DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

REPT BK NO. 89/73

GOLD OCCURRENCES AND MINES IN THE WAUKARINGA AREA.

GEOLOGICAL SURVEY

by

W.P. FRADD
MINERAL RESOURCES

JUNE, 1989 DME 82/83

CONTENTS PAGE

TABLES

FIGURES

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

RPT BK NO. 89/73
DME NO. 82/83
DISK NO. E00077

GOLD OCCURRENCES AND MINES IN THE WAUKARINGA AREA

ABSTRACT

Following discovery of gold at Waukaringa in 1873, a number of localities outside the actual goldfield were worked for gold. Most notable was Ajax, which produced 69 521.71 grams of gold bullion from 5 158.24 tonnes of ore. Both alluvial and reef gold has been worked in the area. Collectively these mines and occurrences have a recorded production of 83 856.0 grams of gold bullion, additional to that produced at the Waukaringa mines.

INTRODUCTION

Waukaringa Goldfield has a recorded production of 1 426 665.22 grams of gold bullion from 58 226.46 tonnes of ore, (Fradd, 1986). This report has been compiled to record history and production of various mines, occurrences and prospects in the Waukaringa area, not included on the Waukaringa Goldfield, during the period 1873 to 1989.

LOCATION

Waukaringa Township, now abandoned, is located on Melton Station, 35 km north of Yunta in the Far North Planning Area. Access is via the Yunta-Arkaroola Road, a good-quality, graded, dirt road, and then by station tracks. Yunta, located on the Barrier Highway and standard guage railway to Broken Hill, is about 325 km northeast of Adelaide (Fig. 1). Gold prospects are located in an area extending from 14 km south- southeast of Waukaringa to 17 km westwards and to 10 km north of the goldfield. Mines and occurrences outside the Waukaringa goldfield are described following the arc from south to north and are shown on figure 2.

MULLAMALTA RANGE

Gold specimens were reportedly found approximately 14 km southeast of Waukaringa in 1876. Records list

a 6.7m shaft sunk on a 61cm lode of quartz and ironstone.

HOOPERS REWARD

Also recorded as Claim 14763 or Speculators, a newspaper report in 1937 stated that the workings were shallow and without systematic trenching. A total of 96.77 tonnes of ore yielded 1054.44 grams of gold bullion, an average yield of 10.9 g/t Au.

WRIGHT BORE

Several pits and a shallow creek have been worked 8.4 km south-southwest of Waukaringa, east of Wright No 1 Bore. No other information is recorded about this occurrence.

BLACK HILL BORE

Several shallow pits occur east of this bore. No records of these diggings were found.

BLACKFELLOWS REEF

Discovered in 1886 this reef, located 11.2 km west of Waukaringa, is one of the Ajax group of workings and comprises an open cut and two inclined shafts 6.1 m and 13.7 m deep. Several veins of quartz, pyrite and iron oxides 7.5 cm to 15.0 cm thick striking northeast-southwest and dipping 45^{o} northwest were opened. Three assays in 1913 showed no gold.

COOEE

Also known as Migo, this occurrence is located west of Blackfellows Reef. Worked in 1935-1937 and again in 1941, 24.64 tonnes of ore yielded 360.73 grams of gold bullion, an average of 14.6 g/t Au.

THE ECHO

Located west of Cooee, this mine was worked in 1936 by E.J. Tully who raised and treated 35.92 tonnes of ore for 952.49 grams of gold, a yield of 26.5 g/t Au.

HOOPER AND PARTY

Prospected east of Blackfellows Reef in October 1881.

LADY EMILY

Situated west of Blackfellows Reef, this was a prospecting venture in 1886.

AJAX

(NEW AJAX)

(NEW AJAX CONSOLIDATED)

(NEW ENTERPRISE)

(BABYLONIAN)

A large group of workings, located 10 km southwest of Waukaringa. Ajax was the largest mine outside of the main Waukaringa goldfield. Discovered in 1886, and worked intermittently by several companies, syndicates and individuals, the lode strikes northeast - southwest, dips north at 45^{o} and consists of quartz and ironstone to approximately 73.0 m, where it becomes pyritic. Average width varies between 15-61 cm, with reports of widths up to 1.4 m at depth. In some places reef casing carried gold values for up to 13.0 cm.

Five main shafts opened the lode over a length of 150 m and are described below, extending from the Main Shaft, southwest along the line of lode. Several other minor shafts and pits also occur.

Main shaft was sunk 108.2 m on the underlie. Levels were opened at 18.3m, 61.0 m, 85.3 m. Both levels at 61.0 and 85.3 were driven southwest under Marke's and Symon's shafts. Marke's shaft, located 53.0 m southwest of the Main Shaft was sunk to 18.3 m. Symon's shaft, 30.5 m southwest of Marke's shaft was sunk to 21.3 m. Further southwest, an unnamed shaft was sunk 26.3 m. Company's shaft, located 152 m southwest of the unnamed shaft, was sunk to 18.3 m, with a drive north-east from the bottom.

Water shaft was sunk vertically 58.5 m on the plains 82 m north of the main workings. At 35.6 m a 7.5 cm quartz vein, parallel to main lode was passed through. No information is available as to gold values at this locality.

During 1893, the mine was forfeited after having remained idle for 3 years. A 10 head stamp battery, powered by a 20 h.p. engine was erected on site. However water supply was inadequate for any more than intermittent crushing, a problem which was never overcome during the life of the mine. A (?vertical) hole drilled near the workings in 1910, cut water at 48.8 m and a shaft was subsequently sunk on this hole.

In an attempt to overcome the water shortage a well was sunk near Symon's Well by the Government in 1912. Water was cut at 12.2m, and pumped 5.6km to the mine through an 8cm pipe. A cyanide plant was constructed and a 34 h.p. suction gas engine attached to the battery. Crushing commenced late in 1912.

South Australian Department of Mines drilled 5 holes on the mine during 1913-1914. Hole locations are shown on a plan in Mining Review 26: p25 (1917). Results are summarised in table 1 below.

TABLE 1

SUMMARY OF SADM DRILLING AT AJAX, 1913-1914.

HOLE	DEPTH (m)	ANGLE	BEARING	COMMENTS
1	64.6	73°	119°	30.5 cm lode of quartz and iron at 40.1 m, assayed 9.48 g/t Au.
2	93.9	73°	119°	5 cm quartz vein at 55.8 m.
3	148.7	73°	140°	Designed to cut lode at 121.9 m. 5 cm iron and quartz cut at 29.0 m, 3.0 cm quartz, calcite and pyrite cut at 75.6 m, 3.0 cm, quartz and pyrite cut at 91.6 m, 4.0 cm quartz and pyrite cut at ? 119.2 m.
4	52.4	73°	140°	Designed to cut lode at 48.8 m. 41.0 cm lode formation cut at 47.6 m, 23.0 cm iron oxide, quartz and calcite lode cut at 48.3m. Assayed 31.61 g/t Au.
5	139.6m	90°	-	No lode cut.

Production records are incomplete. However it is known that 4345.44 tonnes of ore treated at the mine site yielded 69 521.71 grams of gold bullion, a yield of 16.0 g/t Au. At least another 1 000 tons of ore have been treated, presumably yielding similar grades. Table 2 shows ore treated at Waukaringa.

TABLE 2

AJAX ORE TREATED AT WAUKARINGA

HALF YEAR ENDED	ORE TONS	CWT	BULLION qr	oz	dwt	gr	COMMENTS
30-6-1889	100	-	-	50	-	-	ALMA BATTERY
?	?250	-	-	?	?	?	AJAX BATTERY
31-12-1900	50	-	-	40	-	-	AJAX BATTERY
"	50	-	-	34	8	-	AJAX BATTERY TAILINGS 7 dwt/ton
30-6-1902*				?	?	?	350 TONS TAILINGS CARTED TO ALMA FOR CYANIDATION. NO RESULTS KNOWN.
"	550	-	-	?	?	?	AJAX BATTERY
31-12-1902*	?	?	?	?	?	?	AJAX BATTERY
31-12-1908	50	-	-	30	-	-	AJAX BATTERY
1909-1911*	?	?	?	?	?	?	SEVERAL HUNDRED TONS AT ALMA EXTENDED BATTERY.
30-6-1913	900	-	-	540	-	-	AJAX BATTERY
31-12-1913	1893	-	-	757	-	-	AJAX BATTERY
31-12-1935	35	-	-	14	7	-	AJAX BATTERY TAILINGS 6 dwt/ton BULLION GAVE ONLY 6oz 4 dwt FINE GOLD.
30-6-1936	8	-	-	5	1	-	AJAX BATTERY.
	3886	-	-	1470	16	-	

(3948.18 TONNES) (45 753.99 GRAMS)

NOTE:* NOT INCLUDED IN TOTALS

Records of ore treated at Peterborough are listed in Appendix A.

Ajax ore requires fine grinding to liberate contained gold, (Gartrell, 1940). Samples of ore, concentrates and tailings tested by the Bonython Laboratory showed that amalgamation of a stamp battery product would yield a small extraction. Finer grinding produced a high rate of extraction. Milling by a stamp battery produced a product that would not give a high grade concentrate by tabling (Gartrell, 1940).

UNION JACK

These workings, adjoining Ajax reef to the north, were worked between 1888-1889 and again in 1911. Lode material consists of ironstone and quartz, 30-60 cm wide, striking northeast - southwest, and dipping northwest at 45^{o}.

Several shafts have been sunk, with No. 1 or Main Shaft, sunk to 61.0 m being the deepest. Other shafts varying from 2.4 - 18.3 m deep have been sunk 300 m westward along strike.

In 1911 four samples gave the following assays:-

Shaft 3.1 m deep, lode 45 cm,	26.87 g/t Au
Outcrop over a length of 80.5 m	14.22 g/t Au
Dump No. 3 shaft	12.64 g/t Au
Costean 60.4 m long	9.48 g/t Au

ROYAL STANDARD

(STANDARD)

Located east of Ajax, near Union Jack, gold was discovered here in 1888. One parcel of ore treated in 1909, returned 101.23 grams of gold bullion from 6.5 tonnes of ore, a yield of 15.6 g/t Au.

HOOPER AND BOXER

Workings are 1.2 km northeast of Ajax on what is possibly a continuation of the Ajax lode. The lode strikes northeast - southwest and dips northwest. An underlie shaft was sunk 32.9 m on a 15.3 cm thick lode of ferruginous quartz and ironstone. Drives at the bottom extend 2.4 m each way along the lode. Samples collected in 1909 from bottom of the shaft gave 18.96 g/t Au and from side of shaft 3.16 g/t Au.

UNNAMED

Gold was discovered and worked 3.2 km south of Mt. Misery in 1876 and was probably only a small prospecting venture. No other records are available.

TEAGUE F.A.

Gold Claim 7479 was pegged by F.A. Teague 6.4 km due east of Ajax and south of Symonds Well on the 12 February 1936. A parcel of 5.08 tonnes yielded 45.76 grams of gold bullion, a yield of 9.0 g/t Au. Two samples collected in 1985 (A192/85 and A193/85) assayed 4.96 and 0.08 g/t Au respectively (Townsend, 1987).

JACKSON'S CLAIMS

Shaft sunk to 27.4 m in 1873-75, east of Spotswood Hill.

BAGOT

E.M. Bagot reportedly found colours and specimens of gold west of Jackson's in 1873.

GIBBONS

Claim prospected in 1873 north of Jackson's.

BLACK OAK

A shaft sunk to 10.7 m on a glassy quartz reef, 61 cm wide at the surface and swelling to 91 cm at depth is located near Spotswood Hill.

MT WORDEN SYNDICATE

(WORDEN AND COMPANY)

This syndicate sunk two shafts, 1.5 m and 4.7 m deep, near Spotswood Hill in 1894. Gold was dollied from lode material comprising iron, quartz and calcite.

GREAT NORTH EASTERN GOLD MINING SYNDICATE

Discovered in 1888 by J. Love, who later discovered Lovely Gully. A drive was put into Spotswood Hill on a large outcrop of quartz and iron striking northeast - southwest and dipping south. Both pyrite and free gold was reported as well as assays over 31 g/t Au.

LOVELY GULLY AREA

Lovely Gully is located 10.4 km west-northwest of Waukaringa and 7 km north of Melton Homestead. Alluvial gold was discovered here by J. Love in 1890. Scattered workings, centred around or in Lovely Gully, are described below in alphabetical order.

Bowkers Claims

Worked in 1894 by a Laura Syndicate, these claims adjoin Broken Hill Syndicate on the east. Gold and copper was reported in the ore. The workings were possibly known as the Laura Syndicate in 1895.

Broken Hill and Waukaringa Syndicate

Shafts are located 100 m north of the gully, and were worked in 1893-5, 1899 and 1906. Lode material is iron and gossan, 1.1 m wide, striking northeast - southwest and dipping northwest. The top 4.5 m of the lode comprises quartz.

Workings consist of a 16.8 m underlie shaft and a shaft which is vertical for 10.7 m, then inclined for 7.6m. A 5.5m drive southwest was opened at the 10.7m level and a sample collected from here in 1906 assayed 1.58 g/t Au.

In 1906, White, the original prospector, sunk a third shaft 24.0 m south of the old workings. A vein, cut at 10.7 m, was driven northwards. Samples from here assayed:

1) fines	14.22 g/t Au
2) top of lode	1.58 g/t Au
3) ferruginous claystone	3.16 g/t Au

Recorded production is 203.95 grams, 17.30 being dollied from ore, the rest alluvial.

Cameron's Reef

(MR GADD'S CAMERON REEF)

Prospected in 1893-4 by a 9.1 m shaft the lode was 30 cm wide, but showed no gold on assay.

Darley's Mineral Claim

Three parallel lodes striking north 60^{o} and dipping vertically have been prospected by numerous shallow pits. No. 1 lode comprising 15.0 cm of quartz and pyrite, exposed in a 1.2 m deep pit, assayed 4.74 g/t Au. Numerous pits 1.2-2.1 m deep expose the No. 2 lode which consists of 30-48 cm of ferruginous quartz and pyrite. Although a rich specimen was reportedly found here, two samples assayed nil and 3.61 g/t Au. No. 3 lode has been opened by several holes 0.8-1.5 m deep, disclosing a 15-30 cm quartz and iron vein, assaying 1.58 g/t Au.

East and Kneebone

A shaft adjoining Ballarat was sunk to 7.3 m in 1894 on crystallized quartz.

Langsford's Mineral Claim

This claim covered the area held by Laura Syndicate in 1895. Laura underlie shaft was sunk to a depth of 48.8 m, with a 20.7 m vertical air shaft connected to it at 33.5 m. Prospecting was carried out in a drive at the 48.8 m level, with a winze being sunk to 6.1 m. This disclosed several thin veins of quartz and pyrite which on being assayed gave no gold values. A sample of lode, 20 cm thick, in the 48.8 m level, assayed, 6.1% Cu and a trace of gold. A nearby, 7.0m vertical shaft, cut a 38 cm vein of ferruginous quartz at 6.1 m, which assayed 0.1% Cu, but no gold.

Approximately 80 m east of Laura Shaft, 6 pits, 1.5-2.1 m deep were sunk in alluvial material with gold being recovered. East of Laura Shaft three vertical shafts were sunk, 2.4 m, 3.4 m and 3.7 m, each of which disclosed copper bearing material. The eastern shaft, 3.7 m deep, was continued on an underlie to 6.1 m on a 8-13 cm vein assaying 0.5% copper and 1.58 g/t Au.

Total production is unknown. However, recovery of 62.22 grams of alluvial gold was reported.

Laura Syndicate

An underlie shaft sunk 48.8 m connected a vertical air shaft 20.7 m deep, cutting the Underlie Shaft at 33.5 m. There is a drive at this level for a distance of 4.3 m.

Lovely Gully Alluvial Workings

J. Love discovered alluvial gold in this gully in 1890. Workings extend for approximately 1.6 km east of the

main copper workings and are all shallow pits. Newspapers report that 4 lbs (approx. 1.8 kg) of gold was purchased from diggers prior to mid 1893. However, no reliable production figures are available.

During September 1893 a government sponsored prospecting scheme operated at this locality. Six men, in three teams of two, were paid 10 shillings each per week for food, water being supplied by the Progress Committee. They were to prospect within 14.5 km of Waukaringa. Any team finding payable gold bearing material was entitled to a reward claim, which was larger than an ordinary claim.

Results as recorded in the Adelaide Observer, are shown in Table 3.

TABLE 3

TEAM	SUNK (FT)	DROVE (FT)	0Z	DWT	GR	REF. NO.	COMMENTS
NANKAVILLE + MATE		12	16	-	1	12 1)	HEAD OF LOVELY GULLY
BLIGHT + BLIGHT	8	14	-	3	-	1)	HEAD OF LOVELY GULLY
JOHNSON + ROSE	8	12	COLOURS			1)	4.8 KM N. BEWLEY HILL
JOHNSON + ROSE	18	4	COLOURS			2)	
BLIGHT + BLIGHT	5	9	COLOURS			2)	NO 3RD TEAM
BLIGHT + BLIGHT	-	-	-	-	-	3)	ABSENT - DEATH IN FAMILY
JOHNSON + ROSE	4	19	COLOURS			3)	
LOVEDAY + LEAHY	26	-	COLOURS			3)	
JOHNSON + ROSE	18	11	-	1	-	4)	
RHODES + WILLIAMS	18	-	COLOURS			4)	
LEAHY + COLLINS	15	4	COLOURS			4)	
JOHNSON + ROSE	-	17	-	2	4	5)	
RHODES + WILLIAMS	17.5	6	COLOURS			5)	
FORD + COLLINS	18	4	COLOURS			5)	
?	?	?	-	2	-	6)	
JOHNSON + ROSE	8	12	-	3	-	7)	
RHODES + FORD	22	12	COLOURS			7)	
WILLIAMS + MCINTIER		16	4	COLOURS		7)	
JOHNSON + ROSE	-	30	-	2	-	8)	
RHODES + FORD	18	8	COLOURS			8)	
WILLIAMS + MCINTIER		16	7	COLOURS		8)	
RASHLEIGH + O'BRIEN		15	6	-	4	- 9)	ONE PIECE 3 DWT
RHODES + FORD	17	7	COLOURS			9)	
WILLIAMS + MCINTIER		15	8	COLOURS		9)	
RASHLEIGH + O'BRIEN		18	15	-	2	- 10)	
RHODES + WILLIAMS	42	9	COLOURS			10)	
MCINTIER + DOOLEY	30	10	COLOURS			10)	
	384.5	244	1	-	16		

(117.20m) (74.37m) (32.15grams)

REFERENCES

1)	Adelaide Observer		4/11/1893
2)	"	"	18/11/1893
3)	"	"	9/12/1893
4)	"	"	20/1/1894
5)	"	"	3/2/1894
6)	"	"	24/2/1894
7)	"	"	3/3/1894
8)	"	"	10/3/1894
9)	"	"	17/3/1894
10)	"	"	31/3/1894

Lovely Gully Mine

Main workings comprise several shafts, sunk to a maximum depth of 21.3 m. The main lode strikes east-west, dips north at 10-15°, and averages 20 cm in width. Country rock is a bleached and pitted slate, dipping south at 65°. North of the main workings a vertical shaft was sunk to 14.0 m depth.

Another vertical shaft, 1.6 km west of main workings, was sunk to 30.5 m, cutting quartz and iron veins near the bottom. The largest vein, 1.2 m thick, dips south-east at 57°. Traces of copper were observed in the ore.

Walker Broken Hill Syndicate

(WALKER MORRIS SYNDICATE)

During 1894 the syndicate sank a 12.2 m shaft near Herrings.

. Others

Over 50 claims were pegged in Lovely Gully during 1894. Claims known to have been pegged are listed below:

CLAIM	COMMENTS
ATTKINS + PARTY	
BALLARAT	ADJOINS BROKEN HILL AND WAUKARINGA SYNDICATE ON THE SOUTH. SHAFT SUNK.
CROSBY + PARTY	
EAST + PARTY	ADJOINS BALLARAT
FLOOD + HALLS	NEAR SPOTSWOOD HILL
FOULD + CREES	SOUTH OF BROKEN HILL AND WAUKARINGA SYNDICATE
HERRING'S	SOUTH EAST OF BROKEN HILL AND WAUKARINGA SYNDICATE
HILLS SYNDICATE	
HORN + CO	SOUTH EAST OF BROKEN HILL AND WAUKARINGA SYNDICATE
THREADGOLD + ROWES	
TUCKER + CO	1.6 KM FROM HILLS. GOLD IN QUARTZ.

WATERLOO NORTH REEF

Located 8.0 km north-west of Waukaringa, two underlie shafts were sunk on auriferous quartz veins. No. 1 shaft is 21.3 m deep and No. 2 shaft, located east of No.1, is 9.1 m deep on a 61 cm thick quartz vein. Gold was reported in the ore.

JOHNSONS GULLY

Gold was discovered 9.5 km north of Lovely Gully in June 1894. The gully runs north-south, with the head at the southern end. Depth of the alluvial wash was from 1.8-4.3 m and the first hole sunk reportedly yielded a 30 gram nugget. Gold was also obtained in Dunns Gully, an east-west tributory of Johnson gully, and on the "flats" where Johnsons gully emptied to the north. The wash was up to 6.7 m deep here. In 1894-95 up to 120 men worked in the area but total gold production is unknown. The South Australian Register of 16 January 1895 stated that 300 0Z (9.3 kg) of gold had been reported in a few months. Table 4 shows details of known production.

TABLE 4

DETAILS OF KNOWN GOLD PRODUCTION FROM JOHNSONS GULLY

0Z	DWT	GR	GRAMS	OWNER	TYPE	REF. NO.	COMMENTS
-	2	-	3.11	?	A	1)	
-	19	-	29.55	? JOHNSON	N	2)	
-	6	-	9.33	?	N	2)	
-	6	-	9.33	?	N	2)	6-8 dwt in several pieces.
1	-	-	31.11	?	A	3)	
-	13	12	21.00	JOHNSON	N	4)	
-	-	12	0.78	CURNOW	A	4)	
-	9	-	14.00	JOHNSON	A	5)	
1	12	-	49.77	HARVEY	N	6)	
-	4	-	6.22	CURNOW	N	6)	
5	-	-	155.54	TUCKER	A	7)	
1	-	-	31.11	NOURSE	A	7)	
6	10	-	202.20	JOHNSON	A	7)	From 7 holes. Includes previous references.
1	-	-	31.11	DUNN + PARTY	A	8)	
-	6	-	9.33	JOHNSON	A *	9)	Panned in front J.V. Parkes
-	1	12	2.33	JOHNSON	A *	9)	Panned in front J.V. Parkes.
-	3	12	5.44	JOHNSON	A *	9)	Panned in front J.V. Parkes.
1	15	-	54.44	RASHLEIGH + DUNN	A	9)	
-	-	6	0.39	KITTO	A	9)	
6	-	-	186.65	HARVEY + TUCKER	A	9)	
-	13	-	20.22	G. MEAKER	A	9)	
1	-	-	31.11	T. CURNOW	A	9)	
-	5	-	7.78	J. CARYOR	A	9)	
-	10	-	15.55	RAMSAY + MATE	A	9)	
-	1	12	2.33	TUCKER + PARTY	A *	9)	Panned in front J.V. Parkes.
-	10	-	15.55	CARR	A	10)	
-	5	-	7.78	NELSON	N	10)	
-	5	-	7.78	NELSON	A	10)	
3	-	-	93.32	JOHNSON	A	11)	
-	10	-	15.55	?	N	11)	
24	-	-	746.60	?	A	12)	On display from Gully
6	-	-	186.65	JOHNSON	A	12)	Weeks work.
3	-	-	93.32	"	A	13)	
				?	A	13)	Several parties, each 1oz-1 1/2oz.
70	-	-	2 177.58		A	15)	Display in Adelaide - from JOHNSONS CLAIM.
300	-	-	9 332.47		A	15)	Estimate of quantity found in a few months.
-	10	-	15.55	JOHNSON	N	16)	
10	14	-	332.86	BOND	A	17)	
1	6	-	40.44	BOND	N	17)	

NOTES

N = Nugget
A = Alluvial - fine gold or not differentiated in report.
* = Panned in front of J.V. Parkes, Inspector of Mines.

REFERENCES

1) Adelaide Observer 9/6/1894
2) " " 16/6/1894
3) South Australian Register 14/9/1894
4) " " " 18/9/1894
5) " " " 27/9/1894
6) " " " 29/9/1894
7) " " " 2/10/1894
8) " " " 4/10/1894
9) " " " 9/10/1894
10) " " " 10/10/1894
11) " " " 11/10/1894
12) " " " 2/11/1894
13) " " " 9/11/1894
14) " " " 27/11/1894
15) " " " 16/1/1894
16) " " " 18/1/1894
17) " " " 4/2/1894

HOOPER BROS COPPER SHOW

Located 16.0 km northwest of Waukaringa, a vertical quartz-iron lode carrying copper and striking north-east/south-west, has been explored by shallow pits over a length of 90 m. A vertical shaft was sunk to a depth of 9.1 m, with drives northeast at 4.6 m and at 9.1 m. A winze connects the two drives. The lode reportedly widened to 1.8 m in the bottom of the winze. Samples taken in 1908 gave the following results:-

1) Ore dump 7% cu, 1.58 g/t Au
2) " " 9.4% cu, 1.58 g/t Au
3) " " 13.8% cu, 1.58 g/t Au
4) winze 46.5% cu, 3.16 g/t Au (Picked ore)

CONSTANCE

(McCAFFRAYS CLAIM)

This claim was on Blackfellows Creek, the location of which is unknown, but was possibly near

Blackfellows Reef. During 1882 a shaft was sunk to a depth of 9.8 m, cutting several leaders of quartz and ironstone which reportedly carried gold.

GOLD PRODUCTION

Total gold production from this area is unknown, however Table 5 below shows recorded production.

TABLE 5

RECORDED GOLD PRODUCTION, WAUKARINGA AREA

Mine Name	Ore Treated (tonnes)	Gold Recovered (grams)	yield (g/t)
Cooee	24.64	360.73	14.64
The Echo	35.94	952.49	26.52
Ajax (Waukaringa)	3 948.18	45 753.99	11.59*
Ajax (Peterborough)	1 210.06	23 767.72	19.64
Royal Standard	6.50	101.23	15.57
Teague F.A.	5.08	45.76	9.01
Broken Hill & Waukaringa Synd. -	203.95	-	
Langsfords M.C.		62.22	
Govt. Prospectors		32.15	
Lovely Gully		1 800.00	
Johnsons Gully		9 721.32	
Hoopers Record	96.77	1 054.44	
TOTALS	5 327.15	83 856.00	

* NOTE: yield per tonne is actually greater than this, as this figure includes 812.80 tonnes of ore treated with an unknown recovery.

REFERENCES

Armstrong, A.T., 1937. Ajax Mine, Waukaringa. Min. Rev., Adelaide. 65:67.

Armstrong, A.T., 1937. Ajax Mine, Waukaringa, Min. Rev., Adelaide. 66:75.

Armstrong, A.T., 1938. Ajax Mine, Waukaringa, Min. Rev., Adelaide. 67:89.

Brown, H.Y.L., 1887. Record of the Mines of South Australia. Government Printer, Adelaide.

Brown, H.Y.L., 1890. Record of the Mines of South Australia. Government Printer, Adelaide.

Brown, H.Y.L., 1899. Record of the Mines of South Australia. Government Printer, Adelaide.

Brown, H.Y.L., 1908. Record of the Mines of South Australia. Government Printer, Adelaide.

Duffield, C.F., 1913. Boring Operations at Leigh Creek and Waukaringa. Min. Rev., Adelaide. 18: 18-19.

Duffield, C.F., 1913. Boring Operations at the Ajax Mine, near Waukaringa. Min. Rev., Adelaide. 19:20-21.

Duffield, C.F., 1914. Boring Operations at the Ajax Mine, near Waukaringa, and at the Paradise Coal Company's property, near Highbury. Min. Rev., Adelaide. 20:18.

Gartrell, H.W., 1940. Ore dressing investigations. Ore from the Ajax Mine, Waukaringa. Min. Rev., Adelaide. 72:31-34.

Gee, L.C.E., 1914. Ajax Mine. Min. Rev., Adelaide. 21:29.

Jones, H., 1908. Ajax. Min. Rev., Adelaide. 8:27.

Jones, H., 1908. Hooper Bros'. Copper Show. Min. Rev., Adelaide. 8:27.

Jones, H., 1911. Ajax Gold Mine. Min. Rev., Adelaide. 14:31.

Jones, H., 1911. Union Jack Gold Mine. Min. Rev., Adelaide. 14:31.

Jones, H., 1912. The Ajax Gold Mine. Min. Rev., Adelaide. 16:39.

Jones, H., 1912. H. Darley's Mineral Claim. Min. Rev., Adelaide. 17:53.

Jones, H., 1912. Langsford Mineral Claim. Min. Rev., Adelaide. 17:54.

Jones, H., 1913. The Ajax Gold Mine. Min. Rev., Adelaide. 19: 53-54.

Jones, H., 1913. The Blackfellows Reef Gold Mine. Min. Rev., Adelaide. 19:54.

Jones, H., 1913. Langsford Mineral Claim. Min. Rev., Adelaide. 19:54.

Jones, H., 1914. Langsford's Mineral Claim. Min. Rev., Adelaide. 20: 61-62.

Jones, H., 1919. Langsford's Claims, Lovely Gully near Waukaringa Min. Rev., Adelaide. 31:96.

Mathews, A.W., 1910. Report on Boring Operations. No. 2 Boring Plant. Min. Rev., Adelaide. 13:14.

Mathews, W.H., 1912. H. Darley's Mineral Claim. Min. Rev., Adelaide. 17:53.

Mining Review, 1910. General Notes. Min. Rev., Adelaide. 13:8.

Mining Review, 1912. General Notes. Min. Rev., Adelaide. 16:8.

Mining Review, 1912. General Notes. Min. Rev., Adelaide. 17: 9-10.

Mining Review, 1913. General Notes. Min. Rev., Adelaide. 19:10.

Mineral Review, 1914. General Notes. Min. Rev., Adelaide. 20:8.

Mineral Review, 1935. General Notes. Min. Rev., Adelaide. 62:35.

Mining Review, 1917. Government Diamond Drilling Operations. Min. Rev., Adelaide. 26: 25-30.

Mining Review, 1909. Reports Forming Addenda to the 'Record of Mines'. The Ajax. Min. Rev., Adelaide. 11:17.

Mining Review, 1909. Reports forming Addenda to the 'Record of Mines'. Hooper and Boxer's Gold Mine. Min. Rev., Adelaide. 11: 21-22.

Mining Review, 1913. Returns from Crushing and Cyaniding Plants (other than Government) for the half-year ended June 30th, 1913. Min. Rev., Adelaide. 18:15.

Mining Review, 1913. Returns from Crushing and Cyaniding Plants (other than Government) for the half-year ended December 31st, 1913. Min. Rev., Adelaide. 19:16.

Pearson, J.L., 1934. Ajax Mine. Min. Rev., Adelaide. 61: 68-69.

Pearson, J.L., 1935. Ajax Mine. Min. Rev., Adelaide. 63: 68-69.

Puelleine, F.A., 1888. The Australasian Mining Directory, PP. 18, 44.

South Australian Department of Mine and Energy. Peterborough Battery ore Books, 1897-1989. Unpublished.

Townsend, I.J., 1987. Waukaringa Goldfield Geological Investigations. S. Aust. Dept. Mines and Energy Report 86/71. (unpublished).

Townsend, I.J. and Horn, C.M., 1988. Geological Appraisal of Waukaringa Goldfield. Mineral Resources Rev. S. Aust., 156: 75-87.

Winton, L.J., 1930. Lovely Gully. Min. Rev., Adelaide. 52: 69-70.

DOCKETS

DM 1218/34, DM 42/36, DM 758/36, DM 2254/69.

PLANS

473, 474, 475, 476, 779, 780.

F.O. 290, F.O. 291, F.O. 292, F.O. 293, F.O. 294, F.O. 301, F.O. 343.

S.K. 376/80.

4677 5

NEWSPAPERS

Adelaide Observer

1873

9/8, 30/8, 4/10, 27/12,

1874

3/1, 9/8, 24/10,

1875

31/7, 25/12,

1876

8/7, 26/10,

1881

22/10,

1882

15/4,

1888

31/3, 26/5, 16/6, 18/6, 23/6, 30/6, 14/7, 22/9, 20/10,

1889

19/1, 23/3, 17/8, 12/10, 19/10, 16/11, 14/12, 28/12,

1890

25/1, 1/2, 8/2, 19/4, 3/5, 21/6, 16/8, 25/10,

1891

17/1, 31/1, 21/2, 28/2, 14/3, 28/3, 1/8, 26/12,

1893

5/8, 23/9, 4/11, 18/11, 9/12,

1894

20/1, 3/2, 17/2, 24/2, 3/3, 10/3, 17/3, 31/3, 7/4, 21/4, 5/5, 12/5, 19/5, 9/6, 16/6, 7/7, 1/9,

DAILY HERALD
1912
30/4,
1913
29/11,
MT BARKER COURIER
1894
31/12,
SOUTH AUSTRALIAN ADVERTISER
1887
23/5, 11/6,
1901
24/4, 19/6, 3/7, 27/7, 14/9, 6/11,
1902
11/1, 22/1, 12/2, 4/3, 12/3, 19/3, 9/4, 22/4, 16/5, 24/5, 3/6, 18/6, 6/8, 16/8, 10/9,
1909
16/10,
1912
15/5,
1913
27/3, 27/6,
1914
24/4, 28/5,
1930
15/2,
1935
11/10, 6/12,
1936
10/1, 7/4,
1937
8/2, 8/7,
1939
30/12,

SOUTH AUSTRALIAN REGISTER

1886

7/9,

1892

27/7,

1894

7/4, 5/7, 25/8, 14/9, 18/9, 27/9, 29/9, 2/10, 4/10, 9/10, 10/10, 11/10, 22/10, 2/11, 3/11, 7/11, 27/11, 17/12, 26/12,

1895

16/1, 18/1, 4/2, 21/2, 21/3, 23/3, 22/6,

1899

23/9,

1900

11/8, 25/8, 27/8, 7/11,

1901

26/2, 29/4, 26/6, 27/7, 7/9, 1/10, 9/10, 23/10, 13/11,

1902

11/1, 18/1, 5/2, 12/2, 22/2, 23/2, 4/3, 12/3, 19/3, 9/4, 22/4, 6/5, 16/5, 24/5, 3/6, 18/6, 30/6, 16/8, 6/8, 8/9, 10/9, 1/10,

1909

12/6,

1913

1/1, 17/2, 3/4, 26/7, 13/8.

APPENDIX A

Ore treated at Peterborough
State Battery

MINE: AJAX

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE						GOLD BULLION RECOVERY BY AMALGAMATION ONLY							GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS							TOTAL BULLION RECOVERED	YIELD PER TON
		TONS	CWT	QR	OZ	DWT	GR	BULLION OZ	DWT	GR	TAILING ASSAY		% RECOVERY		BULLION OZ	DWT	GR	TAILING ASSAY OZ	DWT	GR	% RECOVERY		OZ	DWT
31-12-1906	314	12	-	-	1	17	6	-	17	7	15.22	8	11	12	-	3	-	82.65	10	8	18	-	17	10	
"	316	62	-	-	9	2	3	-	14	1	17.30	35	15	14	-	2	12	82.20	44	17	17	-	14	12	
"	321	51	10	-	6	1	2	-	13	7	15.03	27	15	18	-	2	12	81.19	33	16	20	-	12	17	
31-12-1930	553	9	10	-	2	13	-	-	19	12	22.25	8	1	17	-	2	11	81.29	10	14	17	1	2	15	
30-6-1932	635	11	2	-	2	11	-	-	8	-	36.48	3	6	14	-	2	-	74.99	5	17	14	-	10	14	
31-12-1934	758	5	5	-	1	2	3	-	4	11	48.58	-	16	9	-	1	8	69.93	1	18	12	-	7	8	
"	763	6	12	-	1	14	12	-	7	-	42.75	1	13	-	-	1	-	71.42	3	7	12	-	11	5	
30-6-1936	819	16	10	-	3	17	5	-	11	4	29.53	7	3	-	-	2	12	77.61	11	-	5	-	13	8	
"	830	6	6	-	1	1	11	-	6	2	35.89	1	5	17	-	2	-	67.07	2	7	4	-	7	12	
"	833	10	15	-	2	8	2	-	5	12	44.85	1	17	15	-	2	-	63.64	4	5	17	-	7	23	
"	846	7	17	-	1	10	21	-	7	8	34.90	2	1	20	-	2	-	72.65	3	12	17	-	9	6	
31-12-1936	862	8	10	-	3	10	15	-	11	4	42.66	3	13	16	-	2	12	77.61	7	4	7	-	16	23	
"	877	6	18	-	2	1	15	-	14	-	30.12	3	19	8	-	2	12	82.14	6	-	23	-	17	13	
"	888	21	-	-	3	4	19	-	7	8	29.61	5	12	-	-	2	-	72.73	8	16	19	-	8	10	
"	893	21	5	-	4	17	11	-	10	8	30.64	8	6	11	-	2	12	75.81	13	3	11	-	12	10	
"	900	19	2	-	5	7	8	-	10	8	35.22	7	9	15	-	2	12	75.81	12	16	23	-	13	11	
"	912	15	4	-	3	4	20	-	10	8	29.22	5	19	1	-	2	12	75.78	9	3	21	-	12	2	
30-6-1937	920	7	15	-	2	4	8	-	6	16	46.18	1	16	4	-	2	-	70.00	4	-	12	-	10	9	
"	921	8	6	-	2	7	12	-	11	-	34.22	3	10	13	-	2	12	77.27	5	18	1	-	14	5	
"	922	7	17	-	2	6	21	-	6	2	49.54	1	12	1	-	2	-	67.10	3	18	22	-	10	1	
"	927	20	5	-	5	8	12	-	7	16	41.14	5	14	18	-	2	-	73.91	11	3	6	-	11	1	
"	931	8	15	-	2	11	13	-	4	-	59.56	1	3	8	-	1	8	66.67	3	14	21	-	8	13	
"	936	17	-	-	5	1	2	-	8	18	42.13	5	14	18	-	2	-	77.14	10	15	20	-	12	17	
"	939	10	5	-	3	-	18	-	5	12	51.87	1	15	21	-	2	-	63.64	4	16	15	-	9	10	

"	942	20	15	-	4	1	16	-	14	-	21.94	11	18	15	-	2	12	82.14	16	-	7	-	15	10
"	945	13	10	-	1	19	-	-	7	8	28.26	3	12	-	-	2	-	72.73	5	11	-	-	8	5
"	946	17	7	-	3	15	5	-	8	18	33.13	5	17	3	-	2	-	77.14	9	12	8	-	11	2
"	950	20	9	-	6	19	10	-	14	-	32.75	11	15	4	-	2	12	82.14	18	14	14	-	18	8
"	957	13	13	-	5	1	14	-	15	-	33.16	8	3	19	-	3	-	80.00	13	5	9	-	19	11
30-12-1937	962	16	7	-	5	1	19	-	11	12	35.12	7	7	4	-	2	12	78.26	12	8	23	-	15	5
"	966	19	8	-	4	18	10	-	11	12	30.61	8	14	14	-	2	12	78.26	13	13	-	-	14	2
"	970	11	10	-	3	9	4	-	13	5	31.29	6	3	3	-	2	12	81.05	9	12	7	-	16	17
"	973	10	-	-	2	16	11	-	16	2	25.98	6	10	20	-	3	-	81.35	9	7	7	-	18	18
"	978	16	5	-	4	-	5	-	15	3	24.60	9	17	1	-	3	-	80.17	13	17	6	-	17	1
"	981	20	12	-	5	15	10	-	16	-	26.03	13	7	19	-	3	-	81.25	19	3	5	-	18	14
"	984	14	9	-	3	11	5	-	13	1	27.42	7	12	8	-	2	12	80.83	11	3	13	-	15	11
"	988	14	6	-	3	1	10	-	10	8	29.36	5	12	-	-	2	12	75.80	8	13	10	-	12	3
"	990	18	17	-	2	10	9	-	8	-	25.04	5	13	2	-	2	-	74.99	8	3	11	-	8	16
"	992	4	5	-	1	-	11	-	9	10	33.82	1	11	12	-	2	-	78.69	2	11	23	-	12	6
"	996	21	-	-	3	4	11	-	9	-	25.43	7	7	-	-	2	-	77.78	10	11	11	-	10	2
"	1000	4	15	-	2	3	15	-	13	-	41.40	2	9	21	-	2	12	83.82	4	13	12	-	19	16
"	1007	26	14	-	6	9	18	-	9	10	34.04	9	18	-	-	2	-	78.75	16	7	18	-	12	7
30-6-1938	1011	8	-	-	3	-	2	-	12	2	38.33	3	16	16	-	2	12	79.31	6	16	18	-	17	2
"	1016	10	18	-	2	5	22	-	11	12	26.81	4	18	2	-	2	12	78.26	7	4	-	-	13	5
"	1018	10	13	-	2	11	15	-	14	-	25.72	6	2	11	-	2	12	82.14	8	14	2	-	16	8
"	1019	13	4	-	1	18	10	-	13	-	18.29	6	18	14	-	2	12	80.77	8	17	-	-	13	9
"	1024	17	14	-	3	10	2	-	14	-	22.05	10	3	13	-	2	12	82.14	13	13	15	-	15	11
"	1032	14	15	-	2	2	15	-	11	12	20.08	6	12	18	-	2	12	78.26	8	15	9	-	11	21
"	1035	21	10	-	2	-	17	-	8	18	17.79	7	5	3	-	2	-	77.14	9	5	20	-	8	15
31-12-1938	1040	19	16	-	2	18	5	-	11	12	20.36	8	18	5	-	2	12	78.26	11	16	10	-	11	23
"	1043	7	12	-	1	9	17	-	12	-	24.57	3	12	5	-	2	12	79.17	5	2	2	-	13	10
"	1047	16	-	-	3	11	2	-	15	8	22.47	9	17	8	-	3	-	80.43	13	8	10	-	16	19
"	1049	14	10	-	2	14	20	-	14	12	20.69	8	14	-	-	2	12	82.76	11	8	20	-	15	19
"	1053	20	7	-	2	11	6	-	12	12	21.88	10	3	12	-	2	12	80.00	13	14	18	-	13	12
"	1059	18	-	-	2	16	13	-	10	18	22.61	7	8	12	-	2	12	76.74	10	5	1	-	11	9
"	1066	17	11	-	5	14	3	-	14	-	31.72	10	1	20	-	2	12	82.14	15	15	23	-	18	-
30-6-1939	1074	20	-	-	4	6	15	-	18	-	19.40	15	-	-	-	3	-	83.33	19	6	15	-	19	8
"	1076	21	-	-	4	11	18	-	8	-	35.32	6	6	-	-	2	-	75.00	10	17	18	-	10	9
"	1081	19	14	-	4	4	14	-	17	-	20.16	13	15	19	-	3	-	82.35	18	-	9	-	18	7

"	1096	23	7	-	5	16	14	-	10	8	32.58	9	2	22	-	2	12	75.81	14	19	12	-	12	20				
31-12-1939	1100	24	-	-	4	16	4	-	10	12	27.62	9	12	-	-	2	12	76.19	14	8	4	-	12	-				
"	1103	17	7	-	3	13	16	-	10	8	29.12	6	15	22	-	2	12	75.81	10	9	14	-	12	2				
"	1106	20	12	-	3	18	4	-	10	18	26.09	8	9	23	-	2	12	76.75	12	8	3	-	12	1				
"	1112	15	16	-	4	-	17	-	11	17	30.37	7	5	12	-	2	12	78.65	11	6	5	-	14	8				
"	1115	17	10	-	2	15	8	-	12	12	20.19	8	15	-	-	2	12	80.00	11	10	8	-	13	4				
"	1121	15	6	-	2	14	15	-	12	18	21.89	7	16	20	-	-	16	94.75	10	11	11	-	15	16				
"	1125	13	17	-	3	7	22	-	15	3	24.48	8	7	22	-	3	-	80.15	11	15	20	-	17	1				
30-6-1940	1128	12	15	-	2	8	20	-	12	18	23.10	6	10	16	-	2	12	80.37	8	19	12	-	14	2				
"	1133	10	-	-	TAILINGS ONLY			-	9	-		-	2	17	12	-	3	6	63.89		2	17	12	-	5	18		
31-12-1940	1135	6	13	-	1	2	6	-	6	20	32.86	1	12	3	-	2	-	70.67	2	14	9	-	8	4				
30-6-1941	1160	7	18	-	1	6	14	-	4	-	45.70	1	1	2	-	1	8	66.75	2	7	16	-	6	1				
"	1164	13	18	-	1	18	6	-	3	13	43.71	1	10	17	-	1	8	62.35	3	8	23	-	4	23				
"	1166	6	6	-	TAILINGS ONLY			-	5	12		-	1	8	8	-	1	-	81.73		1	8	8	-	4	12		
"	1170	4	16	-	-	19	10	-	4	23	44.94	-	17	10	-	1	8	73.20	1	16	20	-	7	16				
"	1171	7	4	-	-	17	8	-	3	21	38.31	-	18	7	-	1	8	65.52	1	15	15	-	4	23				
30-6-1976	1405	5	-	-	1	2	-	-	3	14	55.12	-	-	-	-	-	-	-	1	2	2	-	4	10				
"	1407	5	-	-	1	13	5	-	3	19	63.66	-	-	-	-	-	-	-	1	13	5	-	6	15				
"	1409	5	-	-	1	-	20	-	-	10	90.91	-	-	-	-	-	-	-	1	-	20	-	4	4				
"	1410	18	-	-	1	-	-	-	-	5	83.48	-	-	-	-	-	-	-	1	-	-	-	1	3				

31-12-1976	1413	1	-	-	-	12	21	-	4	5	75.37	-	-	-	-	-	-	-	-	12	21	-	12	21
"	1414	5	-	-	1	2	3	-	2	10	64.68	-	-	-	-	-	-	-	1	2	3	-	4	10
"	1415	1	-	-	1	2	8	-	3	10	86.73	-	-	-	-	-	-	-	1	2	8	1	2	8
"	1416	3	-	-	1	11	13	-	3	19	73.50	-	-	-	-	-	-	-	1	11	13	-	10	12
"	1418	4	-	-	1	2	7	-	2	5	71.62	-	-	-	-	-	-	-	1	2	7	-	5	14
	TOTAL	1191	-	-	252	16	15					511	4	1					764	-	16			
		(1 210.06 tonnes)					(7 865.13 grams)					(15 902.59 grams)							(23 767.72 grams)					

HIGHEST PERCENTAGE RECOVERY	90.91		HIGHEST PERCENTAGE RECOVERY	94.75	
LOWEST " "	15.22		LOWEST " "	62.35	
AVERAGE " "	35.59		AVERAGE " "	76.96	

MINE COOEE (MIGO)

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE PER TON TONS DWT	CWT	QR	GOLD BULLION RECOVERY BY AMALGAMATION ONLY BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	TOTAL BULLION RECOVERED OZ	YIELD OZ DWT GR
31-12-1935	810	5 4 -	2	11	11 - 10 8	48.91	2 4	15 - 1	18	83.02	4	16 2 - 18 12
30-6-1936	832	8 15 -	-	19	10 - 3 4	41.20	- 16	1 - 1	8	57.89	1	15 11 - 4 1
31-12-1937	997	4 11 -	1	12	10 - 7 8	72.03	1 4	6 - 2	-	72.03	2	16 16 - 12 11
30-6-1941	1168	5 15 -	1	15	8 - 2 19	68.78	- 8	9 - 1	8	52.21	2	3 17 - 7 14
	TOTAL	24 5 -	6	18	15		4 13	7			11	11 22
		(24.66 tonnes)			(215.62 grams)			(145.11 grams)				(360.73 grams)

HIGHEST PERCENTAGE RECOVERY			72.03	HIGHEST PERCENTAGE RECOVERY			83.02
LOWEST	"	"	41.20	LOWEST	"	"	52.21
AVERAGE	"	"	57.73	AVERAGE	"	"	66.29

MINE: THE ECHO

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE PER TON DWT	TONS	CWT	QR	GOLD BULLION RECOVERY BY AMALGAMATION ONLY BULLION OZ	DWT	GR	TAILING ASSAY OZ	DWT	GR	% RECOVERY	GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS BULLION OZ	DWT	GR	TAILING ASSAY OZ	DWT	GR	% RECOVERY	TOTAL BULLION RECOVERED OZ	YIELD
30-6-1936	827	16	5	5	15	14	8	47.06	4	17	12	2	75.00	10	13	2	13	3			
"	849	9	10	3	18	5	16	12	33.29	6	8	6	3	81.82	10	6	11	1	1	18	
"	855	9	12	5	-	20	12	2	46.50	4	12	-	2	79.31	9	12	20	1	-	2	
	TOTAL	35	7	14	14	15				15	17	18			30	12	9				
		(35.92 tonnes)				(458.26 grams)				(494.23 grams)					(952.49 grams)						

HIGHEST PERCENTAGE RECOVERY 47.06 — HIGHEST PERCENTAGE RECOVERY 81.82
LOWEST " " 33.29 — LOWEST " " 75.00
AVERAGE " " 42.28 — AVERAGE " " 78.71

MINE: G.C. 7479 (F.A. TEAGUE) (15321)

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE PER TON DWT	TONS	CWT	QR	GOLD BULLION RECOVERY BY AMALGAMATION ONLY BULLION OZ	DWT	GR	TAILING ASSAY OZ	DWT	GR	% RECOVERY	GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS BULLION OZ	DWT	GR	TAILING ASSAY OZ	DWT	GR	% RECOVERY	TOTAL BULLION RECOVERED OZ	YIELD
30-6-1936	829	5	-	-	1	-	6	-	3	4	56.12	-	9	4	-	1	8	57.89	1	9	10	-	5	21

(5.08 tonnes) (31.50 grams) (14.26 grams) (45.76 grams)

MINE: HOOPERS REWARD

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE PER TON DWT	GOLD BULLION RECOVERY BY AMALGAMATION ONLY BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	TOTAL BULLION RECOVERED OZ	YIELD
31-12-1934	765	4 17 - 1 13	16 - 4	23	58.34	- 17	13 - 1	8	72.96	1 11 5 - 10 14
"	767	4 14 - - 17	15 - 4	23	43.08	- 17	- - 1	8	72.99	1 14 15 - 7 9
30-6-1936	841	6 4 - 3 5	23 - 8	-	57.09	1 17	5 - 2	-	75.04	5 3 4 - 16 15
"	850	7 7 - 1 6	- - 3	13	49.96	- 16	5 - 1	8	62.24	2 2 5 - 5 18
"	857	6 12 - - 16	16 - 3	4	44.35	- 12	2 - 1	8	57.77	1 8 18 - 4 9
31-12-1936	859	5 10 - 2 12	15 - 6	2	61.13	1 2	11 - 2	-	67.12	3 15 2 - 13 16
"	860	6 4 - 1 5	14 - 2	3	66.02	- -	- - -	-	-	1 5 14 - 9 20
"	870	5 8 - 1 5	7 - 3	10	57.81	- 11	6 - 1	8	60.95	1 16 13 - 6 18
"	891	2 13 - 1 2	23 - 8	-	51.98	- 15	21 - 2	-	74.85	1 18 20 - 14 16
"	895	8 10 - 1 -	7 - 1	9	63.41	- -	- - -	-	-	1 - 7 - 2 9
"	901	6 - - - 12	- - 1	-	66.67	- -	- - -	-	-	- 12 - - 2 -
"	909	5 15 - 1 2	13 - 1	9	74.01	- -	- - -	-	-	1 2 13 - 3 22
30-6-1937	916	4 8 - - 19	14 - 2	19	43.44	- 6	10 - 1	8	25.16	1 6 - - 5 22
30-6-1947	1247	4 14 - 2 11	6 - 3	18	74.41	- 11	9 - 1	8	64.54	3 2 15 - 13 8
"	1249	3 15 - 1 2	16 - 1	14	79.l8	- -	- - -	-	-	1 2 16 - 6 1
"	1250	6 6 - 2 12	10 - 1	10	85.46	- -	- - -	-	-	2 12 10 - 8 8
"	1253	6 8 - 1 3	9 - 1	9	72.67	- -	- - -	-	-	1 3 9 - 3 16
TOTAL		95 5 - 25 10	12			8 7	10			22 17 22
		(96.77 tonnes)	(794.04 grams)			(260.40 grams)				(1054.44 grams)

HIGHEST PERCENTAGE RECOVERY	85.46	HIGHEST PERCENTAGE RECOVERY	75.04
LOWEST " "	43.08	LOWEST " "	25.16
AVERAGE " "	61.71	AVERAGE " "	63.36

MINE: STANDARD

HALF YEAR ENDED	PARCEL NO.	ORE TREATED TONNAGE PER TON TONS CWT QR DWT GR OZ DWT GR	GOLD BULLION RECOVERY BY AMALGAMATION ONLY BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	GOLD BULLION RECOVERY BY CYANIDATION OF BATTERY TAILINGS BULLION OZ DWT GR	TAILING ASSAY DWT GR	% RECOVERY	TOTAL BULLION RECOVERED OZ
31-12-1909	371	6 8 - 1 9 9 - 7 14 31.70	1 15	17 - 2 -	73.56	3 5	2 - 9	18	
		(6.50 tonnes)	(45.69 grams)			(55.54 grams)			(101.23 grams)

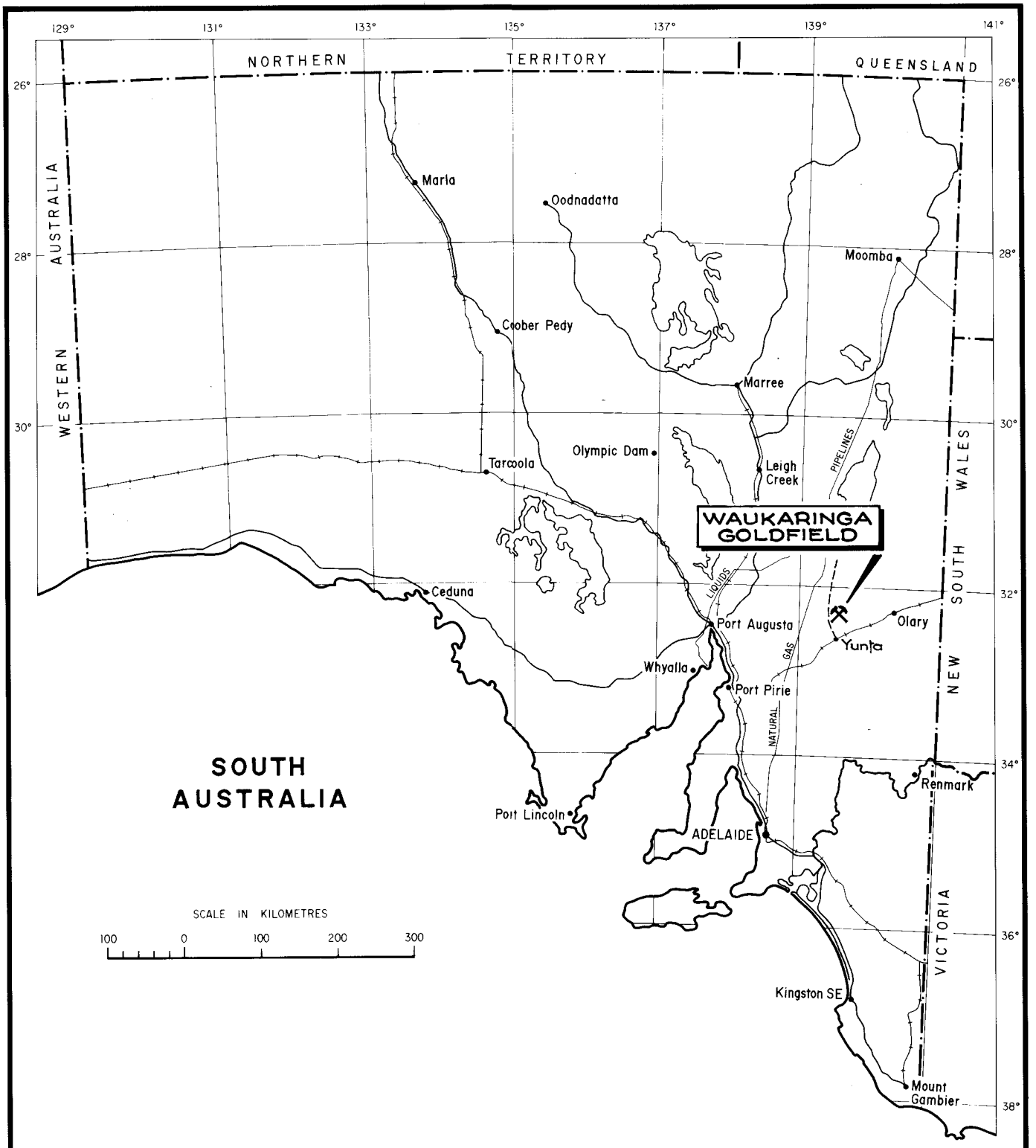


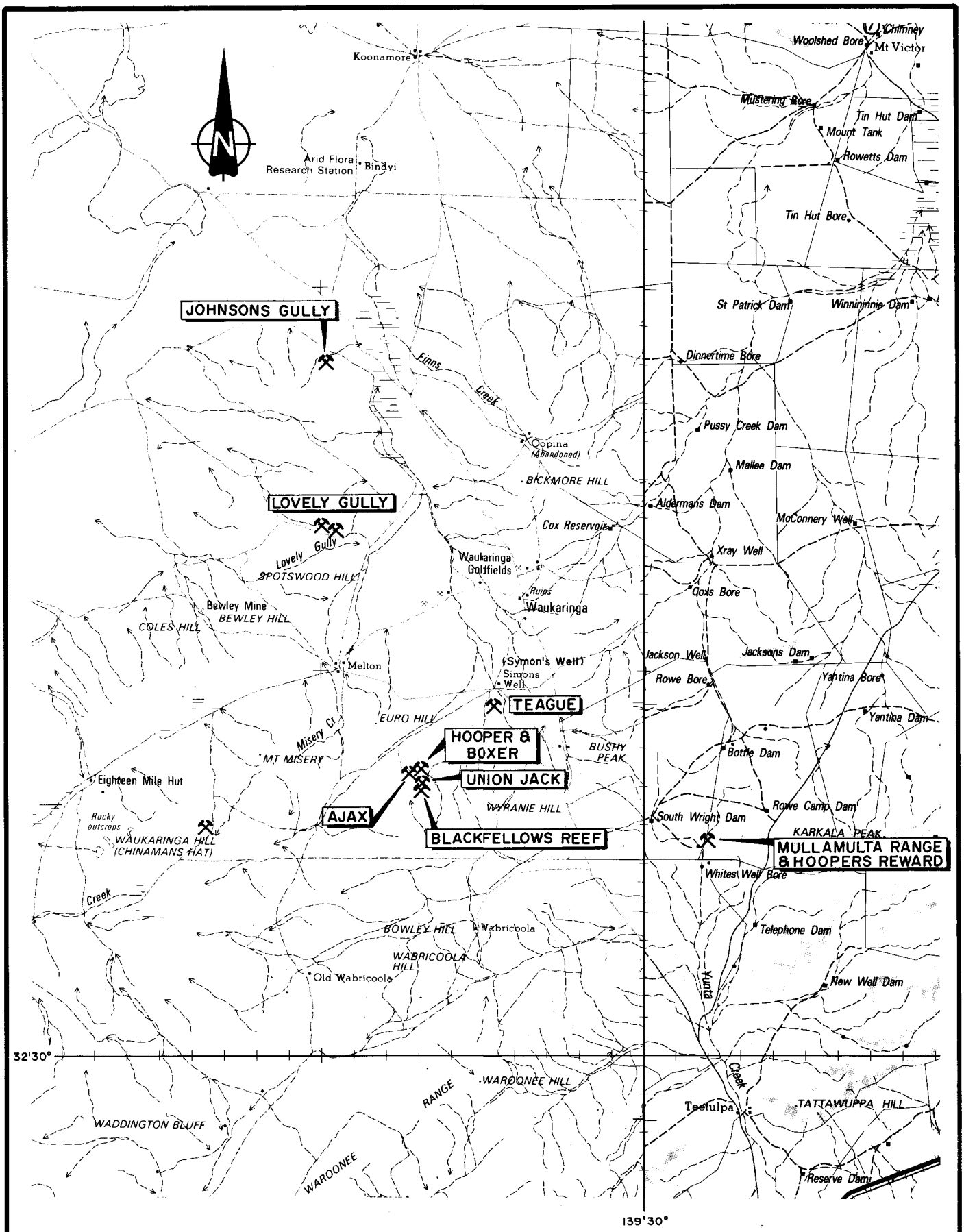
Figure..... 1

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

WAUKARINGA GOLDFIELD
LOCALITY PLAN

COMPILED I.J.T.	C.D.O. 3-12-85 DATE
DRAWN M.R.	SCALE
DATE Sept. '84	PLAN NUMBER S 17927
CHECKED	

3316



SCALE IN KILOMETRES

0 5 10 15

Fig. 2

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

WAUKARINGA AREA GOLD MINES
LOCALITY PLAN

COMPILED W. Fradd	C.D.O. 15.5.90 DATE
DRAWN E. Calabio	SCALE 1:250 000
DATE Dec.' 89	PLAN NUMBER S 21164
CHECKED	

4943