first crushing of 575 tons from the upper level yielded gold at the rate of 18 dwt. 7 grs. per ton and a later crushing of 207 tons, evidently taken from above Main Adit level, returned 11 dwt. gold per ton.

To further test Miami reef it would be necessary to clean out the waded portions of drives in South and Main Adits and make provision for accessibility of 300 feet and 400 feet levels so that a complete and systematic sampling of the channel could be undertaken on all levels.

WEST MIAMI MINE

Abandoned Section 1239/93G and 1229/93G.

This mine is situated in south-west part of the area, half a mile west of Miami Mine. It occurs on the steep northern slope of a hill falling to a small branch of Mullens Creek.

Two parallel, north-west trending reefs have been disclosed in the Mine, together with one or more branching lodes. They consist of numerous closely spaced quartz veinlets traversing slates and quartzites.

Surface works consist of trenches cut and an underlay shaft located principally in southern part of old section 1239/93G (see Plan No. 4).

Immediately south of the southern boundary of this section, on east side of a dry gully, an open cut exposes quartz veins over width varying from 20 to 32 inches, with strike of E10°S and high dip to the north.

This was known as Gearing's Reef and corresponds with southern parallel reef exposed in southern drive from the Adit level.

At 150 feet to the north west, in Section 1239/93, two ill-defined vein systems are disclosed in an open cut adjoining an underlay shaft. That crossing the cut has a strike of N 3° E and dips at an angle of 80° to the west. The veins are spread over a width of 39 inches and junction to the north with the reef in shaft. The other strikes W 15° North and at the shaft dips at 80° to the south. The veins extend over a width of approximately three feet and have been followed down to adit level, 100 feet below.

About 330 feet further to the north-west quartz veins are poorly exposed, up to 42 inches in width, in three shallow trenches. It is probable that these represent a north-westerly extension of Gearing's Reef.

Underground workings consist of cross-cuts and drives from adit level, and main shaft with cross-cuts and drives at 150 below adit level.

ADIT
LEVEL:

The adit entrance is located 170 feet east from, and 100 feet below outcrop of reef in underlay shaft. It commences on a bearing of $256^{\circ} 36'$ for 85 feet and then bears $225^{\circ} 44'$ for $33\frac{1}{2}$ ft.

At this point cross cuts deviate to the west and south respectively to intersect parallel reefs. At 95 feet from portal a reef consisting of quartz veins and slate, up to 3 feet in width, was cut on north side of adit and followed over a length of 35 feet, till it passed into west side of south cross-cut at 16 feet from adit. This reef strikes at $S 29^{\circ} W$ and dips to the west at 75° to 80° . Where first intersected the reef is joined by a series of quartz veins, two feet in width, coming in from the south-east.

At a distance of 28 feet in west cross-cut numerous quartz veinlets cross the level and at 37 feet give place to the northern parallel reef, trending north-westerly. A drive follows the latter on a bearing of $303\frac{1}{2}^{\circ}$ until the reef turns and passes into north side of drive at 88 feet from adit.

The reef consists of the usual quartz veins and slate, and varies in width from 3 to 4 feet. It appears to be generally vertical. At 58 feet from adit a winze, originally sunk to a depth of 21 feet, is now waterlogged and inaccessible. At a further distance of 13 feet along the drive a rise goes up 40 feet vertically on a quartz vein formation which junctions with the northern parallel reef in the drive. This rise connects with underlay shaft from surface at 60 feet below the collar. At foot of rise a south-west cross-cut of 22 feet in length is shown on the Mine Plan, but this is now blocked by debris.

The drive continued past the reef to a total length of 100 feet from adit. At the end a cross-cut, driven 21 feet to the south-west, exposed a north-west trending quartz vein following a clay wall. This probably represents hanging wall side of the southern parallel reef.

The southern parallel, or Gearing's Reef, was cut in south cross-cut in a distance of 44 feet of driving. At this point the reef is exposed over a width of $8' 4''$. Drives were opened out for 42 feet to the south-east and 79 feet north-west along southern or footwall side of reef, striking at $W 37^{\circ} N$. The width of the formation towards the hanging wall is not fully exposed, although the north-west drive follows a well defined parting for 56 feet, which dips at 80° to the north-east. In this drive, at 20 feet from cross-cut, a winze was sunk 37 feet on the reef at a point where another quartz vein formation joins the principal reef. The subsidiary veins are vertically disposed and spread over a width of 30 inches. The winze cannot now be examined, but the Mine Plans show that drives were put in 16 feet south-east and 33 feet to the north-west from the bottom.

At 36 feet further along the same drive another winze occurs, and this is also inaccessible. It is not shown on the original Mine plans, and it seems possible that the work was carried out after the Company abandoned the Mine.

The plan of the underground workings indicates that the dip of Gearing's Reef between Adit and 150 feet level, is high to the south-west.

MAIN SHAFT:

This is situated 15 feet north-east of Adit portal and on the same level. The shaft is vertical and 165 feet deep. A south-western cross-cut from a depth of 150 feet intersected southern parallel (Gearing's) Reef in a distance of 179 feet, and drives were extended south-east for 129 feet and north-west for 71 feet.

Two cross-cuts driven south-westerly for 27 feet and 33 feet respectively apparently failed to locate any further lodes.

Means of access to main shaft workings are not now available, and an examination was not possible.

SAMPLING:

Eighteen samples were taken across the various reefs at the most accessible points, the location of which are indicated on Plans Nos. 4 and 5 herewith.

Assay results of the samples are shown in Table No. 2 - overleaf:-

TABLE NO. 2

Sample No.	Regd. No.	Location	Width	Assay value per ton	
				Gold	Silver
1	144	Adit, north-west veins	1'6"	Nil	Nil
2	145	Adit, south-west reef	3'3"	Ooz. 2dwt. 17grs.	0. 0.9gr
3	146	Adit, " " in Sth. cross-cut.	2'10"	0 0 6	0. 0.9
4	147	Adit, southern parallel reef in south cross-cut.	8'4"	Trace	Trace
5	148	Adit, southern parallel reef in south-east drive.	2'8"	0. 0. 15	0. 0.6
6	149	" " " "	2'2"	Nil	Nil
7	150	Adit, southern parallel reef in north-west drive.	3'0"	0. 0. 18	0. 0.6
8	151	Adit, cross veins at winze in north-west drive	3'6"	Trace	Trace
9	152	Adit, southern parallel reef in North-west drive	3'6"	"	"
10	153	" " " "	2'3"	"	"
11	154	Adit, northern parallel reef in drive	4'4"	Nil	Nil
12	155	Adit, from tip at entrance		"	"
13	156	Adit, cross veins at bottom of rise in drive	3'9"	0. 0. 9	0. 0.6
14	157	Adit, northern parallel reef in drive	2'9"	Nil	Nil
15	158	Surface, open cut on Gearing's reef.	2'6"	Nil	Nil
16	159	" " " "	1'8"	Nil	Nil
17	160	Underlay shaft, 15 feet below surface	2'9"	0. 4. 4	0. 1.4
18	161	Open cut adjoining underlay shaft.	3'3"	Nil	Nil

The above results of samples show that very little gold is present in the reefs at West Miami Mine. The reefs have been suitably explored by underground workings and the mine well developed.

When considering the results of the present sampling campaign it is understandable why no stoping was carried out by the operating Company.

F. BLAKE

22. 27

HIT OR MISS MINE

Abandoned Section 74P/G, 20 acres, being portion of 29a.
2r. 21p., G,H, Lyne, Purchaser.

Prospecting in the form of surface works and adit level was originally carried out by Hit or Miss Prospecting Association between December, 1901 and June 1902. Twenty years later H.E. Brock undertook a limited amount of shaft sinking.

The Mine is located half a mile north of West Miami Mine on north side of Mullens Creek.

A shaft (62 feet above adit) now inaccessible, but said to be about 30 feet deep, discloses a quartz reef at surface over a width of 6'6" with strike N 12° E and dip to the west of 80°. Fifty three feet to the north west a six inch quartz vein is poorly exposed at one point in a small trench. In a shallow shaft, 60 feet west of the trench, a quartz vein formation in slates shows over a width of 5' 6". The veins appear to be vertical and the strike approximates N 22° W.

An adit was commenced 140 feet to the south east of, and 90 feet below, the shallow shaft with the object of proving the existence of the vein system at depth. It was driven on a general bearing of 321° and at 90 feet intersected a series of north-west trending veinlets, over a width of 24 inches. At 100 feet from portal the veins junction with a quartz vein, 14 inches in width, having a strike of W 3° N and dip to the south of 80°. In this locality both lodes unite with a quartz reef striking at N 41° W. The adit follows eastern wall of the latter for 30 feet further, where the reef passes out to the west. This reef agrees in position with that cut in the shallow shaft at surface and appears to be the principal occurrence in the locality. It consists of solid quartz, and at the junction with the branching veins approximates 30 inches in width. However, the full width could not be ascertained during the examination, as the reef has not been cross-cut at any point.

A sample taken across 14 inches of the west trending branch vein was assayed, and the result showed traces of gold and silver.

Sampling of the principal reef was impracticable owing to lack of suitable exposures. For purposes of further testing it is recommended that primary work should consist of cross-cuts driven south-westerly across the reef to prove the width and provide suitable sections for sampling.

F. BLAKE
A/GOVERNMENT GEOLOGIST.

Mines Department,
HOBART.

21st March, 1940.

4th June, 1940.

MEMORANDUM:

Supplementary Report on Miami and West Miami Mines
to that of Mr. F. Blake, Acting Government
Geologist, dated 21st March, 1940.

MIAMI MINESOUTH ADIT:

Sample 1 - taken over a width of 10" gave a return of 15 dwt. 22 grs. of gold and 1 dwt. 19 grs. of silver per ton. This sample was taken from the North wall of the West drive. From the Main Shaft the reef was stoped upwards and for a length of 30 ft. where the reef slightly faulted to the North. The drive continued West, but not on the lode. The lode appears to be in the North side of the drive. The values indicate that this occurrence is worthy of development.

Sample 2 - taken from the roof of the East drive, the reef being 3 ft. in width. The assay value was a trace of gold and the same of silver. This appears to be the lode driven on West which has been displaced by faulting.

60' SHAFT:

This shaft is known as Brock's Shaft and is on a small reef running parallel to the reef explored from the Main Shaft.

Sample 3 - taken from surface trench, the reef being 12" in width, assaying only a trace of gold and silver.

Sample 4 - Taken from No. 2 trench, reef 12" wide, assayed 3 dwt. 15 grs. of gold and 18 grs. of silver per ton.

Sample 5 - taken from No. 3 trench, reef 15" wide, assayed 6 grs. of gold and trace of silver.

Sample 6 - taken from a cut in dump of ore obtained from sinking and driving at 60' Shaft, assayed 13 dwt. 13 grs. of gold and 2 dwt. 2 grs. of silver per ton.

Sample 10 - taken from East drive at a depth of 48 ft. down shaft and 4 ft. from the shaft, reef 15" in width, assayed a trace of gold and silver per ton.

Sample 13 - taken 15 ft. from Shaft in end of East drive, width of reef 15" assayed 1 dwt. 16 grs. of gold and 6 grs. of silver per ton.

Sample 11 - taken from drive West of Shaft, 4 ft. from shaft, width of reef 11", assayed gold and silver nil.

Sample 12, taken from drive West of Shaft about 14 ft. from the shaft, assayed 18 grs. of gold and 6 grs. of silver per ton.

It was stated that good values existed in the 60' shaft but the drives East and West from the shaft gave very low results.

The shaft is said to be 60 ft. in depth but was only available for sampling to a depth of 48 ft., the bottom portion being filled by a portion of the dump having caved when the brace was destroyed by fire.

The original company stoped a section of about 140 ft. in length above the main adit level and developed the mine to about 400 ft. in depth. The amount of development would lead to the conclusion that there were values to warrant such development.

WEST MIAMI

A large amount of driving and sinking has been carried out in this mine on two lodes. A large number of samples were dollied but the results were too low to warrant assays.

In sampling the Back or Gearing's Lode, it was noticed that a cross reef about 15" wide had intersected the main reef and caused a displacement of a few feet to the West.

A winze had been sunk on the contact for a depth of 13 ft. This was partly unwatered and cleaned out to allow sampling. Sample 10, taken 3 ft. above the the winze in the face in a N.W. direction over a width of 2'9" assayed 4 dwt. 13 grs. of gold and 1 dwt. 7 grs. of silver per ton.

Sample 11 taken from 6 ft. down the winze on the N.W. side, the reef being 5 ft. in width. This sample was 2'6" in width from the foot wall and assayed 11 dwt. 18 grs. of gold and 2 dwt. 5 grs. of silver per ton.

Sample 12 was the hanging wall 2'6" of the reef and assayed 2 ozs. 14 dwts. 5 grs. of gold and 8 dwts. 18 grs. of silver per ton.

The original company had driven in a North-Westerly direction about 43 ft. from the winze but were not on the reef which was in the foot wall of the drive. The sampling and examination of the mine indicated that this reef gave the best indications for payable developments and the Syndicate was advised to drive on the reef in a North-Westerly direction.

On my second visit to the mine this drive was extended a distance of 4 ft. A sample taken 3 ft. above the floor of the drive, the reef being 2'6" in width, assayed 6 dwt. 12 grs. of gold and 2 dwts. 2 grs. of silver per ton.

A sample taken from the floor of the drive below the above sample, 2'6" wide, assayed 1 oz. 10 dwts. 1 gr. of gold and 2 dwts. 14 grs. of silver per ton.

The Syndicate was advised to continue this drive for a distance of 50 feet.

I have been advised that this work is being carried out and that to a length of 30 ft. the values continue and that the drive is being continued.

The gold values throughout the mine appear to be of a very patchy character and appear to be contact enrichments due to cross reefs contacting with the main reefing series.

J. O HUDSON
A/CHIEF INSPECTOR OF MINES

Director of Mines,
HOBART.

WEST MIAMI GOLD MINE

SAMPLE	LOCATION	WIDTH	ASSAY VALUE PER TON					
			GOLD			SILVER		
			Ozs.	Dwts.	Grs.	Ozs.	Dwts.	Grs.
7	Adit South West Reef South H.W.	1' 6"	No gold by vanning					
8	Adit South West Reef South F.W.	1' 6"	do.			do.		
9	Adit South West Reef 6" above 7 and 8.	2'	do.			do.		
10	Back Lode 3' above winze.	2' 9"	0	4	13	0	1	7
11	Back Lode 6' below Level F.W.	2' 6")	0	11	18	0	2	5
12	Back Lode 6' below Level H.W.	2' 6")	2	14	5	0	8	18
13	Back Lode, N.W. Drive. 4' n.w. of winze.		0	6	12	0	2	2
14	do do		1	10	1	0	2	14

32

MIAMI GOLD MINE

SAMPLE	LOCATION	WIDTH	ASSAY VALUE PER TON					
			GOLD			SILVER		
			Ozs	Dwt	Grs.	Ozs	Dwt	Grs.
1	West Drive South Adit	11"	0	15	22	0	1	19
2	East Drive South Adit	3'	Trace			Trace		
3	No. 2 Trench Parallel Lode.	12"	Trace			Trace		
4	No. 3 Trench Parallel Lode.	12"	0	3	15	0	0	18
5	No. 4 Trench Parallel Lode	1'3"	0	0	6	Trace		
6	Dump 60' Shaft Parallel Lode	-	0	13	13	0	2	2
7	48' Level 60' Shaft East drive, 4' from shaft.	15"	Trace			Trace		
8	15' in East Drive 60' shaft.	15"	Trace			Trace		
9	48' Level 4' in West Drive 60' Shaft	11"	Trace			Trace		
10	48' Level 15' from 60' shaft.	15"	0	1	16	0	0	6