

GHANA EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVES

GHEITI Addendum to 2012/2013 - Reconciliation Report

Addendum to 2012/2013 - Reconciliation Report

MINING

1. Comprehensiveness and reliability of data.

The 2012/2013 Mining sector report was prepared in accordance with the International Standard on related services as it applies to agreed-upon procedures engagements.

Except where specifically stated, the assignment was conducted according to the terms of reference which are attached to the report.

The procedures undertaken did not constitute an audit or review made in accordance with international standards on Auditing or International Standards on Review engagements. We therefore do not express any assurance beyond the statements made in the report and the fact that, within the limitations of the assignment, the data provided for reconciliation by the government entities and the extractive companies were comprehensive and where necessary properly supported.

This however does not extend to the entire financial statements of any of the entities involved.

The report is only for the purpose of informing the GHEITI Steering Committee on the issues indicated in the terms of reference, and not intended for any other purpose.

2. Materiality:

The relevant revenue streams for reconciliation included Mineral Rights; Ground Rent; Property rate; Mineral Royalty; Corporate tax and dividends. They excluded taxes levied on consumption such as value added taxes, personal income tax (PAYE) or sales taxes as they were considered as indirect taxes.

Other direct payments were not considered material, ie their omission or misstatement could not significantly affect the comprehensiveness of the EITI report.

The mineral production sector in Ghana generates revenue that far outweighs that from the exploration sector. All entities engaged in mineral production pay mineral royalty except artisanal miners.

Mineral royalty payment from small scale mineral producers was not material. ie

Mineral royalty and corporate tax generated over 95% of the revenues from the relevant revenue streams in 2012 and 2013.

By setting the materiality threshold at mineral royalty payment of GHS400,000 for large scale mining lease holders, over 95% of the value of relevant revenue streams were due for reconciliation

3. Role of Government Agencies.

- **Ghana Revenue Authority (Domestic Tax Revenue Division)**

The Domestic Tax Revenue Division of the Ghana Revenue Authority is responsible for the collection of taxes including: income tax, royalties, capital gains tax, corporate tax and gift tax. It (GRA implements the Internal Revenue Act 2000, Act 592 and its amendments.

The role of the Ghana Revenue Authority (Domestic Tax Revenue Division) in the mining sector includes the collection of corporate taxes, mineral royalty and capital gains tax.

The GRA (DTRU) is responsible for receiving returns from mining companies/entities and determining the correctness of payments.

- **Ghana Revenue Authority (Customs Division)**

The Customs Division of the Ghana Revenue Authority has its staff at the various mines to:

- Observe the smelting process(in the case of gold mining)
- Observe and record the weighing process
- Package and seal boxes for shipment
- Accompany packages to the port or airport for shipment.

- **Non Tax Revenue Authority**

The Non tax Revenue Unit which located at the Ministry of Finance is responsible for the collection of dividends due government from the mining companies.

The government of Ghana retains a non-contributing shareholding of 10% equity in all mining entities. This may however be altered if the mining company invests to the tune of fifty million US dollars and negotiates its fiscal terms.

- **Office of the Administrator of Stool Lands (OASL).**

The office of the Administrator of Stool Lands (OASL) is mandated by Article 267(2) of the 1992 constitution and the Office of the Administrator of stool lands Act 1994(Act 481) to collect stool land revenue and to disburse same to the beneficiaries.

The OASL is responsible for collecting ground rent.

Ground Rents: These are specified amounts payable annually by holders of leasehold grants and other terminable interests in Land transactions in respect of plots/parcels of land for residential, industrial, commercial, religious and other habitation uses. It is payable whether the land is developed or not.

The OASL also receives mineral royalty ceded to district Assemblies and communities affected by mining and distributes same (see <http://ghanalap/gov.gh/index.php/fees>).

- **Minerals Commission:** The Minerals Commission was established under the Minerals Commission Act, 1993 (Act 450). The Commission is responsible for the regulation and management of mineral resources of Ghana and the coordination of policies relating to the mining industry.

The Commission receives payments of mineral rights licences (ie reconnaissance, exploration and mining lease) from mining entities. These receipts are applied as internally generated funds.

- **Ministry of Finance:**

Is responsible for the formulation and implementation of fiscal and financial policies for Ghana; mobilization and allocation of resources as well as Improving public financial management (www.mofep.gov.gh/about/functions)

The Ministry of Finance is the supervising ministry for the Ghana Revenue Authority and the Non Tax Revenue Unit.

- **The Ministry of Lands and Natural Resources:**

The ministry is responsible for the management of Ghana's land, forests, wildlife and mineral resources.

The Ministry is the supervising Ministry for the OASL and the Minerals Commission. It also has a supervisory role over the Minerals Development Fund (MDF).

4. THE BUDGETING AND AUDITING PROCESS IN GHANA:

Budget Preparation

The President of the republic is mandated by the constitution to submit a budget to parliament each year for approval. Guided by the Medium Term Expenditure Framework (MTEF), the Ministry of Finance (MOF) prepares the budget on behalf of the President. Budget preparation begins with an advertisement in the print media by MOF requesting interested individuals/civil society organizations (CSOs) to submit memoranda on issues worthy of consideration in the coming year's budget.

The Ministry then undertakes a revision of the macro-economic framework taking into consideration provisions of the National Development Plan (NDP), cabinet/executive directives and other policy paper(s) of Government and international agreements.

MOF facilitates a cross-sectorial meeting of MDA's to discuss cross-sectorial issues and to scrutinize activities to avoid duplication and overlaps of activities and programmes.

Based on the revised macro- economic framework, changes in national policy direction and the relative priorities of sectors, sectoral ceilings are estimated by April. MOF then issues out a circular letter captioned "Guidelines for the Preparation of FY Budget" to MDAs. The circular is issued around April/May of the budget year.

The circular:

- Outlines the major thrust of Government's programme for the financial year.
- Reviews the macroeconomic trends in the past year and the recent performance of key sectors of the economy.
- Sets up the timetable for the budget hearings with each Ministry to meet statutory deadlines of the fiscal cycle, especially the submissions to cabinet and Parliament and,
- Provides the planned estimates for the macroeconomic targets and indicative ceilings for sectoral expenditures by the MDA's.

MDA's then prepare their budgets taking into consideration the guidelines in the circular letter.

The MOF then consolidates all sector budgets into one national budget document which officially becomes the Government's budget proposals for the fiscal year.

Legislative Approval:

The Constitution provides that the Minister of Finance on behalf of the President must present the budget to parliament at least one month before the end of the financial year. The "Budget Statement and Economic Policy of Government", is thus presented to the legislature in November on the floor of

parliament. The Minister also makes a formal request for legislative approval. Order 140(2) of the standing orders of parliament states that “the budget shall be presented to the House by the Minister responsible for Finance on behalf of, or on the authority of the President and in such form as the house may determine.’ The debate on the budget is adjourned for not less than 3 days after the presentation.

Parliament first debates the overall budget policy following the introduction of the Executive’s budget proposals and the estimates are forwarded to the relevant committees for further debates and approval. According to order 140(4) of the Standing Orders of Parliament, that part of the budget relating to the Ministries for which they have responsibility shall stand committed respectively to the committees responsible for the subject matter to which the heads of Estimates relate as referred to in order 151(2) and 152 and each such committee shall consider the relevant Heads of Estimate committed to it and report on it to the House within such time as the Business Committee may determine’.

Technical Officers from the MDAs appear before specific committees to explain the significance of their proposals. As part of the approval process they (Technical Officers) also indicate how their proposals affect national priorities.

The sub-committee on Finance discusses the main document concerning the macroeconomic targets, resource mobilization and recommends acceptance by the full house of parliament.

The legislature has effectively one month to approve the budget or to pass the appropriation bill. This it does by first voting on the total amount of expenditure before it votes on specific appropriations.

The appropriation Bill is passed into an Act to give legal backing to the budget to be implemented.

Budget Implementation

The budget is implemented by the Government Ministries, Department and Agencies. The MDA’s, present applications to MOF for the release of funds. MDAs are required to submit work plans, cash plans and procurement plans to MOF immediately the Appropriation law comes into effect. General warrants are issued for salary related expenditure (item 1)

MDAs are expected to initiate procurement processes and request the MOF to release specific warrants for service and investments (items 3 and 4 respectively).

Once this is done, monthly releases are made to MDAs to honour commitments, and expenditures are recorded and published by the Controller and Accountant Department in the final public accounts within three months of the end of the financial year. This is presented to the executive.

In the event that government is unable to mobilize the projected revenue as indicated in the budget, Government may cut spending even after the passage of the Appropriation Act by the Legislature.

A supplementary budget may be prepared depending on a number of factors including changing economic forecasts resulting in lower/higher expenditure.

MDAs prepare quarterly expenditure reports setting out

- 1) the actual expenditures against planned expenditures in respect of both Government of Ghana and donor funds.

2) Variations between planned and actual expenditures.

3) Reasons for variations and

4) Proposed solutions to any implementation constraints identified.

Priority is given to statutory expenditures, which include interest and principal of loans, the district Assembly Common Fund, pensions and gratuity payments to SSNIT, as well as Road and Educational Funds.

Budget Audit

The Constitution mandates the Auditor General to audit budget implementation and report to Parliament. The Auditor General performs both financial and performance audit by providing an independent check on information and compliance with the legal provisions that guide the use of public funds.

The Auditor General reports to Parliament its findings on all areas including procurement lapses. The audited reports are expected to be published six months after the end of the fiscal year.

The Public Accounts Committee of Parliament (PAC) studies the reports of the Auditor General and where necessary, invites Directors of MDAs or persons found culpable to a public hearing of the Committee's sittings to answer questions relating the audit findings.

The PAC then makes recommendations to the full house to take remedial actions on any irregularities uncovered by the audits. (source: *The Budget Process in Africa: Comparative Study of seven countries*)

Oil/Gas:

Comprehensiveness and Reliability of Data

The 2012/2013 Oil/Gas sector report was prepared in accordance with the International Standard on related services as it applies to agreed-upon procedures engagements.

Except where specifically stated, the assignment was conducted according to the terms of reference which are attached to the report .

The procedures undertaken did not constitute an audit or review made in accordance with international standards on Auditing or International Standards on

Review engagements. We therefore do not express any assurance beyond the statements made in the report and the fact that, within the limitations of the assignment, the data provided for reconciliation by the government entities and the extractive companies were comprehensive and where necessary properly supported.

This however does not extend to the entire financial statements of any of the entities involved.

The report is only for the purpose of informing the GHEITI Steering Committee on the issues indicated in the terms of reference, and not intended for any other purpose.

Materiality:

The relevant revenue streams for reconciliation in the Oil/Gas sector included; Surface Rental, Royalty, Carried Interest, Additional Participating Interest and Dividend payable by the National Oil Company.

They excluded taxes levied on consumption such as value added taxes, personal income tax (PAYE) or sales taxes as they were considered as indirect taxes.

Other direct payments by operating entities such as technology and training were not material in 2012 and 2013. ie their omission does not significantly affect the comprehensiveness of the EITI report.

With the exception of surface rental, the other relevant revenue streams are paid by only companies /joint venture partners engaged in oil production.

The surface rental paid by exploration companies in 2012 and 2013 were not material.

Thus by setting the materiality as full oil producing companies disclosure, up to 99% of the value of the relevant payments was obtained or due for reconciliation.

TECHNICAL & FINANCIAL CRITERIA FOR EVALUATION OF APPLICATIONS FOR E&P RIGHTS

The Criteria for reviewing applications for E&P are divided into six (6) sections. These are Technical; Financial; Fiscals; Work Program; Environment, Health & Safety and Strategic Fit.

The factors considered under each section are not static but continue to change as and when the strategies of the State and GNPC change.

1. Technical Capabilities

The technical criteria seek to evaluate the competence of the applicant to establish if it possesses the requisite technical capability to execute the work program for pertinent to area applied for. In order to make the right or informed decisions, the factors listed below are taken into consideration during the evaluation process:

- i. Establish what the needs of the AOI are (to determine data available in terms of wells, seismic and what additional data needs to be collected.)
- ii. Applicant's operations worldwide (operator or partner)
It is essential to establish if the applicant or the intended operator of the block (partner) has previous experience of operations in similar environment to the one it is applying for, or the profile of its staff to be assigned to the project demonstrates similar capabilities as it's an important ingredient to the operational success or failure of the project.
- iii. Applicant's area of specialization (onshore, shallow or deepwater player) and compare to the area under consideration.
- iv. What stage are applicant's operations elsewhere (exploration/ appraisal/developments or production? Indicate reserves or any production.
- v. Applicants work commitments elsewhere
- vi. Key technical Personnel with CVs for the Ghana Project.

2. Financial Capabilitie

Establishing financial capability can be considered as one of the most salient assignments to be undertaken under the due diligence process. Financial stagnation during a project's life can result in non-performance. For this fact the financial due diligence is as important as the technical evaluation.

The financial criteria indicate if the partner(s) has/have the financial resources to commit to the activities of the expensive and risky exploration business especially during the exploration and the appraisal phase. An informed decision is made taken into consideration these factors listed below:

i. Ownership Information.

It must be established beyond doubt the owners of the company applying for the acreage. All shareholders of interest above five (5) percent need to be disclosed and supported by legal documentations from the appropriate government institutions/agencies. Due diligence also involves checking the status of the company to verify if it is registered on the stock exchange of the country of registration. Due diligence must ensure that the applicant has included certified copies of certificates of incorporation and to commerce business. This is to check against fictitious entities and to authenticate the existence of the applicant. This should be done for both the applicant and its parent company where the parent company has indicated to guarantee the activities of its subsidiary. The company background checks could be accomplished through checks from the registrar of companies in Ghana as well as liaising with the Ghana's Mission abroad for the exercise.

ii. Cross-check financial statement with auditors

The financial statements submitted by applicant to support the application are to be audited by a credible auditing firm to give credence to information contain therein. Unaudited financial

statements should not be considered and provides enough justification for the rejection of the application. The diligence process requires that we check credentials of the audit firm and establish that it is in good standing and a member of an accredited association in the country of operation. In situations where the accounts presented raise issues of doubt, the auditor is contacted to establish the authenticity of the financial statements.

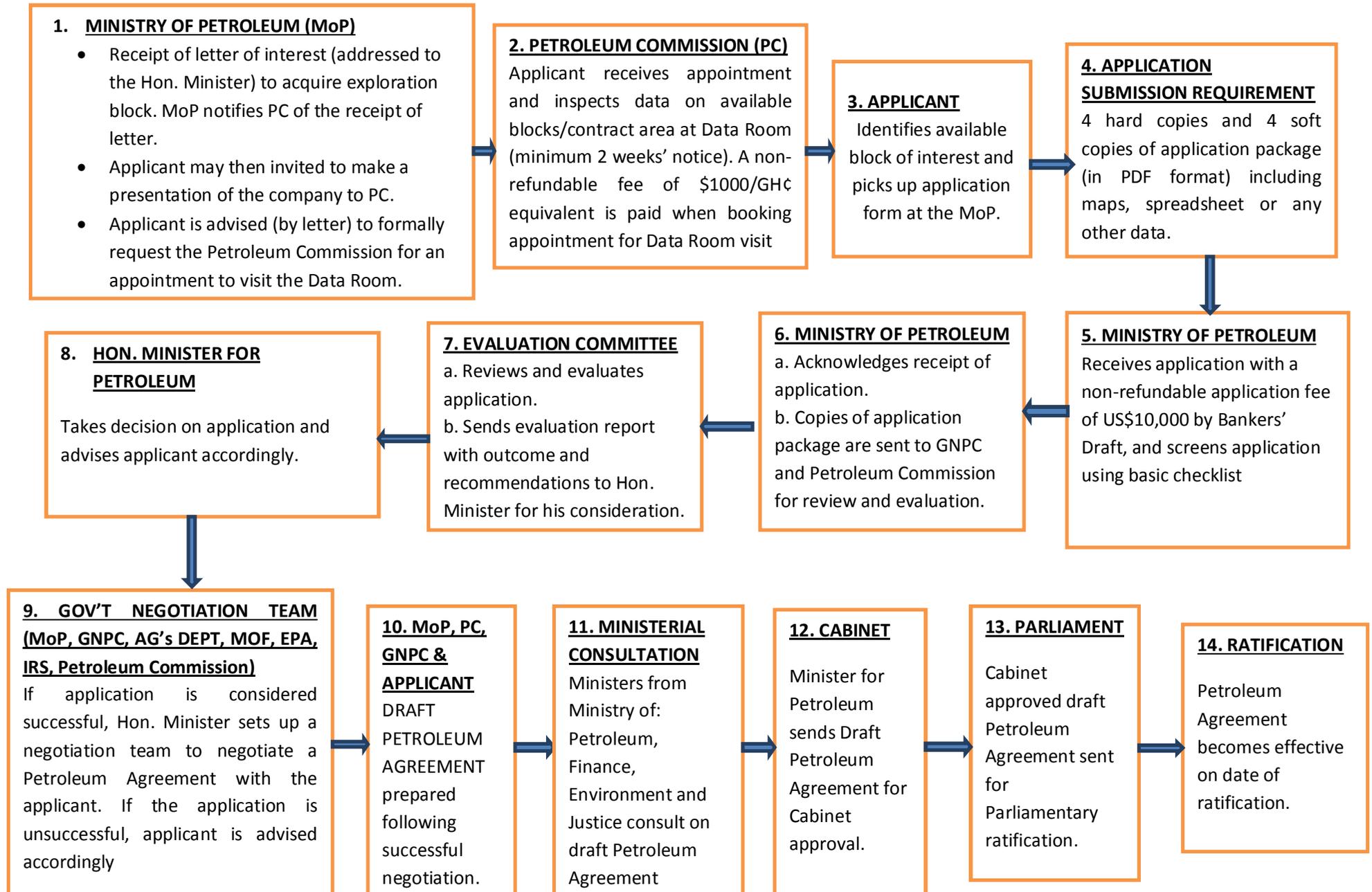
The financial capability checks are summarized below:

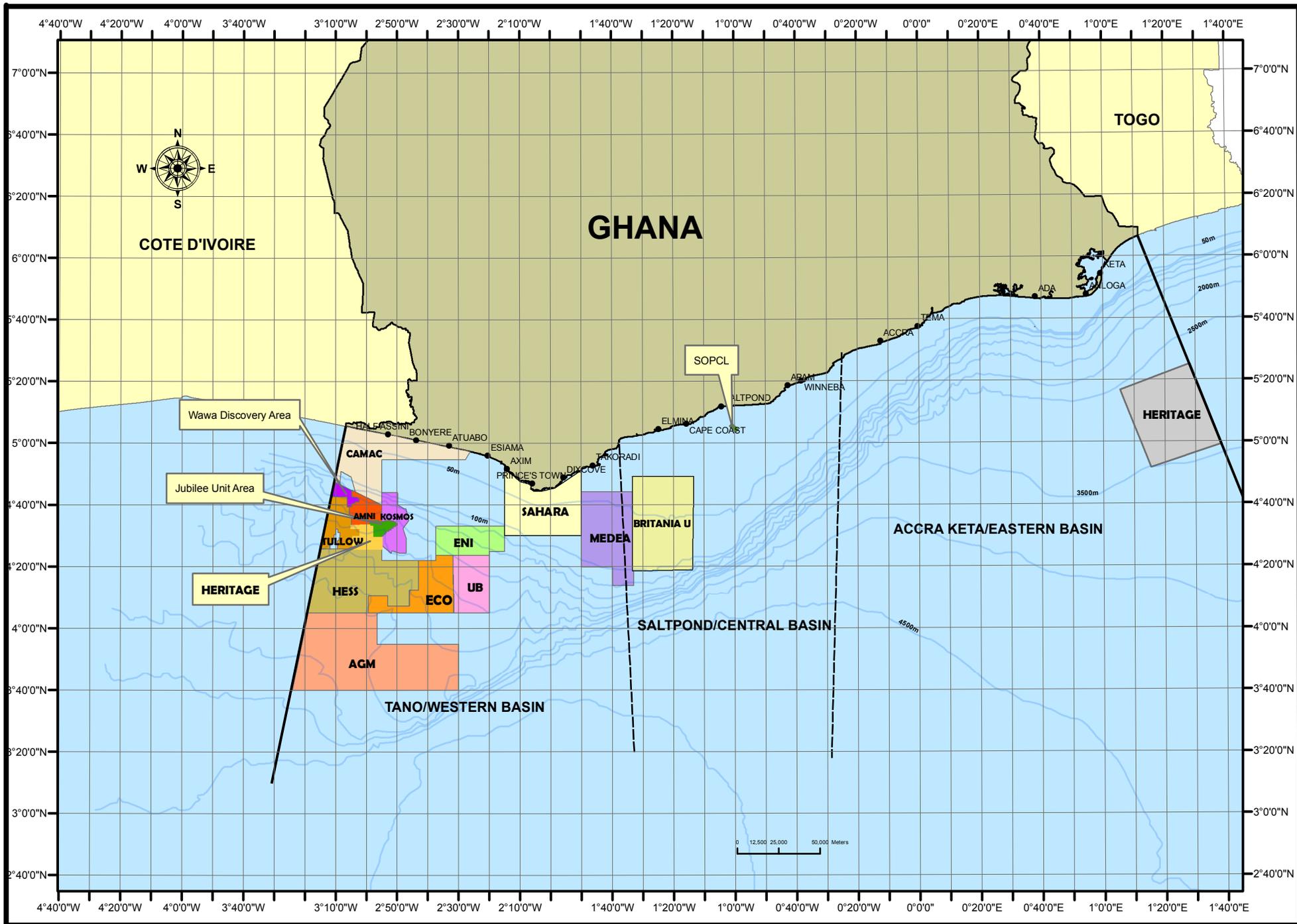
- iii. Analyze last three years of audited financial statements
- iv. Cross-check financial statement with auditors where necessary
- v. Public or listed company?
- vi. Pay attention to cash flows from operations
- vii. Applicants main financiers
- viii. Assets and overall financial commitments of applicant to other projects
- ix. Overall financial state of applicant (growing profits or making losses) and compare with minimum expenditure required for Initial Exploration Period (data acquisition and one well)

Contract Area	Coordinates																					
South Deepwater Tano Block	<p style="text-align: center;">Latitude Longitude</p> <p>A = 04 05.00N 03 19 00W B = 04 05 00N 02 56 30W C = 03 55 00N 02 56 30W D = 03 55 01N 02 30 00W E = 03 40 00N 02 30 00W F = 03 40 13N 03 23 51W</p>																					
East Cape Three Points	<table border="1"> <thead> <tr> <th>Pts</th> <th>X-Coordinates</th> <th>Y-Coordinates</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>660953.2550</td> <td>525194.4979</td> </tr> <tr> <td>2</td> <td>629767.5095</td> <td>525194.4979</td> </tr> <tr> <td>3</td> <td>629462.3012</td> <td>479162.5498</td> </tr> <tr> <td>4</td> <td>648090.9063</td> <td>479162.5498</td> </tr> <tr> <td>5</td> <td>648090.9063</td> <td>469624.7912</td> </tr> <tr> <td>6</td> <td>660953.2550</td> <td>469624.7912</td> </tr> </tbody> </table>	Pts	X-Coordinates	Y-Coordinates	1	660953.2550	525194.4979	2	629767.5095	525194.4979	3	629462.3012	479162.5498	4	648090.9063	479162.5498	5	648090.9063	469624.7912	6	660953.2550	469624.7912
Pts	X-Coordinates	Y-Coordinates																				
1	660953.2550	525194.4979																				
2	629767.5095	525194.4979																				
3	629462.3012	479162.5498																				
4	648090.9063	479162.5498																				
5	648090.9063	469624.7912																				
6	660953.2550	469624.7912																				
Deepwater Tano	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Deepwater Tano/Cape Three Points CONTRACT AREA</p> <p>A 4 25' 54"N 3 14' 53"W B 4 25' 54"N 2 55' 00"W C 4 22' 9.73"N 2 55' 00"W D 4 22' 9.73"N 2 37' 29"W E 4 19' 30"N 2 37' 22"W F 4 19' 35"N 2 31' 54"W G 4 04' 59"N 2 31' 35"W H 4 04' 59"N 3 19' 02"W</p> </div>																					
Deepwater Tano Cape Three Points	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Deepwater Tano/Cape Three Points CONTRACT AREA</p> <p>A 4 25' 54"N 3 14' 53"W B 4 25' 54"N 2 55' 00"W C 4 22' 9.73"N 2 55' 00"W D 4 22' 9.73"N 2 37' 29"W E 4 19' 30"N 2 37' 22"W F 4 19' 35"N 2 31' 54"W G 4 04' 59"N 2 31' 35"W H 4 04' 59"N 3 19' 02"W</p> </div>																					
West Cape Three Points	<table border="1"> <thead> <tr> <th>POINT</th> <th>LONGITUDE</th> <th>LATTITUDE</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>2° 55' 00" W</td> <td>4° 55' 00" N</td> </tr> <tr> <td>B</td> <td>2° 37' 30" W</td> <td>4° 55' 00" N</td> </tr> <tr> <td>C</td> <td>2° 37' 30" W</td> <td>4° 22' 9.73" N</td> </tr> <tr> <td>D</td> <td>2° 55' 00" W</td> <td>4° 22' 9.73" N</td> </tr> </tbody> </table>	POINT	LONGITUDE	LATTITUDE	A	2° 55' 00" W	4° 55' 00" N	B	2° 37' 30" W	4° 55' 00" N	C	2° 37' 30" W	4° 22' 9.73" N	D	2° 55' 00" W	4° 22' 9.73" N						
POINT	LONGITUDE	LATTITUDE																				
A	2° 55' 00" W	4° 55' 00" N																				
B	2° 37' 30" W	4° 55' 00" N																				
C	2° 37' 30" W	4° 22' 9.73" N																				
D	2° 55' 00" W	4° 22' 9.73" N																				
Saltpond Oil and Gas Field	<table border="1"> <tbody> <tr> <td>A</td> <td>5° 05' 32.43"</td> <td>01° 01' 53.51" W</td> </tr> <tr> <td>B</td> <td>5° 06' 27.57"</td> <td>01° 01' 6.49" W</td> </tr> <tr> <td>C</td> <td>5° 04' 27.57"</td> <td>0° 58' 51.89" W</td> </tr> <tr> <td>D</td> <td>5° 03' 34.05"</td> <td>0° 59' 38.92" W</td> </tr> </tbody> </table>	A	5° 05' 32.43"	01° 01' 53.51" W	B	5° 06' 27.57"	01° 01' 6.49" W	C	5° 04' 27.57"	0° 58' 51.89" W	D	5° 03' 34.05"	0° 59' 38.92" W									
A	5° 05' 32.43"	01° 01' 53.51" W																				
B	5° 06' 27.57"	01° 01' 6.49" W																				
C	5° 04' 27.57"	0° 58' 51.89" W																				
D	5° 03' 34.05"	0° 59' 38.92" W																				

MINISTRY OF PETROLEUM

PROCESS FOR ACQUIRING A BLOCK/CONTRACT AREA FOR EXPLORATION





MINERALS COMMISSION



GUIDELINES FOR THE PREPARATION OF FEASIBILITY STUDY REPORT

NOTE: The Original copy must be obtained from MINCOM and duly stamped

FOREWORD FOR GUIDELINES

The Guidelines contained herein have been developed in accordance with the provisions in the Minerals and Mining Act, 2006 (Act 703) and international best practice.

The Guidelines are in respect of application for: mineral rights, licences to buy and deal in minerals, licences to provide prescribed services to holders of mineral rights, among others.

The purpose of the Guidelines is to ensure the management of Ghana's mineral resources effectively and efficiently so as to optimize the sector's contribution to the sustainable socio-economic development of the country.

More specifically, these guidelines are expected to:

- Document the standard procedures for acquisition of mineral rights and other licences; give clear guidance of what is expected of all stakeholders with respect to procedure and timing for granting as well as monitoring and evaluation of activities under mineral rights /licence; to
 - Facilitate the acquisition of mineral rights by prospective investors;
 - Assist regulators in the effective monitoring and evaluation of the activities of sector operators; and
- Contribute towards the integration of the mining sector into the rest of the economy.

Additional to these, the guidelines would assist the Commission to fulfill one of its core mandates of "securing a firm basis of comprehensive data collection on national resources and the technologies of exploration and exploitation for national decision making " under the Minerals Commission Act, 1993 (Act 450).

The Minerals Commission would therefore like to appeal to all prospective investors as well as those who already have investments in the country's minerals and mining sector to collaborate with the regulatory agencies in the implementation of the guidelines.

We trust we can count on the cooperation of all stakeholders to ensure the management of Ghana's mineral resources in a manner that will create a platform by which the mining sector sustainably contributes to the development of not just the current generation but also lays the foundation for the development of future generations.

***BEN ARYEE
CHIEF EXECUTIVE OFFICER
NOVEMBER 10, 2010***

Application or Lease Registration Code Number: _____

Year submitted: _____

Minerals Commission – Monitoring and Evaluation Department

Form MISC: BFR - Bankable Feasibility Report

O F F I C I A L U S E		<p>Received at: _____</p> <p>On: _____</p> <p>Authorizing officer: _____</p> <p>Report is confirmed complete: _____</p> <p>On: _____</p> <p>Reviewing officer: _____</p>	
---	--	--	--

Type of application or lease for which the bankable feasibility is submitted:

- _____ Application for a Mining Lease
- _____ Application for a Restricted Mining Lease
- _____ Existing Mining Lease
- _____ Existing Restricted Mining Lease

1. LEASE APPLICANT / HOLDER DETAILS

- 1. Name of Applicant / Lease Holder: _____
- 2. Registered Address:

- 3. Postal Address: _____

- 4. Location of lease area District: _____ Locality: _____
- 5. Fax: _____
- 6. Phone: _____ Cell phone: _____
- 7. Email: _____ Website: _____

Name of mine: _____

BACKGROUND

Section 11 of the Mineral & Mining Act, 2006 (Act 703) states that:

1. An application for a mineral right shall be submitted to the Minerals Commission in the prescribed form and shall be accompanied with a statement providing,
 - (a) particulars of the financial and technical resources available to the applicant for the proposed mineral operations,
 - (b) an estimate of the amount of money proposed to be spent on the operations,
 - (c) particulars of the programme of proposed mineral operations, and
 - (d) particulars of the applicant's proposals with respect to the employment and training in the mining industry of Ghanaians.

These guidelines have been developed to assist Mineral Right holders in the preparation of Feasibility Study Reports on work carried out on their concessions. The submission of a satisfactory Feasibility Study Report is a requirement for the grant of a Mining Lease by the Government of Ghana.

The Commission evaluates the Feasibility Study Report to determine the Company's technical and financial capability to undertake the exploitation of the mineral resource it has identified and defined on the property. This helps the Commission to make the appropriate recommendation to the Sector Minister for the grant of Mining Lease.

STRUCTURE AND CONTENT OF FEASIBILITY STUDY REPORT

1. Title and Author(s) of the Report /Date
2. Executive Summary
3. Project Summary
4. Technical Elements
5. Financial Elements
6. Environmental Elements
7. Economic Elements
8. Socio-Economic Elements
9. Appendices

AUTHORS OF THE REPORT

- Name of Consultants that authored the Report
- Qualification of the Principal Authors
- Experience in Proposed Type of Mining Operation/Development and Area of Geographic Interest
- Track Records of the Principal Authors
- Address and Location

1.0. EXECUTIVE SUMMARY

- i. Geology and Reserves
- ii. Mining
- iii. Metallurgy
- iv. Process Plant
- v. Infrastructure
- vi. Project Implementation
- vii. Environment and Community
- viii. Operations
- ix. Operating Costs
- x. Capital Cost
- xi. Economic Assessment
- xii. Opportunities and Risks

2.0 PROJECT SUMMARY

2.1. Introduction

2.2. Background

- 2.2.1. Geography
- 2.2.2. Climate
- 2.2.3. Existing Infrastructure and Services
- 2.2.4. Project History
- 2.2.5. Legal and Fiscal Regime

2.3. Geology and Resources

- 2.3.1. Introduction
- 2.3.2. Geological Setting
 - 2.3.2.1. Regional Geology
 - 2.3.2.2. Local Geology
- 2.3.3. Deposit Type(s)
- 2.3.4. Mineralization
- 2.3.5. Geological Model
- 2.3.6. Drilling and Sampling
 - 2.3.6.1. Sample Analysis
- 2.3.7. Geological/Geophysical/Geochemical Interpretation
- 2.3.8. Mineral Resource Estimation

2.4. Mining

- 2.4.1. Introduction
- 2.4.2. Geotechnical Considerations
- 2.4.3. Water Supply and Management
- 2.4.4. Mine Plan and Design
- 2.4.5. Proposed Mining Operations
- 2.4.6. Mining Schedule and Stockpile Accounting
- 2.4.7. Future Work

2.5. Mineral Processing

- 2.5.1. Introduction
- 2.5.2. Process Plant Description
- 2.5.3. Engineering Design Philosophy
- 2.5.4. Treatment Plant Overview
- 2.5.5. Flowsheet
- 2.5.6. Control Systems

2.6. Infrastructure

- 2.6.1. Site Development
- 2.6.2. Plant Area Buildings
- 2.6.3. Power Supply
 - 2.6.3.1. Power Supply Requirements
 - 2.6.3.2. Power Supply Options
- 2.6.4. Operational Water Supply
- 2.6.5. Raw Water Supply
- 2.6.6. Potable Water
- 2.6.7. Sewerage
- 2.6.8. Tailings Storage Facility (TSF)
 - 2.6.8.1. Introduction
 - 2.6.8.2. TSF Type and Location
- 2.6.9. Communications
- 2.6.10. Accommodation
- 2.6.11. Security
- 2.6.12. Roads

2.7. Project Implementation

- 2.7.1. Introduction
- 2.7.2. Project Management Plan
- 2.7.3. Work Breakdown Structure
- 2.7.4. Project Schedule

2.8. Environment

- 2.8.1. Introduction
- 2.8.2. Summary of the Baseline Information
- 2.8.3. Stakeholder Consultations
- 2.8.4. Impact Identification
- 2.8.5. Cost of Mitigation Measures with Alternatives
- 2.8.6. Corporate Social Responsibility Programme

2.9. Operations

- 2.9.1. Introduction
- 2.9.2. Organisation Structure and Manning
- 2.9.3. Workforce Make-Up
- 2.9.4. Recruitment and Training of Ghanaians (Sections 11 and 105 of Act 703)

2.10. Operating Costs

- 2.10.1. Introduction
- 2.10.2. Total Operating Costs
 - 2.10.2.1. Mining Costs
 - 2.10.2.2. Processing and Maintenance Costs
 - 2.10.2.3. Labour
 - 2.10.2.4. Utilities
 - 2.10.2.5. Consumables
 - 2.10.2.6. Maintenance
 - 2.10.2.7. Laboratory
 - 2.10.2.8. Environmental, Social and Community Costs
 - 2.10.2.9. General and Administration Costs

2.11. Capital Costs

- 2.11.1. Introduction
- 2.11.2. Estimate Basis
- 2.11.3. Contingency
- 2.11.4. Exchange Rates
- 2.11.5. Clarifications
- 2.11.6. Exclusions
- 2.11.7. Statistical Analysis
- 2.11.8. Sustaining Capital

2.12. Project Appraisal

- 2.12.1. Technical
- 2.12.2. Financial
- 2.12.3. Economic

2.13. Risks Assessment and Management

- 2.13.1. Community and Social Agitations
- 2.13.2. Illegal Mining Operation
- 2.13.3. Speculative Activities
- 2.13.4. Health and Safety Issues
- 2.13.5. Political Issues

3.0. GEOLOGY

The objective of the Geological Evaluation of the deposit is to define the ore resource as adequately as possible since the ore resource is the major asset of the company.

3.1. Geology, Exploration Sampling Techniques and Mineralization

- Description of the Regional Geological Environment
- Description of the Local Geological Environment
- History of Exploration Work in the Area, the Nature of Work, Quality and Usefulness
- Additional Work Completed by the Current Company
- Procedures Employed in Data Collection for the Ore Reserve Estimation
- Sampling and Assaying Procedures Adopted
- Number of Holes Drilled, Drill Spacing and Orientation
- Compilation of Drill Hole Database
- Laboratory Reliability (QAQC- Duplicates, Blanks and Standards)
- Detailed Description of Ore and Host Rock
- Description of Structural Setting of Mineralization
- Ore Type and Style of Mineralization
- Geological Model

3.2 . Ore Reserve Estimation

- Methods Used for Calculating the Ore Reserves i.e. Grade/Tonnage Determination
- Explanation for the Rationale behind the Choice of Method
- Criteria for classifying Reserves into Proven, Probable and Possible or Measured, Indicated and Inferred
- Assumption in Establishing the Geological Cut-off-Grade
- Explanations for the Choice of Geological Cut-off-Grade
- Resource Modeling

4.0 . MINING

In the mining method selection, the main idea is to design a specific extractive system suitable for the particular orebody.

- Factors Underlying the Choice of a Particular Mining Method
- Evaluation of Alternative Mining Scenarios
- Consideration of Geotechnical Factors (Slope Stability, Stope Stability, Shaft Security Zones etc.)
- Assumptions for the Calculation of Mineable Reserves
- Dewatering, Surface-Run-Off Management
- Location of Waste Dumps and Waste Management
 - Waste Characterisation
- Ventilation Design (Underground)
- Occupational Health and Safety Provisions
- Discussion and Specification of Critical Design Parameters

- Preparation of Mine Design (Mine Layout)
- Preparation of Pre-Production Plan with Manpower, Equipment and Materials Requirements
- Mining Schedule and Stockpile Accounting
- Future Work
- Training Programme for Local Labour

5.0 . MINERAL PROCESSING

5.1.Plant design

- Preliminary Design Considerations of the Plant
- Basis for Mill Site Location
- Engineering Design Philosophy
- Control Systems

5.2 . Sampling

- Describe Methods Used in Sampling
- Typical Size Distribution of the Materials Used for Tests

5.3 . Chemical Characterization

- Outline the Procedure Used to Obtain Head sample
- Establish the Full Chemical Composition of a Representative Portion(s) of the Sample, at Least Semi-Quantitatively
- Conduct quantitative Chemical Analysis of the Sample. Giving the Concentration of the Main Elements
- Briefly Describe the Analytical Methods Used to establish the Grade of the Head Sample
- Chemical “Liberation” of the Value Mineral(s) from the Gangue Should be established for Non Alluvial Material
- Establish the Distribution of the Value Mineral in Separated Fractions (Ore) in the Case of Material of Alluvial Origin
- In the Case of Gold, Identify the “Impurities” in the Gold Bullion

5.4 . Mineralogical Appraisal

- Identify Constituent Minerals, Wherever Practicable
- Establish proportions of Main Minerals (Model Analysis) Occurring
- Establish the Apparent Degree of Liberation (Mineralogical) of the value Mineral(s) if Necessary

5.5 . Process Selection

- Establish Comminution Characteristics of the Mined Material
- Establish Washing Characteristics of Alluvial Material
- Establish the Amenability of Mined Material to Pre-concentration, Wherever Practicable
- Brief Description of various Test Works Performed in the Laboratory Indicating Methods, Results and Conclusions Reached

5.6 . Process Testing

5.6.1. Pilot Plant Tests

5.7 . Proposed Flowsheet

- Technical Basis for the Flowsheet Selected
- Flowsheet drawn should Show Material Balance
- Full Description of the Flowsheet drawn in the text of the Report

5.8 . Process Water

- State the sources and Quantities of Water to be Utilized in the Treatment of the Ore
- Describe Water handling, Water Consumption, Water Recovery (Via Reclamation) and Sources of water Losses
- Stipulate the Quality of Water to be Discharged to the General Environment

5.9 . Tailings/Effluent Disposal

- Environmental Considerations
- Mode of Transportation and Storage

6.0 . INFRASTRUCTURE

- Energy Supply
- Access to the Mine
- Telecommunication Systems
- Material Handling Systems
- Workshops, Offices, Changehouse, Laboratories and Equipment
- Housing, Power, Water and Sewerage for Employees
- Transportation for Employees
- Medical Care, Recreational Facilities, Schools and Supply of Household Goods

7.0. PROJECT IMPLEMENTATION

- Project Management Plan
- Work Breakdown Structure
- Project Schedule
- Procurement Plan
- Organisational Structure and Manning
- Workforce Make-Up
- Recruitment and Training of Ghanaians (Sections 11 and 105 of Act 703)

8.0 ENVIRONMENTAL ISSUES

8.1. Introduction

8.2. Baseline Information

8.3. Stakeholder Consultations

8.4. Impact Identification

This means all environmental and social impact that will emanate from mining, processing, waste disposal, community and social issues (cost of relocation, resettlement etc.)

8.5. Cost of Mitigation Measures with Alternatives

This should capture Provisional Environmental Monitoring Plan, Reclamation, Restoration or Rehabilitation Plan as Decommissioning and Post-Closure Plans including proposed reclamation Bond. Specifically, the following have to be addressed

- Engineering works to decommission and dismantle infrastructure, complete rehabilitation, grade kind forms for effective drainage, cap and cover tailings facilities, implement post closure monitoring networks etc.
- Administrative works relating to the transfer of assets, labour force, demobilization, relinquishment agreement and other government and NGO agreements
- Due diligent monitoring and reporting on the post decommissioning status of environmental and social aspects of the site.

8.6 Corporate Social Responsibility Programme

9.0. PROJECT COSTS

9.1. Cost Estimation

Cost estimation forms a very important part of a Feasibility Study since the potential viability of the project will depend on the relevance of the cost data. The basis for the cost estimation should be clearly documented.

9.2 . Operating Costs

Operating costs include costs expended during mining and milling of ore as well as transportation and marketing.

- Compile Standard Database for Use in Estimating All Areas of the Project
- Specify the Approach to be Used for Estimating all Areas of the Project
- Separate Estimates for Each Area Should be broken Down into Appropriate Elements
- Compare Costs to Other Operations Using Similar Mining and Processing Methods

9.2.1 Total Operating Costs

9.2.1.1. Mining Costs

9.2.1.2. Processing and Maintenance Costs

9.2.1.3. Labour

9.2.1.4. Utilities

9.2.1.5. Consumables

9.2.1.6. Maintenance

9.2.1.7. Laboratory

9.2.1.8. Environmental, Social and Community Costs

9.2.1.9. General and Administration Costs

9.3 . Capital Costs

- Compile Standard Data Bases for Use in Estimating Each Area of Project
- Separate Estimates for Each Area Should be Broken Down into Appropriate Elements
- Assess and Apply Contingency
- Assess and Apply Escalation
- Prepare Capital Disbursement Schedule for Financial Analysis Purposes:
 - Estimate Basis
 - Contingency
 - Exchange Rates
 - Clarifications
 - Exclusions
 - Sustaining Capital

10.0. ECONOMIC AND FINANCIAL ANALYSIS

The purpose of this section is to develop an economic model using data generated throughout the study to determine the project's economic viability and to examine the effect of numerous factors on the profitability of the project.

The objective of the Economic and Financial Analysis is to develop revenue projections for the financial and economic assessment of the project and to support these projections with sufficient market information and sales commitments to demonstrate to the investors and financial institutions that the projections were realistic.

- Sources of Market Information
- Analysis of Demand and Supply for Both the Short and Long Terms
- Specifications for the Shipped Mineral Product
- Compliance with Kimberley Process Certification Scheme (KPCS) in the Case of Diamonds
- Effect of By-Products on the Market Price
- Purchasers
- Specification of Sales/Marketing Strategy (Marketing Contracts)
- Conduct Product Price Analysis and Make Price Projections

Factors to Consider:

- Capital Costs
- Operating Costs
- Production data (Grade, Tonnage of Output; Project Life)
- Marketing and Revenue Data
- Amortization Criteria
- Taxes and Royalties
- Inflation
- Investment Grants and Subsidies
- Financing and Capital Structure
- Assumption of the Base Case Scenario
- Profitability Criteria Being Used in the base Case Scenario
- Definition of Cash Flow being Employed
- State Whether cash flow Analysis is Based on Equity or Combination of Debt and Equity
- Application of Appropriate Fiscal Regime
- Cost of capital or Hurdle Rate Being Used
- Define Variables to be Used for Sensitivity Analysis
- Calculation of Debt Coverage ratio for the project and for each Year During Debt Repayment
- Indicate Government's share

11.0. SOCIO-ECONOMIC ANALYSIS

- Assess the Socio-Economic effects of the Project
- Assess Whether Local Communities will be Moved and Resettled
- Compensation, give Compensation Figures
- Institutional Services being proposed for the Mine and the Local Community

12.0. RISKS ASSESSMENT AND MANAGEMENT

- Community and Social Agitations
- Illegal Mining Operation
- Speculative Activities
- Health and Safety Issues

13.0. CONCLUSIONS

14.0. APENDICES

- Back Up Calculations
- Maps
- Figures
- Tables
- Drawings, etc.

I HEREBY CERTIFY THAT THE INFORMATION AS PROVIDED ABOVE IS TRUE

Name: _____ Signature: _____

Title: _____ Date: _____