Extract from: Bureau of Mineral Resources Bulletin No. 84: Geology of the Hodgkinson and Laura Basins, North Queensland.

The mineralized areas have been grouped into several Gold and Mineral Fields to facilitate administration. When new finds were made the mineral fields were rearranged or subdivided. The old Walsh and Tinaroo Mineral Field, for example, proclaimed in 1882, was divided into the Herberton Gold and Mineral Field and the Chillagoe Gold and Mineral Field in 1909, and the Mareeba Gold and Mineral Field was detached from the Chillagoe Field in 1949.

The goldfields, in decreasing order of importance are the Palmer, Hodgkinson, Hamilton, Russell River, Starcke, Jordan Creek, Mareeba, and Mount Peter Goldfields, and a multitude of smaller production centres. Together they have yielded approximately 1,780,000oz of fine gold, valued at about £7,565,000 of which 75% came from the Palmer and 17% from the Hodgkinson field.

Palmer Goldfield

Gold rushes following the discovery of payable deposits on the Palmer River in 1873 soon brought up to 50 000 people to the field: Palmerville, Maytown, Uhrstown, Byerstown, and Groganville became booming though short-lived settlements that are now deserted or have disappeared completely.

The total gold output was undoubtedly higher than the estimated 1,334,500oz because large numbers of Chinese miners are reputed to have commonly evaded the official channels for the sale of gold. More than 90% of the gold was obtained from the alluvials along the river and its tributaries, mainly between Fish Creek (5 miles east of Palmerville) and Byerstown (about 45 miles east of Palmerville). although gold was won over a distance of more than 100 miles, from near Strathleven west of Palmerville to Campbell Creek upstream of Byerstown.

The alluvial production soared to a peak of more than 250 000oz in 1875, and then declined rapidly. In 1926 the Palmer River Gold-dredging Co. was formed to work the Strathleven, Glenroy, and Bonanza claims downstream from Palmerville, although the reported values of about 13d per cubic yard were not very encouraging. Work ceased in 1935 when the recovery grade declined to about 4d per cubic yard owing to the extreme minuteness of the gold and the abundance of heavy minerals which packed the riffles.

Only 3600oz of gold were obtained in four years of dredging. Between 1934 and 1938 hydraulic sluicing was unsuccessfully applied to a small area 6 miles upstream from Palmerville by the Commonwealth Preliminary Mining Syndicate.

Gold-bearing quartz reefs were found soon after the discovery of the alluvial deposits, and although their total yield was small compared with the output from the alluvials, many mines and workings were concentrated north and southeast of Maytown and at Limestone Creek, a tributary of the Mitchell River 23 miles south of Maytown.

The biggest and most productive mine was the Anglo-Saxon in the Limestone (Creek) group, which yielded 30 892oz of fine gold. or about a quarter of the total output from the reefs. The Anglo-Saxon lode, discovered in 1886, was worked to a depth of about 600 feet, had seven levels, and was sunk on a northeast-trending fissure vein with a maximum width of 6 feet. The ore shoot

was 300 to 400 feet long, but the ore became arsenical in the lower levels. The grade averaged 1.64 oz of gold per ton with rich patches up to 78 oz per ton.

The Maytown reefs include several groups the largest of which were the Ida, Comet, Louisa, Queen, and Alexander groups. The first crushings were made in 1876, and when the mines closed down some 137,000 oz of fine gold had been obtained from 80,000 tons of ore, including the production from the Limestone (Creek) group. The grade ranged from 1 to 2 oz per ton. Most of the mines closed down after 1893 during a financial crisis and were not reopened. An effort to revive the Louisa mine in 1939-40 was unsuccessful because of the troublesome quantities of mine water, and the large amounts of pyrite and arsenopyrite in the ore which made treatment difficult.

The mining operations on the Maytown lodes met with many difficulties. Timber was scarce and of poor quality, transport was very expensive, and the cost of living exorbitantly high. Mining was concentrated on the richest portions of the lodes, and little attention was paid to development work. The reefs were small, and though very rich on top were generally impoverished in depth: Water in the workings was difficult to cope with. Jackson, contrary to most other opinions then current, concluded that most of the payable ore had been exhausted and that reopening of the mines was unwarranted, but that if the mines were reopened, more reefs should be mined simultaneously, using modern equipment, electric power, and cheap oil fuel.

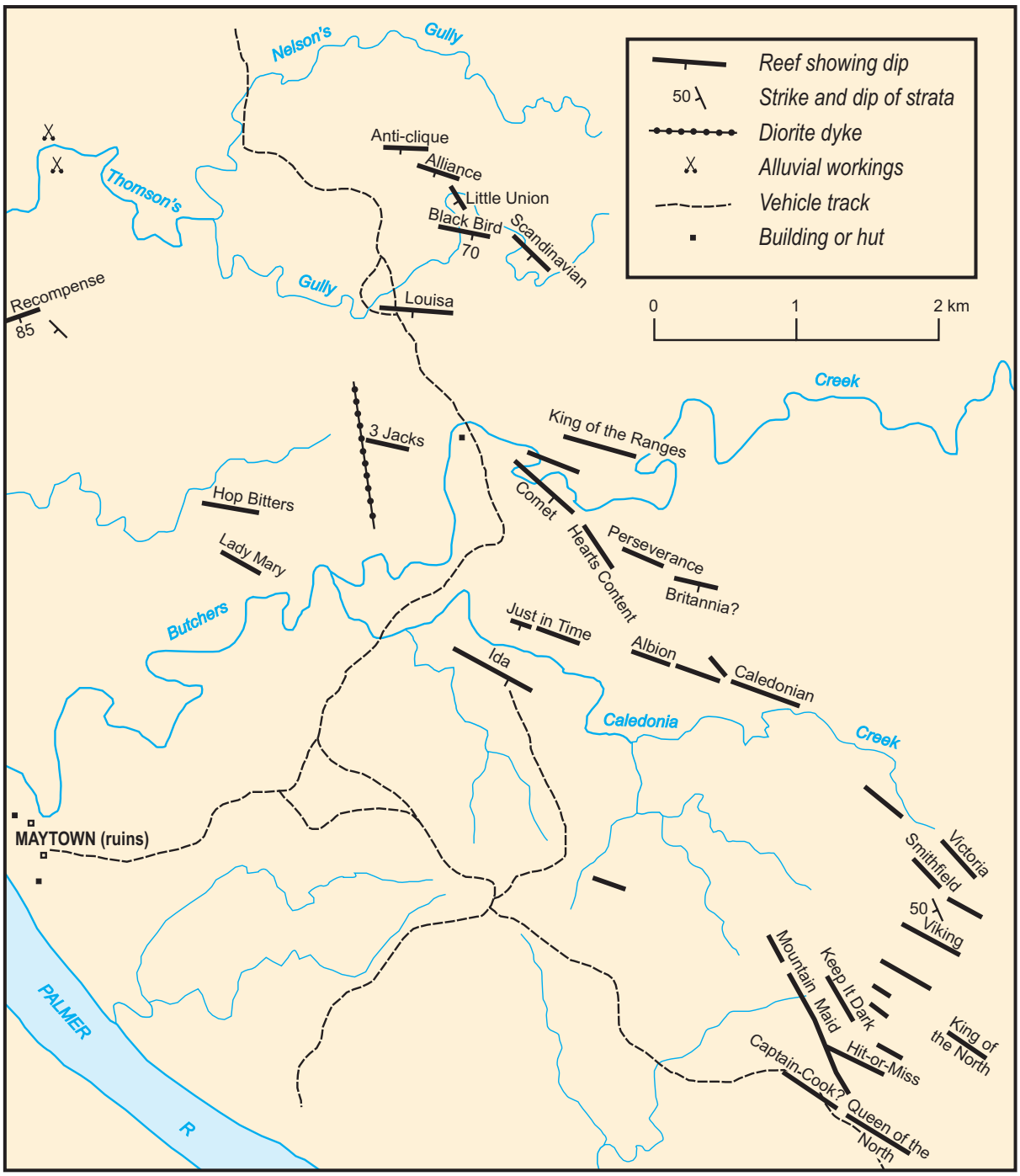
The auriferous reefs are thin lenticular quartz-filled fissure veins within a belt of sheared dark phyllite and greywacke. The thickness ranged from a few inches to about 2 feet. In addition to the reefs mined, many thin unpayable leaders exist in the country rock. The reefs strike northwest or north-northwest, and dip steeply to the southwest. They are composed of milky vein quartz containing native gold, some pyrite, arsenopyrite, and a little stibnite. It is alleged that there were generally less base-metal sulphides in the Palmer reefs than in the lodes on the Hodgkinson Goldfie1d.

Jack and others have noted that bends in the reefs were favourable loci for ore enrichment. It appears that the grade rapidly decreased in depth, especially in some of the Queen lodes, but it is uncertain whether the higher surface values were due to secondary enrichment.

Gold also occurs in the basal conglomerate of the Mesozoic Dalrymple Sandstone to the north of the Palmer River, in the headwater region of the Mossman River and Cradle Creek. Jack reported the largest areas of auriferous leads above the unconformity along Chinky Creek, a tributary of the Mossman River.

The conglomerate is up to 4 or 5 feet thick, and fills old stream courses running north on the pre-Mesozoic surface of erosion. The gold, where present, is concentrated near the bottom of the conglomerate. It is water-worn, and of high fineness. No production is known to have taken place, but a considerable amount of development work was done locally. The deposits were tested again in 1936-38, when diesel engines, a five-head stamp battery, and other machinery were available.

Normal sampling showed traces of gold only, and the best grades found by test mining ranged from 2½ to 5 dwt per ton. These values are considered unsatisfactory as the leads can be exploited only by hard-rock mining methods, the volume of ore is small, the gold content erratic, and many of the leads ill-defined. The conglomerate is probably the source of the small quantities of alluvial gold won by prospectors in Shepherd Creek and the headwaters of the Mossman River.



The Maytown gold reefs

Discussion

The alluvial deposits and most of the known reefs on the Palmer Goldfield can be considered to be exhausted, and the geomorphological history of the area indicates that there is little prospect of finding new alluvial deposits west of Palmerville: it is thought that the gold derived from erosion of the lodes on the pre-Mesozoic erosion surface was plainly dispersed towards the north originally, and that upwarp or tilling caused a change in the direction of drainage from north to west.

Renewed movement along the Palmerville Fault resulted in rejuvenation of the topography of the Maytown block, and excellent traps were formed for the redistributed gold and for fresh supplies of gold from the rapidly eroding reefs and leaders. West of Palmerville, however, the topography remained old and flat, and there would be little concentration of the gold. The fine grain-size of the gold downstream from Palmerville indicates that it has been carried a long way from its source.

The source of the alluvial gold in the upper parts of the Palmer River, near the former sites of Uhrstown and Byerstown, is uncertain. No lodes have been found here, but there is a multitude of thin quartz leaders from which the gold may have been derived. It is possible, but less likely, that the metal was shed from the three granite tablelands to the south of the Palmer River.

Hodgkinson Goldfield

Estimates of the total output of gold from the Hodgkinson field vary: the highest figure quoted is about 300 000oz, of which only 12 000 to 40 000oz were obtained from alluvial sources, mostly in the year 1876. The Hodgkinson district, though a smaller gold-producing field than the Palmer Goldfield, was a richer lode-mining district. In 1878, one year after the first lodes were opened up, there were 492 mines on 330 claims, and 12 crushing plants with a total of 121 stamp heads. The main settlements were Kingsborough and Thornborough; others included Beaconsfield, Woodville, Stewartstown, and Wellesley. Most claims were relinquished within a dozen years, and only a handful of mines remained in production intermittently until all activities stopped during World War I. In the post-war years there was some sporadic development work, but production was insignificant.

More than half of the total output was probably derived from the Tyrconnel and General Grant groups of lodes. The average grade was 17 to 18dwt per ton for the General Grant, and 21.7dwt for the Tyrconnel. The latter was the largest lode worked in the district and was in almost continuous production until 1924; its bottom level is at 430 feet, where the grade became uneconomic. From 1933 to 1937 attempts were made to extract about 14 000 tons of available ore but work was suspended as the grade of 4.17dwt per ton turned out to be below expectation.

The General Grant was worked until 1910 for 23,120oz of bullion. At a depth of 500 feet the ore body is 600 feet long. and sampling in 1934-37 indicated reserves of 8000 tons averaging 8 dwt per ton. The grade was not considered to be economic, although there was slight improvement in the bottom level. The deepest workings were 715 feet below surface.

Prior to 1905, the Flying Pig was the most important producer, and yielded 14 930oz of bullion from 8100 tons of ore.

One of the few persistent mines was the Minnie Moxham, later known as the New Minnie Moxham. It was the only producing mine after World War II, and yielded about 450oz of fine gold in 1947-50.

Jack noted two main groups of lodes: those parallel to the strike of the sediments, but cutting across the dip; and those (mainly north-south) across the strike, and dipping to the west. The lodes, especially the first group, should not be confused with the conspicuous chert ridges which were commonly considered to be siliceous dykes or barren gold veins.

The lodes consist of sheared country rock interleaved with quartz stringers, or quartz veins ranging from a few inches to several feet wide. The best gold values seem to occur in white platy quartz with dark slaty seams, as in the Tyrconnel mine (and also found in the Maytown lodes of the Palmer field). The massive rubbly or blocky quartz appears to contain relatively little gold.

The veins contain native gold, varying amounts of stibnite, some pyrite, arsenopyrite, and small quantities of chalcopyrite, sphalerite, and galena. The stibnite appears to belong to a younger phase of hydrothermal activity. In some shoots both gold and antimony were mined, and in later years some of the mines changed production from gold to antimony, depending on market conditions.

Galena and sphalerite were common in the Leviathan mine, and scheelite was found in a few mines, including the Southern Cross and Tyrconnel. In the Southern Cross, scheelite was first noticed at a depth of 90 feet, and below this level it was a constant constituent of the quartz gangue, especially in the gold-rich portions. Rare molybdenite is found in the Southern Cross, and barytes occurs in the gangue of the Minnie Moxham mine. Appreciable amounts of tourmaline are present in the Southern Cross lode.

There is little evidence of structural or stratigraphic control of the ore shoots. Jensen noted that the Tyrconnel shoot is located in a strong bend of the lode; occasionally a carbonaceous slate forms the favourable host rock, as in the Flying Pig workings, where the ore shoot pitches parallel to the lineation formed by the intersection of the lode with certain kaolinized or carbonaceous slates.

In places there is little surface indication of the presence of a reef. At the Tyrconnel, for example, the black shale contains thin quartz stringers which widen from a few inches at the surface to several feet in depth.

The available records indicate that the reefs have probably been worked out. The lodes are small and broken, the ore shoots commonly deeper than long, and the grade of the remaining ore at depth is apparently too low to be mined economically.

Production on the Hodgkinson field was mainly from lodes, and there was little alluvial gold compared with the Palmer district. The Hodgkinson lodes may represent the upper zone of a mineralized vein system which has not been eroded sufficiently to provide a copious supply of free gold. The lack of surface indications supports this hypothesis.

Hamilton Goldfield

The Hamilton Goldfield, centred on the old settlement of Ebagoola, lies on the northwestern boundary of the map area, and extends farther west. It was the most important of the small gold-producing centres discovered in the course of the intensified prospecting that followed the establishment of the rich Palmer and Hodgkinson fields.

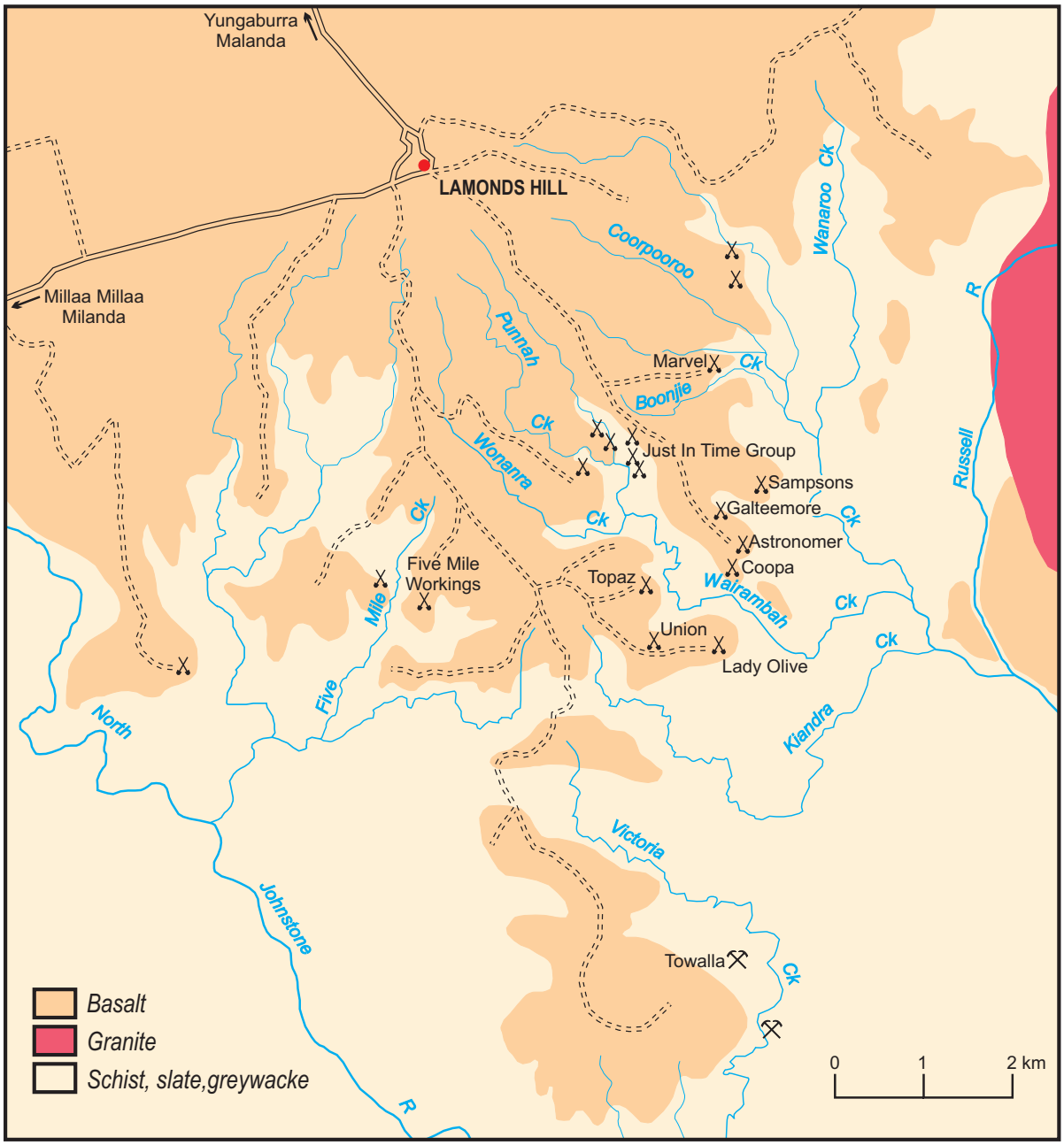
Gold was discovered at Ebagoola in 1899 by a prospector named John Dickie. Ebagoola developed as the main production centre, but the workings extended as far as Potallah Creek, 60 miles to the south-southwest beyond the map area. Production, which climbed to 8300oz of fine gold in 1900, tapered off to less than 1 000oz per year after 1910, and the field was abandoned in 1941. A total output of 47,478oz of fine gold has been recorded, mostly from lode mining; there was little alluvial or colluvial gold. Pyrite, arsenopyrite, galena, and copper carbonates were present in some of the lodes.

The country rocks consist of Precambrian schist intruded by small irregular bodies and dykes of granite and some diorite. Quartz reefs are common, but the auriferous shoots are concentrated near the boundaries of the intrusions, both in the granite and schist. Most of the reefs strike north-south or north-north-west.

Russell Goldfield (from 1905: Russell Extended Goldfield)

The Russell Extended Goldfield, one of a group of small fields in the jungle-covered mountain area between Cairns and Innisfail, has been intensely surveyed geologically. The recorded production of 26,780oz of fine gold was mostly obtained from alluvial deposits in the form of narrow terraces along the slopes of the steep-sided valleys of the Coopooroo Creek and Wairambah Creek drainage systems, which were buried by late Cainozoic basalt flows Recent rejuvenation has re-exposed some of the deposits.

Russell (extended) Goldfield



The native gold is contained in gravel wash: generally a few feet thick, which is overlain by up to 20 feet of sand, silt, and clay, and 40 to 100 feet of basalt. The gravel has been worked by hydraulic sluicing and tunnelling. Development was hindered by the lack of accessible water (notwithstanding the copious rainfall), the rough and densely vegetated terrain, the soft decomposed ground, and the hardness of the gravel where cemented by iron hydroxides. Other adverse conditions included the low grade of the deposits, the extremely fine grain size of the gold, the scattered nature of the deposits, and the thick overburden.

Broadhurst & Garth investigated the area for Clutha Development Ltd and came to the conclusion that the remaining reserves could not be mined profitably.

For a short period, auriferous quartz lodes were mined in the vicinity of Towalla (now abandoned), some 21 miles south of the Russell terraces. Production came from small shoots in northwest-trending lodes in the Coolamon Creek area. The reported grade of 2 to 3 oz per ton was insufficient to counterbalance the high cost of transport and the inadequacy of the reserves and the lodes were abandoned in 1905.

Jordan Creek Goldfield

The Jordan Creek Goldfield, situated in mountainous jungle country west of Innisfail, comprises two separate groups of workings: the original prospects in the Jordan Creek and Henrietta Creek area, 10 miles southeast of Millaa Millaa and 1 to 2 miles south of the Palmerston Highway: and a later group of workings in the Myee Creek area, north of the highway, 7 miles southeast of Millaa Millaa.

The gold is contained in small quartz veins and leaders in decomposed granite. In places there is a slightly auriferous altered zone up to 10 feet wide around the quartz veins. Assays are reported to have shown 1 to 2oz of fine gold per ton, but the average recovery grade was much less. Many of the thin leaders are manganiferous, and a little pyrite and arsenopyrite are also present.

The Jordan Creek/Henrietta Creek lodes are arranged *en echelon* in a north-north-east trending belt; they may have been formed in tension fissures caused by a dextral shear couple.

Much of the 12,750oz of fine gold produced was won from alluvial deposits in creeks which have been worked out long ago: all recent production, amounting to several tens of ounces per year, has been derived from lodes mainly in the Myee Creek area.

Some prospecting has been done on a few deep leads under the basalt covering the granite, but the gold values are not high, and the tunnels need much timbering on account of the soft ground.

Starcke No. 1 and No.2 Goldfields

In 1890 alluvial gold was discovered in Diggings (or Diggills) Creek, a branch of the Starcke river, 25 miles north-west of Cape Flattery; 2300oz were recovered before the deposits were exhausted in 1895.

A smaller alluvial deposit was found in 1896 at Munburra, farther downstream, and this led to the discovery of the auriferous quartz reefs immediately to the north. Between 1898 and 1908 the reefs yielded 9190oz of fine gold from 4858 tons of ore. The field (Starcke No. 2 Goldfield) was practically abandoned by 1909.

The cessation of mining seems to have been brought about by poor management, the small scale of the operations, the high treatment costs, and poor recovery from the battery, and the increased difficulties of mining below the water table. Few mines were worked below the water table at a depth of 50 to 100 feet, and the deepest workings were about 150 feet. Only high-grade ore, exceeding 1 to 2oz per ton, could be treated economically, and there may remain fairly large orebodies carrying ½ to 1oz of gold per ton (Ball, 1909e). An attempt to develop one of the Munburra mines in later years is recorded by Beck but no further results have been reported.

The white quartz veins are commonly about a foot wide, and occur in the steeply dipping, north-striking greywacke and slate of the Hodgkinson Formation. The dip of the veins is variable, and the strike ranges from south-west to north-north-west. They are generally closely associated with oblique to subconcordant grey silicified quartz porphyry dykes which postdate the development of cleavage in the Hodgkinson formation. The veins are fissure and replacement veins with fragments and screens of brecciated country rock partly or wholly replaced by a mosaic of fine quartz. Other gangue minerals are arsenopyrite, pyrite, and sheets of calcite. Stibnite and cervantite were probably fairly common in the gold lodes, though they have not often been reported.

Mareeba Gold and Mineral Field

A small field, 5 miles south-east from the Mareeba railway station, produced 11,846oz of fine gold, most of it from the Queen Constance lode, a north-north-west trending, rather flatly dipping quartz reef standing out as the crest of a low hill. The country rock consists of slate and phyllite of the Barron River Metamorphics. After an initial production of 1770oz in one year, the grade fell to less than 1oz per ton, and after struggling on for another 8 or 9 years the field was abandoned.

Mount Peter Goldfield

Some 11 000oz of fine gold were obtained from half a dozen irregular quartz lodes discovered in 1915 on the steep northern slope of Mount Peter, 3 miles west of Gordonvale. The lodes trend north-east and east-south-east across the regional strike of the Barron River Metamorphics. and contain shoots that are small and widely spaced. The average recovery grade was 1oz 18 dwt per ton, though values of 41oz per ton were reported in some of the shoots. There was little activity after 1951.

Mulgrave Goldfield

Discovered in 1879, the Mulgrave Goldfield is the oldest of the smaller gold-producing areas, but its total recorded yield of 5580 oz is insignificant. Both alluvial and reef deposits were worked. Production was mainly alluvial, whereas lode mining was never successful because most of the reefs were low grade, and crushings showed poor returns notwithstanding promising assay results.

The lodes consist of narrow quartz reefs, generally ½ to 1½ feet thick, trending across and also subparallel to the strike of the enclosing Barron River Metamorphics. The workings, and the old mining township of Goldsborough on the west bank of the Mulgrave River were deserted after 1905.

Alluvial deposits occur under the basalts on top of the spur separating South Toohey Creek from Butcher Creek, 8 miles east of Peeramon at the edge of the basalt-covered Atherton Tableland. At least three levels of wash were recognized by W. C. Ball: the basalt cover is thin or absent in

places. Little systematic geological work has been done in this area, although Ball believes that the wash forms a practically continuous sheet under the basalt.

Fluorspar Locality

The gold mining centre of Fluorspar is 10 miles south-east from Chillagoe. The lodes are in adamellite near its contact with the Featherbed Volcanics. and have produced some 5050oz of mixed bullion and fine gold.

Tate Goldfield

The Tate Goldfield is mentioned in the Warden's reports and Annual Reports of the Department of Mines for the first few years of the 20th century. Prospecting for alluvial gold was carried out between Mount McDevitt and the Tate River, and Skertchly has described a rich but very small quartz vein in the Precambrian rocks 2 miles west of the Tate telegraph station, from which about 600 to 700 oz of gold were recovered. The best yield from the Tate area was 2000 oz in 1901: before and after that, the annual production was only several tens of ounces until about 1905.

Alice River (Philp) Goldfield

The reefs in the very short-lived Alice River Goldfield, roughly 120 to 130 miles west of Cooktown. form two main north-south lines about half a mile apart. They may be aligned along a fault zone. The country rock is reported to be granite. Discovered in 1904, the field produced about 2765 oz of fine gold mainly between 1904 and 1909, and was deserted soon afterwards.

Mount Wandoo

The available information on Mount Wandoo, 10 miles west from Mungana, has been summarized by de Keyser & Wolff. Production figures are lacking, except for the years 1933-37 when 2100 oz were obtained. The workings occur in altered Precambrian ferruginous and micaceous gneiss and schist, and have been mined intermittently since 1901.

Bartle Frere Workings

The last field to be discovered, and one of the least successful, was the Bartle Frere field, 7 miles west of Babinda. The reefs occur in the Barron River Metamorphics at the northern foot of Mount Bartle Frere. The gold is contained in steeply dipping quartz reefs subparallel with, or in places transecting, the regional strike of the sediments. Assay values generally ranged from 1 to 3 oz per ton, but the shoots were small, patchy, and irregular, and the cost of transport was high; the field was deserted after 1942, having yielded only 520 oz of fine gold.

Other Gold Prospects

Gold has been won in small quantities, or traces of gold have been reported, from many other localities.

In 1921, gold was discovered south of Six Mile Creek 4¼ miles southwest of Cooktown. The lodes strike west-north-west and north-south and the grade of the ore ranges from 1 to 4½oz per ton.

Randalls mine, or the Freedom, is a quartz lode 8 miles south-west of Molloy. It was worked from 1939 to 1941 for a yield of about 650oz of gold and 100oz of silver from 230 tons of ore.

Three small quartz lodes have been reported from the Mitchell River area south of Curraghmore homestead. The quartz is iron-stained in places, and contains free gold, pyrite, and galena.

Other small gold veins have been reported from the China Camp area (the Enterprise mine), 12 miles north of Daintree: from around Racecourse Mountain between Diggers Creek and the West Normanby River; and at Nolans Creek where some gold is associated with cobalt, bismuth, and arsenopyrite in low-grade pipe-like orebodies. Rich but small gold reefs have been reported in diorite in the Gurrumba/Ord area southwest of Emuford.

Between 1894 and 1898 attempts were made to work the low-grade quartz lodes at the Clohesy River north-east of Mareeba. One shaft was sunk below 100 feet, but as the grade averaged only ½oz per ton the prospect was abandoned. Another shaft was sunk to 135 feet at Kamerunga in 1933-34, but the prospect was soon closed down because of the irregular grade and the abundance of mine water.

At Mount Mascotte, 8 miles east-south-east of Atherton, about 200 oz of fine gold were mined from a quartz lode in a small inlier of chiastolite schist in the Atherton Basalt.

Alluvial gold was won from the Tully River and from Culpa Creek, one of its tributaries, between 1894 and 1905; and from Sandy Creek, a tributary of the North Johnstone River. Small quantities of gold have been found in most of the streams draining the granite massifs west and south-west of Mossman; and in the St Georges River and its tributaries, Fine Gold Creek, and Hurricane Creek.

Sluicing prospects have been tested in the Russell River where it enters the coastal plain; in the North Johnstone River 8 miles west of Innisfail; and in creek alluvium at Eubanangee, 7 miles northwest of Innisfail. Farther south, a little alluvial gold has been found in the headwaters of Yamanie Creek and Smoko Creek, tributaries of the Herbert River, and in the tin deposits on Broadwater Creek west of Cardwell. The Herbert River Gorge, west of the area mapped, has also been prospected for gold.

Traces of gold have been reported from a creek about 2 miles south of Ninian Bay in association with native copper and silver in a thermal spring deposit on Noble Island and at White Rock south of Cairns.

Much gold was obtained as a by-product from the copper mines at Cardross, 20 miles west-north-west of Mungana, and in much smaller amounts from other copper mines in the Chillagoe area.

Name (Year of discovery	Location	Estimated Production (fine oz)	Description	Minerals
Palmer Goldfield (1873)	Palmer R., about 110 miles WNW of Cairns	1,334,500	(a) (Alluvial deposits, mainly between Fish Cr. Junction and Byerstown. Provided over 90% of total production	
	Maytown		(b) (Quartz reefs, Maytown area - thin lenticular fissure veins in sheared phyllite and greywacke. Reefs strike NW and NNW, dip steeply SW. Main reef systems: Ida-Comet, Louisa, Queen, Alexander. Average grade 1-2 oz per ton.	Gold. Some pyrite, arsenopyrite, a little stibnite. Gangue: quartz
	25 miles S of Maytown		(c) (Quartz reefs. Limestone district. Main mine was Anglo-Saxon, on reef striking NE and worked to depth of 600 ft. This was biggest mine in Palmer Goldfield	Gold. Pyrite, arsenopyrite
	North of Maytown		(d) (Deep leads in basal conglomerate of Dalrymple Sandstone in headwaters of Mossman R. and Cradle Cr., N of Maytown. Prospected, but not brought into production because of low and erratic values	
Hodgkinson Goldfield (1875)	Hodgkinson R., 50 miles W of Cairns	about 300,000	(a) (Alluvial deposits. Yielded roughly 10% only of total production.	
			(b) (Quartz reefs; two main groups:	Gold, stibnite. Some pyrite, arsenopyrite, chalcopyrite, sphalerite, galena. Locally rare molybdenite, some scheelite
			(a) (parallel to strike but cutting across dip;	
			(b) (across strike, and dipping to W	
			Important lode systems: Tyrconnel, General Grant, Flying Pig. Average grade about 1 oz per ton. Maximum depth of workings 715 ft	
Hamilton Goldfield (1899)	Around Ebagoola, an old settlement 30 miles W of Princess Charlotte Bay	47,480	Mainly lode mining; very little alluvial (colluvial) gold. Most of gold-quartz reefs strike N or NNW and are located near granite contacts. Important centres: Yarraden, Ebagoola, and Potallah Cr.	Gold. Some pyrite, arsenopyrite, galena, copper carbonates
Russell Goldfield (1887) (Also known as 'Russell Terraces', 'Topaz', 'Boonjie'). In 1905 included in Russell Extended	Headwaters of Russell R., 10 miles ESE of Malanda. Lodes at Towalla, 13 miles SE of Malanda.	26,780	(a) (Buried alluvial deposits in late Cainozoic terraces along sides of steep valleys. Auriferous basal gravels overlain by up to 20ft of sand, silt, and clay, under cover of 40-100ft of basalt. Latest workings: Astronomer, Marvel, Lady Olive	Gold, cassiterite
			(b) (Quartz reefs, striking NW generally less than 1ft thick, dip almost vertical in decomposed Barron River Metamorphics. Grade 2-3oz per ton, but shoots very small	Gold in quartz gangue. Some pyrite
Jordan Creek Goldfield (1898)	1. Jordan Cr./Henrietta Cr. area, 10 miles SE of Millaa Millaa	12,780 (to end 1966)	(a) (Recent creek alluvium, now exhausted	
	2. Myee Cr. area. 7 miles SE of Millaa Millaa		(b) (Quartz veins and leaders in decomposed granite, in places with slightly auriferous alteration haloes. Reefs generally trend NE, thickness 6in-1ft. Values up to 2oz per ton, but average grade much less. Biggest mine: Wyreema (J.B.J. mine or Two Ts Lease)	Gold. Manganese oxides, some pyrite, arsenopyrite
			(c) (Some deep leads under basalt. Prospect only	

Name (Year of discovery	Location	Estimated Production (fine oz)	Description	Minerals
Starcke No. 1 Goldfield (1892)	Cocoa Cr., 30 miles NW of Cooktown	1100	Gold-stibnite-quartz veins. Main lode strikes WNW	Gold, stibnite
Starcke No. 2 Goldfield (1890)	Starcke E. 45 miles NNW of Cooktown	13,000	(a) (Alluvial deposits at Diggins Cr. and Munburra (b) (Quartz reefs N and E of Munburra. Grade almost 1.9oz per ton	Gold. Arsenopyrite, pyrite, stibnite
Mareeba Goldfield (1893)	5 miles SE of Mareeba	11,850	Quartz lodes. Only important mine was Queen Constance in which lode trends NNW, and has flat dip	Gold. Some pyrite, rare sphalerite, stibnite
Mount Peter Goldfield (1915)	3 miles W of Gordonvale on steep N slopes of Mt Peter	11,000	Irregular quartz reefs trending NE and ESE across regional strike of enclosing Barron River Metamorphics. Steep dips. Shoots small and widely spaced. Average grade: 1oz 18dwt per ton. Large lode: the Talisman	Gold. Little chalcopyrite, pyrite, arsenopyrite
Mulgrave Goldfield (1879)	12-16 miles SSW of Gordonvale along spur at watershed between South Toohey Cr. and Butcher Cr., and along Mulgrave R	5580	(a) (Recent alluvium, now exhausted (b) (Quartz reefs, 6in.-11/2ft thick, with irregular ore shoots, and subparallel with, or diagonal to, strike of enclosing Barron River Metamorphics (c) (Buried alluvial deposits similar to those of Russell Goldfield. Little information available	Gold. Little pyrite, galenda
Fluorspar (1930)	10 miles SE of Chillagoe, on Crooked Cr.	Unknown, but at least 5050 (mixed bullion and fine gold)	Small, but commonly extremely rich shoots in thin leaders where these cut through greisenized gently dipping aplite veins in adamellite. Gold concentrated in kaolin-rich patches; values many ounces per ton	Gold. Gangue; kaolin, quartz, calcite, fluorite, zeolites, clay minerals
Tate Goldfield (about 1895)	Tate R. area, about 30 miles SW of Chillagoe	At least 3370	Alluvial, and rich but extremely small quartz veins in Precambrian rocks	Gold. Gangue: quartz
Alice River (or Philp Goldfield (1904)	Roughly 120-130 miles W of Cooktown, on Dickies Cr	2765	Two main lodes (Alice and St Aignan), 1/2 mile apart in N-S direction, and probably part of same N-S fault zone. Many parallel reefs and leaders. Reef 4-5ft wide	Gold in quartz gangue
Mount Wandoo (1901?)	17 miles W of Chillagoe on Wandoo Cr	Unknown; 2100 from 1933-37	Main workings within zone of altered ferruginous and micaceous gneiss, about 14 chains long, mineral impregnated. Mineralization concentrated in fissure deposits and in pipes formed at intersections of joints and fissures. Fissures much splayed, and sometimes referred to as stockworks. Maximum depth of workings 2ft	Gold in arsenopyrite, pyrite, chalcopyrite. Gangue: ferruginous and kaolinized country rock
Bartle Frere workings (1937)	7 miles W of Babinda, at foot of Mt Bartle Frere	520	Quartz reefs subparallel with, or in places diagonal to, strike of surrounding Barron River Metamorphics. Shoots patchy and irregular	Gold in quartz gangue. Little pyrite, arsenopyrite, galena, sphalerite, chalcopyrite