TECHNICAL REPORT ON THE MT. NAKRU, SIMUKU, SINIVIT, NORMANBY AND FENI PROPERTIES, PAPUA NEW GUINEA

LOCATIONS

MAP 1:5,000,000 GNC 14 SOUTH PACIFIC OCEAN
FENI, FENI ISLANDS, PNG
NORMANBY, NORMANBY ISLAND, PNG
SIMUKU, MT. NAKRU, & SINIVIT, NEW BRITAIN ISLAND, PNG

PREPARED FOR

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DATE

1st October 2002
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GENERAL SECTION

1.0 SUMMARY OF REPORT

New Guinea Gold Corporation through an agreement with Mackmin Silver Ltd. (Macmin), a junior mining company listed on the Australian Stock Exchange, has acquired the mineral rights to several advanced exploration properties in Papua New Guinea (PNG). The Mt. Sinivit (also called Wild Dog), Normanby, Sehulea, Feni, Mt. Nakru, Simuku and Crater Mountain properties are all situated along the Rim of Fire, the active circum-Pacific volcanic belt which hosts most of the areas large porphyry-copper-gold deposits and a number of world class epithermal gold deposits. The seven PNG properties, covering a combined area of over 292.2 km$^2$ represent the selected reductions of much larger prospecting authorities evaluated on a reconnaissance basis by Esso, City Resources, BHP, Asarco, INCO, Cyprus/Amax, CRA Exploration Pty Ltd., and others. The major exploration efforts were generally conducted after discovery of world-class deposits like Ok Tedi, Porgera, Lihir and Bougainville with an objective of locating similar world-class deposits. Excellent prospects and anomalies, considered to have moderate size potential, remain to be tested. Recent volcanic deposits blanket large areas of the properties and may conceal mineralized zones with larger potential.

**Sinivit (Wild Dog) property** covers about 43.0 km$^2$ and a >10km long, NNE trending vein zone. It is about 50km SSW of Rabaul, East New Britain Province, PNG.

The Wild Dog vein has several near surface, oxide gold deposits. A previous positive feasibility study suggested that the Wild Dog deposits could be profitably exploited by conventional milling and extraction. Macmin’s experience in PNG has resulted in a decision to evaluated vat leaching of oxide zone material to save on grinding, processing and tailings disposal costs.

The writer believes that evaluation of lower cost leaching methods is prudent and a revised and updated feasibility study is necessary. A recommended Stage 1 revision and update of the 1995 feasibility study is estimated to cost CDN$ 165,000. A Stage 2 program, consisting of drilling and trenching along strike of the Wild dog vein system and in the dilational jog zone, is recommended and estimated to cost CDN$ 286,0000. The writer believes that Stage 2 drilling and trenching has excellent potential for locating additional gold mineralization.

**Simuku property**, covering 43 km$^2$, is situated about 20km SW of Kimbe in West New Britain Province, PNG. The Simuku and Mt. Nakru properties are in the Kulu-Awit trend, a prominent WNW belt of mainly intermediate intrusive rocks with associated precious metal enhanced copper mineralization.

At the Simuku prospects, four holes drilled by Esso in 1983 have demonstrated the presence of a secondary enriched, chalcocite blanket in a zone above significant primary porphyry copper mineralization. Hole SM4 intersected 40.7m. grading 0.64% Cu in a secondary blanket above 84.6m of primary mineralization grading 0.28%Cu. Hole SM3 ended in primary mineralization
with 50.2m (100-150.2m) grading 0.50% copper and a final interval grading 0.66% Cu. Only 12 holes have been drilled in a mineralized zone over 3 km long and from 300 to 500m wide. Based on previously encouraging results, further drilling is justified.

A Stage 1 program, consisting mainly of further geological, geochemical and surface trenching programs to meet assessment requirements, is estimated to cost CDN$ 30,000 in 2002 and CDN$ 50,000 in 2003. Contingent on funding, further drilling is justified with a Stage 2 (1,200m) drilling program estimated to cost CDN$ 575,000. The cost of the two stages total an estimated CDN$ 655,000.

**Mt. Nakru property**, covering about 47km$^2$, is located about 60 km south of Hoskins in West New Britain Province, PNG. A series of high-level plutons have associated copper and gold mineralization. The Mt. Nakru prospect has good gold values with a near surface gold deposit in a leached cap below thin pumice and ash cover. The Mt Nakru 1 prospect has the best results from trenching (45m @ 2.50 g/t Au) and drilling (74m @ 0.78% Cu; 45m @ 0.75 g/t Au), and it should be the main target of further Stage 1 exploration.

A success contingent staged exploration program is recommended for further evaluation of the Mt. Nakru property. A Stage 1 program, consisting of further geological, geochemical and surface trenching program, is designed to meet minimum assessment requirements. The Stage 1 program is estimated to cost CDN$ 25,000 in 2002 and CDN$ 50,000 in 2003. Contingent on funding, further drilling is justified with a Stage 2 drilling program (400m) estimated to cost CDN$ 170,000. The total estimated cost of the Stage 1 and Stage 2 programs is CDN$ 245,000.

**Feni property**, covering 37.0km$^2$ in the Feni Islands group, in a chain of alkaline volcanic islands which contain a significant gold deposit on Tabar Island and a world class gold deposit on Lihir Island. On the Feni property, previous drilling at the Kabang prospect has defined a zone of near surface gold mineralization that remains open in most directions. Previous significant drill intersections (e.g. 113m at 1.12 g/t Au; 15m at 2.56 g/t Au and 2.2m at 6.5 g/t Au) justify further drilling for reserve definition at the Kabang zone. At the North Caldera Zone, a drill intersection of 16.7m at 2.3 g/t Au is reported to be open along strike. Detailed mapping, surface trenching and sampling is required to properly direct further drilling of the North Caldera Zone. Several of the other geochemical anomalies and gold occurrences should be promotable to the drill stage with further surface evaluation.

A Stage 1 program, consisting of surface work, is recommended to cover minimum assessment in 2002 and 2003. The Stage 1 program is estimated to cost CDN$ 160,000 and should expand geophysical and geochemical coverage. A recommended Stage 2, 1,200m diamond drill program, is estimated to cost CDN$ 570,000 and should be directed at further definition of the Kabang zone, and quality targets developed during Stage 1 exploration.

**Normanby property**, covering 44.2km$^2$, is situated on Normanby Island about 325km east of Port Moresby, PNG. This property, situated near the WNW end of the Misima Corridor, has a geological setting similar to Placer Dome’s Misima Gold Mine.
The Normanby property has 19 named prospects. The Imwauna and Wahola prospects have been tested by over 60 drill holes and by extensive trenching programs. The Imwauna vein system has parallel structures or strike continuations called the Kella’s, Ebessowa and Knob prospects that have a combined strike length of over 4km and occur over a 1 to 2km width. A small portion of the zone, tested by trenching and drilling, contains a higher grade, near surface, oxidized zone.

A Stage 1 minimum assessment program, consisting of geological evaluation, trenching and metallurgical testing, is recommended at an estimated cost of CDN$ 75,000. A success contingent Stage 2 pre-feasibility study of the near surface mineralization is estimated to cost CDN$ 400,000. The two stages total an estimated CDN$ 475,000.

**2.0 INTRODUCTION AND TERMS OF REFERENCE**

**2.1 TERMS OF REFERENCE AND PURPOSE**

New Guinea Gold Corporation (NGG) controls the mineral rights to the Sinivit (formerly Wild Dog), Normanby, Feni, Simuku, Mt. Nakru, Sehulea and Crater Mountain Properties, Papua New Guinea (PNG). NGG recently consolidated its interests in the Mt. Sinivit (Wild Dog), Normanby, Feni, Simuku and Mt. Nakru properties and obtained control of the Crater Mountain and Sehulea Properties from Macmin with the acquisition subject to shareholder and regulatory approval.

Peter Christopher & Associates Inc. was retained by the management of NGG to review extensive files in Macmin’s office at Coolangatta, Australia and to prepare technical reports in compliance with the requirements of National Instrument 43-101 and Form 43-101F1 for use as a support document to be filed with the British Columbia Securities Commission and TSX Venture Exchange. The writer updated his engineering reports on the Sinivit (Wild Dog), Normanby, Feni, Simuku and Mt. Nakru properties, and prepared separate 43-101F1 technical reports on the Crater Mountain and Sehulea properties with the assistance of NGG Australian consulting geologists with experience on the Crater Mountain and Sehulea properties.

**2.2 SOURCE OF INFORMATION AND DATA**

This report is based upon the writer’s knowledge of the properties gained from published and unpublished technical reports and maps, discussions of the properties with NGG personnel and consulting geologists, and field examinations. In addition the writer has co-authored separate engineering reports on the Crater Mountain property with consulting geologist Trevor Smith and the Sehulea property with consulting geologist Dr. David Lindley. The writer previously has been involved in the following Technical Reports for NGG:


This Technical Report provides an updated overview of previous exploration and geological settings of the Normanby, Mt. Sinivut, Feni, Simuku, and Mt. Nakru properties and provides recommendations for further staged and success-contingent staged exploration programs.

2.3 FIELD INVOLVEMENT OF THE QUALIFIED PERSON

This report is based on extensive property files reviewed by the writer in Macmin’s Gold Coast, Queensland, Australia Office in conjunction with 1996 and 1998 property visits, and between August 1st and 7th, 2002. In 1996, the writer examined the Feni, Sinivit, Simuku, Mt. Nakru, and Normanby properties between the 7th and 19th, March 1996 with geologists Dr. David Lindley and John Kirakar providing guidance and a geological and historical perspective on the properties. In 1998, the writer updated his Normanby property examination with NGG geologist Peter McNeil.

3.0 DISCLAIMER

The writer has included a property title and ownership sections as required by NI 43-101. The ownership information was obtained from documents in the Macmin property files and reviewed with Macmin personnel. The data is believed to be accurate however ownership is a legal matter and should be confirmed by NGG legal counsel.

4.0 GENERAL PROPERTY DESCRIPTIONS AND LOCATIONS (FIGURE 1)

4.1 LOCATIONS (FIGURE 1)

The Feni, Sinivit (Wild Dog), Simuku, Mt. Nakru, and Normanby property in PNG all occur in the South Pacific Ocean archipelago (Figure 1) that extends from the Asian mainland to New Zealand. The properties are all situated along the Rim of Fire, the active circum-Pacific volcanic belt that hosts several large porphyry copper-gold deposits and a number of world-class epithermal gold deposits.

4.2 PROPERTY TITLE AND OWNERSHIP

Table 1 summarizes pertinent property data, and Table 2 provides a schedule of mining tenements. Detailed descriptions of the locations and tenement data are provided in individual property sections.
Figure 1. General Location of NGG Properties and Relationships to Metallogenic Corridors.

### TABLE 1. Pertinent Property Data.

<table>
<thead>
<tr>
<th>PROPERTY NAME</th>
<th>RECORD NUMBER</th>
<th>AREA (km²)</th>
<th>PROVINCE/ISLAND</th>
<th>DATE ISSUED</th>
<th>MAP</th>
<th>OWNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: SINIVIT</td>
<td>EL 1140</td>
<td>1.44</td>
<td>E. New Britain</td>
<td>11/05/95</td>
<td>SB56</td>
<td>Macmin 90% GMN 1 10%</td>
</tr>
<tr>
<td></td>
<td>ML 122</td>
<td>3.536</td>
<td>E. New Britain</td>
<td>16/02/96</td>
<td>SB56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ME 70</td>
<td>1.44</td>
<td>E. New Britain</td>
<td>16/02/96</td>
<td>SB56</td>
<td></td>
</tr>
<tr>
<td>B: SIMUKU</td>
<td>EL 1077</td>
<td>43.0</td>
<td>W. New Britain</td>
<td>29/11/93</td>
<td>SB55</td>
<td>Macmin 50% Yeaman 50%</td>
</tr>
<tr>
<td>C: MT. NAKRU</td>
<td>EL 1043</td>
<td>43.0</td>
<td>W. New Britain</td>
<td>8/12/92</td>
<td>SB56</td>
<td>Macmin 100%</td>
</tr>
<tr>
<td>D: FENI</td>
<td>EL 1021</td>
<td>37.0</td>
<td>New Ireland</td>
<td>4/11/92</td>
<td>SB56</td>
<td>Janjubilee Pty Ltd.2 100%</td>
</tr>
<tr>
<td>E: NORMANBY</td>
<td>EL 1091</td>
<td>68.0</td>
<td>Milne Bay</td>
<td>26/4/94</td>
<td>SC56</td>
<td>Macmin 100%</td>
</tr>
</tbody>
</table>

ME = Mining Easement; PL = Prospecting License; EL = Exploration License; ML = Mining Lease Granted For 20yrs.
1 GMN = Goldmines of Nugini Holdings Pty Limited.
2 Janjubilee PTY wholly owned subsidiary of Macmin.
TABLE 2. NGG Schedule of Mining Tenements.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>LICENSE NUMBER</th>
<th>LICENSE AREA KM²</th>
<th>RENEWAL REQUIRED</th>
<th>RENEWAL AREA KM²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Sinivit</td>
<td>Nengmutuka</td>
<td>EL1140</td>
<td>135</td>
<td>11/05/03</td>
</tr>
<tr>
<td>A. Sinivit</td>
<td>ML122</td>
<td>3.536</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A. Sinivit</td>
<td>ME70</td>
<td>1.440</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B. Simuku</td>
<td>Simuku</td>
<td>EL1077</td>
<td>203</td>
<td>29/11/03</td>
</tr>
<tr>
<td>C. Mt. Nakru</td>
<td>Mt. Nakru</td>
<td>EL1043</td>
<td>322</td>
<td>07/12/02</td>
</tr>
<tr>
<td>D. Feni</td>
<td>Feni</td>
<td>EL1021</td>
<td>81</td>
<td>07/12/02</td>
</tr>
<tr>
<td>E. Normanby</td>
<td>Normanby</td>
<td>EL1091</td>
<td>203</td>
<td>26/04/04</td>
</tr>
</tbody>
</table>

5.0 SUMMARY OF STAGED AND TOTAL COSTS FOR EACH PROJECT (TABLE 3)

Staged and total costs for each of the five properties are summarized in Table 3, below. The total for all projects is CDN$ 2,518,000 (Table 3).

TABLE 3. Staged and Total Cost for Each Project.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>STAGE</th>
<th>WARRANTED/ CONTINGENT</th>
<th>STAGE COST (CDN$)</th>
<th>TOTALS (CDN$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. SINIVIT</td>
<td>1</td>
<td>Warranted</td>
<td>165,000</td>
<td>431,000</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>266,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td></td>
<td></td>
<td>431,000</td>
</tr>
<tr>
<td>B. SIMUKU</td>
<td>1</td>
<td>Warranted</td>
<td>80,000</td>
<td>655,000</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>575,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td></td>
<td></td>
<td>655,000</td>
</tr>
<tr>
<td>C. MT. NAKRU</td>
<td>1</td>
<td>Contingent</td>
<td>75,000</td>
<td>245,000</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>170,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td></td>
<td></td>
<td>245,000</td>
</tr>
<tr>
<td>D. FENI</td>
<td>1</td>
<td>Warranted</td>
<td>160,000</td>
<td>730,000</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>570,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td></td>
<td></td>
<td>730,000</td>
</tr>
<tr>
<td>E. NORMANBY</td>
<td>1</td>
<td>Contingent</td>
<td>75,000</td>
<td>457,000</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>400,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td></td>
<td></td>
<td>457,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>CDN$ 2,518,000</td>
<td></td>
</tr>
</tbody>
</table>
SECTION C: MT. NAKRU PROPERTY

C1.0 SUMMARY FOR MT. NAKRU PROPERTY

New Guinea Gold Corporation through an agreement with Macmin, a junior mining company listed on the Australian Stock Exchange, has acquired the mineral rights to the Mt. Nakru property. It is situated along the Rim of Fire, the active circum-Pacific volcanic belt that hosts most of the areas large porphyry copper-gold deposits and a number of world-class epithermal gold deposits. This property represent the selected reductions of much larger prospecting authorities evaluated on a reconnaissance basis by Esso, City Resources, BHP, Asarco, INCO, Cyprus/Amax, CRA Exploration Pty Ltd., and others. The major exploration efforts were generally conducted after discovery of world-class deposits like Ok Tedi, Porgera, Lihir and Bougainville with an objective of locating similar world-class deposits. Excellent prospects and anomalies, considered to have moderate size potential, remain to be tested. Recent volcanic deposits blanket large areas of the property and may conceal mineralized zones with larger potential.

Mt. Nakru property covers about 47km$^2$. It is located in West New Britain Province about 60km south of the airport at Hoskins and from 50km to 70km SE of the helicopter base at Kimbe.

The Mt. Nakru property covers a strongly mineralized sector of the Kulu-Simi trend of porphyry copper/gold deposits and occurrences. The mineralized systems are associated with high-level igneous plutons and at Mt. Nakru with a rhyodacitic extrusive/intrusive complex. The Nakru 1 prospect, tested with 3 diamond drill holes by City Resources and 5 diamond drill holes by BHP, has gold values in holes 1, 2 and 3 that suggest potential for a near surface, secondary gold deposit. Copper/gold values in holes 3 and 6 suggest potential for a gold enhanced copper porphyry system. The Plesyumi Porphyry Copper system, tested by Placer and partners with 21 diamond drill holes in the early 1970s, has a best drill intersection of 44m at 0.85% copper with selected intervals checked for gold generally found to contain relatively low (<0.1 g/t Au) values with a high value of 0.38 g/t Au. Alteration and mineralization at the Plesyumi prospects covers about 4km$^2$ that should leave adequate untested area for at least moderate sized porphyry deposits.

The Lae River skarn prospect, investigated by Placer with little encouragement, has possibility of intrusive contact related deposits with a number of streams and float geochemical anomalies untested. The skarn prospects are judged to be of lower priority when compared to the Mt. Nakru area.

The Mt. Nakru prospects and the Plesyumi prospect situated on the Mt. Nakru property are judged to have good potential for moderate sized porphyry copper deposits. The Mt. Nakru system has good gold credits with indications of a near surface gold deposit in a leached cap below thin pumice and ash cover. The Mt. Nakru 1 prospect has the best previous results from trenching (45m @ 2.50 g/t Au) and drilling (74m @ 0.78% Cu; 45m @ 0.75 g/t Au).

A success contingent staged exploration program is recommended for further evaluation of the Mt. Nakru property with a Stage 1 program, consisting mainly of further geological, geochemical and
surface trenching programs to meet minimum assessment requirements. The Stage 1 program is estimated to cost CDN$ 25,000 in 2002 and CDN$ 50,000 in 2003. Given sufficient funding, further drilling is justified with a Stage 2 (400m) drilling program estimated to cost CDN$ 170,000. Thus, the total estimated cost of the Stage 1 and Stage 2 programs is CDN$ 245,000. Details are in Cost Estimates for Mt. Nakru property, below.

The writer is of the opinion that the recommended programs are warranted and of sufficient merit to justify the investment in exploration set out for the Mt. Nakru property.

C2.0 INTRODUCTION, TERMS OF REFERENCE, AND FIELD INVOLVEMENT

C2.1 INTRODUCTION AND TERMS OF REFERENCE

The Mt. Nakru porphyry Cu prospect is situated in the SE part of the WNW Kulu-Awit trend of copper mineralized intrusive and/or volcanic centers (Figures C1 & C2). The property, reduced from the initial grant of about 323km$^2$, presently covers about 47km$^2$ and fourteen sub-blocks, a western six block area covering the Plesyumi porphyry gold-copper prospect and an eastern eight block area covering the Mt. Nakru copper-gold porphyry prospects (Figures C1 & C2). This report was prepared at the request of the management of NGG to update the writer’s 1996 technical report to NI 43-101 form for submittal to regulatory authorities.

The property, explored between 1982 and 1992 by Esso and City Resources, was farmed out to BHP in 1988. From 1982 to 1992 expenditures of $3.9 million Australian was reported by Roth (1993) to have encountered extensive mineralization in drill holes and numerous untested targets. The two porphyry copper/gold systems with previous drill testing are center at Mt. Nakru and Plesyumi.

This report summarizes the setting of the Mt. Nakru property and provides recommendations for further success contingent, staged exploration of the property.

C2.2 FIELD INVOLVEMENT OF THE QUALIFIED PERSON

Limited helicopter availability resulted in a brief, two-hour, property examination of the Mt. Nakru 1 prospect by the writer and geologists John Kirakar and Dr. David Lindley on March 12, 1996. The update is based on extensive property files reviewed in Macmin’s Gold Coast, Queensland, Australia office between August 1st and 7th, 2002 by the writer, and on discussions with Macmin/NGG exploration personnel.

C3.0 PROPERTY DESCRIPTION AND LOCATION (FIGURE C1)

C3.1 LOCATION (FIGURE C1)

The Mt. Nakru property is in a belt of porphyry copper and gold prospect in West New Britain Province about 60km south of the airport at Hoskins and from 50km to 70km SE of the helicopter
base at Kimbe (Figure 1). The property covers 47km$^2$ in the Dagi (SB-56) 1:100,000 scale map. The licence is centred at geographic coordinates latitude 5º58’S and longitude 150º25’E (Figure C1).

3.2 PROPERTY DEFINITION (FIGURE C1)

The Mt. Nakru exploration licence (EL1043) covering 322km$^2$ was granted to Mac Mining NL on 8th December 1992. The company then changed its name to Macmin NL. The licence has gone through several two-year renewals and reductions. The present Mt. Nakru tenement covers about 47km$^2$ in two separate blocks with the location of the 14 sub-blocks shown on Figure C1. The property can be maintained at its present size with future reductions optional.

NGG, subject to shareholder and regulatory approval, is presently acquiring a 100% interest in the Mt. Nakru property from Macmin.

Subject to any agreement made under section 17 of the PNG Mines Act, the State reserves the right to elect at any time, prior to the commencement of mining, to make a single purchase of up to 30% equitable interest in any mining discovery arising from this licence, at a price pro rata to the accumulated exploration.

C4.0 ACCESSIBILITY, PHYSIOGRAPHY, CLIMATE, LOCAL RESOURCES & INFRASTRUCTURE

C4.1 ACCESSIBILITY

The property is presently best reached by helicopter from a base at Kimbe. Previous drill access roads could be upgradeable for future use, and generally require maintenance for temporary use. Walking tracks, along moderate gradients, and a road/trench system provide access to most of the prospect locations, but tracks not used for a wet season require brushing. Alternate access is by helicopter from Kimbe or the Haskins airport. No population centers occur in the EL, landownership claims related to traditional hunting grounds and cultivated areas originate from coastal villages at Ismi, Mingai, Morokea, Ruango and Kulungi.

C4.2 PHYSIOGRAPHY AND CLIMATE

The exploration licence is situated in the Whiteman Range. Rugged terrain results from incised, seasonal streams and relief of about 500m with the highest peak at 830m.

A tropical monsoonal climate has a wet season from November through April. Hoskins receives about 75% of about 4m of annual rainfall during the wet season. The Mt. Nakru licence area is mainly covered by dense tropical forest.
Figure C1. Mt. Nakru License.
C4.3 LOCAL RESOURCES AND INFRASTRUCTURE

Costal villages provide a good supply of camp personnel and labour for exploration projects. Hiring locally also creates good will that generates local support for renewal of tenements. PNG has a good supply of exploration geologists, miners, and equipment operators that can be called on as the project progresses.

C5.0 HISTORY (TABLES C1 & C2)

The discovery of Bougainville prompted the first modern, helicopter-supported exploration of New Britain with CRA geochemical reconnaissance surveys conducted in the mid 1960’s. Placer Prospecting (Australia) Pty Ltd (Placer) acquired P.A.54 in 1967. Placer’s detailed geochemical reconnaissance resulted in the discovery of the Plesyumi porphyry copper prospect in 1968. After conducting basic geological, geochemical and geophysical surveys, Placer completed a program of trenching and 7 diamond drill holes (totaling 1178m.).

In 1971, Triako Mines N.L. obtained a J.V. for further exploration of the Plesyumi Prospect area. Further basic surveys, trenching, 300m of adit excavation and 14 diamond drill holes (totaling 1979m) were completed on the Plesyumi Prospect. Placer and partners tested the Plesyumi porphyry prospect with 21 diamond drill holes totaling 3157m (Bateman Kinhill, 1993) with better copper results (Table C1) as follows:

<table>
<thead>
<tr>
<th>HOLE NUMBER</th>
<th>LENGTH (m)</th>
<th>ANGLE (deg.)</th>
<th>AZIMUTH (deg.)</th>
<th>INTERSECTION AND GRADE (% Cu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>259.8</td>
<td>NA</td>
<td>NA</td>
<td>110m @ 0.31% Cu</td>
</tr>
<tr>
<td>P5</td>
<td>229.3</td>
<td>NA</td>
<td>NA</td>
<td>44m @ 0.85% Cu</td>
</tr>
<tr>
<td>TD1</td>
<td>108.6</td>
<td>55</td>
<td>266</td>
<td>33m @ 0.42% Cu</td>
</tr>
<tr>
<td>TD9</td>
<td>152.4</td>
<td>vertical</td>
<td>-</td>
<td>152.4m @ 0.25% Cu</td>
</tr>
<tr>
<td>P1</td>
<td>207.3</td>
<td>NA</td>
<td>NA</td>
<td>101m @ 0.20% Cu</td>
</tr>
<tr>
<td>TD12</td>
<td>152.5</td>
<td>vertical</td>
<td>-</td>
<td>152.5m @ 0.20% Cu</td>
</tr>
</tbody>
</table>

Only selected intervals were assayed for gold with the highest reported value of 0.38 ppm Au over 1.5m in hole TD5 and most gold values less than 0.10ppm.

Through sale of a subsidiary, Placer’s interest passed to Carpentaria Exploration Company (CEC) in 1975. CEC conducted check sampling prior to relinquishing the area.

Esso acquired P.A. 467 over most of Central New Britain in 1981 and targeted porphyry copper/gold, skarn and epithermal precious metal deposits. To prepare for a required 80% size reduction after two years, regional stream silt sampling program, a 7626 line-km aeromagnetic survey and photogeological mapping was completed. After evaluation of regional surveys PA 467 was reduced to P.A. 504 in 1983.
City Resources acquired P.A. 504 from Esso and in 1984 continued follow-up of Esso anomalies that delineated the Nakru 1 through 4 prospects. The Mt. Nakru 1 (Nakru 1) prospect was evaluated by grid soil sampling, bulldozer trenching, and 3 diamond drill holes totaling 396.55m.

In 1988, P.A. 504 was joint-ventured by BHP that agreed to spend about CDN$ 10,000,000 to earn 70%. BHP conducted sampling programs and completed 5 diamond drill holes totaling 562.55m at the Nakru 1 before terminating work in October 1989. The main drill intersections from the Nakru 1 prospect are summarized below in Table C2:

<table>
<thead>
<tr>
<th>HOLE NO.</th>
<th>LENGTH</th>
<th>FROM</th>
<th>TO</th>
<th>INTERSECTION</th>
<th>AU g/t</th>
<th>AG g/t</th>
<th>CU %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAK001</td>
<td>123.5</td>
<td>0.0</td>
<td>8.6</td>
<td>8.6</td>
<td>1.34</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Including</td>
<td></td>
<td>32.0</td>
<td>82.0</td>
<td>50.0</td>
<td>-</td>
<td>-</td>
<td>0.40</td>
</tr>
<tr>
<td>NAK002</td>
<td>88.7</td>
<td>0</td>
<td>47.3</td>
<td>47.3</td>
<td>0.31</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NAK003</td>
<td>184.9</td>
<td>0.0</td>
<td>27.8</td>
<td>27.8</td>
<td>0.51</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Including</td>
<td></td>
<td>90.9</td>
<td>184.9</td>
<td>94.0</td>
<td>0.46</td>
<td>-</td>
<td>0.43</td>
</tr>
<tr>
<td>Q74E6</td>
<td>205.0</td>
<td>0.0</td>
<td>205.0</td>
<td>205.0</td>
<td>-</td>
<td>-</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Since City was no longer active, P.A. 504 lapsed. Macmin applied for the area that was granted as EL 1043 on 8/12/92. The initial EL 1043, covering 373km², was reduced after two years to 162km². A Wacker bedrock-sampling program was conducted with 423 holes totaling 2772m completed in an area 500x3000m (Nakru 4 prospect).

In November 1998, a 480 line km Dighem, radiometrics and magnetic survey was flown Macmin and Cyprus Amax by Geoterrex with 65% of the survey within the 1998 EL1043 boundary. The Dighem Survey was interpreted for Cyprus Amax by Peters (1999).

In February 1999, Cyprus Amax PNG Holdings Inc. finalized a farm in agreement with Macmin and Stan Yeaman (on EL 1077 only) to earn up to 80% in 3 exploration licences, that included EL 1043, covering >4,000km². After spending over US$302,000, mainly on trenching of the Mt. Nakru property, a November 1999 merger of Cyprus Amax with Phelps Dodge resulted in restructuring and withdrawal from the joint venture.

### C6.0 GEOLOGICAL SETTING (FIGURES C2 & C3)

Lower Tertiary island arc volcanics, volcaniclastics and intrusives form the basement rocks for New Britain with Eocene Baining Volcanics, Oligocene Kapuluk Volcanics and intrusives in the Mt. Nakru area (Figures C2).

Baining Volcanics are mainly massive to well bedded volcanic rocks, volcaniclastic sedimentary rocks and related intrusive rocks. The volcanic rocks are basic to intermediate and believed to be over 600m thick. Sediments consist mainly of marine conglomerates, sandstones and siltstones with minor limestone lenses.
The Kapuluk volcanics are compositionally similar to the Banning volcanics and formed under similar island arc conditions. Plutonic and hypabyssal rocks, of acid to intermediate composition, are mainly comagmatic with the upper Oligocene volcanic rocks. Porphyry copper mineralization is found within both the intrusive complex and associated rhyodacitic volcanic rocks.

The Miocene was a period of volcanic quiescence and subsidence that allowed a large thickness of Yalan Limestone to form. The Kapiura Beds resulted from intermediate volcanism that resumed during the Pliocene.

Quaternary volcanism, mostly strato-volcanoes of basaltic to rhyolitic composition, resulted from subduction of the Solomon plate below the Bismarck plate. The Quaternary volcanism has resulted in widespread ash and pumice deposits and 1 to 10m of cover in the Mt. Nakru area. Geochemical sampling must penetrate the pumice that might result in spot anomalies above continuous bedrock mineralization.

The Mt. Nakru 1 prospect is located in the approximate center of the Mt. Nakru extrusive/intrusive complex (Figures C2 – C5). The Kapuluk volcanics overlie the Banning volcanics in the western property area with the Plesyumi Porphyry copper prospect in altered intermediate intrusive rocks that are partly covered by Kapiura beds. The Plesyumi prospect appears to be associated with NW fault structures in a NNE trending, graben-like structure. Limestone lenses with potential for skarn mineralization (e.g. Lae River Skarn) occur in the western and northern part of the property.

C7.0 DEPOSIT TYPES

The main exploration target on the Nakru property is a gold enhanced porphyry copper deposit with possibility enrichment of gold and copper resulting from leaching and supergene enrichment. Skarn mineralization occurs when dacite porphyry intrudes limy volcanoclastic or sedimentary rocks (e.g. Lae River Skarn), and may be a exploration target in limestone lenses that were previously reported in the northern and western area of the Nakru property.

The Plesyumi porphyry prospect occurs within and is genetically related to high-silica, high–soda, low-potash porphyritic rocks (Titley, 1978). The Plesyumi prospect is similar to Simuku with network veinlets in dacite porphyry (Richardson, 1999).

Secondary copper and gold deposits, resulting from tropical weathering and leaching and supergene enrichment, represent an alternate target on the Mt. Nakru property.

C8.0 MINERALIZATION (FIGURES C2 – C6, TABLE C3)

A total of 14 named prospects are shown on Figure C3 within EL 1043. Major prospects, summarized from Richardson (1999), are summarized in Table C3. The Plesyumi and Mt. Nakru 1 porphyry copper prospects are advanced by good drill intersections. Hole 6 in the Mt. Nakru 1 reported to grade 0.40% copper over its full 205m length and hole 3 contained 93.99m grading 0.46 g/t gold and 0.43% copper. Significant results are summarized in Tables C1 & C2 and Figure C6.
Figure C4 shows significant copper and gold anomalies in the Mt. Nakru area (i.e. Nakru 1 through 4 prospects).

Near surface gold grades at the Mt. Nakru 1 prospect justify evaluation for gold enriched surficial blanket with trenches grading 27m @ 0.97 g/t Au, 3m @ 17.00 g/t Au and 21m 0.97 g/t Au and the upper part of holes 1, 2, and 3 containing 8.60m @ 1.34 g/t Au, 47.34m @ 0.312 g/t Au and 27.75m @ 0.51 g/t Au, respectively (Figures C5 & C6). BHP check assays are reported to have supported the results in hole Nak 001 but did not confirm the 7.4 g/t Au assay in hole Nak 003. The gold discrepancy, reported by Bateman Kinhill (1993), has not been explained.

### TABLE C3. Summary of Target Areas, Mt. Nakru Property.
(Modified after Richardson, 1999.)

<table>
<thead>
<tr>
<th>PROSPECT/TARGET</th>
<th>GEOLOGY / ALTERATION</th>
<th>GEOCHEMISTRY</th>
<th>GEOPHYSICS</th>
<th>DRILL HOLES</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakru 1 Flow Dome</td>
<td>Mineralisation is in low sulphide quartz veins and stockwork, and a later high sulphide vein set, hosted by rhyodacite lithic tuff breccia and massive rhyodacite (flow domes?). The quartz veins and high sulphide veins are well developed in a core silica-clay-pyrite alteration zone, although the veins post-date this alteration. The quartz veins in particular carry significant chalcopyrite, minor Au and anomalous Mo, Bi, +/-Ag, Te, and Sb.</td>
<td>Trenching produced best intercepts of 25m@ 1.37 g/t Au, 35m @ 1.20 g/t Au, and 160m @ 0.72 g/t.</td>
<td>Cyprus Dighem survey, 1998 Macmin Helicopter magnetics 1997 - Esso helicopter mag 1983</td>
<td>9 DDH’s for 1285.6M Best intercepts: NAK001 50m @ 0.4% Cu NAK002 8m @ 1.13 g/t Au NAK003 94m @ 0.46 g/t Au and 0.43% Cu Q74D6 205m @ 0.4% Cu Incl. 74m @ 0.78%Cu Best primary copper mineralisation as defined by surface mapping occurs within an area roughly 250m by 250m with drill indicated grades of around 0.5% Cu and up to 0.1 g/t Au.</td>
<td>There are possible extensions of this zone to the NE, as defined by Cyprus costean CC022-NK1 and a Macmin costean. However there is a paucity of quartz veining and alteration is typically clay dominant clay silica pyrite so primary copper grades would probably be lower. Cyprus does not propose any further exploration at this time.</td>
</tr>
<tr>
<td>Nakru 2 Vein and Breccia</td>
<td>Structurally controlled narrow NE, NW and WNW-trending zones of silica clay, pyrite +/-</td>
<td>CC001-NK2 Northern Zone Macmin sampling 25m @ 1.43% copper, re-sampling by Cyprus 0.8m</td>
<td>As above</td>
<td>No drilling has been completed at Nakru 2</td>
<td>Nakru 2 is characterised by a number of structurally controlled relatively narrow NE, NW</td>
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chalcopyrite alteration, locally intense phylllic alteration in lithic tuffs, lithic breccias and fault breccias. Geochemical signature is Cu, Au, Mo, Ag, As, Zn, Pb, Te, and Bi. Primary mineralisation pyrite +/- in matrix, clasts, and vug fill, commonly coated with secondary chalcocite and covellite. Locally drusy and seam quartz veins carry pyrite and chalcopyrite disseminations. Minor chalcedonic quartz veins are also present.

<table>
<thead>
<tr>
<th>Nakru 3 Veins and Breccia</th>
<th>Kapuluk extensively covered by Kimbe Volcanics and colluvium.</th>
<th>Very little work done, no costeaneing. Reconnaissance rock float sampling returned up to 5.2 g/t Au in silicified shear zone with py mag, cc, shp. An altered tuff breccia returned 2.1% Cu.</th>
<th>As above</th>
<th>Very little surface work has been completed, No costeaneing or drilling</th>
<th>Limited creek traverses in the area indicated narrow NE, NW and WNW-trending zones of silica clay, pyrite +/- chalcopyrite alteration in lithic tuffs, lithic breccias and fault breccias. Cyprus did not complete any work at Nakru 4</th>
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<tr>
<td>Nakru 4 Vein and Breccia</td>
<td>Kapuluk extensively covered by Kimbe Volcanics and colluvium.</td>
<td>A Wanker geochemical drill program indicated widespread copper mineralisation in soils beneath the</td>
<td>As above</td>
<td>Very little surface work has been completed, No costeaneing or drilling</td>
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Technical Report by Peter A. Christopher, Peter Christopher & Associates Inc. Page 70 of 178
<table>
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<tr>
<th>Property</th>
<th>Description</th>
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<tr>
<td>Plesyumi Porphyry</td>
<td>Drilling appears to have intersected the upper part of a porphyry system with copper and zinc asoc with small porphyry dykes which intrude volcanics and Metelen granodiorite, Mineralisation charac. by py:cpy ratio of 10:1 erratic low to high zinc asoc with Cu. In one of the better holes TD9 there is some increase in grade with depth. Widespread stream sediment copper and zinc anomalism assoc with Plesyumi complex between Lae and Metelen creeks i.e. &gt;400ppm Cu and &gt;400ppm Zn. In a separate area 3 tributaries of Metelen creek returned &gt; 50ppm Mo and &gt;200ppm Zn, this area does not appear to have been followed up. 21 diamond drill holes (from 100 to 220m vertical depth) Four zones of +0.1% copper indicated, with strongest mineralization centred on Helen Creek, best intercepts as follows: P1 101m @ 0.2% Cu P2 110m @ 0.31% Cu P5 44m @ 0.85% Cu TD1 33m @ 0.42% Cu TD9 152.4m @ 0.25% Cu.</td>
</tr>
<tr>
<td>Lae River Skarn</td>
<td>Baining volcanics intruded by quartz diorite. The skarn unit consists of a lens of impure limey sediments with inter bedded limestones, volcanics. The skarn is irregular isolated lenses of magnetite pyrite and base metal sulphides. Individual -Silt stream sediment samples from drainages returned up to 351ppb Au, 7ppm As (dry screened -80 mesh). Highest assay from rocks was 0.024 ppm Au. -Grid soils failed to indicate any anom. Ground magnetics indicate a number of NW-trending discontinuous magnetite bodies occur throughout the area. Individual bodies are poddy and dip steeply to SW. The zone was covered by soil geochemistry without producing any sig results.</td>
</tr>
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</table>
The Plesyumi porphyry Cu mineralization, occurring in phyllic and propylitic altered fragmental rocks and intrusive breccias associated with the Metelen multi-phase granodiorite intrusive, is reported by Goldner (1983) to occur in an elongate zone about 1,000m wide and 4,000m long. The best drill intersections in the Plesyumi prospect were 44m at 0.85% Cu, 110m @ 0.31% Cu and 101m @ 0.20% Cu (Interval not reported in the 1983 summary prepared for Esso by Peter Goldner). Selected intervals were analyzed for gold with most values <0.1 g/t Au and a highest result of 0.38 g/t Au. The drill results are summarized in Table C1. The strongest chalcopyrite-pyrite in the primary zone is associated with increased density of quartz stockwork and magnetite veins (Bateman Kinhill, 1993).

At the Molonk Creek prospect BHP located siliceous float with values up to 2.6 g/t Au and pan concentrates of silt with analyses of 6.22, 16.3 and 7.16 g/t Au (Bateman Kinhill, 1993). Most of the other prospects (Figure C3) have anomalous gold or base metal values in reconnaissance geochemical samples. Since stronger, better-defined anomalies remain untested at Mt. Nakru, the next stage of exploration should concentrate in that area.

**C9.0 EXPLORATION BY MACMIN/NGG (FIGURES C4 – C6)**

In 1995, Macmin conducted Wacker overburden drilling on the Nakru 4 prospect with a 500 by 3000m area covered by 423 holes totaling 2772m. The survey was reported by Macmin (1995 Annual Report) to have outlined several subtly anomalous gold zones with a peak weighted assay average 0.20 g/t Au, 395ppm Cu and 73ppm As for a 100m interval.

Surface exploration and drilling programs conducted by Esso Papua New Guinea/City Resources (PNG), Placer, Cyprus Amax, and BHP validate the presence of significant porphyry mineralization on the Mt. Nakru property. The writer has checked several Macmin/NGG PNG exploration projects and found their work to be of good quality.

**C10.0 DRILLING (FIGURES C5 & C6)**

The Plesyumi porphyry Cu mineralization, occurring in phyllic and propylitic altered fragmental rocks and intrusive breccias associated with the Metelen multi-phase granodiorite intrusive, is reported by Goldner (1983) to occur in an elongate zone about 1,000m wide and 4,000m long. The
best drill intersections in the Plesyumi prospect were 44m at 0.85% Cu, 110m at 0.31% Cu and 101m at 0.20% Cu (intervals not reported in the 1983 summary prepared for Esso by Peter Goldner). The drill results are summarized in Table C1. The Pleysumi prospect area was tested by Placer in 1968 and 1969 with 21 holes totaling about 3,175m and 300m of adit (Titley, 1978). The best intersection was 44m at 0.85% Cu in hole P5, and several holes, P1 (101m at 0.20% Cu), TD9 (152.4m at 0.25%), T12 (152.5m at 0.20% Cu), contained long interval of at least 0.20% Cu.

The Mt. Nakru property has several prospects that have previous drilling. The Nakru 1 prospect has been tested by 9 diamond drill holes totaling 1285.6m and returned several significant intercepts (Table C2): NAK001 (50m at 0.4% Cu), NAK002 (8m at 1.13 g/t Au), NAK003 (94m at 0.46 g/t Au and 0.43% Cu), and Q74D6 (205m at 0.4% Cu, incl. 74m at 0.78% Cu).

In 1995, Macmin conducted Wacker overburden drilling on the Nakru 4 prospect with a 500 by 3000m area covered by 423 holes totaling 2772m.

C11.0 SAMPLING METHODS AND APPROACH

Samples were dried and shipped to Analabs in Lae, PNG for Cu, Mo, Ag, and gold analysis. Base metals and silver were analysed by AAS methods and gold by fire assay and AAS finish.

C12.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Sampling conducted by Macmin and NGG was supervised by qualified exploration geologists that have experience with sampling programs run by major companies in PNG. The writer has spent time in the field with Macmin’s contract geological personnel, and found their work to be carefully and competently conducted.

Samples were sent to Analabs Pty Ltd, a division of Pilbara Laboratories (Nuigini) Pty Ltd, Lae, PNG, for gold assay, and Cu, Mo, and Ag geochemical analysis by standard AAS methods.

C13.0 DATA VERIFICATION

Visible mineralization in the trenches was adequate to explain previous anomalous trench sample results for copper, and trenches with significant anomalous gold results needed clearing. A 1996 2m chip sample by the writer (Appendix A: NPC 96312-1) from the trenched area of Nakru 1, contained 1,207 ppb Au and supports the results obtained by Macmin (Christopher, 1996).

At the time of the writer’s property examination, the area of EL1043 had been explored and confirmed as a significant porphyry copper/gold exploration target by City/Esso, BHP, CRA Explorations, and Placer. All of the previous operators confirmed the presence of low-grade porphyry mineralization on the Simuku property.
C14.0 ADJACENT PROPERTIES

The Mount Nakru property is situated in the WNW Kulu-Awit trend of porphyry copper-gold prospects (Figure C1) that was discovered in the late 1960s by Placer Prospecting Ltd. The Plesyumi copper prospect, part of the Mt. Nakru property, was described by Titley (1978). The Simuku prospect, in the western part of the porphyry belt, is described in the Simuku section of this report. The Talelumus, Simuku, and Rapisme and Rapilli (Kulu) porphyry prospects are all on the Simuku property (EL1077).

C15.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The writer is not aware of any metallurgical test work completed on the Mt. Nakru property.

C16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Mt. Nakru prospect area is at the drilling stage with a total of 21 holes totaling 3,175m completed in Plesyumi prospect area and 8 holes totaling about 1057.55m completed in the Mt. Nakru prospect area. The Mt. Nakru property has a number of excellent exploration targets, but does not have calculated resources or reserves that meet the requirements of NI 43-101.

C17.0 OTHER RELEVANT DATA AND INFORMATION

The Mt. Nakru property area has been worked by junior and major companies since the discovery of the Kulu-Simi Porphyry trend by CRA in 1965. The writer has summarized previous work in various sections of this report. The writer is not aware of any additional data that would change the conclusions and recommendations in this report.

C18.0 DISCUSSION OF MT. NAKRU PROPERTY

The Mt. Nakru property covers a strongly mineralized sector of the Kulu-Simi trend of porphyry copper/gold deposits and occurrences. The mineralized systems are associated with high-level igneous plutons and at Mt. Nakru with a rhyodacitic extrusive/intrusive complex. The Nakru 1 prospect, tested with 3 diamond drill holes by City Resources and 5 diamond drill holes by BHP, has gold values in holes 1, 2 and 3 that suggest potential for a near surface, secondary gold deposit. Copper/gold values in holes 3 and 6 suggest potential for a gold enhanced copper porphyry system. The Plesyumi Porphyry Copper system, tested by Placer and partners with 21 diamond drill holes in the early 1970s, has a best drill intersection of 44m at 0.85% copper with selected intervals checked for gold generally found to contain relatively low (<0.1 g/t Au) values with a high value of 0.38 g/t Au. Alteration and mineralization at the Plesyumi prospects covers about 4km² that should leave adequate untested area for at least moderate sized porphyry deposits.
The Lae River skarn prospect, investigated by Placer with little encouragement, has possibility of intrusive contact related deposits with a number of streams and float geochemical anomalies untested. The skarn prospects are judged to be of lower priority when compared to the Mt. Nakru area.

**C19.0 CONCLUSIONS AND RECOMMENDATIONS**

The Mt. Nakru prospects and the Plesyumi prospect situated on the Mt. Nakru property are judged to have good potential for moderate sized porphyry copper deposits. The Mt. Nakru system has good gold credits with indications of a near surface gold deposit in a leached cap below thin pumice and ash cover. The Nakru prospects have the best previous results from trenching and drilling, and should be the main target of further Stage 1 exploration.

Results of previous exploration surveys suggest that excellent exploration potential exists for both a primary copper-gold porphyry deposit at the Nakru or Plesyumi prospects, or a precious metal enhanced leached cap at the Nakru prospects. Low cost assessment programs, consisting of geological and geochemical prospect, and hand trenching, can be used for follow-up of previously defined anomalous targets.

A success contingent staged exploration program is recommended for further evaluation of the Mt. Nakru property with a Stage 1 program, consisting mainly of further geological, geochemical and surface trenching programs to meet minimum assessment requirements. The Stage 1 program is estimated to cost CDN$ 25,000 in 2002 and CDN$ 50,000 in 2003. If sufficient funding is available, further drilling is justified with a Stage 2 (400m) drilling program estimated to cost CDN$ 170,000. Thus, the total estimated cost of the Stage 1 and Stage 2 programs is CDN$ 245,000. Details are in Cost Estimates for Mt. Nakru property, below.

**C20.0 AUTHOR’S OPINION THAT THE SIMUKU PROPERTY IS ONE OF MERIT**

The writer is of the opinion that the recommended programs are warranted and of sufficient merit to justify the investment in exploration set out in the Cost Estimates for Mt. Nakru property, below.

**C21.0 COST ESTIMATES FOR MT. NAKRU PROPERTY**

**C21.1 STAGE 1 ESTIMATED COST OF GEOLOGICAL AND PROSPECTION WORK ON MT. NAKRU (TABLE C4)**

Stage 1 cost of geological and prospecting program on Mt. Nakru is estimated at CDN$ 75,000 (Table C4).

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<th>Description</th>
<th>Cost (CDN$)</th>
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<tbody>
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<td>Geological and Prospecting for Minimum Assessment 2002</td>
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<td><strong>STAGE 1 TOTAL</strong></td>
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C21.2 STAGE 2 COST OF DRILLING ON MT. NAKRU (TABLE C5)

Stage 2 cost of drilling program on Mt. Nakru is estimated at CDN$ 170,000 (Table C5). The drilling project is contingent upon success in the Stage 1 program.

TABLE C5. Estimated Stage 2 Costs for Drilling on the Mt. Nakru Project

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (CDN$)</th>
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<tbody>
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<td>Drilling 400m @ $ 400/m all inclusive</td>
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<td><strong>STAGE 2 TOTAL</strong></td>
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C21.3 STAGE 1 AND 2 COSTS OF PROPOSED EXPLORATION ON MT. NAKRU

Stage 1 and Stage 2 (dependent upon success in Stage 1) programs on the Mt. Nakru property are estimated to total CDN$ 245,000 (Tables C4 and C5).

C22.0 AUTHOR’S SIGNATURE FOR MT. NAKRU PROPERTY

Dated: 1st of October 2002

_________________ _________________________
Peter A. Christopher P.Eng. Phd.,
Figure C2. Simuku and Mt. Nakru Regional Geology.
Figure C3. Mt. Nakru Geology and Prospect Locations.
(For inset 17a, see Figure C4.)
Figure C4. Soil Gold Geochemistry over Mt. Nakru Prospects.
(For inset 17b, see Figure C5.)
Figure C5. Mt. Nakru Prospect.
Figure C6. Drill Section Through the Mt. Nakuru Prospect.
6.0 BIBLIOGRAPHY & SOURCES OF INFORMATION


Lindley, I.D., 1996. The Significance of Propylitic Alteration at the Wahola Prospect Normanby Island, Milne Bay Province. dated December, 1996.


McNeil, R., 1993a. A Review of the Geology, Geophysical Surveys, Drilling and Other Exploration of EL 1021-Feni (Anir), PNG; for Union Mining N.L.


7.0 AUTHOR’S SIGNATURE FOR OVERALL REPORT

Dated 15th September 2002
8.0 CERTIFICATE OF AUTHOR

I Peter A. Christopher P.Eng., Ph.D., with business address at 3707 West 34th Avenue, Vancouver, British Columbia V6N 2K9, do hereby certify that:
1. I am the owner and manager of and provide geological and consulting services through my company:
   Peter Christopher & Associates Inc
   3707 West 34th Avenue,
   Vancouver, British Columbia, CANADA V6N 2K9
   Fax 604-263-6564; Phone 604-263-6152;
2. I hold a B.Sc. (1966) from the State University of New York at Fredonia, a M.A. (1968) from Dartmouth College and a Ph.D. (1973) from the University of British Columbia.
3. I am a consulting geological engineer registered (#10474) with the Association of Professional Engineers and Geoscientists of British Columbia since 1976, and a Fellow of the Geological Association of Canada.
4. I have been practicing my profession as a geologist for over 35 years and as a consulting geological engineer since June 1981. I have authorized over 200 qualifying engineering and exploration reports, and over 20 professional publications.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with professional association and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I have had prior involvement with the properties that are the subject of the Technical Report. I previously prepared technical reports entitled:
property, Chimbu and Eastern Highland Provinces, Papua New Guinea; for New Guinea Gold Corporation, 10th September.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication of the Technical Report by the stock exchange, regulatory authority, or the company, including electronic publication in the public company files on their websites accessible by the public.

Dated: 1st October 2002

Peter A. Christopher, P.Eng. Ph.D.
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APPENDIX A.0 AUTHOR'S ASSAY CERTIFICATES FOR CHECK SAMPLES.

Technical Report by Peter A. Christopher, Peter Christopher & Associates Inc.

---

**ACME ANALYTICAL LABORATORIES LTD.**

**GEOCHEMICAL ANALYSIS CERTIFICATE**

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**NOTE:** 500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR Zn, Mo, Se, Fe, Sr (Ca P LA Cr Mg Ba Bi W AND LIMITES FOR NA K AND AI.

SAMPLE TYPE: ROCK

ALL SAMPLES PROVIDED TO A.I. SAMPLES.

**DATE RECEIVED:** MAR 3 1998
**DATE REPORT MAILED:** MAR 6 1998

SIGNED BY: D. YOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.