PINE CREEK GOLDFIELDS LIMITED

ANNUAL REPORT MLN 13

1 JULY 1993 - 30 JUNE 1994

PINE CREEK SHEET 1:250,000 SCALE SD58-8

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July 1994

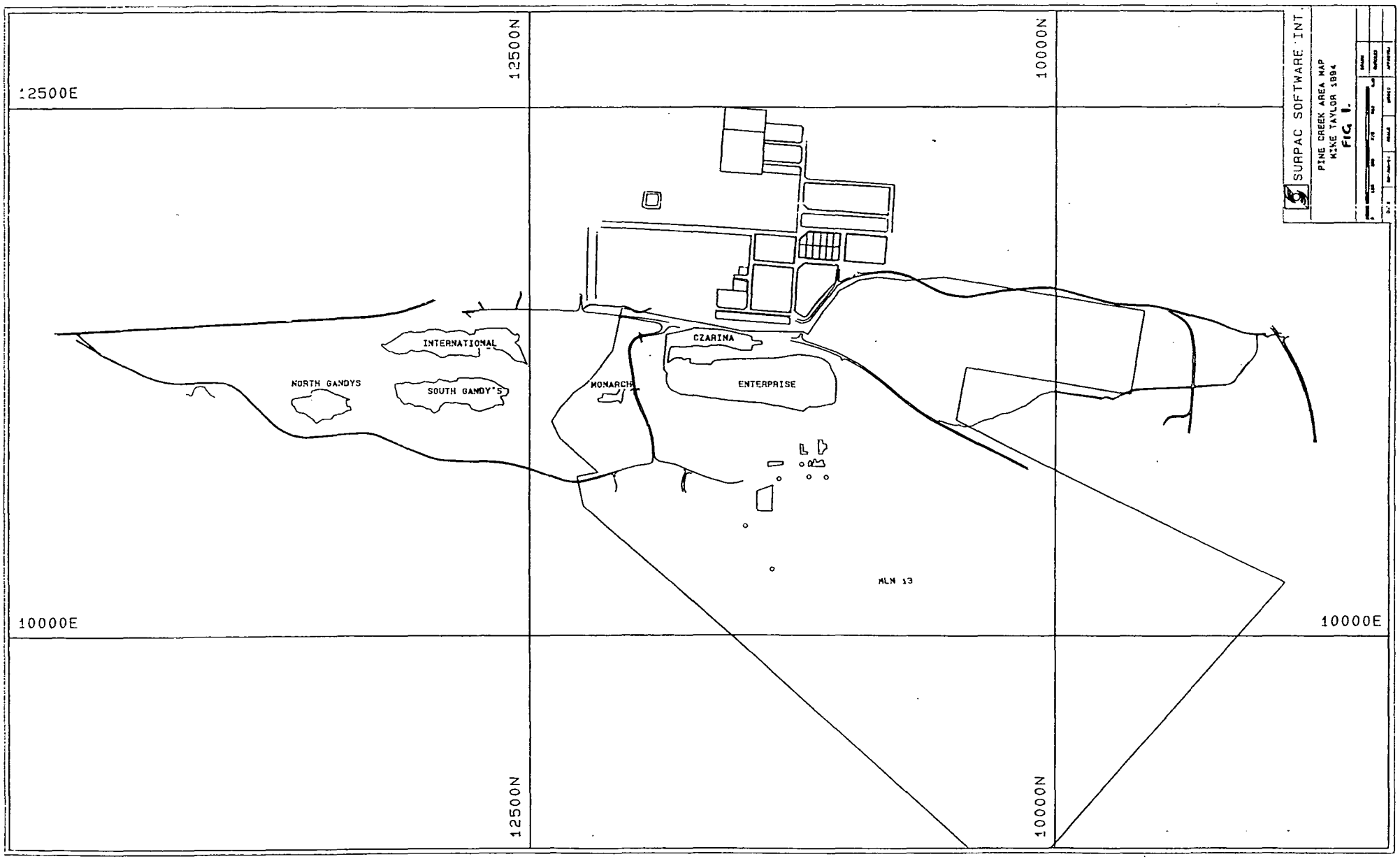
CONTENTS

1. INTRODUCTION

MLN 13 is located to the west of the town of Pine Creek, approximately 230 km south of Darwin on the Stuart Highway (figure 1). It covers an area of 534 hectares and contains the crushing and milling operations of Pine Creek Goldfields Pty Ltd.

This report describes the work carried out on MLN 13 during the financial year July 1993 to June 1994. It includes all work undertaken in the Enterprise syncline and Czarina areas and the Monarch Hill Pit (plate 1).

Mining, milling, environment and rehabilitation, site safety performance and exploration activities are outlined.


12500E
12500N
10000N
SURPAC SOFTWARE INT.
PINE CREEK AREA MAP
MIKE TAYLOR 1994
FIG 1.
INTERNATIONAL
NORTH GANDYS
SOUTH GANDY'S
MONARCH
CZARINA
ENTERPRISE
XLN 13
10000E
10000E
12500N
10000N

geoleasg.pf

2. *MINING*

2.1 GENERAL

A total of 190,552 BCM's of material was mined during the 1993/94 financial year. This total consisted of:

58,715	BCM of CIP Ore
635	BCM of Marginal Primary Material
16,245	BCM of Marginal Oxide Material
114,957	BCM of Waste

giving an overall strip ratio of 2.25.

Stockpiled material at the end of the year stood at:

CIP Ore	5,181 BCM
Marginal Primary	498,999 BCM

Mining on MLN 13 was predominantly from small deposits, accounting for 83% of the total production. A small volume of ore was scavenged from Enterprise pit in July and August. Mining ceased in Czarina in September.

Czarina pit is in the process of being backfilled with waste material stripped during mining on MLN 1130.

2.2 BLASTING

A total of 137,539 BCM of material was blasted during the year. Presplit blasting was conducted in Czarina pit.

2.3 PIT SLOPE STABILITY

The western wall of Czarina pit was continually monitored following on from the failures of the previous year. Concerns over the stability of this wall caused the early abandonment of this pit.

2.4 MINING FLEET

The following fleet was in operation for the full year; utilised on both MLN 13 and MLN 1130:

6 CAT 773B Haulage Trucks
2 CAT 988B Loaders
1 CAT 245 Excavator
1 KOMATSU PC650 Excavator
1 CAT D9L Dozer (Tracked)
1 CAT 824 Dozer (Rubber Tyred)
1 CAT 14G Grader

3. MILLING

3.1 CIP PLANT

A total of 1,588,871 tonnes of ore averaging 1.74g/t Au was treated in the CIP plant during the year, from which 75,249oz of gold and 13,194 oz of silver were produced in bullion. The average recovery of gold for the year was 84.9%.

The mill treated oxide and primary ore from the International and Gandy's deposits with the above results. The ratio was 85% oxide, 15% primary. There has been no change to the milling operations process since the previous annual report.

4. PROJECTS

4.1 SOUTH WASTE DUMP

Shaping and capping of the South Waste Dump continued through the first half of the year. By June 1994 approximately 4 hectares remains to be capped, this along with construction of final drainage structures is scheduled to be completed prior to the 1994/95 wet season.

Revegetation results from the 1993/94 seeding programme are the best achieved to date, and reflect the continuing refinement of rehabilitation techniques on site.

The network of graded banks on the dump surface was expanded during the year. The effectiveness of these structures was demonstrated during the wet season, downslope erosion gutters did not form in any areas protected by the graded banks.

4.2 TAILINGS DAM

Research and planning for decommissioning of the Tailings Dam continued throughout the year.

The CSIRO Minesite Rehabilitation Research Group was on site in November 1993 to investigate the potential for consolidation and settlement of tailings contained in the dam. This information is necessary to plan for the final landform of the dam. A final report on this study was received in May 1994, and confirms that a surface gently sloping to the west and south will be achievable.

4.3 ENTERPRISE PIT

Approval to divert Pine Creek into the Enterprise Pit was received in late 1993. Construction of a diversion channel and spillway was commenced immediately.

The diversion was commissioned on the 24 th December 1993, by June 1994 the Enterprise Pit contained 3200 megalitres and is expected to reach its design capacity of 6800 megalitres by the end of the 1994/95 wet season.

Analyses performed to date indicate that water quality is exceeding stock water standards, and is in fact very close to potable standards.

4.4 CZARINA PIT

Backfilling of the Czarina Pit with waste rock from the Gandy's Hill Pits began during the year.

Primary waste rock is being placed in the lower levels of the pit, then capped with a compacted layer of oxide waste to limit water infiltration.

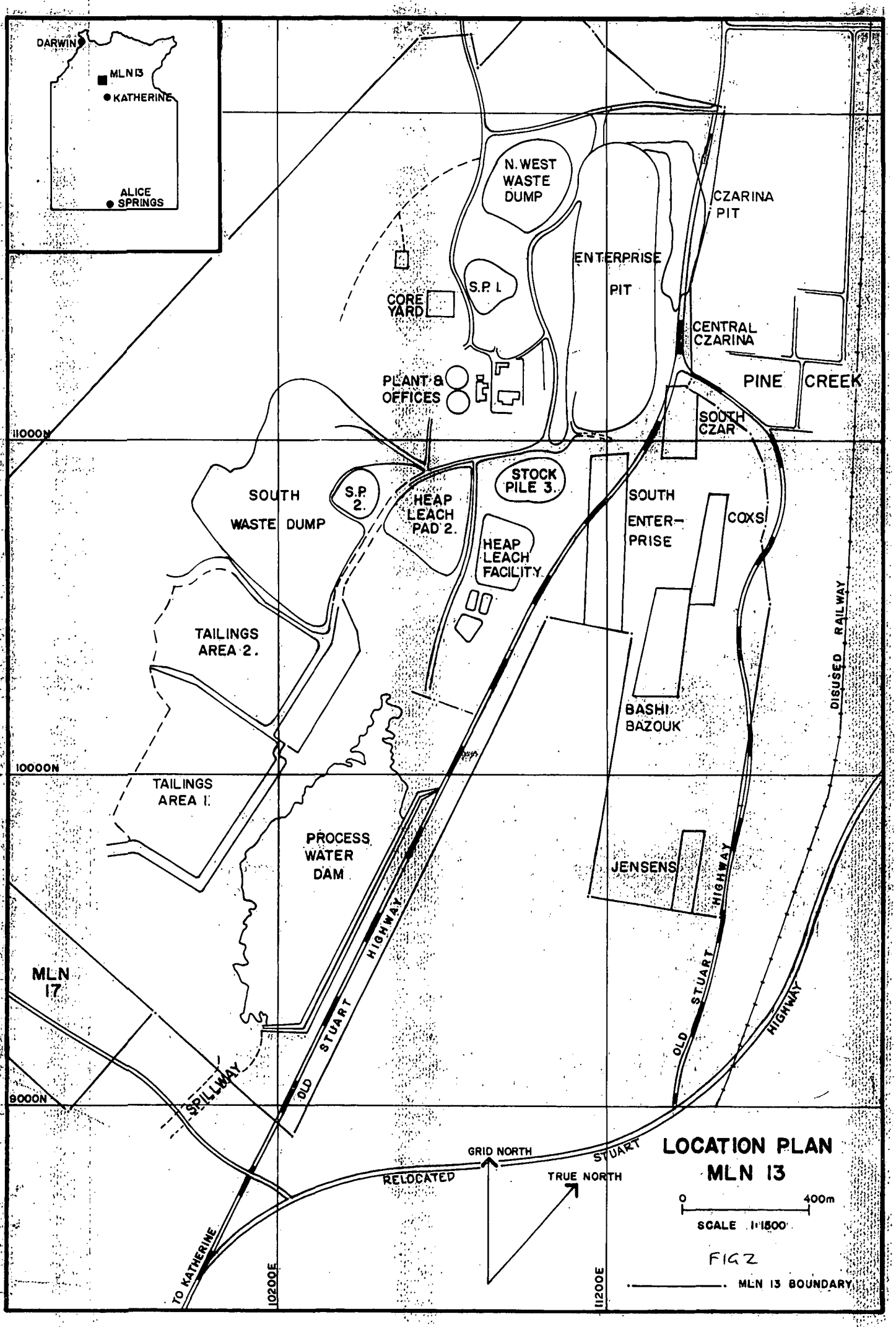
Czarina Pit was approximately 80% backfilled by June 1994.

4.5 GENERAL

An Environmental Management and Decommissioning Plan for MLN 13 & 1130 was prepared during the year. It was presented to the Department of Mines and Energy Environment Division in May 1994 for comment.

A wetland system has been constructed along the western edge of the Process Water Dam to receive waters from the Tailings Dam underflow drains and runoff drain.

Approximately 30,000m^3 of spilt tailings were removed from the northern end of the Process Water Dam and dumped into the Tailings Dam.


DARWIN
MLN 13
KATHERINE
ALICE SPRINGS
N. WEST WASTE DUMP
CZARINA PIT
ENTERPRISE PIT
S.P. 1
CORE YARD
CENTRAL CZARINA
PINE CREEK
PLANT & OFFICES
SOUTH CZAR
11000N
SOUTH WASTE DUMP
S.P. 2.
HEAP LEACH PAD 2.
STOCK PILE 3.
SOUTH ENTER-PRISE
COXS
HEAP LEACH FACILITY
TAILINGS AREA 2.
BASHI BAZOUK
DISUSED RAILWAY
10000N
TAILINGS AREA 1.
PROCESS WATER DAM
JENSENS
OLD STUART HIGHWAY
MLN 17
SPILLWAY
9000N
RELOCATED STUART HIGHWAY
GRID NORTH
TRUE NORTH
TO KATHERINE
10200E
11200E
LOCATION PLAN
MLN 13
0
400m
SCALE 1:1500
FIG 2
MLN 13 BOUNDARY

5. *ENVIRONMENT*

5.1 RAINFALL

The rainfall recorded for the 1993/94 year was 1202.2 mm. This compares with an average annual rainfall of 1157.6 mm since operations began in 1985. Figure 3 shows rainfall data collected through the year as a cumulative graph.

Although this was an average rainfall year, dam levels did not rise to their expected heights. This was due to the low runoff characteristics of this years rainfall.

5.2 WATER MANAGEMENT PROGRAMME

Monitoring of mine site water, and Copperfield and Pine Creek catchments was carried out in accordance with the Water Management Plan.

For the first time in four years the Process Water Dam did not overflow.

A comprehensive programme of water quality monitoring, and sample collection and analysis was carried out. Results of this programme will be detailed in the annual Environmental Management Report for MLN 13 & 1130.

5.3 ACID MINE DRAINAGE

Control and prevention of Acid Mine Drainage (AMD) has again been one of the major objectives of environmental management on the lease.

AMD seepage from the South Waste Dump was contained in the Waste Rock Sump (WRS) before being pumped to the Tailings Dam. A total of 815 megalitres of acid water was pumped from the WRS to the Tailings Dam during 1993/94.

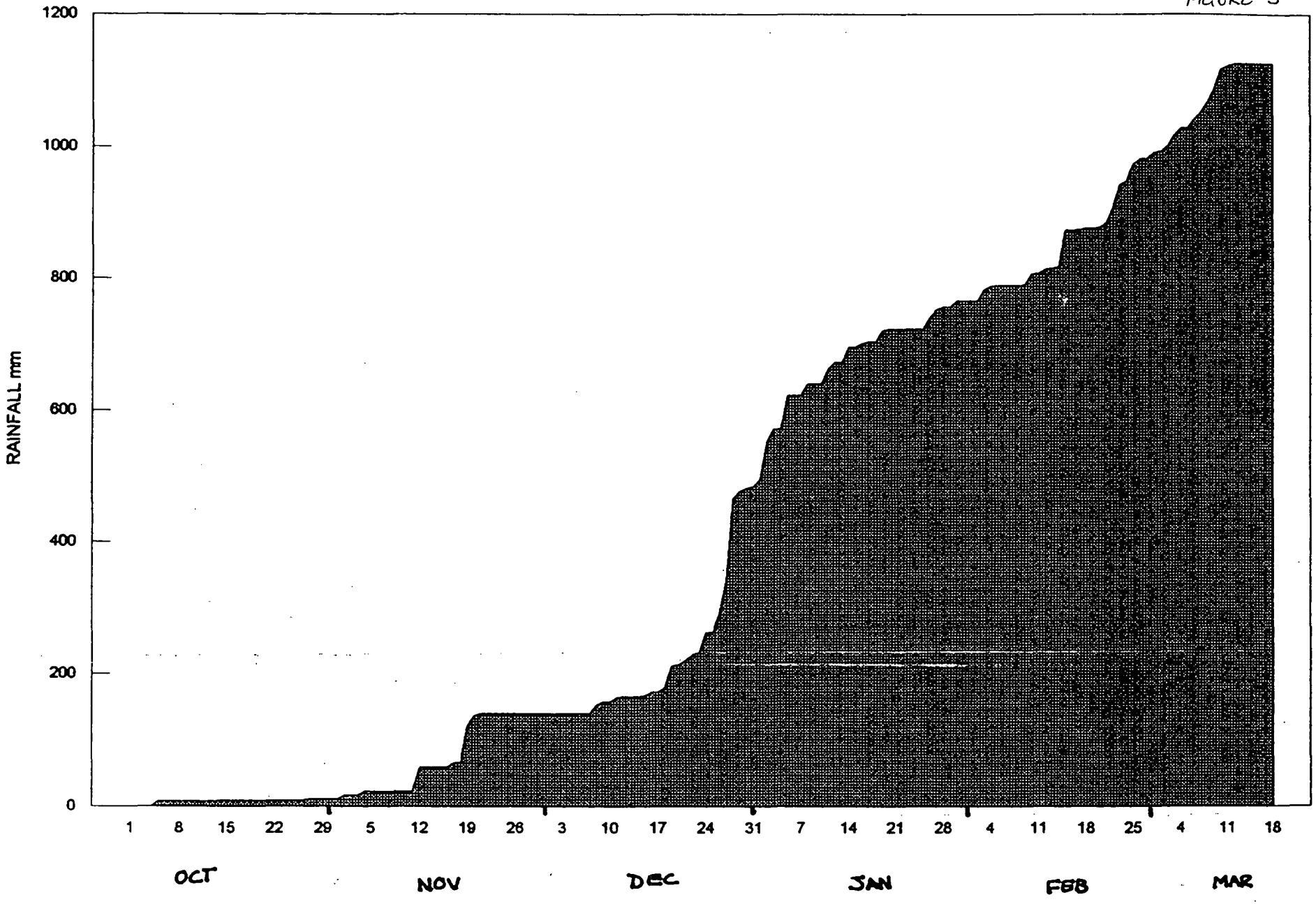
Although this amount is significantly higher than the 450 megalitres pumped the previous year it does not represent an increase in AMD production from the dump. The increase in the volume of water collecting in the WRS is the result of capping and drainage control work carried out on the dump prior to the 1993/94 wet season. Rainfall now runs off the dump via a series of graded banks, some of these graded banks direct water to WRS, hence the increase in volume. In previous years this water would have soaked into the uncapped sections of the dump.

Progressive rehabilitation of the dump continued throughout the year. By June 1994 less than 4 hectares remained to be capped and revegetated.

Monitoring of the North Waste Dump (rehabilitated 1991/92) continues to indicate that the rehabilitation has been successful as no signs of AMD escaping from the dump have been detected.

1993/94 CUMULATIVE RAINFALL

FIGURE 3



6. REHABILITATION

A total of 48 hectares was rehabilitated on MLN 13 during 1993/94. This was made up of 16 hectares on the upper levels of the Tailings Dam wall and the remainder on the South Waste Dump.

Refinements in species selection, seed treatment methods and fertiliser application rates have lead to dramatic improvements in vegetation establishment, species diversity and growth rates over previous years rehabilitation.

7. *SAFETY*

There were 2 lost time accidents on the mine and exploration leases during 1993/94. One incident affected a PCG employee, the other a contractor. These are divided by areas:

Area	No. of Accidents
Mine	1
Maintenance	0
Metallurgy	0
*Geology	1
Township	0
Administration	0
Employee Relations	0

This equates to a frequency rate of 5.8 per million man hours. The average duration rate of the accidents was 39.5 days.

* Accident for the Geology area occurred on ERL 116. Only one accident occurred on MLN 13 during 1993/94.

8. EXPLORATION

8.1 CENTRAL CZARINA

Vertical and angle reverse circulation drilling was carried out on Central Czarina between 9th-10th October 1993. This resulted in 345metres of drilling.

This drilling was designed to test mineralisation at the south end of the Czarina Pit.

Drilling results were patchy, with grades ranging from 0.8g/t - 24.90g/t Au, and with an average grade of 1.80g/t Au. Mineralisation is associated with west dipping faults similar to the mineralisation within the Czarina Pit to the north.

Greywackes and siltstone of the Upper Mine Greywacke host this mineralisation. Shallow vertical percussion drilling resulting in 2,250metres of drilling was subsequently undertaken in this area to better define the zone of mineralisation. A small resource of 59,324 tonnes at 1.80g/t Au was outlined by this drilling.

8.2 SOUTHERN LEASES

Exploration over the Southern Leases consisted predominantly of reverse circulation drilling. A total of 4,826metres of drilling was carried out and one costean was dug. Table 1 gives the number of holes and the metres drilled for each prospect.

The aim of the exploration program was to test those prospects which still had not been fully tested.

Bashi Bazouk

690metres were drilled at Bashi Bazouk in an area between Cox's Shear and Chinamans Shear. In the north the stratigraphy is dominated by greywacke and grit of the Kohinoor Grit and greywackes of the underlying Upper Mine Greywacke. South of 10250N no grits have been observed and a 10-30m thick silt unit has been intersected within the greywacke. It is thought that a fault between 10250N and 10200N has moved the southern block up in relation to the northern block exposing the greywackes and silts of the Upper Mine Greywacke.

TABLE 1.

Prospect	No. of Holes Drilled	Metres Drilled
Bashi Bazouk	15	690
Cox's	11	322
Jensen's	54	2264
South Czarina	34	1350
South Enterprise	4	200
Program Total	**118**	**4826**

At the southern end of Bashi Bazouk zones of anomalous mineralisation were intersected. These ore shoots occur in fold limbs and are thought to be related to shearing or faulting. Gold values for these shoots, however, are generally low grade in the range 0.5 - 0.9g/tAu.

Mineralisation is better developed in the northern section where it is located in the competent greywacke/grit unit and is interpreted to be related to tension gashes and shears due to the high competence of this unit.

Cox's

Drilling in the Cox's area is located to the west of Cox's Shear and across its southern end, and on the east limb of the Czarina Anticline. Drilling intersected greywacke and siltstone which are interpreted to belong to the Upper Mine Greywacke.

Mineralisation encountered in this area is spotty and generally sub-economic. One hole intersected a six metre zone averaging 5.2g/tAu, however, this zone appears to be discontinuous and is considered to be related to shearing. Because of the spotty nature of anomalous gold intersections. Mineralisation at Cox's is considered to be related to faulting and shearing.

Jensens

The drilling at Jensens covers the interpreted positions of Kohinoor Anticline and Jensens Fault. Grit and greywacke were the dominant rock type intersected. Mineralisation is related to the west dipping Jensens Thrust Fault and a smaller fault higher in the stratigraphy which has been named the Eleanor Thrust Fault. Both faults dip at approximately 45° west. Jensens Fault is interpreted as steepening to about 60° at northings 9700N and 9760N where the ore shoot appears to pinch out.

South Czarina

Drillholes at South Czarina are located between the Enterprise Syncline and the Czarina Anticline on strike with the projected position of Battery Shear. Holes intersected greywacke, grit and siltstone.

Mineralisation observed at South Czarina is interpreted as occurring in the west dipping limb of the Czarina Anticline. In the north, between section 11075N to 11175N gold is usually associated with relatively high quartz content and appears to follow bedding within a siltstone, implying bedding parallel quartz veining. Minor shear/fault style mineralisation also occurs in this area. South of 11075N the fault/shear style of mineralisation is more prominent. Gold results are patchy and samples contain little quartz.

South Enterprise

South Enterprise drilling was designed to test the area south of the Enterprise Pit over the projected position of the Enterprise Anticline. Greywacke, siltstone and grit of the Kohinoor Grit was intersected. Mineralisation is extremely weak and spotty, with few samples returning gold grades in excess of 0.50g/tAu. This mineralisation has been interpreted as being fault/shear related.

8.3 HARBROWS

Drilling at the Harbrow prospect involved 19 vertical reverse circulation drillholes to test an area previously untested. This program resulted in 680metres of drilling. The area drilled is located across the projected position of the International/Czarina Anticline and Enterprise Syncline.

Holes intersected siltstone with minor interbedded greywacke, of the Spotted Silt Horizon. Anomalous gold grades were generally low (0.8 - 2.00g/tAu), however spotty higher grades of up to 9.80g/tAu are present. These zones of mineralisation are generally narrow and are associated with minor quartz veining.

REFERENCES

Annual Report on Exploration, MLN 13, June 93 - June 94, C. Fawcett July 1994.

Annual Report EL 7882, February 1993 - February 1994, C. Fawcett March 1994.

1993 - 1994 Water Management Plan, M. Fawcett.

Monarch

Syncline

Czarina

Central Czarina

10600E 10800E 11000E 11200E 11400E 11600E

12400N 12200N 12000N 11800N 11600N 11400N 11200N 11000N 10800N 10600N 10400N

GRASSHOPPER SOFTWARE

AREAS MINED BY PCG 1993/1994

MIKE TAYLOR JULY 1994

MLN 13

0 40 80 120 160 200

DATE	25-Jul-94	SCALE	1:2000	DRAWN	PLATE 1.
				CHECKED	
				APPROVED	