

Guyana Geology And Mines Commission

1996

Annual

GEORGETOWN

OMAI



Report

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1. **THE GEOLOGICAL SERVICES DIVISION**

The Geological Services Department consists of the Field Section, Cartographic Section, Petrological and Thin section Laboratories and the Chemical Laboratory.

In keeping with its functions under the Guyana Geology & Mines Commission (GGMC) Act, in 1996 the Field Section undertook Geological Projects and administered Prospecting Licences, Medium Scale Prospecting Permits, Geological and Geophysical Reconnaissance Surveys Permits and this included monitoring of field exploration programmes and regulating terms and conditions of the licences/permits/permissions. Participation in the allocation of Mining Blocks in Mahdia, principally in Golden Star Resources' relinquished Prospecting Licences areas, the recruitment of Specialist Geologists through Technical Assistance Schemes to lead and participate in Mineral Resources surveys in the New River area in southeastern Guyana are also covered in this report.

The Cartographic Section essentially described and verified prospecting and mining properties, mainly Prospecting Permits; compiled prospecting and mining property status maps; listed and filed Geological map sheets and printed/photocopied maps for internal use and for the public.

Finally, the Chemical Laboratory's contribution in terms of analyses, status of equipment, reports on training, visits and other important matters such as the upgrading of the laboratory are covered.

1.1 **RECRUITMENT OF GEOLOGISTS THROUGH TECHNICAL ASSISTANCE SCHEMES**

Three (3) geologists were recruited during 1996 through Technical Assistance Schemes. Mr. V.A. Meyers, Dr. Raju Dulla and Dr. Michael Peterson.

Mr. Meyers was recruited as a CESO Volunteer on attachment for six (6) weeks during the period 12th January - 22nd February, 1996. Mr. Meyers is an independent Consultant from Calgary, Alberta since 1976, and has amassed considerable experience from 1965 as a Mining/Exploration geologist working in mining and integrated exploration for minerals ranging from silver, antimony, zinc copper, nickel, barite, uranium and gold.

During his period of attachment he reviewed the airborne magnetic and radiometric reports and data submitted by the Golden Star Resources Limited, namely:-

1. Report on Exploration on ground relinquished from the Upper Potaro-Ireng geological/geophysical permit area.

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2. Report on Exploration on ground relinquished from the Upper Mazaruni - Kurupung Geological/Geophysical Permit area.

Based on his review Mr. Meyers prepared and submitted two (2) reports, namely:-

- a) Report on Diamond Exploration - Upper Potaro - Ireng Area
- b) Report on Potential areas for Gold Exploration based on data submitted by Golden Star Resources Limited of Western area of Guyana bordering Venezuela.

In these reports Geologists Meyers made important evaluations on mineral prospectivity and recommendations for target areas for large scale gold and diamond exploration.

Dr. Raju Dulla accompanied by his wife and daughter, arrived on January 26, 1996 under the Indian Technical Economic Co-operation (ITEC) Scheme. Dr. Dulla is a geologist specializing in Geochemistry, with fourteen (14) years experience at the Geological Survey of India.

After a review of the Petrological laboratory Dr. Dulla made important recommendations for the upgrading of the laboratory and the training of Geotechnicians. He conducted petrological analyses on some rock and heavy mineral samples collected during the first two (2) phases of the New River Project area. This was done to obtain a clearer understanding of the geology and mineral potential of the area and guide in the planning of future geological/geochemical work to be undertaken in the New River Triangle.

In preparation for the field project, Dr. Dulla conducted a successful six (6) week intensive training course in Mineralogy, Petrology and Heavy Mineral Identification during November 12-December 19, 1996 for all of the available geotechnicians and field assistants. Three (3) practical and theoretical evaluation tests were given and the students were found to have performed well.

Dr. Michael Peterson, Geologist from the British Geological Survey, was recruited through the Commonwealth Technical Assistance Scheme, and began his attachment from 2nd July 1996. Dr. Peterson was selected as the leader of the New River Project and was responsible for elaborating the Work Programme and Budget for the project. The project area and consequently the work programme were substantially expanded to accommodate collaborative field work by four geologists who were now available.

Assisted by geologist Chris Ashley, Dr. Peterson conducted a two (2) week training of Geotechnicians and Field Assistants in Mineralogy and Petrology during October, 1996. He returned to England in mid-November, due to the illness of his son.

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1.2 FIELD SECTION

Geological Field Projects

One major field project occupied the attention of the section throughout the year - the New River Project 1996 - 1998. The aims and objectives of this project are as follows:-

- c) To undertake a multi disciplinary geological study of a defined project area within the New River Triangle area.
- d) To produce a series of maps and reports.
- e) To produce up to date geological databases on Southern Guyana.
- f) To archive representative suites of geological materials from the project area.
- e) To increase scientific and geological skills level of the GGMC staff.
- f) To increase geological knowledge of Southern Guyana.
- g) To increase the advisory capabilities of GGMC.
- h) To stimulate environmentally friendly mineral development.
- i) To increase the scientific acumen and productivity of the GGMC.

The project is expected to contribute to the GGMC and Guyana Mineral Development in the following ways:-

- i) Production of an up to date geological database, expressed as maps, reports and digital database of Southern Guyana.
- ii) Increase in skills level of GGMC staff.
- iii) Stimulation of Mineral Development.
- iv) Creation of a well archived geological materials collection from Southern Guyana.
- v) Increase in advisory capabilities of GGMC.
- vi) Experience in running an integrated scientific programme
- vii) Increased interaction between private and government geoscientific sectors.
- viii) Outside technical assistance and funds brought in to help GGMC.

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The following will derive benefit from the project.

- i) The Guyana Geology and Mines Commission (GGMC).
- ii) Guyana Mineral and Mining Community.
- iii) Guyana Scientific and Educational Community.

Staff Requirements

Staff Requirements for the Project are as follows:-

Four (4) geologists:- Messrs. Peterson, Dulla, Nestor and Ashley.

Eight (8) geotechnicians:- Messrs. Paul Welsh, Julius Griffith, Elton Sampson, Orin Riddle, Larry Ferreira, Carl Matthews, Michael Abraham and Kerion Husbands.

One (1) supply logistics officer - based in Georgetown.

Five (5) to seven (7) local guides.

Fifteen (15) labourers from Georgetown which comprised:-

- 4 Boat Captains
- 2 Camp Attendants
- 4 Cooks
- 2 Store Keepers
- 2 Chain-Saw Operators
- 1 Foreman

Project Budget

The estimated cost of the project was twenty-three point three two million dollars (G\$23.32M); the major projected cost (\$7.845 M) was for transportation, followed by (G\$5.5M) or 26% for field equipment which included several outboard motors. This represented a significant increase over the G\$ 17.0 Million that were approved, and approval was sought for the additional budgeted expenditure which was due to a significant expansion in the project area.

The project of which Phases 1 and 11 had begun in 1995 with Geologists Lowe and Nestor, was to be significantly expanded and continued as a Technical Assistance Project under Dr. Peterson, a Technical Assistance Geologist under the Commonwealth programme, and Indian Technical Assistance Geologist, Dr. Raju Dulla.

A two (2) week reconnaissance to the project area took place during the last quarter of 1996 to enable senior project geologists Peterson and Dulla to become acquainted with the area. However, the major field expedition was postponed to early in 1997 since just about the time the new budget was approved the project leader was suddenly recalled to his home in England due to the illness of his son.

For the major expedition the following proposals are made for sample numbers and sample types to be collected.

Sample Type	Minimum Amount	Maximum Amount
Stream Sediments	1,000	2,000
Heavy Mineral Concentrates	1,000	2,000
Rock	500	1,000
Soil	100	400
Total	2,600	5,400

1.3 **TECHNICAL ASSISTANCE - SOUTH AMERICAN MAPPING PROJECT (SAMMP)**

On August 27, 1997, the SAMMP Associate Member Products were received at the Commission according to the terms of its participation in the SAMMP as an Associate Member. These are:-

- One (1) Technical Report and Survey Atlas
- One (1) Diskette and one (1) Compact Disk
- One (1) SAMMP Poster, and
- One (1) Magnetic Anomaly Map

The South American Mapping Project is an initiative undertaken by Geophysical Exploration Technology (GETECH), in collaboration with Peterson, Grant and Watson Ltd. (PGW) of Toronto, Canada and sponsored by five major multinational Oil Companies - AMOCO, CONOCO, EXXON, INOC and UNOCAL. Aero magnetic and marine magnetic data - including data from Geological Survey organisations - are collected, standardised, compiled, enhanced and analysed to prepare a digital data set, and provide information on prospecting and potential for oil and gas deposits. Collaborating Geological Survey organisations, such as GGMC, are Associate Members.

1.4 **EMPLOYMENT OF PROFESSIONAL STAFF**

Mrs. Devica Prashad was employed as Senior Chemist of the Guyana Geology and Mines Commission (GGMC) with effect from April 1, 1996 from which date she has been seconded to the Guyana Gold Board. Mrs. Prashad previously worked at Linmine from January 1992.

Mr. Chris Ashley of Unionville, Ontario, Canada, assumed duty as a geologist on April 15, 1996 on a three-year contract from Canada. He is a 1995 graduate of the Queens's University in Canada with BSc. Hons. in Geology.

1.5 VISITS BY BRITISH GEOLOGICAL SURVEY PERSONNEL

In mid November, 1996, Mr. Ian Jackson, Group Manager, Data and Digital Systems Group of British Geological Survey on invitation from Dr. Peterson, paid a visit to the Commission. During his brief visit Mr. Jackson submitted a proposal to the Commissioner for a pilot scale project to establish a GIS for geological data over a selected area and gave a demonstration lecture to the Commission's Technical staff showing the work of the British Geological Survey in this area.

1.6 TECHNICAL ASSISTANCE INFORMATION US FOREST SERVICE

In August 1996, the Manager Geological Services received technical assistance information from Mr. John Gutierrez, Co-ordinator, International Projects, US Forest Service Advisory Group. The information includes excerpts of Forest Service reports. Mr. Gutierrez response was based on an initiative of the Manager, Geological Services, who met the Deputy Associate Chief of the Forest Service, Mr. Janice Mc Dougal at the "Investing in the Americas' 96 Conference" in Miami earlier in 1996.

1.7 OTHER PROPOSED TECHNICAL ASSISTANCE GEOLOGICAL PROJECTS

The CDB Step Fund Project - Characterisation of Selected Industrial Minerals Deposits.

Contracts were submitted for signature by the Commission. Some discussion was initiated at the Board Technical Sub-Committee for CDB Projects.

Training in the Interpretation of Geophysical Data

Application for grant funds from the United Nations Development Programme (UNDP) was made through the Ministry of Foreign Affairs, but there has been no response.

Geological/Mineral Surveys in Southern Guyana

Application was made through the Ministry of Foreign Affairs for European Union funding but no response was received.

Cartographic Training in Geological Map Production

The short term training in Cartography to give guidance in the preparation of geological atlas map sheets under Technical Assistance from Brazil did not take place as planned. In fact although the Commission received confirmation that a Brazilian team was scheduled to visit Guyana between September 23-27, 1996 to examine and conclude technical aspects of the

projects proposed during the third meeting of the Guyana/Brazil Joint Commission, this visit did not take place. Thus, the Technical Assistance Programme in Cartography as well as others in Geochemistry and Mineral Processing did not come into effect.

1.8 ALLOCATION OF MINING BLOCKS IN MAHDIA

Based on a meeting between the Prime Minister, officials from the Guyana Gold and Diamond Miners' Association (GGDMA) and officials of the Guyana Geology and Mines Commission (GGMC), held on January 19, 1996, the Prime Minister appointed a representative Committee to be chaired by Senior Geologist 11, K. Persaud for the co-ordination, planning and execution of the lottery for the relocation of mining blocks delineated over the Proto-Mahdia gold reserves.

As a result of successful execution of the lottery on January 29, 1996, one hundred and eighty-nine (189) blocks were allocated and it was obvious that even more blocks would be available for staking claims. One hundred and fifty (150) applications for blocks were processed.

Regular meetings were held by the special committee to deal with matters arising from the Mahdia Project such as distribution of blocks, collection of fees, contracting of topographic surveyors, infrastructural development and overall management of the project.

A surveying contract was signed with Survey Systems Limited for Seven point zero four million dollars (G\$7.04 M) and field work commenced on April 10, 1996. The final survey plans of all blocks to be allocated were completed by the end of the year. Areas not blocked out were made available for staking claims from December, 1996. The working of these claims will have to be in accordance with the Environmental Management Agreement.

Management of the project was contracted to Tafya, which therefore has responsibility of overseeing of compliance of miners with the Environmental Management Agreement and also the supervision of the construction of dams, canals and access roads by the contractor.

The permit holders are expected to repay the GGMC the cost of all infrastructural works in the development and blocking off of the mining blocks in Mahdia.

1.9 GEOLOGICAL AND GEOPHYSICAL RECONNAISSANCE PERMISSION

Two (2) Geological and Geophysical Reconnaissance Permission were granted during August to Broken Hill Proprietary (BHP) Minerals International of Delaware, USA, and to XAMUTEBA of Brazil. The press was in attendance at both signing ceremonies which took place at the GGMC.

Later in the year, two (2) other companies, Vanessa Guyana Int. and BARAMA were also granted Geological and Geophysical Survey Permission.

Geologist Chris Ashley spent a two (2) week attachment period, from October 2-15, 1996 at the B.H.P Geological and Geophysical Survey Permission area in the Upper Berbice River near Kwakwani, Wiki River and Kari Kari River. Mr. Ashley worked with Golden Star Resources Ltd. which was undertaking reconnaissance stream sediment sampling on behalf of the BHP. Large stream sediment samples were taken to be sent to BHP's operations in Chile for Bulk Leach Extractable Gold (BLEG) analysis.

1.10 NATIONAL RESOURCES MANAGEMENT PROJECT (NRMP)

The Manager, Geological Services, one of the two (2) GGMC representation on this national project, attended two (2) meetings held by Project leader Mr. Andrew Bishop at the Guyana Natural Resources Agency (GNRA). Dr. Fischer, representative of the LUSO Consut/GTZ, also anticipated in these meetings, the first of which reviewed the status of the NRMP and the schedule of activities for the remainder of 1996, and the last of which dealt with an evaluation of the progress of the Base Map and the planning of the work scheduled for until the end of January 1997.

Several important activities took place through the NRMP, the first of which involved two (2) weeks of training in Land Use Planning (LUP) from July 18-31. This was attended by Manager, Geological Services and Mr. D. Husbands, Mining Engineer. This programme was run by Dr. Ridgeway at the University of Guyana campus.

Another important activity which the Manager, Geological Services attended was a Geological Information Systems (GIS) training programme on the use of the ARC-INFO software. This took place during September 16-24, 1996.

From November 13-22, 1996 the Manager, Geological Services attended training session in GIS held at the Embassy Club. Mr. D. Husbands was a part of a team that visited Belize from November 25-29, 1996. The overall objective of the visit was to observe the application of GIS and Land Use Planning in Belize.

During the month of December, the Manager Geological Services also received training together with Mr. D. Husband in PC ARCEDIT and PC ARCPLOT modules. The training was conducted by Mr. Stephen Schillinger (German Technical Assistance, Germany).

1.11 NATIONAL/INTERNATIONAL CONFERENCES

The Second National Conference on Mining and Quarrying was held at Watooka Club, Linden over August 28 & 29, 1996 and attended by several professional staff of the Geological Services. This conference took place at a time when the Manager, Geological Services was acting Commissioner (in the absence of both the Commissioner and the Deputy Commissioner) and in

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this capacity delivered the Opening Address at the conference. The Feature Address was given by the Prime Minister (Minister of Minerals and Mines). Two (2) papers were presented by the Division dealing with strategies for Mineral Development in Guyana.

The '**Investing in the Americas**' 1996 Conference and Exhibition, held at the Sheraton Bal Harbour Hotel Miami, Florida from April 22-25, 1996 was attended by the Manager, Geological Services, Mrs. K. Livan and Senior Geologist 11, Mr. K. Persaud as part of the official Guyanese delegation led by Acting President and country representative, His Excellency, Dr. Samuel Hinds, and including the Commissioner, Mr. Brian Sucre. Guyana's country paper was delivered by His Excellency Dr. Samuel Hinds. Mrs. Livan and Mr. Persaud were responsible for the setting up and manning of GGMC's booth at the exhibition. Attendance by GGMC representatives at this Miami conference was organised by the Manager, Geological Services.

The Geological Services Division responded to enquiries from mining companies and individuals in relation to the 'Investing in the Americas '96 Conference. Initial contact, and interest shown by XAMUTEBA of Brazil's representative, came to fruition with an application in June 1996 for permission to undertake Geological and Geophysical Surveys over two selected areas in western Guyana.

1:12 **TRAINING**

Three (3) Geotechnicians, Ms. Aretha Crawford, Mr. Rollins Nelson and Mr. Balwant Arjune were sponsored by the Commission to pursue studies leading to the BSc Degree in Geology. Studies begun in September and were pursued at Canadian Universities.

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Prospecting Licences - Large Scale

There were twenty-eight (28) Prospecting Licence Applications, listed below.

Table 1:- Prospecting Licence Applications in 1996

No.	Applicant	Area	Mineral of Interest
1.	Oratop Development Inc.	Warabaru	Koalin
2.	" " "	Ituni	"
3.	" " "	Ituni	"
4.	Wenamun Mining Co.	Muruwawe River	Gold, diamond
5.	Mazda Limited	Blackwater Creek, L. Bank	Gold & precious stones
6.	" "	Konawaruk River, R.B Deer	Do
7.	" "	Creek, L.B Konawaruk R.	Do
8.	Makari Mountains Mines Ltd	Makari Mts, Moam river	Do
9.	Marassa Minerals Resources Ltd	Makari Mts/Christmas Falls	Gold, diamonds
10.	Perreira Mining Company	Issano near Honey Camp	Gold, other valuable minerals
11.	Guyana Diamond Trading	Kurupung	Gold & Diamonds
12.	Perreira, Patrick Romeo & Julio	Appapaaru & Kanaimapu	Gold & other valuable minerals
13.	Edgeworth Construction Guyana Ltd	Ituni	Kaolin
14.	IBI Gold (Guyana) Ltd	Pereroombe	Gold, diamonds
15.	" " " "	Quartzhill	Gold
16.	Vanessa (Guyana) Inc	R.B Wenamu River	Gold, precious stones, all minerals
17.	Vanessa (Guyana) Inc.	" " " "	Do
18.	Vanessa (Guyana) Inc	" " " "	Do
19.	Vanessa (Guyana) Inc	" " " "	Do
20.	Camintra (Guyana) Inc	L.B Cuyuni River Kopang 1	Do
21.	" " " "	" " " " " 2	
22.	" " " "	" " " " " 3	
23.	" " " "	" " " " " 4	
24.	" " " "	" " " " " 5	
25.	Case Development Company	Makari Mt. (Demerara River Head/ Christmas Falls)	Gold, diamonds
27.	Sudeen's Enterprises Inc	Red Hill Loop	Do
28.	JRS Enterprise	R.B Mazaruni river, near Banana Landing	Gold

Grants/Issues of Prospecting Licences (Large Scale)

Nineteen (19) Prospecting Licences were granted/ issued in 1996. These included fifteen (15) Prospecting Licences granted and issued to Golden Star Resources in their former Geological and Geophysical Permissions areas. The remaining five (5) Prospecting Licences, although approved, were not issued due to problems arising from objections made by Barama Company Ltd.

Table 2:- Prospecting Licences granted/issued in 1996

	Company	Area	Minerals
1.	Golden Star Resources	Noseno	Gold, precious stones, base metals and all other precious metals and minerals
2.	Golden Star Resources	Piai Head	Do
3.	Golden Star Resources	Amatuk	Do
4.	Golden Star Resources	Fish Creek 1	Do
5.	Golden Star Resources	Fish Creek 2	Do
6.	Golden Star Resources	Whana West	Do
7.	Golden Star Resources	Kaliaku	Do
8.	Golden Star Resources	Whana East	Do
9.	Golden Star Resources	East	Do
10.	Essequibo Timbers Ltd	Taeima River	Gold
11.	Cathedral Gold Corporation	9 Miles, Issano	Gold
12.	" " "	Hit or Miss Creek, Kaburi	Gold, base metal, precious minerals
13.	Golden Star Resources Ltd	Rocky River	Gold, precious stones
14.	" " " "	Barama Head West	Do
15.	" " " "	Membaru Mouth	Do
16.	" " " "	Erakiri	Gold
17.	" " " "	Makapa Hills	Diamond, gold
18.	" " " "	Wapai Head	precious stones, minerals
19.	Pegasus Gold International Inc.	South Black Water Creek	gold, precious metals & stones

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Of a total of thirty-six (36) planned new Prospecting Licences granted, nineteen (19) were granted in 1996.

Rentals

The total rentals received for 1996 was \$54.46 m, (60%) of the budgeted value. At the end of the year forty-nine (49) Prospecting Licences were in force against a projected sixty (60).

Prospecting Permits - Medium Scale

Table 3:- Prospecting Permits statistics for 1996

	Jan-Dec 1996	Jan-Dec 1995	% Change
No. of Prospecting Licence Granted	753	1092	-31%
No. of Prospecting Permits Applications	917	1288	-29%
No. of Prospecting Permits Renewals	838	459	+83%
No. of Prospecting Permits Cancellations	85	88	-03%
No. Of Prospecting Permits granted and renewed	1591	1551	+02%

Monitoring of Prospecting Licences

The following table shows Prospecting Licences monitored during 1996.

Table 4 - Monitoring of Prospecting Licences Areas

No.	Company	Area	Geotechnicians
1.	Pegasus Gold " "	Deer Creek & Black Water Creek	A. Crawford & E. Sampson
2.	H.G.B Ventures	Monosse-Mazaruni	P. Welch
3.	Case Development Ltd	Five Star	R. Nelson
4.	Camdico	Groete Creek	J. Griffith
5.	Golden Star Resources Ltd	Fish Creek 1 &	P. Welch
	Golden Star Resources Ltd	Fish Creek 11	P. Welch
6.	Sea Hawk Minerals/Pegasus International Inc " " "	Deer Creek & Konawaruk River	O. Riddle O. Riddle
7.	Exhall	Mid Mazaruni	E. Sampson
8.	North American Resources Inc	Putareng	E. Sampson
9.	Canadian International Mining & Investment Co. Ltd	Tamakay	E. Sampson
10.	GIDCO	Pott Falls	J. Griffith
11.	Minrich Inc	Wamara Hills	J. Griffith

1:13 CARTOGRAPHIC SECTION

Property Description

Nine hundred and thirty-eight (938) Medium Scale Prospecting Licence Permits, twenty-eight (28) Prospecting Licences and four (4) Geological/Geophysical Reconnaissance Surveys Permit applications were processed and verified.

During the verification process, property descriptions were plotted, rewritten or adjusted as was necessary. Topographic sheets at Scale 1:50,000 depicting new applications were processed.

Upgrading Property Status Maps

The 1:1,000,000 property status map showing Prospecting Permits and Licences, Prospecting Licence Applications, Mining and Quarrying Licences and Geological/Geophysical Reconnaissance areas, and the 1:50,000 stock sheets with the same information were updated.

Property status maps were printed and hand coloured for sale to the public.

Compilation of Geological Map Sheets

Compilation and tracing was done for the 2½° Geological map sheets of Ekereku, Omai, Kamarang and Waini.

Maps showing Amerindian Reservation boundaries at Scale 1:500,000 were plotted onto stock sheets at Scale 1:50,000 (Wakapau, Kuru Tuku and Arau areas).

Geological Atlas sheets at 1: 200,000 scale covering Bartica, Matthews Ridge, Orinduik and Ekereku. Completed maps were further reduced to 1:250,000 scale.

Compilation and tracing was done on the 1½° Geological Atlas sheets of Ekereku, Kamarang and Kaiteur. Two (2) others - Bartica and Wonotabo sheets are almost complete.

External Photocopying/Map Printing

The Commission's Plan Printer has been out of order during the entire year and photocopying is done externally at the Xerox Copy Centre. Prints are made for internal use as well as for the public. The public is charged a markup on photocopied prints. During 1996 one point eight million dollars (G\$1.8M) was earned in this way for the Commission.

Listing/Filing of Maps

Two hundred and thirty (230) maps submitted to the GGMC by Golden Star Resources Limited covering their reconnaissance areas, have been listed and filed by the Cartographic Unit.

1:14 **PETROLOGICAL LABORATORY**

Examination and Sealing of Rock Samples for Export.

Company	Number of Samples	Sample Type
Omai Gold Mines Ltd	2	Rock (boulders
" " " "	7	Core
" " " "	14 boxes	Soil
Caribbean Basic Industries Ltd	20 pails	Soil
Caribbean Basic Industries Ltd	56 pails	Core (rock)
Golden Star Resources Ltd	4 pails	Soil
Golden Star Resources Ltd	3 pails	Rock/Soil
Golden Star Resources Ltd	8 pails	Rock/Soil
Golden Star Resources Ltd	39 pails	Rock
Golden Star Resources Ltd	114	Soil
Golden Star Resources	219 in 7 pails	Soil
Sonic Soil Company	11	Rock/Soil
Oratop Development Inc.	5 in pails	Soil (Kaolin)
Oratop Development Inc.	2	Kaolin
Toolsie Persaud Ltd	1	Rock

In addition to the above, over one thousand, one hundred (1,100) samples were examined from the following companies - Coast Mountain Geological Limited, Golden Star Resources Limited and Omai Gold Mines Limited.

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Preparation of Thin Section and Slabs.

Number of Samples	Job Type	Rock Type	Requested by
17	Slab	Semi-Precious	Marcel Yip
5	Thin Slab	Metamorphic	Dr. Dulla
15	Thin Section		N. Chuck-A-Sang

In an ongoing exercise to upgrade the geological sample display, labeling of the rocks were undertaken by Mr. Chris Ashley and Ms. A. Crawford. In addition, a two (2) week training of Geotechnicians and Field Assistants in Petrology and Mineralogy was conducted by Messrs Peterson and Ashley.

Assistance to the Public

Assistance was given to students of Secondary schools and the Cyril Potter College of Education in the form of samples donated and explanations of the major rock groups. A large group of students from the Belladrum Community High School visited the laboratory and were treated to an informative lecture in Mineralogy.

1:15 CHEMICAL LABORATORY

See attached sheets for synopsis of analytical work done during the year, 1996.

Status of Equipment

During January 1996, the 220 V Atomic Absorption Spectrophotometer was calibrated against standards from Loring Laboratories (Guyana) Ltd and was found to be highly accurate and efficient.

A letter was written to the Head, Department of Chemistry, University of Guyana seeking the services of the Instruments Technologist of that department to effect repairs to the Mettler AE 100 Balance and the Jarrel Ash Spectorgraph. However, despite that and subsequent visits to the University by Geologist Mr. G. Nestor and Senior Chemist, Mrs. S. Smith, no positive response was obtained.

Arrangements were put in place to facilitate the use of the main Chemical Laboratory for heavy mineral analysis and training of Geotechnicians and Field Assistants by Dr. Raju Dulla.

During the year and especially the latter part, the heavy duty electrical equipment have been affected by the inadequate electrical power supply. This has held back analyses and in particular that of seventy-eight (78) samples submitted by Dr. Dulla.

Towards the end of the year a supplementary list of equipment approved by the Board was submitted to the Chemistry Laboratory for ordering from an overseas supplier.

The acquisition of these equipment form part of a programme to enhance the laboratory capability in high precision gold assays.

Meeting attended for which reports were submitted

1. Chemical Safety Workshop by Ministry of Labour/ILO - attended by Senior Chemist 11 (ag).
2. Training in the use of the Model 3203 Cyanide Analyser for the detection of cyanide by Dr. Michael Straka of Perstrop Analytical, conducted at Omai Mine Site Laboratory - attended by Analytical Officer 1 (ag).
3. Guyana National Bureau of Standards Workshop on "Quality Management and Laboratory Accreditation" - attended by Chemist, Petroleum Unit on behalf of the Senior Chemist 11 (ag) who was on Annual Leave at the time.
4. Inaugural Meeting of the National Laboratory Committee - attended by Senior Chemist 11 (ag).
5. Visit with officials of the Guyana National Bureau of Standards to King's Jewellery World and to Gaskin and Jackson Jewellery Establishment - attended by the Senior Chemist 11 (ag) and the Chemist, respectively.

A draft report of research work done by the Senior Chemist 11 (ag) on "**Method for the Determination of karat of Gold Jewellery**" was submitted to the Deputy Commissioner.

Visit to the Laboratory

1. Dr. G. O'Campo of the Royal Canadian Mint visited the Chemical Laboratory concerning plans to have the laboratory prepared for conducting bullions assays for the Gold Board.
2. Mr. Edwin McKoon, Managing Director and Mr. Rean Maharaj, Scientific Support Specialist of Western Scientific Company Limited of Trinidad, visited the laboratory to acquaint themselves with the Senior Chemist 11 (ag) who had requested from their company a quotation for the purchase of materials and equipment for the chemical laboratory. The two (2) gentlemen were on a scheduled visit to the country in the interest of promoting sales for their company.
3. At the request of Mr. J. Punwasee, a group of seventeen (17) mining students from the University of Guyana, were conducted around the Laboratory where they witnessed several demonstrations geared to present them with a practical exposure to the theory being taught in their courses.

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4. A team from the Guyana National Bureau of Standards visited the laboratory on an inspection of the Assaying facilities. A report of this visit was submitted to the Manager, Geological Services.

1.16 TRAINING

1. Three (3) members of the laboratory namely, Senior Chemist 11 (ag), Mrs Sandrene Smith; Analytical Officer 1 (ag) Ms. Roxanne Adams, and Laboratory Assistant, Mr. Rondell Wilson, together with Guyana Geology and Mines Commission, Senior Chemist on secondment to the Guyana Gold Board, Ms Devica Prashad, proceeded to the Royal Canadian Mint, Ottawa on a two (2) week training programme in Fire Assaying. The training came as a result of a Guyana Gold Board initiative with the Royal Canadian Mint and CIDA and was funded by these latter two (2) organisations.

Reports on this training were submitted to the Manager, Geological Services.

2. Mr. T. Hicks, Technical Assistant 1 and Mr. B. Currie, Laboratory Assistant have successfully completed a first year course in CHM 111, at the University of Guyana. This course was conducted for six (6) weeks during the summer vacation by the Chemistry Department, Faculty of National Sciences. Reports were submitted by the trainees to the Manager, Geological Services.
3. Mr. Clyde Thompson who has proceeded on study leave since 1990, completed the Bachelor of Science Degree in Chemistry and graduated from the University of Guyana during 1996. He was subsequently appointed as a Chemist.

**SYNOPSIS OF CHEMICAL ANALYSES DONE BY THE
CHEMICAL LABORATORY DURING 1996**

Sample Submitted by	Sample Location	Sample Type	No. Of Samples	Test or Element (s) Determined	Technique Employed	Remarks
Jewellers & Goldsmiths	-	Gold Jewellery	330	Karat	Specific Gravity Method	Completed
Joseph Vieira	-	Soil	3, Total weight 340 kg	1. Wet sieve analysis 2. Gold size fraction 3. Bulk Density	1. Wet screening 2. Amalgmaton and parting.	Cost: \$39,500.00
Mr. W. Rambaran	-	Black Sand	1	Au. Content	Amalgamation and parting	Cost: \$1,999.00
Mr. M. Marshall	Kamarang	Raw Gold	1	Au, Ag, Pb, Cu, Hg	1. Wet Chemical 2. Fire Assay	Cost: \$1,999.00
Mr. M. Marshall	Kamarang	Raw Gold	24 ozs	Purification	1. Fire Assay	Cost: \$96,000.00
Mr. Kevin Jeffrey	-	Mineral Concentrate	1	Au, Ag, base metals	1. Geo chemical wet method 2. MIBK/AAS	Completed
Mr. Kevin Jeffrey	-	Black Sand	6	Gold size analysis	1. Dry sieving 2. Amalgamation and parting	Cost \$6,000.00

CONT'D

Samples submitted by	Sample Location	Sample Type	No. Of Sample	Test or Element(s) Determined	Technique Employed	Remarks
Mr. P. Welch Geotechnician	Mazaruni	Black Sand	1	Au	Amalgamation and parting	Cost:- \$6,000.00
Ms. D. Miggins Chemist	Upper Berbice River	Soil	1	Gold size fraction analysis	1. Dry Sieving 2. Amalgamation	Completed.
Mr. G. Nestor, Senior Geologist	-	Soil	7	Organic Matter Content	Loss on Ignition	Completed
Dr. Raju Dulla, Consultant Geochemist	New River/India	Black Sand	10	Removal of Carbonates and Oxides	Acid leach	Completed
Mrs. D. McDonald, Senior Mineral Processing Engineer	Mahdia	Rocks and Minerals Black Sands and Gravel	78 25	Major and Trace element analyses 1. Free Gold 2. Total Gold	1. Wet Geochemical Aqua Regia 2. HF 'cold attack'	Not completed due to electrical and other set backs.
					1. Amalgamation and Parting 2. Fire Assay	Completed

CONT'D

Sample Submitted by	Sample Location	Sample Type	No. Of Sample	Test or Element Determined	Technique Employed	Remarks
Mr. D. Babb, Mining Engineer	Konawaruk River	Gravel	12	Gold	Fire Assay	Completed
Mr. S. Edwards, Manager Mines (ag)	Mazda Operations	Black Sand	5	Free Gold	Amalgamation and parting	Completed
Guyana Police Force	-	Yellow metal	1	Raw Gold	Wet Chemical	Completed
Guyana Police Force	-	Gravel	1	Raw Gold content	Fire Assay	Completed
Ms. Brenda Gittens c/o The Guyana National Bureau of Standards	-	Yellow metal jewellery	6	1. Weight 2. Karat	1. Use of Analytical Balance 2. Specific gravity method for karat analysis	Completed
Ms. Eliese Agard, c/o The Guyana National Bureau of Standards	-	Yellow metal jewellery	15	1. Weight 2. Karat	1. Use of Analytical Balance 2. Specific gravity method for Karat analysis	Completed

2. **MINES DIVISION**

The Mines Division comprises the following sections:-

- 1. Technical and Drilling
- 2. Inspectorate
- 3. Mineral Processing
- 4. Registry and Data Management

Prior to July 1996 the Mines Division was under the direct charge of a Divisional Manager, who reported directly to the Commissioner. The Mines Division is now divided into two (2) areas comprising:-

- a) the Technical, Mineral Processing and Drilling sections, which can be called the Technical Department, supervised by S. Edwards, Manager Mines (ag) and;
- b) the Inspectorate, Registry and Data Management sections, which can be called the Inspectorate Department, supervised by Senior Mining Engineer 11, J. Mingo.

Both supervisors report directly to the Commissioner. S. Edwards, who acted for the past six (6) years in the capacity of Division's manager is currently acting in the same capacity, although he has no authority nor responsibility for the sections supervised by SME Mingo.

2.1 **TECHNICAL SECTION**

The activities executed by the Technical section for 1996 included the following:-

- a) Surveys
- b) Technical Inspection of Mines and Quarries
- c) Supervision of contract drilling and drill rental services
- d) Dissemination of technical information to the small scale mining community.

Surveys

The Table shows the proposed surveys for 1996.

	<u>No Of Surveys</u>	<u>No. Completed</u>
Stone Quarries	4	-
a) St. Mary's		
b) Baracara		
c) Teperu/Itabu		
Sand Quarries		
Roraima Mining Co.	4	-

Sand Pits (along the Linden/Soesdyke Highway)	4	1
Hydrological	3	-
a) Essequibo		
b) Cuyuni		
c) Mazaruni		

Only one (1) survey of the Sand Quarries was done by a contracted Surveyor for 1996. This was due to the absence of a Surveyor on staff. No other survey was done.

2.2 INSPECTION OF MINES AND QUARRIES

Most of the Technical Department's activities, for 1996, were centered on the Technical inspection tours. The Table below shows the tours completed for 1996.

Exercise	Tours Planned	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Tours Completed	Comments
Bauxite	4	1	1		1	3	
P. Pereira & G. Hicks	4		1			1	
Mazda Ltd	4	1		1		1	
Sand Pits and Sand Quarries	8	2	1	1	2	6	
Omai Monitoring	continuous						365 days
W. Phillippe	2						
Stone Quarries	4	1	1			2	
Total	26	5	4	2	3	14	

Approximately 53% of the Inspection tours were completed. The posting of two (2) engineers at Omai's site, on a monthly basis, together with the inclusion of the Mahdia Project severely affected the realisation of a greater percentage of the Technical section tours for 1996. Omai commenced operation in February 1996. The company had ceased operation due to the August 19, 1995 cyanide spill into the Omai and Essequibo.

Bauxite

The Table below shows the month and personnel conducting bauxite inspection tours for 1996.

<u>Tour #</u>	<u>Month</u>	<u>Personnel</u>
1	March	Mining Engineer, R. Glasgow
2	June	Mining Engineer, A. Sargeant
3	November	Mining Engineer, C. Todd

During 1996, only the East Montgomery Mine at Linmine was in operation. This year saw a transition of the mining method in the East Montgomery mine operation. This entails the elimination of scrapers for intermediate stripping and extends the use of the BWE 1310 to strip both primary and intermediate levels.

The Aroaima Bauxite mines and also Bermine bauxite operations were inspected during 1996. Emphasis, during inspection was placed on safe mining practices and occupational health and safety within the operations.

P. Pereria and G. Hicks

These two (2) operations were planned to be inspected on the same tour since they have the Bartica-Issano Road as a common access. However, only the Pereira Mining operations were inspected in April 1996, by Mining Engineer, D. Babb. This was because the officer travelled to Pereira's operation via aircraft and did not have transportation to reach G. Hicks' operations.

Both the 9 Miles and Honey Camp operation were inspected. At Honey Camp no activities were in progress while at 9 Miles Issano location, mining and other related activities were being done. Pit conditions and developmental works (for all areas of operation) were inspected. It was observed that sections of the benches on the Northern wall area had collapsed and management was advised to rectify the situation to prevent further collapse.

Mazda Ltd

In February, Mining Engineer R. Glasgow and Mining Technician C. Sparman inspected this operation while in August this was done by Mining Engineer D. Babb and Mining Technician C. Sparman. Emphasis were placed on MAZDA's dredging practice of the Konawaruk River. It was observed on both tours, that the dredge practice is to place tailings in dredged out areas along the river bank, thus avoiding blocking of the river channel. Occupational health and safety measures of a high standard, were observed to be in place at location.

Sand Pits and Quarries

The Table below show the month and personnel who conducted these tours for 1996.

<u>Tour</u>	<u>Month</u>	<u>Personnel</u>
Sand Pits	January	Mining Engineers, E. Watson and R. Glasgow.
Sand Quarries	March	Mining Engineers, R. Vieira and D. Husbands.
Sand Quarries	June	Mining Engineer, D. Husbands.
Sand Quarries	August	Snr. Mining Engineer E. Watson and Mining Technician A. Ramcharran
Sand Pits	September	Snr. Mining Engineer, E. Watson and Mining Technician A. Ramcharran.
Sand Pits	November	Snr. Mining Engineer, E. Watson and Mining Engineer, P. Hutson.

Sand Pits

On these tours, the condition of the pits and excavation practice were the primary focus. Several operators were cautioned about their excavation practice and the condition of their pits. Some improvements were noted during the year.

Sand Quarries

Only Roraima Mining Company Sand Quarry was operational for 1996. Inspections were made to ensure compliance with safe quarrying practice and occupational health and safety.

Omai Monitoring

Omai Gold Mines Ltd. commenced production in February 1996. The company had ceased production due to the August 19, 1995 cyanide spill into the Essequibo and Omai Rivers. From February, two (2) engineers were posted at Omai continuously throughout the year. The engineers were responsible for the inspection and monitoring of Omai's operation particularly ensuring that the Commission of Inquiry's "Terms of Resumption" were adhered to by the company. Omai commissioned an additional milling facility in July and also an Explosive Manufacture Plant was constructed and made operable in the third quarter of 1996.

Stone Quarries

Two (2) inspection tours of the stone quarries were done for 1996. Following are the quarry operations that were inspected on each tour;

- a) Baracara
- b) St. Mary's
- c) Itabu
- d) Teperu

One (1) tour was carried out in March by Mining Technician , C. Sparman while the other was carried out in June by Mining Engineer, E. Watson.

On these tours, the officers inspected the general operation of the quarries with particular emphasis on occupational health and safety and quarrying practices. It was observed that during 1996, both St. Mary and Baracara Quarries were involved in refurbishing work. Both operations installed new jaw crushers to their plants.

Drilling

During 1996, the Commission continued to partially fulfill its mandate in the rental of drills and ancillary equipment to both local and expatriate companies engaged in geological exploration. The Table shows the drill rental services for 1996.

<u>Company</u>	<u>Equipment</u>
Canarac Resources	BBS #25 Drill
Interterra Resources	Long Year 38 Spares
Pereira Mining Company	HW Drill Ancillaries
Ontario Inc	BBS #25

In addition, one (1) mechanical Auger drill and one (1) Banka drill outfit was rented to local operators for 1996.

During 1996, the drill section was involved mainly in the maintenance and refurbishing of drilling equipment owned by the Commission.

Others

In January 1996, the Commission held a lottery which facilitated the allocation of two hundred and eleven (211) mining blocks in the Mahdia area.

In July, the Technical section held the Blasters Certificate of Competency Examination. Four (4) candidates were successful at this examination and were awarded certificates. These were from St. Mary's Quarry, the Guyana Police Force and the Private Sector.

In August, the Commission hosted the Second National Conference on Mining and Quarrying. Mining Engineer, A Sargeant presented a paper on "**Stone Quarrying**".

2.3 INSPECTORATE

During the year, the Inspectorate section of the Mines Division was involved in the following activities:-

- a) Inspection tours
- b) Manning of Mining Stations
- c) Verification of Claims
- d) - Settling of Disputes

Inspection Tours

Inspection tours were carried out in mining areas not serviced by mining stations, by Senior Mines Officers and Mines Officers who inspected and reported on activities within these areas. Revenue collection, work stoppage and general monitoring were also done during these tours. Inspection tours were carried out in the following areas.

<u>Mining Districts</u>	<u>Area</u>
District No.2	Tumatumari, El Paso, Lower Potaro River, Konawaruk and Kuribrong.
District No. 3	Enachu, Imbaimadai, Kurupung, Eping, Meamu, Apaikwa, Kamarang.
District No. 4	Ekereku, Upper Cuyuni, Wenamu, Eterinbang, Kanaima, Itabu.
District No.6	Monkey Mountain, Maikwak, Echilibar.

These stations were manned by one (1) senior and one (1) junior Mines Officer. Work done at these stations were the same as that done on inspection tours.

Verification of Claims

One hundred and seventeen (117) claims were verified for 1996. These verifications were done mainly in the Mahdia, Matthews Ridge (North West District) and Kurupung areas. Fifty seven (57) of these verifications were done in the North West District.

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The Table below shows the number of claims verified for each quarter.

<u>Quarter</u>	<u>No. Of Claims Verified</u>
First Quarter	35
Second Quarter	1
Third Quarter	70
Fourth Quarter	11

Twenty-seven (27) of these claims verified were for River Locations.

Disputes

Throughout the year Mines Officers continued to settle disputes between Claim Holders in the Mining Districts.

Court matters were attended, during the year, by the officers from the Inspectorate Department. These were held in the Bartica, Mahdia, Christianburg and New Amsterdam courts. Most of the matters were postponed and dismissed for want of prosecution.

Others

Ad hoc trips were made to various mining locations during the year. These were made by the Commissioner, B. Sucré, Chief Mines Officer, I. Smith, and Senior Mines Officer.

2.4 MINERAL PROCESSING

Project

During 1996, the Mineral Processing Section of the Technical Department met with limited success. The decision to mount the IHC jig and Knelson Concentrator on a trailer, and use same as a Mobile Demonstration Plant, was handed down for implementation towards the end of April. Commencement of the initial stage of this project was adversely affected mainly by prolonged rain fall.

The other projects of the Mineral Processing Section had very little success during 1996. Work did not commence on the Coal-Gold Agglomeration nor the sluice Box Recovery Projects.

Others

Most of the work of the Department was mainly surrounding the installation of the pilot plant and mineral processing laboratory. However, four (4) field trips were made locally - two (2) to Omai, one (1) to Mahdia and one (1) to Middle Mazaruni. One (1) overseas trip was made to Brazil.

A four (4) day Workshop/Seminar was held at the Learning Resource Center of the University of Guyana.

The course content was on Alluvial Gold Mining and Processing emphasis being placed on Sluice Box development and application.

Staffing levels for the Mineral Processing Unit for 1996 were as follows:-

- a) Senior Mineral Processing Engineer - 1
- b) Mining Engineer - 1
- c)

Registry — Statistics

The following were filed for 1996

- 1) Two (2) Challenges
- 2) Thirty two (32) Complaints
- 3) Twenty one (21) Statement of Complaints

Five (5) Challenges were before the Hearing Officer, one (1) was determined. Five (5) Complaints were also before the Hearing Officer for the year.

No objections were made before the Hearing Officer.

Licences Application

The following were received for the year:-

- 1) Two hundred and twenty two (222) Trading Licence Application.
 - 2) Two hundred and forty five (245) Goldsmith's Licence Application.
 - 3) One hundred and one (101) Business Permission Applications.
 - 4) Sixty eight (68) Residential Permission Applications.
 - 5) Seven hundred and sixty nine (769) Claim Licence Application
-
- a) 337 for Gold
 - b) 139 for Precious Stones
 - c) 250 for Gold and Precious Stone
 - d) 43 for river Locations

Dredge Registration

Two hundred and twenty (220) dredges were registered for 1996. Five hundred and thirty eight (538) dredge licences were renewed for the year. Thirty (30) dredges were scrapped during the year.

Eighteen (18) dredges were transferred during 1996.

Gold and Diamond Production for 1996

<u>Gold</u>	<u>Diamonds</u>
109,239	46,323.85

Comparative Gold and Diamond Production for 1995

91,448	52,014.78
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3. **PETROLEUM UNIT**

The Petroleum Unit's performance for 1996 was at least, better than average and in all fairness, easily categorised as "good". The Unit managed to execute about eighty percent (80%) of the work programmed for 1996. This was despite the late approval of the Budget by the Board of Directors.

The Work Programme progressed through the year as anticipated. However, in July, the field project activities slowed when flooding in the coastal belt became severe and persisted through to August's end.

Special Projects were hampered in many ways, and beyond the Unit's immediate control. The portion of the incomplete work programme is mostly associated with special projects.

A brief review of finances indicated that a very small portion of anticipated revenue was received while just about 50% of anticipated expenditure were incurred. A summary section on finances is included in this document.

Projects (Field Projects) -- Coastal Basin Recee 11

This project was designed to provide the Petroleum Unit with geological, logistic and a general intimate knowledge of the Coastal Onshore Basin. It required as a part of its objectives that the Shell wells drilled in 1966/67 be located.

At the end of 1996, the only coastal oil well not located was McClellan Island. The absence of a living guide in the near area, vegetation and a non-functioning GPS contributed to the difficulties in locating this well. Morgenstrand, L'esperance, Auroro, Skeldon, Drill and Rosehall wells were all located. None of the wells were marked as intended since a suitable permanent fixture which could guide persons to the exact location was not finally decided on.

Exercises on the major waterways into the basin have yielded no petroliferous shows but revealed some interesting issues in a more or less boring geological setting. The Corentyne, Berbice, Mahaicony and Abary Rivers were traversed. Another exercise in the Northwest District attempted to locate the sometimes mysterious Morowhanna water well but without success. However, actual gas pockets (marsh gas) were discovered. This is consistent with previous reports from the area.

The Canje Creek was not explored. This was to be the focus of a magnetometer survey. The magnetometer was purchased late in 1996 and not received in time. One problem delaying the purchase resulted from trying to identify a suitably priced, quality instrument. As it turned out, the unit cost twice what was budgeted by the time the instrument and necessary functional accessories were totalled. The magnetometer is supposed to be compact, user friendly, sensitive and highly recommended by mining company personnel.

Monitoring Operations

No petroleum contracts were in effect during 1996. The Unit as an alternative, elected to observe the drilling of water wells. One water well was located at Ithaca, West Bank Berbice, the other at Friendship, East Bank Demerara. Both were drilled during September/October. Two more water wells were scheduled by Guyana Water Authority (GUYWA) but none materialised at the end of the year.

To add to this routine, samples were taken to test for porosity, compressibility and other general engineering criteria.

A mineral aeromagnetic survey was monitored briefly as High Sense Geophysical completed contract work of BHP. This was an interdivisional activity.

Special Projects

The Petroleum Unit embarked on a number of Special Projects. At the end of 1996 the status of these projects are summarized as follows:

Data Storage Facility/Record Management

The Unit's need for an adequate Data Storage Facility became more critical as data degenerated under the present conditions.

A floor plan was prepared and submitted with an estimate for the Commissioner's consideration and the Board's approval. As the year came to a close, no action was precipitated and this project was incomplete. However, a contracting firm engaged in operations for the Commission facilitated the Unit by examining the floor plan and proposed site. It is expected that a real commitment to this project will occur in 1997.

Takutu Basin Palynofacies Study

This project was severely hampered by:

- a) the incomplete Data Storage Facility. This contributed to great difficulties accessing data and samples.
- b) the very late arrival of the required additional laboratory purchases. The equipment arrived in the country at the end of the year and had to be cleared through Customs.

In addition, examination of samples available for study indicated that the Karanambo and Lethem cores could not be included in the study because they were in shambles. The usefulness of the study diminished since the data base shrunk. Despite the set backs, Turantsink #1 well samples were partly processed for analysis. This project will have to be continued in 1997.

Takutu Basin Promotion

The Terms of Reference for the promotion was completed and an itinerary prepared. The various packages were ready for despatch on September 30, 1996. The project was cancelled and the Terms of Reference withheld after TM Services Limited offered to promote the Takutu for Guyana Geology and Mines Commission under an agreement similar to that which Petrel Petroleum Corporation had in force. The schedule for the promotional work is much the same as the itinerary but the promotional agreement could not reach the GGMC Board for approval before the end of 1996.

Technical Co-operation, Staatsolie/GGMC

This special project was planned for April 1996 but was postponed by Staatsolie until November 1996. The programme was an immense success.

Contract Negotiations

Century (Guyana) Limited was the only company entertained by the Petroleum Unit. The penultimate round of negotiations were conducted during October 8 - 10, 1996. The contract was ready for circulation to the various Government functionaries at the end of 1996. It could not reach the GGMC Board before the end of 1996.

Petrel Petroleum Corporation's Agreement expired in November but was extended for a final three (3) months. Petrel is confident that it has the ability to bring a company to the negotiating table.

Expenditure (Current and Recurrent)

Variances in the current expenditure were evident in almost every area. The key cause for this was over budgeting. Careful management of supplies also contributed to the excesses. The fact that a portion of the project that involved current expenditures were not completed added to the variances.

In general, current and recurrent expenditures were less than that budgeted. For expenditures such as Information and Legal Expenses, Employment etc. actual expenditures were compatible with budgeted expenditures.

Expenditure - Capital

Variances in Capital Expenditure related to projects will show amounts actually spent were less than budgeted. The explanation for variances of those kinds that were substantial follows:-

Special Projects with capital components were cancelled e.g. The Takutu Basin Promotion was budgeted at G\$33,000,000 and this amount was eventually saved. The Technical Co-operation Project at its completion resulted in savings of nearly G\$1,500,000 as a consequence of limiting expenditures. Contract Negotiations did not, after all, require a consultant nor was any travelling overseas required. These circumstances saved almost G\$13,000,000 when taken together. The Coastal Basin Recce Phase 11 was estimated to cost about G\$3,000,000. The activity was 95% completed while actual expenditures were just at about G\$1,000,000.

On the other hand, with respect to the technical programme, some expenditures on equipment was almost twice estimated. This was the situation with the magnetometer, purchased for the Coastal Basin Recce Phase 11.

Income

Petroleum Unit's income for 1996 was budgeted at about G\$18,000,000. No contracts were signed as anticipated so the income was much less, at just under G\$300,000 that was the result of a payment for extension on a contract by Petrel Petroleum Corporation.

Short comings in this area were beyond the control of the Petroleum Unit.

Conclusion

In conclusion the technical programme for the Petroleum Unit was fairly well accomplished. The tasks of compiling an expanded report from the many submissions still remains and is formidable but at least the basic and rudimentary exercises that were necessary for the Unit to move in the direction of becoming technically capable did take place with modest but valuable results.

The general performance of the Unit was also good. Certain inputs to further unite the available skills into a functioning team are necessary and further linkages have to be sought to compensate for the inadequate quota of skills that will come to light as the Unit becomes more aggressive in its quest to become technically proficient and to orchestrate exploration activity in the coastal and other sections of Guyana.

4. ADMINISTRATIVE DIVISION

During the year 1996, the Administrative Division comprised:-

- 1) The Personnel & Industrial Relations Department
- 2) The Information & Publication Department
- 3) The Services Department

4.1 PERSONNEL & INDUSTRIAL RELATIONS DEPARTMENT

Staffing

<u>Month</u>	<u>Employment</u>	<u>Resignation</u>	<u>Termination</u>
January	Secretary to the Commissioner	-	-
February	-	-	Security Guard
March	(1) Office Assistant (2) Security Guards	Accounts Clerk 11	-
April	(1) Senior Chemist 1	-	Security Guard
May	(1) 2 Typist Clerk 11 (2) Temporary Telephonist	Senior Accountant	-
June	Finance Manager	Senior Mining Engineer 11	-
July	Transport Officer	Clerk IV (Mines)	-
August	2 Security Guards	(1) Driver to the Commissioner (2) Draughtsman 1	-
September	Driver	-	-
October	Mining Engineer	(1) Secretary to the Commissioner (2) Electrician	-
November	Canteen Attendant	-	-
December	Geologist	-	-

Transfer

A Canteen Attendant was transferred to the Accounts Department to the position of Clerk 1.

Retirement

Five (5) employees including two (2) cleaners, the Assistant Manager (Services), a Senior Ranger and a Technical Assistant 11 were retired. The two cleaners were re-employed on a temporary basis.

Death

One (1) employee died during the year.

Wages and Salaries

Salaries were increased by 15% with effect from 1st January, 1996. In addition merit increment of ten percent (10%), five percent (5%) and two and one half percent (2½%) on salaries as at 31st December, 1995, were awarded to employees, with effect from 1st January, 1996, based on an evaluation of their performance for the year January to December, 1995.

Welfare

Uniforms were issued to various categories of staff. The allowance granted to the female employees to offset sewing cost, was increased from three thousand(\$3,000) dollars to four thousand dollars (\$4,000). The males were granted an allowance of two thousand dollars (\$2,000) for the first time. Uniform allowances for the Managers, Deputy Commissioner and Commissioner, were increased also.

Employees were supplied with their annual issuance of glasses and towels as well as monthly and quarterly supplies of toiletries.

The Commission held a family fun day on 5th August, 1996, in celebration of its 17th Anniversary at Guysuco's Enmore Community Centre.

The Annual Bursary Award Presentation Ceremony was held on 9th September, 1996. Three (3) awards of ten thousand dollars (\$10,000.00) each were presented.

The Annual Christmas party was held on 16th December, 1996, at the Georgetown Club.

Training

***Georgetown Women's Junior Chamber - Seminar for Clerks
February, 1996, at Pegasus Hotel***

- Ms. D. Minns - Clerk 111
- Ms. D. Forris - Clerk 1
- Mr. C. Braithwaite - Clerk 1
- Mr. S. Williams - Clerk 11
- Ms. G. Scott - Clerk 111
- Mr. W. French - Clerk 11

***Interpersonal Relations and Staff Conflicts Course - February, 1996 by the
Public Service Management***

- Ms. Kim Hughes - Canteen Supervisor
- Mr. Moses Collymore - Printing Services Supervisor
- Ms. Margaret Jefford - Chief Clerk
- Ms. Sharon Dannett - Clerk IV

**Georgetown Women's Junior Chamber Seminar/Symposium
for Secretaries/Stenographers - April, 1996**

Ms. Louella Benjamin - Secretary to the Commissioner

National Association of Secretaries - April, 1996

Ms. Louella Benjamin - Secretary to Commissioner

**Summer Course - Introductory Chemistry -
University of Guyana July, 1996**

Mr. T. Hicks - Technical Officer 1
Mr. B. Currie - Laboratory Assistant

Computer Training Centre - Computer Repairs - July, 1996

Mr. E. Hunte - Chief Electrician
Mr. O. Forsythe - Tradesman 1

**Foundation Certificate in Accounting -
Government Technical Institute - September, 1996**

Mr. Dormon Moses - Clerk 11 Accounts

Association of Guyanese Environmental Media - July, 1996

Mr. W.H. Woolford - Deputy Commissioner

**Ministry of Labour, Human Services and Social Security
Occupational Health and Safety Legislation - August, 1996**

Mr. C. Roberts - Personnel Officer

**Guyana National Bureau of Standards -
Accreditation and Quality Management Programme**

Ms. D. Miggins - Chemist

Post Conference Course on Alluvial Gold Mining and Processing

All Staff - Technical Section

Section National Conference on Mining and Quarrying

Miners

Mineral, Petrology - GGMC Boardroom - by Dr. Dulla (Geologist from India on Attachment with the Commission) November, 1996

All Geological Technicians

Overseas Training

Training of Laboratory Staff - CIDA - Royal Mint of Canada

Mrs. S. Smith	-	Senior Chemist 11 (ag)
Mrs. D. Prashad	-	Senior Chemist 1
Ms. R. Adams	-	Analytical Officer
Mr. R. Wilson	-	Laboratory Assistant

Training in Geology - BSc Geology Canadian Universities

Ms. A. Crawford	-	Geological Technical (The University of Western Ontario)
Mr. B. Arjune	-	Geological Technician (The University of Western Ontario)
Mr. R. Nelson	-	Geological Technical (Mc Master University)

4.2 INFORMATION & PUBLICATION DEPARTMENT

During the year 1996, this Department comprised:

- a) The Library
- b) The Printery and Bindery Section

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Library

The Library fulfilled its mandate in disseminating information through books, journals, maps and other publications to the Commission and its clientele of mining companies, individual miners and students.

Fifty two (52) new publications were accessioned by the Library, eighteen (18) of which were purchased by the Commission.

The Commission's public awareness programme was hindered by the absence of an Information and Publication Officer, a position which the Commission was not allowed to fill.

Inadequate space also, to some extent, prevented the Library from providing a better quality service to its clientele. It is expected that the service will be improved with the provision of additional space for the Library operations, in 1997.

Printery & Bindery Section

The Printery and Bindery Section produced all the books and forms which were used by the Commission and those which were sold to the mining public.

Ninety nine thousand six hundred and seventeen (99,617) forms, one hundred and thirty five thousand, nine hundred and ninety one (135,991) book pages and six thousand, three hundred and twenty five (6,325) cards were produced.

One thousand three hundred and six (1306) books were bound from the printed pages, one hundred and nineteen (119) books from various section of the Commission were also bound and two hundred and nine (209) books were rebound.

Two hundred and forty five (245) Internal Stores Requisitions from sections of the Commission, were filled.

4.3 SERVICES DEPARTMENT

During the year 1996, the Services Department comprised:-

- a) The Radio & Electronic Workshop
- b) The Carpentry & Maintenance Workshop
- c) The Mechanical Workshop

The Radio & Electronic Workshop

Except for major repairs to air-conditioners, transmitting sets and computers, all other repairs to electrical and electronic equipment, were done by the Radio and Electronic Workshop.

Installations during the year 1996 included:-

- 1) Fluorescent lamps, panels, socket outlets and points
- 2) Fans
- 3) Water Coolers
- 4) Three (3) 100 KVA transformers for power supply
- 5) Lighting Systems in various sections
- 6) Air Conditioners

Repairs were done to the following:-

- 1) Fluorescent lamps
- 2) Water pump at Lapidary
- 3) 24" Floor model T.V in Boardroom
- 4) Electrical motor in the Thin Section
- 5) Transmitting Sets
- 6) Computers
- 7) Lighting system in various sections
- 8) Radio/Tape Recorders
- 9) Grinding Machine in Mechanic Shop
- 10) Hot plate in Chemistry Laboratory

The Printing Press was also serviced.

Carpentry & Maintenance Workshop

The Carpentry and Maintenance Workshop was reasonable for the maintenance of building, the construction of and repairs to furniture, and repairs to fixtures and fittings in the buildings.

Included in the assignments completed were:-

- a) Construction of an office for the Assistant Manager (Services)
- b) Construction of a platform and fence to house the transformers
- c) Casting of a concrete base for the vehicles ramp
- d) Construction of Canteen boxes
- e) Repairs to the walls of the lapidary building
- f) Repairs to the reservoir in the lapidary compound

- g) Repairs to the roofs of the Carpentry Workshop, Mines Division, Assay Laboratory, Electrical Workshop and Accounts Division
- h) Painting in various sections of the Commission
- i) Repairs to Cupboards
- j) Installation of pipelines
- k) Repairs to leaks and chokes in the water system
- l) Daily cleaning of the compound.

Mechanical Workshop & Transport

The Mechanical Workshop was responsible for repairing and servicing approximately 50% of the Commission's fleet of vehicles, the standby generator and the weed cutter.

The following vehicles were repaired and serviced by the Mechanical Workshop.

- 1) GDD 1686
- 2) PDD 1393
- 3) PDD 1771
- 4) GDD 596
- 5) PDD 4273
- 6) GCC 7075
- 7) GDD 7181
- 8) PFF 4709

Repairs and servicing were also done to three (3) Outboard Engines.

Transportation was provided by the following vehicles.

<u>Motor Cars</u>	<u>Pick-Ups</u>	<u>Buses</u>	<u>Trucks</u>
PDD 4273	GDD 7181	PDD 5854	GDD 1686
PDD 4274	GCC 7075	PDD 1393	
PDD 4943	GDD 8486	PFF 4709	
PDD 4944	GDD 596		
PDD 1771	GFF 3475		
PCC 9949	GFF 4665		

Vehicle GDD 8486 was stationed at Omai Gold Mines, vehicle GFF 4665 was stationed at the Arakaka Mining Station and vehicle GFF 3475 was stationed at the Mahdia Mining Station.

Capital Projects

The building programme which was planned for execution in 1996, did not progress as was expected.

The consultancy contract for building works in relation to the construction of a building to join the Gold Board Building and the Accounts building, and for raising and renovating the Mines building, was awarded to the Caribbean Engineering and Management Consultants Limited (CEMCO). The Company had scheduled the production of plans and the award of contracts, to be completed by December 1996 and construction to commence in January 1997. The production of the plans were, however, not completed by December 1996.

It was difficult to get the construction of the Mines Officers' house in Mahdia started, because of the shortage of contractors who work in the area. A contractor was however identified, and the Ministry of Local Government was requested to assist in the supervision of the project. Construction however did not commence in 1996.

Difficulty in obtaining land in Matthews Ridge delayed the start of the construction of a Mines Officers' house in that area.

Capital Equipment

Among the most expensive of the capital equipment purchased were:-

	<u>Budget</u>	<u>Actual</u>
1) Two (2) double cab reconditioned pick-ups	13,650	5,200
2) One (1) reconditioned 15 seater mini bus	4,000	2,400
3) Three (3) transformers	3,000	1,185
4) Truck	2,500	2,400
5) Six (6) transmitting sets	1,320	1,350
6) Fifty percent (50%) deposit on CIF for a generator	11,000	3,945

It was expected that the generator would be delivered early in 1997.

Efforts were made to obtain approval from the Police for the purchase of twelve (12) revolvers for which an amount of \$1.6M was budgeted in 1996. The purchase was not finalized by 1996, because the approval was not granted by that time.

As was directed by the Board, the purchase of capital equipment for the Mechanical Workshop, the Carpentry and Maintenance Workshop and the Printery and Bindery, were put on hold and the budget amounts for their purchase, remained unspent.

Infrastructure

The Mayor and City Council after a long delay, gave approval for the construction of a parking lot on Brickdam. Construction however could not commence before the end of 1996. This facility would ease the congestion of parking in the compound, especially while building construction is in progress.

No extensive repairs were done to the driveway. This was rescheduled to after the building extension and renovation works have been completed.

4. LEGAL DEPARTMENT

The Department was staffed by:

Legal Officer/Secretary (ag)
Confidential Secretary 11

General

1996 was a year of continued frustration through a dearth of equipment. However, this matter was partially addressed and it is hoped would be corrected totally in 1997.

The Department continued to serve as a support to all departments on request and as it became necessary. In particular, the department worked closely with Administrative and Mines Division in execution of their duties.

Commission of Inquiry - Omai Spill

The work of the Commission concluded at the end of January, 1996 with the collating, typing and submission of the report. The resources and ability of the department's support services were severely tested and the work was completed within time schedule.

High Court Matters

There was continued litigation in 1996, though of no greater volume than the previous year.. Matters initiated were as follows:

AGRIPPA MINING CO. vs. CRAWFORD, GGMC ET AL
BRISTOL SAMUELS, JAMES v GGMC
LESLIE SOBERS v. GGMC, CORLETTE
P. MIGGINS v GGMC
A. NARAIN v HALLEY, ADES ET AL
S. MOHAMED v. GGMC
R. BACCHUS v GGMC ET AL
LESTER v. GIDDINGS ET AL
FRANCIS VIEIRA V. GGMC, SMALL

Hearing Officer - Mining Court

The Hearing Officer continued to hear and concluded matters. There was no significant increase in complaints.

Conclusion

Generally, this year was one mainly of service to other departments with the assistance of external counsel being retained for some of the litigation. Instructions, of course, are provided by the Legal Department in collaboration with the Mines Division.

5.0 **FINANCE DEPARTMENT**

In 1996 the Finance Division not only showed consistent improvement in service to our staff and clients, but accomplished something even more important. From efficient supervisory control to good cash flow management, also we have put in place the people, the system that will allow us to respond to rapid changing conditions.

As a result of our expertise in accounting and data analysis our staff can provide all financial and managerial information. The importance of the Finance Division cannot be overstated, being the center of activities in the Commission we try to provide quality service. Elimination of excess spending to the provision of timely reports and service have been our main objectives.

The Finance Division is committed to standards of excellence as outlined in each Department. The Division has its own mission statement. An important part of that mission is to provide efficient service and to spend and account for the Commission's financial resources efficiently.

In every Department we have written guidelines in order to keep cost down and efficiency, for example accounting has detailed steps for processing an account so that statements accurately reflect the financial state of the Commission. Management information can be made more quickly because information is readily available.

We continue to grow without increasing in size. By making communication easier procedurally we are unified. We strive to work together as a team and to make decisions as a team. We believe that teams working together offer the greatest chance of success.

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Financial Report Income

The Commission's main source of income is rentals and royalties received from miners. Our income in 1996 totalled G\$1028M representing 86% of the budgeted figure of G\$1196M. Royalties and rentals represented 74% and 17% of total income received. The short fall in income of 14% of budgeted figure resulted from the short fall in royalties and rental, these fell by 10% and 32% respectively of their budgeted figure.

Omai Gold Mines Ltd commenced its operation in February after the spill in 1995, this has also resulted in the short fall in royalties.

During 1996 the Commission invested its excess cash in Treasury Bills and in a Business Cash Management Account. These investments yield in excess of G\$33M in interest.

The Petroleum Unit has not generated any income in 1996, but better is expected in 1997.

1996 INCOME

Income\$,000	Actual	Budget	Variance	%Total Income
Fees and Fines	24,232	43,669	-19,437	2.5
Permits	12,881	14,670	-1,789	1.25
Royalties	765,340	848,375	-83,035	74.45
Rentals	186,683	270,132	-87,449	17.77
Internal Sales	3,917	3,228	689	0.38
Drilling	1,530	16,205	-14,675	0.15
Financial/Admin	33,923	-	33,923	3.30
Petroleum	-	-	-	-
Others	3,334	-	3,334	0.35
Total	1,027,840	1,196,279	-168,439	

Expenditures

In the year 1996 the Commission expended the sum of G\$244M which represented 68.7% of budgeted figure of G\$355M. Employment cost and Administrative cost were G\$165.9 M and G\$78.1M, this represented 86% of their budgeted figure of G\$192M and G\$163M respectively. The Finance Division has been striving to be very cost efficient and measures have already been taken to purchase consumables at a cheaper rate.

In 1996 all statutory deductions were paid over promptly to the relevant authorities. The Commission paid over G\$37.1M comprising of PAYE G\$28.8M and NIS G\$8.3M.

Expenditure	Actual	Budget	Variance	% Total Exp.
Employment Cost	165,959	192,741	-26,782	67.95
Transportation/ Travelling/M'tce	16,823	21,591	-4,768	6.88
Materials & Supplies	8,746	14,601	-5,855	3.58
Rentals & Professional Service	18,903	7,336	11,567	7.74
Information/ Publication	4,086	1,988	2,098	1.67
Utilities/Insurance	5,888	19,335	-13,447	2.42
Field Expenses	12,080	84,956	-72,876	4.95
Welfare & Sundries	10,470	12,224	-1,754	4.30
Assistance to Miners	-	-	-	0.5
Others	1,250	974	276	
Total	244,205	355,746	-111,541	

Contribution to Central Government

The Commission remitted the sum of G\$794M to the Central Government.

Refundable expenditure to the OMAI's Disaster Fund was G\$29.4M.

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Surplus

The Commission recorded a surplus of income over expenditure before depreciation. The surplus was G\$311M unaudited.

Creditors

The Commission's payable consist of the following as at December 31, 1996.

	G\$
Refundable Deposit	5.014M
Sundry Creditors	<u>5.014M</u>
	<u>10.801M</u>

These payable accounts are interest free, no cash was therefore paid on interest.

Debtors

The Commission's receivable consist of the following at December 31, 1996.

	G\$
Staff Loan	9.848M
Advance to Staff	<u>7.535M</u>
	<u>17.383M</u>

Loans given to staff are interest bearing account. Advances are given to staff stationed at various Mining Stations and also staff who are sent on Projects and Inspection Tours. An aged analysis of advances given to staff is as follows.

G\$

Under 3 mth	3-6 mths	6-9 mths	9-12 mths	Total
4.297M	2.613M	0.089M	0.536M	7.535

The Accounts Department initiated action to recover long standing debt, also better controls were put in place to ensure that advances are cleared promptly.

Cash Position

The Commission has always retained an adequate liquidity level and its excess cash have always been invested wisely. Our year end cash position is G\$202M, this amount is in the Commission's Business Management Account, with interest payable on a monthly basis. It is worthy of mention that the cash position remained stable throughout the year devoid of any cash flow difficulties.

Capital Expenditure

The Commission invested in capital items throughout the year. No renovation or construction of any building was done during this period. It is expected that all construction will commence in 1997. A deposit of 50% of the cost of the generator was made, delivery is expected in 1997 when the final payment would be made. Listed below are significant capital acquisition:

	\$GM
Office Fixtures and Equipment	12.80M
Electrical Equipment	6.05M
Telephone & Transmitting Equipment	1.63M
Motor Vehicle	<u>11.00M</u>
	<u>31.48M</u>

Stock Verification

A Stock Taking exercise was done at the end of December, 1996 and all relevant adjustments were done. The Stores Ledger Card was put in place in September 1996. Stock levels were closely monitored during the period to ensure that the Commission's cash was wisely spent and committed.

Final Account

The Commission was unable to get all of its past Financial Statements audited. The years outstanding are 1994 and 1995. As regards to 1993 final Accounts, an audit report has not yet been issued by the Auditor General.

Asset Register

An Asset register existed and all the Commission's assets were properly accounted for. An Asset Verification exercise is expected to be conducted during the period 1997. In 1996 some of the Commission's unserviceable vehicles were disposed of, this exercise is expected to continue in 1997..

Investment

During the year 1996 the Commission continued to invest its excess cash. Investments were made in Treasury Bills issued by the Bank of Guyana. At the end of 1996 the Commission had G\$146M of its cash in Treasury Bills with a face value of G\$150M, maturity date is January 10, 1997.

Stores and Purchasing

The Stores and Purchasing Department were able to service the Commission, the Mining Stations and all Projects and Tours adequately. Systems were improved which have impact favourably on cost and efficiency of the department.

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Disposals of obsolete items commenced in the 2nd half of the year and this exercise is expected to continue in the new year. It is proposed that on completion of this exercise the stores bond will be examined and rehabilitated once feasible.

General

The Finance Division had 25 staff members at the end of December 1996. The Accounts Department was air conditioned and given a face lift, staff were generally more comfortable. During this period several staff members successfully completed their exams and other staff members were encouraged to upgrade themselves.

The Division expects to computerise its accounting activities which will facilitate more expeditious processing and timely submission of reports. Employees will be trained so that they will be more conversant with the accounting functions in a computerised environment.

THE UNIVERSITY OF MICHIGAN
HARVARD UNIVERSITY
WEST VIRGINIA UNIVERSITY

1996 FINANCIAL STATEMENT

UNIVERSITY OF MICHIGAN

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**GUYANA GEOLOGY AND MINES COMMISSION
STATEMENT OF INCOME AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 1996**

<u>1995</u> <u>G\$</u>	<u>INCOME</u>	<u>NOTES</u>	<u>1996</u> <u>G\$</u>
743,837,722	ROYALTIES	2	766,079,221
149,315,093	LICENCES	3	163,538,565
16,045,505	FEES, FINES ETC	4	22,396,758
683,496	CONCESSIONS	5	13,366,089
77,243,659	OTHERS	6	57,227,290
987,125,475			1,022,607,923
	<u>EXPENDITURE:</u>		
140,762,838	EMPLOYMENT COSTS	7	174,177,646
60,354,410	ADMINISTRATION	8	96,641,525
	TRAVELLING AND		
11,575,669	TRANSPORT	9	21,894,494
17,324,921	DEPRECIATION		20,550,206
0	STOCK ADJUSTMENT		19,286,103
230,017,838			332,549,974
757,107,637	SURPLUS/(DEFICIT):		690,057,949
	APPROPRIATION TO		
664,300,143	CONSOLIDATED FUND	10	794,202,803
92,807,494	RETAINED SURPLUS/(DEFICIT)		(104,144,854)

STATEMENT OF ACCUMULATED SURPLUS (DEFICIT)

371,967,344	BAL. AT BEGINNING OF YEAR	464,774,838
92,807,494	RETAINED SURPLUS/(DEFICIT) FOR THE YEAR:	(104,144,854)
464,774,838	BAL. AT END OF YEAR	360,629,984

GUYANA GEOLOGY AND MINES COMMISSION

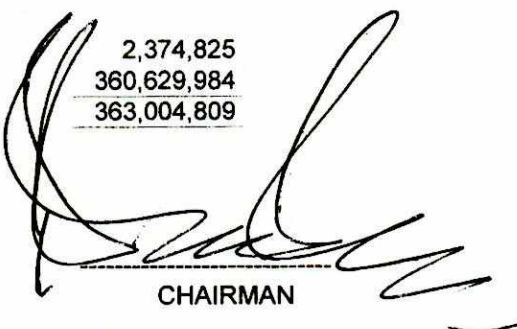
BALANCE SHEET

AS AT 31 DECEMBER 1996

<u>1995</u> G\$		<u>NOTES</u>	<u>G\$</u>	<u>1996</u> G\$
88,390,749	<u>FIXED ASSETS</u>	11		103,670,274
	<u>CURRENT ASSETS:</u>			
24,770,972	INVENTORIES	12	5,988,241	
39,030,081	SUNDRY DEBTORS	13	45,814,045	
	CASH ON HAND			
132,670,353	AND IN BANK	14	144,812,120	
	SHORT TERM			
249,708,600	INVESTMENT	15	146,289,000	
8,505	LORING LAB. INVESTMENT		8,505	
16,060,190	SUSPENSE ACCOUNT		16,066,468	
462,248,701			<u>358,978,379</u>	
	<u>CURRENT LIABILITIES:</u>			
	SUNDRY			
3,377,050	CREDITORS	16	9,933,005	
	DEFERRED			
74,418,750	INCOME		86,919,633	
5,693,987	ACCRUED EXPENSES	17	2,791,206	
83,489,787			<u>99,643,844</u>	
378,758,914	NET CURRENT ASSETS:			<u>259,334,535</u>
467,149,663				<u>363,004,809</u>
	<u>FINANCED BY:</u>			
	GOVT. OF GUYANA			
2,374,825	CAPITAL	18	2,374,825	
464,774,838	ACCUMULATED S/PLUS	19	360,629,984	
467,149,663			<u>363,004,809</u>	



 COMMISSIONER



 CHAIRMAN

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GUYANA GEOLOGY AND MINES COMMISSION

NOTES ON THE ACCOUNTS

1.

ACCOUNTING POLICIES

(a) ACCOUNTING CONVENTION

The accounts have been prepared under the historical cost convention as modified for the valuation of certain fixed assets.

- (b) Depreciation
No depreciation is provided on freehold land.

Depreciation on other fixed assets is charged on the straight line method calculated at the rates specified below which are estimated to write off the assets over the terms of their useful lives as follows:-

Buildings	-	2%
Scientific, field and mining equipment	-	10% - 20%
Motor vehicles	-	25%
Office furniture, fixtures and fittings.	-	5% - 10%

(c) Inventories

These are valued at the lower of cost and net realisable value.
Cost is arrived at using the first-in-first-out method.

2 - ROYALTIES - \$766,079,221

	<u>1996</u>	<u>1995</u>
ROYALTIES:		
BAUXITE	21,456	67,894
GOLD - GGB	273,100,368	218,322,662
GOLD - OMAI	473,702,803	509,300,143
PRECIOUS STONES	7,346,886	9,397,403
SAND	2,972,925	4,297,026
STONES	8,412,658	2,452,594
OTHERS	522,125	0
	<u>766,079,221</u>	<u>743,837,722</u>

3 - LICENCES - \$163,538,565

GOLD & PRECIOUS STONES	4,633,500	2,334,100
PROSPECTING LIC. (SM)	346,342	164,476
PROSPECTING LIC. (MED.)	81,758,884	50,510,549
PROSPECTING LIC. (LG)	52,818,753	78,448,881
GOLD CLAIM LICENCES	4,321,700	1,559,320
PRECIOUS STONES LICENCES	929,900	339,200
RIVER CLAIM LICENCES	4,966,357	2,416,600
QUARRY LICENCE	0	1,121,487
MINING LEASE	1,766,579	27,287
TRADING LICENCES	3,115,000	2,262,500
GOLDSMITH LICENCE	2,616,500	224,500
DREDGE LICENCES	5,034,950	3,174,600
MINING LICENCES	0	6,070,640
MINING PRIVILEGES	1,188,650	657,853
DUPLICATE LICENCES	41,450	3,100
	<u>163,538,565</u>	<u>149,315,093</u>

4 - FEES FINES ETC - \$22,396,758

FEES	6,453,107	4,171,415
FINES	3,883,824	0
TRIBUTES	11,497,827	11,308,490
APP. FOR DREDGES	214,000	137,400
REGISTRATION FEES	15,500	35,500
TRANSFER OF DREDGES	150,500	47,900
DUTY ON TRANSFERS	182,000	344,800
	<u>22,396,758</u>	<u>16,045,505</u>

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5 - CONCESSIONS - \$13,366,089

MINING PROPERTIES	12,642,519	0
CONCESSION DREDGING	0	0
CONCESSION DUPLICATE	0	0
MINING PERMIT	723,570	683,496
EXCL. PERMISSION	0	0
	<u>13,366,089</u>	<u>683,496</u>

6 - OTHERS - \$57,227,290

APPLICATION OF PROSPECTING LICENCES	1,173,284	0
MINING EQUIPMENT	12,000	712,100
PROFESSIONAL SERVICES	65,000	206,947
CERTIFICATE OF REGISTRATION	70,000	74,000
INTEREST ON INVESTMENT	42,774,014	54,193,508
SALE OF OFFICIAL PUB. - CARTOGRAPHIC	1,465,205	1,081,279
SALE OF OFFICIAL PUBLICATION-LIBRARY	819,740	477,555
DRILLING RENTAL	731,430	0
CORE DRILLING	8,657	2,747,403
GEOLOGIAL & GEOPHY. SURVEY	3,473,000	0
SALE OF LAPIDARY PRODUCT	376,487	433,342
DISPOSAL OF ASSETS	571,300	102,000
INTEREST ON LOAN	25,770	0
CONFERENCE & QUARRYING FEE	191,000	0
BANKA DRILLING	765,000	546,190
CANTEEN SALES	1,261,349	1,115,364
SURCHARGE	103,950	1,797,139
VERIFICATION OF CLAIMS	103,000	648,550
GAIN ON FOREIGN EXCHANGE	64,003	81,067
MISCELLANEOUS	3,173,101	13,027,215
	<u>57,227,290</u>	<u>77,243,659</u>

7 - EMPLOYMENT COSTS - \$174,177,646

	<u>1996</u>	<u>1995</u>
SALARIES	112,731,674	91,785,056
WAGES	1,728,392	1,491,676
SALARIES OVERTIME	7,955,497	6,368,684
COMMUTED OVERTIME	259,947	0
WAGES OVERTIME	2,258,230	1,665,228
STATION/BUSH ALLOWANCE	0	855,402
HOUSE ALLOWANCE	79,196	0
DUTY ALLOWANCE	47,421	275,506
SUBSISTENCE & TRAVELLING	3,234,191	4,375,783
RISK ALLOWANCE	24,474	34,470
CASH IN LIEU OF LEAVE	427,436	442,231
TRAVELLING ALLOWANCE	1,824,721	0
ENTERTAINMENT ALLOWANCE	835,820	2,007,032
PENSION SCHEME(EMPLOYERS CONTRIBUTION)	12,007,500	9,426,953
N.I.S. EMPLOYERS CONTRIBUTION	5,134,173	4,165,606
DIRECTORS EMOLUMENT	1,900,500	0
LEAVE PASSAGE	7,424,689	7,195,508
RESPONSIBILITY ALLOWANCE	2,098,117	0
ACTING ALLOWANCE	1,599,032	2,132,736
UNIFORM & SAFETY GEARS	3,769,054	2,634,942
TRAINING AND EDUCATION	6,426,427	5,528,485
MEDICAL SCHEME	1,674,155	377,540
UTILITY ALLOWANCE	489,674	0
GRATUITY AND SEVERANCE PAY	247,326	0
	<u>174,177,646</u>	<u>140,762,838</u>

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8 - ADMIN EXPENSES - \$96,641,525

	<u>1996</u>	<u>1995</u>
LOOSE TOOLS & SUNDRY EQUIPMENT	650,937	54,739
LUNCH & SNACKS	3,752,394	1,820,699
FUEL LUBRICANTS - VEHICLES ETC.	3,695,536	5,561,224
MAINTENANCE OF RADIO & COMM. EQUIP.	121,000	314,122
MAINTENANCE OF ELECTRICAL EQUIP.	302,653	277,958
MAINTENANCE OF VEHICLES	8,057,288	6,537,808
MAINTENANCE OF CRAFT, EQUIPMENT	949,616	438,186
HIRE OF EQUIPMENT	0	126,700
TELEPHONE, TELEX, CABLES	561,746	3,309,210
ELECTRICITY	3,474,363	0
RENTAL OF OFFICE EQUIPMENT	0	144,000
MAINTENANCE OF OFFICE EQUIPMENT	807,226	671,391
PRINTING & DUPLICATING	2,195,963	602,617
MATERIALS & SUPPLIES - DRAWING OFFICE	40,500	2,157,225
PROFESSIONAL&CONSULTANCY SERVICES	15,050,408	5,797,754
AUDIT FEES	281,756	100,000
OFFICE STATIONERY	4,442,435	5,145,407
OFFICIAL PUBLICATION & NOTICES	0	1,747,656
POSTAGE	74,580	273,886
MAINTENANCE & REPAIRS TO BUILDING	822,379	1,824,348
MAINTENANCE OF GROUNDS	29,820	1,041,250
JANITORIAL & CLEANING	728,556	311,336
SECURITY SERVICE	1,711,690	419,287
LEASES	1,242,817	514,000
FUEL & LUBRICANT	2,863,477	0
BURSARIES	7,046,468	0
SUBSCRIPTION	1,761,209	0
TECHNICAL & MANGEMENT SERVICES	1,285,240	0
DRUGS & MEDICAL SUPPLIES	769,408	257,207
ASSAY LABORATORY SUPPLIES	192,188	33,240
ELECTRICAL SUPPLIES	1,172,160	488,372
PETROLOGICAL LABORATORY SUPPLIES	501,478	333,205
LAPIDARY LABORATORY SUPPLIES	68,675	3,970
INSURANCE OF ASSETS	556,532	742,006
BANK CHARGES	82,943	274,256
RATION	5,972,089	3,585,634
MISCELLANEOUS - OTHER EXPENSES	4,089,440	1,111,606
ADVERTISEMENT	1,371,354	532,975
DONATIONS - GIFTS, WREATHS, ETC.	750,696	1,701,831
BAL. C/FW:	<u>77,477,020</u>	<u>48,255,105</u>

8 - ADMIN. EXPENSES

	<u>1996</u>	<u>1995</u>
BAL. B/FW:	77,477,020	48,255,105
CHEMICAL LABORATORY	0	2,230
FOOD PREPARATION	1,908,811	1,568,108
MAINTENANCE GENERATOR/BUSH CUTTER	116,910	123,193
MAINTENANCE PRINTING MACHINE	0	15,782
MISCELLANEOUS	1,320,761	630,730
EXHIBITIONS	1,498	30,269
ENTERTAINMENT EXPENSE	1,761,072	1,011,815
STORAGE	0	92,429
CUSTOMS & EXCISE	58	0
FREIGHT & HANDLING CHARGES	0	0
LEGAL EXPENSES	188,500	121,818
MINING SEMINAR	468,480	0
AMMUNITION	14,695	55,000
TRANSPORTATION & TOLL FEES	461,977	0
WELFARE & SUNDRIES	1,964,416	1,265,704
REVENUE STAMPS	232,430	0
DEVELOPMENT SUPPORT & COMMUNICATION	0	0
MATERIAL & SUPPLIES - COMPUTER	0	0
FIELD EXPENDABLE	1,623,316	0
FIELD EXPENSE	539,945	0
PROMOTIONAL SEMINAR	146,000	0
PERSONAL KIT	1,981,948	0
GGB SUBSCRIPTION	1,829,538	1,121,209
HIRE CHARGES	256,000	0
SPORT CLUB	75,060	55,000
STAFF PARTY	640,304	0
ANNIVERSARY CELEBRATION	677,497	1,440,493
WITHOLDING TAX	2,869,854	4,300,377
PEST CONTROL	62,235	138,265
WELDING MATRIEAL & SUPPLIES	0	126,883
COOKING GAS	0	0
MAINTENANCE OF CANTEEN EQUIP.	23,200	0
INTEREST PAID	0	0
	<u>96,641,525</u>	<u>60,354,410</u>

9 - TRANSPORT AND TRAVELLING - \$21,984,494

	<u>1996</u>	<u>1995</u>
OVERSEAS CONFERENCE & VISITS	7,359,709	1,514,478
ROAD AIR AND OTHER CHARTER	14,534,785	10,061,191
	<u>21,894,494</u>	<u>11,575,669</u>

10 - APPROPRIATION TO CONSOLIDATED FUND - \$794,202,803

Included in this amount is Omai Royalties which is paid into the Omai Gold Mines Account No. 964 at the Bank of Guyana. All payments made are then transferred to the Consolidated Fund. The following is a breakdown of appropriations in this regard.

	<u>1996</u>	<u>1995</u>
	\$	\$
Omai Royalties	473,702,803	509,300,143
Consolidated Fund	320,500,000	155,000,000
	<u>794,202,803</u>	<u>664,300,143</u>

11 - FIXED ASSETS \$103,670,274

	LAND & BLDGS.	MOTOR VEHICLES	OFF. FUR. FIX. AND FITTINGS	SCIENTIFIC FIELD AND MINING E/MENT	TOTAL
	G\$	G\$	G\$	G\$	G\$
COST/VALUATION					
At 1 January, 1996	5,199,991	48,280,274	19,070,417	64,164,847	136,715,529
Additions in 1996	1,406,452	11,000,000	11,091,368	12,331,911	35,829,731
Disposals	0	(147,536)	0	0	(147,536)
Cost at 31 December, 1996	<u>6,606,443</u>	<u>59,132,738</u>	<u>30,161,785</u>	<u>76,496,758</u>	<u>172,397,724</u>
DEPRECIATION:					
At 1 January, 1996	798,678	30,864,262	4,132,496	12,529,344	48,324,780
Charged for the year	205,651	10,451,237	2,321,490	7,571,828	20,550,206
Depreciation on Disposals	0	(147,536)	0	0	(147,536)
Accumulated Depreciation at 31 December, 1996	<u>1,004,329</u>	<u>41,167,963</u>	<u>6,453,986</u>	<u>20,101,172</u>	<u>68,727,450</u>
NET BOOK VALUES:					
At 31 December, 1996	<u>5,602,114</u>	<u>17,964,775</u>	<u>23,707,799</u>	<u>56,395,586</u>	<u>103,670,274</u>
At 31 December, 1995	<u>4,401,313</u>	<u>17,416,012</u>	<u>14,937,921</u>	<u>51,635,503</u>	<u>88,390,749</u>

12 - INVENTORIES - \$25,274,344	<u>1996</u>	<u>1995</u>
STOCK OF DRILLS	0	0
STOCK OF GOLD	1,018	1,018
STOCK OF DIAMONDS	0	0
STORES CONTROL ACCOUNT	5,987,223	24,769,954
	<u>5,988,241</u>	<u>24,770,972</u>

13 - SUNDRY DEBTORS - \$45,814,045		
SUNDRY DEBTORS CONTROL	16,782,365	12,573,975
DEPOSITS LODGED	2,880	2,880
OMAI RECEIVABLES	12,250,387	19,869,045
PREPAYMENTS	447,664	223,724
ACCOUNTS RECEIVABLE	4,836,229	4,843,049
SHORT TERM LOAN	818,515	818,515
STAFF LOAN	10,676,005	140,759
CALL/CURRENT TRANSFER	0	558,134
	<u>45,814,045</u>	<u>39,030,081</u>

14 - CASH ON HAND AND IN BANK - \$144,812,120

<u>BANK BALANCES:</u>		
GNCB	14,070,811	14,070,811
G.B.T.I. 7 DAY CALL ACCOUNT	212,910,815	182,628,558
G.B.T.I. CURRENT ACCOUNT	(82,461,881)	(64,151,116)
SUB TOTAL:	<u>144,519,745</u>	<u>132,548,253</u>

<u>CASH BALANCES:</u>		
PETTY CASH IMPREST	274,202	107,207
STAMP IMPREST	(2,224)	(2,224)
STAMP IMPREST (CASHIER)	23,196	18,270
ICE IMPREST	(2,899)	(1,253)
CANTEEN IMPREST	100	100
SUB TOTAL:	<u>292,375</u>	<u>122,100</u>
TOTAL:	<u>144,812,120</u>	<u>132,670,353</u>

15 - SHORT TERM INVESTMENT - \$146,289,000

	<u>1996</u>	<u>1995</u>
OPENING BALANCE	249,708,600	188,013,967
NEW INVESTMENTS		
TREASURY BILLS	146,289,000	488,458,600
FIXED DEPOSITS	(249,708,600)	1,651,003
RETIREMENT OF FIXED DEPOSIT	0	(3,845,970)
INTEREST CAPITALISED	0	(424,569,000)
	<u>146,289,000</u>	<u>249,708,600</u>

16 - SUNDRY CREDITORS - \$9,933,005

SUNDRY CREDITORS CONTROL	6,309,023	970,068
PROVISION FOR AUDITING	662,997	562,997
REFUNDABLE DEPOSIT	2,960,985	1,843,985
	<u>9,933,005</u>	<u>3,377,050</u>

17 - ACCRUED EXPENSES - \$2,791,206

	<u>1996</u>	<u>1995</u>
ACCRUED SALARIES	239,019	(79,618)
ACCRUED WAGES	100,318	(100,318)
OTHER ACCRUED EXPENSES	(61,213)	3,799,948
PAYE	(1,547,373)	1,141,820
N.D.S.	7,987	(7,987)
SALARIES PAYABLE	(1,015,197)	1,150,470
N.I.S PAYABLE	(414,054)	344,378
DIRECTORS FEE PAYABLE	3,000	78,484
LIFE INSURANCE	701,910	(169,184)
DEPENDANTS FUND PAYABLE	(156,379)	156,379
DEPENDANTS FUND MORTGAGE	717,030	(717,030)
PENSION FUND PAYABLE	(826,435)	804,251
UNION DUES	1,580,036	(1,580,891)
P.S.U. CREDIT UNION	(261,349)	261,329
RENT DUE AND PAYABLE	(1,678)	1,678
MORTGAGE FINANCE PAYABLE	95,845	(95,845)
LEAVE PASSAGE PAYABLE	15,379	259,135
FIELD ALLOWANCE PAYABLE	(51,819)	180
RESPONSIBILITY ALLOWANCE	10,205	(10,205)
GNCB TRUST MORTGAGE	(35,171)	35,171
RISK ALLOWANCE	(948)	948
SUB. & TRAVELLING	(133,877)	25,695
SPORTS CLUB	(12,402)	12,402
WITHOLDING TAX	(730,968)	378,037
HOUSE ALLOWANCE PAYABLE	1,798	(1,798)
PERSONAL ALLOWANCE PAYABLE	(274,196)	274,196
D.I.A. PAYABLE	8,825	(8,825)
H.I.A. PAYABLE	(800)	800
ACTING ALLOWANCE	32,488	(32,488)
INTEREST PAYABLE	(14,917)	15,600
ACCRUED LEAVE PASSAGE	(296,223)	(1,141)
MISCELLANEOUS	(57,421)	57,410
GROUP HEALTH INS. PAYABLE	298,994	(298,994)
MEDICAL SCHEME PAYABLE	(711,620)	0
	<u>(2,791,206)</u>	<u>5,693,987</u>

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18 - GOVT. OF GUYANA CAPITAL - \$2,374,825

This is comprised as follows:-

	<u>1985</u>
Assets less liabilities at 1/8/79	2,139,306
Other expenditure	<u>235,519</u>
	<u>2,374,825</u>

The Commission came into existence on 1/8/79 by an order enacted through the Geology and Mines Commission Act 1979.

According to Section 35(1) and (2) of the Act, for the assets and liabilities vested at 1/8/79 the Commission shall issue to the Government debentures or debenture stock of such nominal value and bearing such interest rates and repayment dates as may be agreed upon between the Minister responsible for finance and the Commission.

The debenture stock has not been issued to the Government and the repayment terms and interest rates have not yet been agreed.

19 - ACCUMULATED SURPLUS: \$360,629,984

The Guyana Geology and Mines Commission Act 1979 Section 20 (1) provides that the Commission shall maintain a reserve fund and shall, out of the net surplus of each year, transfer to that fund a sum equal to not less than such sum as may be fixed by the Minister.

**20 - RECONCILIATION OF OPERATING PROFIT TO
NET CASH INFLOW FROM OPERATING ACTIVITIES:**

	<u>G\$</u>
OPERATING PROFIT	216,355,146
INTEREST ON INVESTMENT	(42,774,014)
WITHHOLDING TAX	2,869,850
DEPRECIATION	20,550,206
DECREASE IN STOCKS	18,782,731
INCREASE IN DEBTORS	(6,783,964)
INCREASE IN CREDITOR	6,555,955
INCREASE IN DEFERRED INCOME	12,500,883
INCREASE IN ACCRUALS	(2,902,781)
INCREASE IN SUSPENSE	(6,274)
	<u>225,147,738</u>

21 - ANALYSIS OF CHANGES IN CASH DURING THE YEAR:

BALANCE AT 96/12/31	144,812,120
BALANCE AT 96/01/01	<u>(132,670,353)</u>
INCREASE IN CASH EQUIVALENT	<u>12,141,767</u>

GUYANA GEOLOGY AND MINES COMMISSION
CASHFLOW STATEMENT
FOR THE YEAR ENDED 31 DECEMBER, 1996

	<u>1996</u>	
	<u>G\$</u>	<u>G\$</u>
NET CASH INFLOW FROM OPERATING ACTIVITIES		225,147,738
 <u>RETURN ON INVESTMENT & SERVICING OF FINANCE</u>		
INTEREST RECEIVED ON INVESTMENT CONTRIBUTION	42,774,014	
CONTRIBUTION TO CENTRAL GOVERNMENT	<u>(320,500,000)</u>	
NET CASH INFLOW FROM RETURN ON INVESTMENT & SERVICING OF FINANCE		
TAXATION		(277,725,986)
WITHHOLDING TAX TAX PAID	(2,869,854)	(2,869,854)
 <u>INVESTING ACTIVITIES:</u>		
PAYMENT TO ACQUIRE TANGIBLE FIXED ASSET	(35,829,731)	
SHORT TERM INVESTMENT	<u>103,419,600</u>	
FINANCING		67,589,869
INCREASE IN CASH & CASH EQUIVALENT		<u>12,141,767</u>