

Bougainville Copper Concentrates

VOLUME THREE / NUMBER SEVENTEEN SEPTEMBER, 1973.

Panguna Primary School children have just completed a 10 week course in Red Cross Junior first aid conducted by BCP recreation officer Ken Rabura (standing left of picture). Over 120 children from the school, from standards three to six, were due to sit an examination for the course on August 21. Our photo by Gena Ilai shows Stephen Young practising mouth-to-mouth resuscitation on a doll during the course.



SPORTS NEWS

A team of RUGBY UNION stalwarts from Bougainville travelled to Honiara recently and played three games:

Honiara 26 d. Bougainville 16
BSIP 19 d. Bougainville 13
Bougainville 19 d. Yandina 11

Also played in Honiara the same weekend were two League games. A team made up of players from Papua/New Guinea, including Bougainville, were too good for the locals as follows:

Visitors 3 d. RSL 0
Visitors 26 d. BSIP 3

A full report in the next issue of Concentrates.

An excellent BOXING night was held at the RSL on August 4 between fighters from Panguna and Loloho.

Probably the best fight of the night was between Phil Sapak and James Hasop. James was narrowly beaten on points (incidentally it was his second fight for the night) after a very hard slugging bout.

We were showered by money and this night's proceeds will help in sending our team to Rabaul for the New Britain titles. Our lads are very fit and should give a good account of themselves. Alan Richardson from Rabaul will be contacting me with details of dates etc. soon.

There is a move afoot to re-activate the BASEBALL Committee as a competition could be organised to begin in the New Year. I know it's only August but to organise a strong committee takes time. All interested are asked to ring myself on 272 or Donald Kwong on 328. If enough interest is shown a meeting will be organised.

Results of AUSTRALIAN RULES at the end of the fourth round:- Concentrator 13.15 (93) defeated Clerks 10.15 (75); C.F.C. 17.17 (119) defeated PDF 12.14 (86); Mining 16.18 (114) defeated Hi/Tech 8.9 (57); Apprentices 7.15 (57) defeated Ess. Services 4.18 (42).

Team	Won	Lost	Points
Ess. Services	3	1	12
Concentrator	3	1	12
C.F.C.	3	1	12
Apprentices	3	1	12
Mining	2	2	8
Clerks	2	2	8
P.D.F.	-	4	-
Hi/Tech	-	4	-



Members of the Mining Aussie Rules team relax during a game.



Above, from left, Heather McKay, Aub Amos and Elva Priestley

On the evening of August 6, a packed gallery of enthusiasts saw an exciting display of world class SQUASH at the Panguna Squash Courts.

Through the courtesy of SP Breweries, Ansett Airlines and the efforts of the Panguna Squash Club Committee, members were able to see Heather McKay, Aub Amos and Elva Priestley in action.

Heather McKay has been the womens' world champion for 12 years. Aub Amos is the present Australian veteran champion and Elva Priestley is the current womens' PNG champion.

After a slight delay due to the late arrival of the flight from Port Moresby, the visitors were introduced to the spectators by Geoff Barnes, Club President. Aub Amos then gave a talk and demonstrations on the basic techniques and skills of the game. His skill and experience were matched by a sparkling wit.

In the match which followed, Heather McKay trounced Elva Priestley 9 - 2, 9-0, 9-2. The power generated in her shots left the crowd gasping. This, coupled with her speed, fitness, positional play and obvious dedication to the game, leaves no doubts why she is a world champion.

A big pat on the back to Geoff Barnes who played a thriller with Aub Amos. The games, which ended at 2 all, had everyone on their toes and the play brought repeated applause from the appreciative audience.

The match everyone was waiting for Aub Amos v. Heather McKay, was the highlight of the night. Heather, with a superb display of precision squash took the first game. Aub Amos staged a comeback in the second game but "lapun" found the world champion too strong in the third game. Every second of the match kept the spectators totally engrossed and at times bewildered by the feats being performed on the court.

The evening concluded with the presentation of a "Buka" basket to Heather McKay and the spectators showed their appreciation of a great nights entertainment with a standing ovation as the visitors left the court.

Members had the opportunity of meeting the visitors at the conclusion of the games and thanks go to Geoff and Bev Barnes for turning on a delicious kai. N.R.S.

The second meeting of the ROAD RUNNERS Club was held over a 4½ mile course at Panguna on August 1 and proved very successful with 18 runners taking part.

Results: 1. Mike Bell (Panguna) 29.37 minutes, 2. John Eccles (Panguna) 30.23, 3. Peter Hickson (Arawa) 30.37, 4. Trevor Schultz (Arawa) 30.56, 5. Matro Mase (Momase) 31.35, 6. Chris Harries (Panguna) 31.35.
Women: (3 miles) 1. Mary Hickson (Arawa) 26.00 minutes.
Team Event: 1. Panguna (Bell & Eccles), 2. Arawa (Hickson & Schultz), 3. Kumul (J. Smith & J. Kiap), 4. Momase (Matro Mase & Beni Tipi).

The next event will be over a course at Arawa on August 15, starting from the old Bechtel offices near the chemist shop. On August 29 the run is at Panguna and on September 5 it is at Arawa.

PANGUNA

Sat. & Mon. Aug. 25 & 27	Support Your Local Sheriff	James Garner Joan Hackett
Sun. & Tues. Aug. 26 & 28	Junior Bonner	Steve McQueen
Thur. & Fri. Aug. 30 & 31	Bandits in Rome	
Sat. & Mon. Sept. 1 & 3	Westward Ho The Wagons	Fess Parker Jeff Yorke
Sun. & Tues. Sept. 2 & 4	Invincible Six	
Thur. & Fri. Sept. 6 & 7	Professional Gun	Franco Nero Tony Musante

ARAWA

Sunday Sept. 2	Support Your Local Sheriff	James Garner Joan Hackett
Wednesday Sept. 5	Westward Ho the Wagons	Fess Parker Jeff Yorke
Friday Sept. 7	Junior Bonner	Steve McQueen
Sunday Sept. 9	Bandits In Rome	
Wednesday Sept 12	Invincible Six	
Friday Sept. 14	Professional Gun	Franco Nero Tony Musante

Above programmes are subject to change as they are dependent on films arriving on site as scheduled.



Our photo above shows a group of delightful company girls who recently took a Panguna metrication course.

EMPLOYMENT NEWS

From the large number of applications being received on site it is evident that a great deal of outside interest continues to exist in the BCP operation. Applications come from every corner of Papua New Guinea and represent potential employees with many and varied skills and education.

Though the number of vacancies is limited, contact is maintained with applicants in the hope that in the near future they will become employees with BCPL.

The following positions are currently vacant and employees who wish to make application for any of these positions are asked to contact Neal Stewart, employment supervisor, (ext. 323) for further information.

SAFETY ASSISTANT	- employee relations
PERSONNEL OFFICER	- employee relations;
INDUSTRIAL RELATIONS OFFICER	- employee relations;
SURVEYOR	- mining;
TRAINING OFFICER	- mining;
R105 OPERATOR	- mining;
SHIFT FOREMAN	- administration;
SUPPLY OFFICE SUPERVISOR	- administration;
LABORATORY ASSISTANT	- concentrator
LIGHT VEHICLE DRIVING INSTRUCTORS	- employee relations (training)

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 PHOTOGRAPHERS ARE BRIAN WENDT AND GENA
 ILAI. TEL. 5-127.

COMINGS AND GOINGS

Welcome to the following: R. A. Hunt, maintenance scheduling clerk, mining; DR. A. G. Hizo, medical officer, employee relations; W. J. Fowler, mechanical shift foreman; E. F. Sargeant (Miss), secretary, management; F. Latu, science graduate cadet, employee relations.

Promotion to the following: Silas Yalus, supply officer; I. Clark, unit controller, engineering; S. Corbett, training chemist, D. Minsipi, staff clerk, cashier.

Farewell to the following: N. Brennan, foreman, electrical shop, engineering; P. Webber, employment officer, employee relations; K. Taylor, mine engineer, mining. Jan Amor, stenographer, public relations.

From the next issue of "Concentrates" we will be referring to Bougainville Copper Pty. Limited (BCPL) as Bougainville Copper Limited (BCL). An explanation of these changes in the company structure can be found in Vol 3 No 13 "Concentrates". The company logo (right) remains unchanged.



people

Below, from left, Cheryl Bent and Ann Skinner, both stenographers in B36; and Dominic Penkena, recreations camp clerk, Loio'o. Middle, Joseph Pota, crane operator; and winch operators, Meli Toulul and Elias Tolao. Bottom, Jacob Pitare, splicing steel wire; Ian Merrells, leading hand and Daniel Eliap, switchyard repairman; and Jose Gomes, oil treatment operator and Francis Kotua, repairman, all four carrying out routine maintenance on 33,000 volt oil circuit breakers.



ARAWA TECH OPENS

About 300 guests including business and church representatives, two MHAs, (Mr. Lapun, Minister for Mines and Energy, and Mr. Bele, Central Bougainville), Mr. Madi Roua, District Superintendent for Schools, students and nearby villagers and townspeople, saw the official opening of Arawa Technical College by the Minister for Education, Mr. Ebia Olewale on August 6.

The ceremony began with introductory remarks by the college captain Hamanin Henina, followed by vivid performances of traditional singing, dances and choirs by various groups in the college grounds.

Hamanin pointed out that the college, although in its first year of real operation, was already catering for students from seven districts throughout the country and the relationship among them was a co-operative and happy one.

In his speech the Minister for Education said he was overjoyed to see and learn the rapid progress of Arawa Technical College, thanks to the co-operation shown between staff, students and the board of governors, since its establishment a few months ago. He told the students that "Our young country needs trained men in the technical division of the education system and you're the men of tomorrow".

He added that at present these trained men were being recruited overseas at great expense and this was what the country could not afford to do, once the gap had been filled. The Minister also added that once the students achieved the requirements they were looking for, they were expected to give what they could to the country, making it a highly developed nation.

He said he was pleased to announce that next year the girls' section of the college would be opened and that the number of staff and students would be increased to double the present enrolment of 140.

Speaking on behalf of the Technical Division of the Education Department, Mr. Fleming, (Asst. Director), said he was amazed to see the college had today emerged from what was 2ft of mud 18 months ago, when he last visited during construction of the first buildings. He thanked those involved in getting the college to such a stage.

The ceremony was closed in the evening with a fine mumu prepared by the students and staff.

- JOHN PIPPIN



Above, Mr. Olewale, Mr. L. Hannett and Theo Dewe enjoying the mumu.



QUALIFIED IN TWO COUNTRIES

Two BCP tradesmen have received their Certificates for Course of Technical Training prescribed for an apprentice, conducted by the Department of Education - Queensland. These two young tradesmen have successfully completed their apprenticeship training in Papua New Guinea and to Australian standards. They are the first Papua New Guinean tradesmen in the company to be dually qualified.

They are Camillus Tetana - Fitting and Machining - Trade Theory 1 Pass, Trade Theory 2 Credit, Trade Theory 3 Pass. Cassimir Saleu - Fitter - Diesel & Heavy Earthmoving Equipment - Trade Theory 1 Pass, Trade Theory 2 Pass, Trade Theory 3 Pass.

Camillus Tetana, aged 23, from Buka Island, successfully completed Form 4 Certificate at Port Moresby Technical College in 1969. He completed indentures with BCP this year. Camillus was the runner up to the PNG Apprentice of the year 1973. He is at present working at central engineering.

Cassimir Saleu, aged 22, from Manus Island, completed Form 4 Certificate at Lae Technical College in 1969. He completed indentures with BCP also this year. Cassimir is currently working in the heavy equipment workshop - engineering.

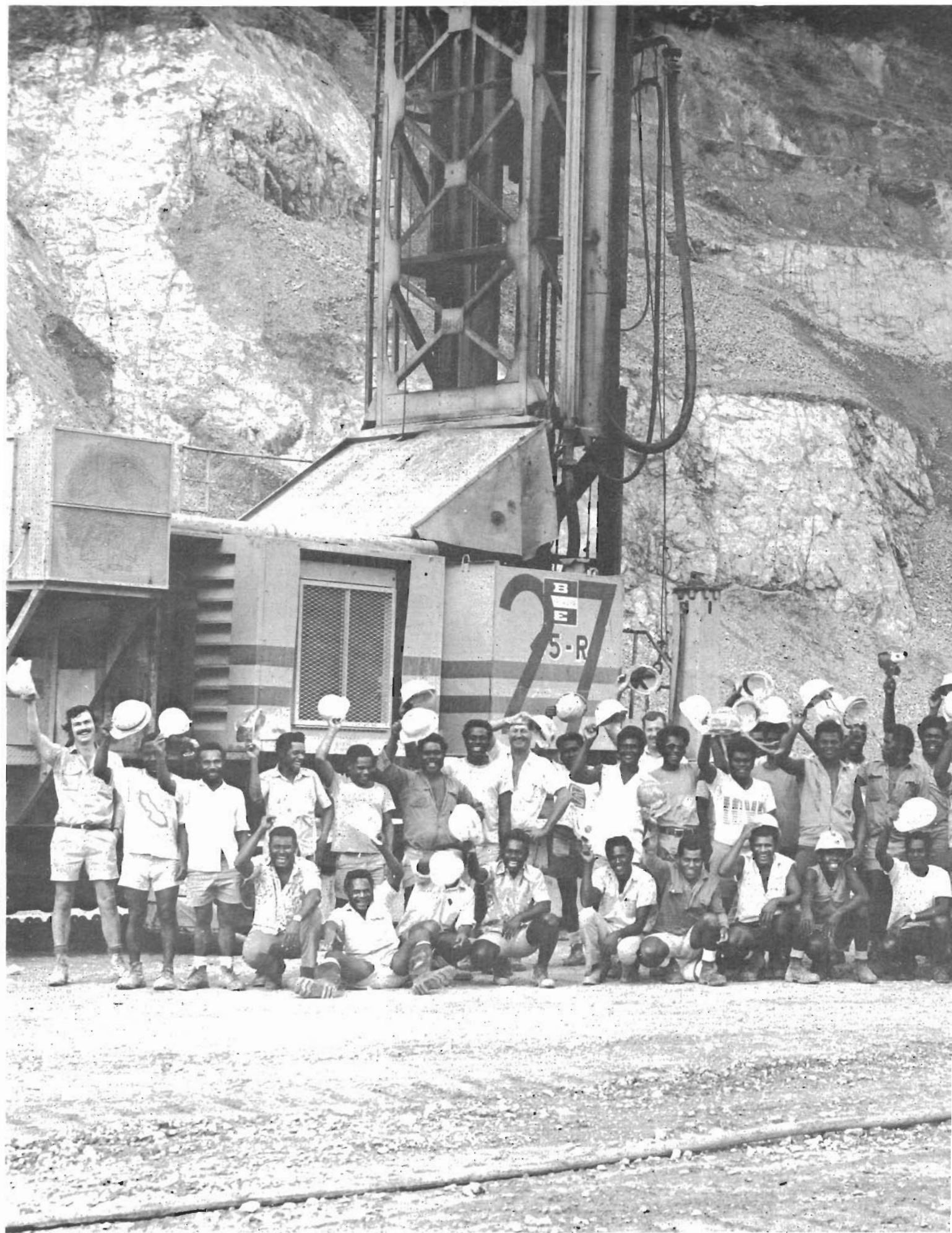
Photo shows Camillus (right) and Cassimir receiving their certificates from Bob Rudkin, tech. training supt.

WEATHER FOR JULY

Rainfall in Arawa and Loloho was heavier than usual during July but it was dryer at Panguna. Arawa received 10.56 inches (average for July is 8.64 inches), Loloho received 7.62 inches (average is 7.42 inches) and Panguna received 11.18 inches (average is 14.49). Loloho had 15 days without any rain, Arawa nine days and Panguna five. Maximum temperature for July of 31.9°C was recorded at Loloho (no reading from Arawa) and the lowest, as one would expect, was at Panguna where 17.4°C was recorded.

FOR SALE

Datsun 1600 Delux, in excellent condition. Low mileage. 4 new tyres. \$1600. Contact W. Char, or V. Kolstad. 5-181.



IN THE CLOUDS

by mauswara

How's this for real sales prices. The Camp 1 canteen was selling 55 cent Kleenex tissues during July at 5 cents a box.....

Have a heart Panguna and Arawa motorists. If you see runners pounding along the road, don't play "chicken" with them. If they obey the rules of the road - stay right and no more than two abreast - then the least you can do is try not to knock them over, suffocate them in dust or cover them in a spray of mud. Thank you anyway to the "gentlemen of the road" who comprise 90 per cent of motorists and leave the runners in peace. Incidentally Warwick Cuneo, printing officer and Tony Lamb, draftsman, are starting a cycling fraternity and would-be speedway motorists are also asked to slow down while passing them.....

Talking of exercise, take a look at 54-year-old Aub Amos on page 2. He's a veteran squash champion and, as far as fitness is concerned, could probably lick the boots off anyone on the mine. Noticed some middle-aged management personnel looking wistfully into space after his display.....

There's 15 cents a carton on SP empty bottles these days and Bougainville Beverages will collect them from your ones. That means if you drink 39 cartons of SP a year you'll get one for free.....

And still on exercise: Just heard that a Loloho branch of the Hash House Harriers has been formed. There are 21 members and a three-legged dog as mascot. First run was on August 3 and interested Lolohovians are asked to contact Malcolm Paterson (4-244) for further details.

Kieta Yacht Club are entering the national Corsair championships at Port Moresby on September 1 and 2. The three-man team is Jeff Smith (BCP electrician), Mike Bell (ADC Panguna) and Ross Henderson (ADC Kieta). Good luck men.....

Anewa Bay loaded its 40th shipment of copper concentrates on August 2. The ore carrier was the "Margit Brovig" which was also the first carrier to receive ore from the BCP operation. This 40th shipment lifted the total copper concentrate shipped out from Anewa Bay to 760,651 metric tonnes. The "Margit Brovig", by the way, has now been taken to London for scrap.

The Bougainville News newsagent, now operating at the new Arawa shopping centre has been providing something of a service. The Sunday papers from Australia can be bought there on a Sunday!.....

The residents of Married Hill and Mud Valley are neighbours but you wouldn't know it. The only access between the two is by the circuitous road via Kawerong River or by footpath which entails risking impalement on the sharp stakes which once supported stairs. In the interests of neighbourliness it's high time those stairs were fixed. Over to you BCP.....

No cause for celebration - just natural high spirits from the pit drilling and blasting crew. Hard hats are off as they are far away from pit operations. Photo : Brian Wendt.





Mrs. Doreen Vernon, wife of BCP's general manager, meets local women visitors.

GOURMETS' CORNER

Hunter Style Rabbit:- 1 4lb rabbit, 1³/₄oz lard, 1¹/₂oz flour, 1 teaspoon tomato puree, 9oz mushrooms, 1 bunch of herbs, 2 small onions, 2¹/₂gills white wine, (time 1¹/₂ hrs).

Cut up the rabbit, brown it well in hot lard, sprinkle with flour, add chopped shallots and when the flour has browned, add 1 part white wine and 2 parts water and stir well. Season with salt and pepper, add tomato puree and herbs, cover and braise in oven at moderate temp. for 1 hour. Brown sliced, quartered mushrooms or whole ones if they are small, quickly in oil, add to rabbit and finish cooking together. Skin off fat and serve sprinkled with chopped parsley.

English Style Breadcrumbed Sheeps Brains:- 6 sheeps brains, 1 egg, breadcrumbs, flour, butter.

Season and flour the raw brains, coat with egg and breadcrumbs and fry slowly in butter. Dish up and pour the unbrowned butter on top. Excellent for a meal when a person is run down.

COLUMN THREE

In July we had near to 300 visitors. Among these were: U (Mr.) Maung Maung, Burmese Ambassador to Australia.

Mr. N. Robertson, Director of Technical Education in N.S.W. Mr. Robertson was particularly pleased to see one of his old pupils Mr. John Trezise, Manager - Concentrator.

Mr. Ebia Olewale, PNG Minister for Education, paid a visit during his tour of the District.

Samson Purupuru from Teop/Tinputz made local history when he brought up a group of women from his area. The women visitors were accommodated at Camp 2, Panguna, for two nights. This was the first time we had ever had a group of ladies from local villages staying at Panguna.

THE HITCH HIKER

An unusual fish that abounds in the waters of Bougainville is the remora or sucker fish - a hitch hiker of the seas. The remora, like sharks, anchovies, herrings and bone fish, is a true prehistoric fish. Fossilised remains of these fish have proved to be millions of years old.

There are at least 10 species of this fish in Australian waters in various shapes and sizes, the largest growing to about 3ft 6ins long. Although it is a good swimmer, it travels by attaching itself to large marine creatures such as sharks, marlin, rays and turtles and feeds on the offal from these creatures' meals. The remora attaches itself by means of a suction disc on the top of its head. Once the fish has attached itself, its grip is so firm that if it is removed forcibly the disc will quite often be torn from its head.

The Australian aborigines use the fish to catch turtles by attaching a cord to the tail of the fish then allowing the fish to swim to the turtle and attach itself.

A common fallacy surrounding this fish is that when one is caught it is a sure sign that a large shark is in the vicinity. Although they are normally on good terms with sharks they are too often found in their stomachs to suggest complete amnesty. It is considered to be a fine table fish.

- DON WOODFORD

PRIVATE MEDICAL PRACTICE

Dr. W. A. Hutchinson, MBBS (Adel.) DARCP&S (London) has commenced private practice at Panguna and Arawa as follows:

Panguna, Public Health Centre, 8.30 a.m. every Monday, Wednesday and Friday. Arawa, Section 17, House 21, as an interim measure, 9.00 a.m. every Tuesday and Thursday, 2.00 p.m. every afternoon Monday to Friday.

LOST

Two house keys and a car key on one ring. Left on back tarp of Falcon ute at Panguna Trade Store on July 30. Please return to "Concentrates", B43a.



SAFETY CERTIFICATES FOR FRANCIS

Safety officer Francis Tanupuma has been presented with safety officer training and accident prevention for supervisor certificates by the general manager, Mr. Don Vernon, (see above). Both certificates were awarded Francis by the Industrial Foundation for Accident Prevention in Perth under which he recently did a one month safety officer training course.

During his period in Australia Francis also did a three day accident prevention course for which he has already been awarded an accident prevention for supervisor certificate.

After the course in Perth Francis went to New South Wales where he was attached to the safety section of Australian Iron and Steel in Port Kembla for three weeks; Sydney Department of Labour and Industry for one week and the Department of Labour and Industry in Wollongong for two weeks. Francis then went up to Mt. Isa Mines where he spent two months and before returning to Bougainville he spent a further 1¹/₂ weeks with Comalco at Weipa.

Francis is the first Papua New Guinean to be awarded such certificates.

QUARTERLY PRODUCTION REPORT - JUNE, 1973

The directors of Bougainville Mining Limited announced on July 24 the following information relating to the company and its 80 per cent owned subsidiary Bougainville Copper Pty. Limited for the three months ended June 30, 1973.

The statistics set out relate to the operating company Bougainville Copper Pty. Limited.

Production	3 Months Ended 30th June, 1972	3 Months Ended 30th June, 1973
Ore Milled (Millions of Dry Tonnes)	5.495	6.765
Grade - Copper (Per Cent)	0.67	0.75
- Gold (Grams/Tonne)	0.61	1.12
- Silver (Grams/Tonne)	2.04	1.99
Concentrate Produced (Dry Tonnes)	111,536	158,460
Grade - Copper (Per Cent)	27.3	28.2
- Gold (Grams/Tonne)	22.8	32.8
- Silver (Grams/Tonne)	70.6	65.2
Metal Content		
Copper (Tonnes)	30,449	44,686
Gold (Kilograms)	2,543	5,197
Silver (Kilograms)	7,874	10,332
Expenditure Incurred on Prospecting and/or Exploration	\$A Nil	\$A Nil

toktok

A long time ago there was a drought in the land of Rurei in the north east of Bougainville. No rain fell for many months and all the water in the rivers and wells dried up. The corn and other crops died because they didn't have enough water. Everyone was hungry and thirsty.

In a small village near a dry river bed there lived a young beautiful woman. She wanted to get married but all the young men were too hungry and thirsty to think about marriage. They were only interested in finding enough food to eat.

One day the young woman went to the river to try and find water. All she found was a large pool of thick mud. The poor woman felt so hungry and thirsty that she began to cry. As she was crying a large fish rose from the mud and said, "Give me your pot and I shall fill it with water". The girl was surprised to hear the fish speak. But she handed over the pot that she was carrying. The fish dived under the mud. When it came back the pot was filled with cool, clear water.

After she had thanked the fish she hurried back to the village. Her parents were very surprised to see the water. They asked her where she got the water from. But the girl kept her secret and told no-one. Each day she returned to the water hole and filled her pot with water.

As days passed by the girl began to love the fish because it talked so softly to her and his skin was brightly coloured and smooth. On the seventh day she became the fish's wife.

Every day she went to the river to see the fish and every day her parents asked her where she got the water. But she would not tell them. Then her father went to the sorcerer and the sorcerer changed him to a fly.

Next day when the girl went to the river, her father flew along with her. When he saw how his daughter had

married a fish, he became very angry. He flew back to the village and changed back to a man. He told his wife what he had seen.

Next morning the parents kept the girl at home and went to the river. They called the fish out of the mud and the father took a large stick and killed it. They took the fish home and showed it to the girl. The girl was very upset to see her dead husband. She ran to the river and lay on the mud and died because her heart was broken.

At last the rains came and the river was filled with water. In the place where the girl had died, some beautiful waterlilies began to grow. These were the first waterlilies the Rurei people had seen and are very useful to them nowadays.

- PAUL WASI
Arawa Technical School

ANNOUNCEMENTS

Val and Bob Loughton (transport) are happy to advise friends that the adoption of their little girl Varelle Louise is finalised, and she is now a legal member of their family.

Mr. D. A. Hinckfuss has been appointed BCP's chief metallurgist. He assumes overall responsibility for all metallurgical services provided by the metallurgical services section. He reports directly to the metallurgical superintendent. Analytical services under the chief chemist continue as at present.

Mrs. Ann Blake and family would like to thank all who sent messages of sympathy and floral tributes following their recent bereavement. Would everyone please accept this as a personal thank you.

Result of the 100 Club guessing competition for the week ending August 8, was first prize (\$100), F. Rowbottom. Second prize (\$35), D. McNamara.

Metric Notes

1. SI UNITS

SI is the abbreviation for "Système International d'Unités". The name given to the international system of units which Australia is adopting. The 7 base SI units are:

metre - length ampere - electric current
kilogram - mass candela - luminous intensity
second - time interval mole - amount of substance
kelvin - temperature



2. NAMES & SYMBOLS FOR THE MORE COMMONLY USED UNITS

Quantity	Name of Units	Symbols	Alternative for Typing or Writing
Length	millimetre	mm (Note 1)	
	metre	m	
	kilometre	km	
Area	square millimetre (millimetre squares)	mm ² (Note 1)	sq mm
	Square metre (= metre squared)	m ²	sq m
	hectare	ha	
Volume	millilitre	ml	
	litre	l (Note 2)	litre
	Cubic metre (= metre cubed)	m ³	cu m
Temperature	degrees Celsius	°C	
	kelvin	K	
Time	millisecond	ms	
	second	s	
	minute	min	
	hour	h	
	day	d	
Velocity	metre per second	m/s	
	kilometre per hour	km/h	
Frequency	hertz	Hz	
	kilohertz	kHz	
Mass	milligram	mg	
	gram	g	
	kilogram	kg	
	tonne	t	
Density	kilogram per cubic metre	kg/m ³	kg/cu m
Force	newton	N	
	kilonewton	kN	
	meganewton	MN	
Pressure and Stress	pascal	Pa	
	kilopascal	kPa	
	megapascal	MPa	
Energy and Work	millibar	mb	
	kilojoule	kJ	
	joule	J	
	megajoule	MJ	
	kilowatt hour	kWh	
Power	watt	W	
	kilowatt	kW	

Note 1. Note that "m" stands for both metre and milli.

Note 2. Typists must be careful to distinguish between "l" for litre and the numeral "1" for one. Where confusion could result, spell the word "litre".

3. PREFIXES

Prefixes are added to the symbols to indicate multiples and submultiples. These prefixes are written immediately before the unit symbol.

$$1 \text{ km} = 1000 \text{ m} \quad 1 \text{ mm} = 0.001 \text{ m}$$

The names and symbols of the prefixes are:

Factor	by which the unit is multiplied	Prefix	Symbol
10 ¹²	= 1 000 000 000 000	tera	T
10 ⁹	= 1 000 000 000	giga	G
10 ⁶	= 1 000 000	mega	M
10 ³	= 1 000	kilo	k
10 ²	= 100	hecto	h
10	= 10	deca	da
10 ⁻¹	= 0.1	deci	d

10 ⁻²	= 0.01
10 ⁻³	= 0.001
10 ⁻⁶	= 0.000 001
10 ⁻⁹	= 0.000 000 001
10 ⁻¹²	= 0.000 000 000 001
10 ⁻¹⁵	= 0.000 000 000 000 001
10 ⁻¹⁸	= 0.000 000 000 000 000 001

centi	c
milli	m
micro	μ
nano	n
pico	p
femto	f
atto	a

4. SYMBOLS FOR MULTIPLICATION AND DIVISION

The product of two units can be shown correctly in either of the following ways N m N.m

Use of the space is recommended N m kWh

Use of the full stop is an acceptable alternative which gives the same spacing. N.m kW.h

The quotient of two units can be shown correctly in any of the following ways m/s m s⁻¹

Use of the oblique (/) is recommended. m/s km/h

In a complex unit not more than one oblique should be used. W/m K

5. THOUSANDS MARKER

The comma (,) should not be used to denote thousands in a series of figures. One space should be left instead to group digits in three about the decimal point.

When writing numbers in line four digits on either side of the decimal point may be blocked together, but numbers of five or more digits should always be grouped in threes.

Blocked together	1000	0.7342
Grouped in threes	8 421 250	0.734 286

When tabulating figures group all numbers in threes on either side of the decimal point in order to keep the figures in columns.

250.005 1
1 275.001
271 523.05

The comma (,) may be retained, however, as the thousands marker in figures representing money on such documents as bills, accounts and cheques.

\$25,250 - 10 in dollars and cents.

6. DECIMAL POINT

The decimal sign between digits in a number will continue to be a point. It is permissible to put the point above the line as in current practice or on the line, which is more convenient for typing. It is recommended that the point on the line be adopted for all typing.

6.525 not 6'525

When a decimal point is placed before the first digit of a number, a zero should always be placed before the decimal sign.

0.176 not .176

7. FULL STOP

A full stop is not put after a unit name or symbol unless this comes at the end of a sentence.

This room is three metres long.
The length of the stick is one metre.
This room is 3 m long.
The length of the stick is 1 m.

8. PLURAL 'S'

The names of units are nouns and take the plural 's' in the normal way. The plural 's' is never added to a symbol.

1 gram	10 grams
1 gram	10 g
1 kg	10 kg

9. CAPITALS

Unit Names

The name for the unit of temperature, Celsius, is always written with a capital C. Other names only take a capital if they come at the beginning of a sentence.

Kilogram is the name for the unit of mass. The unit of mass is the kilogram.

Symbols

The symbol for a unit derived from a proper name always begins with a capital.

J joule	N newton
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All other symbols are written in the lower case. m metre g gram

Prefixes

The prefixes 'M' for mega, 'G' for giga and 'T' for tera are written in capitals. The prefixes for all other multiples and submultiples are written in the lower case.

10. PRONUNCIATION

kilo - "kill-o" with the accent on the first syllable and 'o' pronounced as 'oh'.

The term "kilogram" is often abbreviated as "kilo", pronounced "kee-low" with the "ee" as in heel and the accent on the first syllable. It has no legal standing and its use, other than in casual speech should be avoided

tonne - "tonn" with 'o' as in the name "Ron" to clearly distinguish the unit from the ton pronounced "tun".

11. SPACING BETWEEN NUMBERS AND SYMBOLS

A small space is left (one space on a typewriter)

- Between the number and the symbol. 50 g 25 W
- Between two letters standing for different symbols which are multiplied together N m k W h
- Between each number and the multiplication sign in a product. 4 x 8 257.4 x 25.6
- In place of the comma as a thousands marker. 25 678 743 204

No space is left

- Between two or more letters representing a prefix and a unit. mg km mb MN
- Between each letter and the oblique (/) in a quotient m/s m³/s kg/m³
- Between each number and the oblique in a quotient. 2/7 25.8/92.4

panguna

ORGANISATIONS:

Panguna Arts Society	Mr. M. Duthie	5-176
Lions Club President	Mr. W. Brittain	5-132
Parents & Citizens Assoc.	Mr. R. Hope	5-314
Primary School Mothers Club	Mrs. M. Blackwell	958187
Squash Club Secretary	Mr. M. Sullivan	5-139
Cricket Club President	Mr. J. Trezise	5-317
Panguna Pre-School Committ.	Mr. M. Crow	5-310
Scouts & Guides Chairman	Mr. W. Smith	5-238
Panguna Hash House Harriers	Mr. B. Duffy	5-121
Panguna Munkas Ass.	Mr. J. Dumit	5-272
BCP Womens Club	Mrs. Voi-Voi	18 Karoona Rd.
Photo. Club President	Mr. N. A. Nour	5-275

EMERGENCY DIRECTORY:

Security Emergency Control 958333.....123
(For all emergencies)

Medical BCP Medical Centre 958304.....254
Panguna Hospital 958089

Police Police Station 958222
958263

BANK:

A branch of the Commonwealth Bank is situated approx. 150 yards west of the Trade Store and is open:

Monday to Friday	9.00 a.m. - 2.00 p.m.
Friday Only	4.30 p.m. - 6.00 p.m.
Saturday	8.30 a.m. - 10.00 a.m.

POST OFFICE is open:

Monday to Friday	8.30 a.m. - 12.00 p.m.
	1.00 p.m. - 4.00 p.m.
Saturday	8.30 a.m. - 12.00 p.m.

LIBRARY is open:

Sunday to Saturday 10.00 a.m. - 10.00 p.m.

TRADE STORE is open:

Monday to Friday	9.00 a.m. - 5.30 p.m.
Friday evening	6.30 p.m. - 8.30 p.m.
Saturday	9.00 a.m. - 12.00 p.m.

HOSPITAL:

Out-Patients:

Monday to Friday	8.00 a.m. - 12.00 p.m.
	1.00 p.m. - 4.00 p.m.
Saturday	8.00 a.m. - 11.30 a.m.
Tuesday Ante-natal	8.30 a.m. - 11.30 a.m.
Wednesday Baby Clinic	8.30 a.m. - 11.30 a.m.

The BCP Medical Centre is open for treatments from:

Monday to Friday	8.00 a.m. - 4.00 p.m.
Saturday	8.00 a.m. - 10.30 a.m.

CHURCH SERVICES:

Catholic Sunday 8.00 a.m. and 7.00 p.m.
Every evening 7.00 p.m.
Priest in charge - Father G. Fahey,
P.O. Box 48,
Panguna.

United Church Sunday at 9.00 a.m. and 8.00 p.m.
Sunday 6.45 p.m. at Camp 10

Every Wednesday at 7.30 p.m.

Minister in charge - Rev. Battersby,
P.O. Box 9,
Panguna.

Lutheran Sunday at 10.00 a.m.
Sunday at 8.00 a.m. at Camp 10

Pastor in charge - Rev. D. Zweck
P.O. Box 497,
Arawa

arawa

Country Womens Association	Mrs. M. Bowden	951508
Lions Club President	Mr. W. Weir	951222
Country Club	Mr. I. Baird	4-120
Arawa Civic Association	Mr. R. Jeffery	5-287
Tennis Club President	Mr. R. Bowden	5-374
Girl Guides President	Mrs. C. Newman	951594

POLICE STATION: 951222

TRADE STORE is open:

Monday to Thursday	8.30 a.m. - 5.30 p.m.
Friday	8.30 a.m. - 8.30 p.m.
Saturday	8.00 a.m. - 12.00 p.m.

BANK is open:

Monday to Friday	9.00 a.m. - 2.00 p.m.
Saturday	8.30 a.m. - 10.00 a.m.

POST OFFICE is open:

Monday to Friday	8.00 a.m. - 12.00 p.m.
	1.30 p.m. - 4.00 p.m.
Saturday	8.00 a.m. - 12.00 p.m.

LIBRARY at the old Fermentary Homestead is open:

Monday to Friday	10.00 a.m. - 12.00 p.m.
	1.00 p.m. - 4.00 p.m.
Saturday	9.00 a.m. - 12.00 p.m.

HOSPITAL:

Intermediate Out-Patients

Monday - Friday	10.00 a.m. - 11.30 a.m.
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Ante-Natal Clinic

Monday (Doctor in attendance)	1.30 p.m. - 3.00 p.m.
Wednesdays	8.00 a.m. - 11.30 a.m.
	1.00 p.m. - 3.30 p.m.

Maternal & Child Health Clinic

Monday and Friday	8.00 a.m. - 11.30 a.m.
	1.00 p.m. - 3.30 p.m.

Vaccinations

Tuesday & Thursday	1.30 p.m. - 3.00 p.m.
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General Out-Patients

Monday to Friday	8.00 a.m. - 12.00 p.m.
	1.00 p.m. - 4.00 p.m.

Emergencies

7 days a week, 24 hours.

No visiting the hospital is allowed outside regular visiting hours, unless special arrangements have been made. Visiting hours are:

3.00 p.m. - 4.00 p.m.
7.00 p.m. - 8.00 p.m.

CHEMIST: 951304

Monday to Friday	8.30 a.m. - 12.30 p.m.
	1.30 p.m. - 5.00 p.m.
Saturday	8.00 a.m. - 12.00 p.m.

DENTIST: Arawa 951424

Monday to Friday	8.00 a.m. - 12.00 p.m.
	2.00 p.m. - 6.00 p.m.
Saturday	8.00 a.m. - 9.30 a.m.

CHURCH SERVICES:

Catholic Sundays 8.00 a.m. and 5.00 p.m.

United Church Sunday 9.00 a.m.

Lutheran Sunday 10.00 a.m.
Sunday 7.00 p.m. every second week, in English, at house 15/112

All services are held at the Arawa Fermentary.