

MINISTRY OF FINANCE
GHANA EXTRACTIVE INDUSTRIES' TRANSPARANCY INITIATIVE (GHEITI)



FINAL REPORT

ON THE

PRODUCTION OF OIL & GAS SECTOR GHEITI REPORT FOR 2012 AND 2013

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TABLE OF CONTENTS

LIST OF ABBREVIATION/ACROYNMS.....	1
EXECUTIVE SUMMARY.....	3
1.0 BACKGROUND.....	11
1.1 BRIEF ON EITI IN GHANA.....	11
2.0 SCOPE OF WORK.....	14
3.0 THE OIL/GAS INDUSTRY IN GHANA.....	36
4.0: RESULTS OF RECONCILIATION.....	65
4.1 THE RECONCILIATION PROCESS AND PARTICIPANTS.....	65
4.2 DISCREPANCIES.....	71
5.0. DETERMINATION OF BENCHMARK REVENUE, ABFA AND	80
6.0 PETROLEUM RECEIPTS, EXPENDITURE BUDGET MANAGEMENT.....	84
7.0 PERFORMANCE OF THE GHANA PETROLEUM FUNDS.....	95
8.0 UPDATE ON RECOMMENDATIONS MADE IN THE 2010/2011 REPORT.....	100
9.0 OBSERVATION AND FINDINGS.....	101
10.0 CONCLUSION.....	105
11.0 APPENDICES.....	106
APPENDIX 1 TERMS OF REFERENCE (TOR).....	107
APPENDIX 2 ACQUISITION OF OIL BLOCK.....	109
APPENDIX 3 PETROLEUM BLOCK.....	110
APPENDIX 4A PRODUCTION-JUBILEE FIELDS.....	111
APPENDIX 4B PRODUCTION-SALTPOND FIELDS.....	112
APPENDIX 5 DETAILS OF RECONCILIATION BY COMPANY.....	113

LIST OF ABBREVIATION/ACROYNMS

<i>ABFA</i>	<i>Annual Budget Funding Amount</i>
<i>Bbl/d</i>	<i>Barrels per day</i>
<i>Bbls</i>	<i>Barrels of oil Brent Crude</i>
<i>Bopd</i>	<i>Barrels of oil per day</i>
<i>CAPI</i>	<i>Carried and Participating Interest</i>
<i>CDS</i>	<i>Credit Default Swaps</i>
<i>DST</i>	<i>Drill Stem Test</i>
<i>ECB</i>	<i>European Central Bank</i>
<i>EITI</i>	<i>Extractive Industries Transparency Initiative</i>
<i>FOMC</i>	<i>Federal Pen Market Committee</i>
<i>GHAPET</i>	<i>Ghana Petroleum Holding Fund Account at Federal Reserve Bank of New York</i>
<i>GHEITI</i>	<i>Ghana Extractive Industries Transparency Initiative</i>
<i>GHF</i>	<i>Ghana Heritage Fund</i>
<i>GNPC</i>	<i>Ghana National Petroleum Corporation</i>
<i>GNPC</i>	<i>Ghana National Petroleum Corporation</i>
<i>GRA</i>	<i>Ghana Revenue Authority</i>
<i>GSF</i>	<i>Ghana Stabilisation Fund</i>
<i>Mb/d</i>	<i>Million barrels per day</i>
<i>MoF</i>	<i>Ministry of Finance</i>
<i>MTAB</i>	<i>Mahogany, Teak, Akasa and Banda oil wells</i>

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<i>OPEC</i>	<i>Organization of the Petroleum Exporting Countries</i>
<i>PBOC</i>	<i>People's Bank of China</i>
<i>PHF</i>	<i>Petroleum Holding Fund</i>
<i>PITL</i>	<i>Petroleum Income Tax Law</i>
<i>PRMA</i>	<i>Petroleum Revenue Management Act</i>
<i>SOPCL</i>	<i>Saltpond Offshore Producing Company Limited</i>
<i>TEN</i>	<i>Tweneboa, Enyenra, Ntomme Oil Wells.</i>
<i>WTI</i>	<i>West Texas Intermediate (Benchmark for Light sweet crude Oil from America)</i>

EXECUTIVE SUMMARY

The Ghana Government associated itself with the Extractive Industries' Transparency Initiative (EITI) in 2003.

The initiative seeks to improve development outcomes and reduce the potential for corruption and large scale embezzlement of benefits received by governments from extractive industries.

Regular publication of extractive industry payments and government receipts is a requirement of the initiative.

To this end, the Ministry of Finance hired Messrs Boas & Associates to reconcile the payments made by Oil and Gas sector companies and receipts by the government for 2012 and 2013.

Activities and findings during the implementation of the assignment are presented in this report, and the summary is provided in this section.

Participating Companies

The following companies participated in the reconciliation process.

Participants in the 2012/2013 reconciliation process

OIL & GAS COMPANIES	GOVERNMENT AGENCIES
Tullow (Ghana) Limited	Ghana Revenue Authority
Kosmos Energy Ghana HC	Ghana National Petroleum Corporation(GNPC)
Ghana National Petroleum Corporation(GNPC)	Ministry of Finance /Bank of Ghana
Saltpond Offshore Producing Co Ltd	Petroleum Commission
Anadarko WCTP (Ghana) Limited	Ministry of Energy and Petroleum
Sabre Oil and Gas Holdings Ltd/Petro SA ⁱ	

Revenue Streams: The revenue streams considered for reconciliation included.

- i) Royalty, ii) Surface Rental, iii) Carried Interest, iv) Participating Interest and v) Dividends.

APPROACH AND METHODOLOGY

The assignment's methodology has two main phases comprising of;

- Preliminary information gathering (inception phase);
- Reconciliation phase.

The preliminary information gathering stage involved interactions with all the stakeholders in order to put the assignment into the correct perspective.

The reconciliation phase was made up i) Data Collection and Analysis; ii) Initial Reconciliation; iii) Draft Reporting phase and iv) Final Reporting.

❖ Data Collection and Analysis

This involved the distribution and collection of templates to participants. Analysis involved the thorough study of data collected to ensure accuracy and correctness.

❖ Reconciliation

A database in Microsoft excel was set up using the data obtained from both the companies' reporting templates and government reporting templates as well as their supporting documents.

Reconciliation of data was undertaken on company or project by project basis and item by item basis. All discrepancies were identified and resolved where possible within the time constraints.

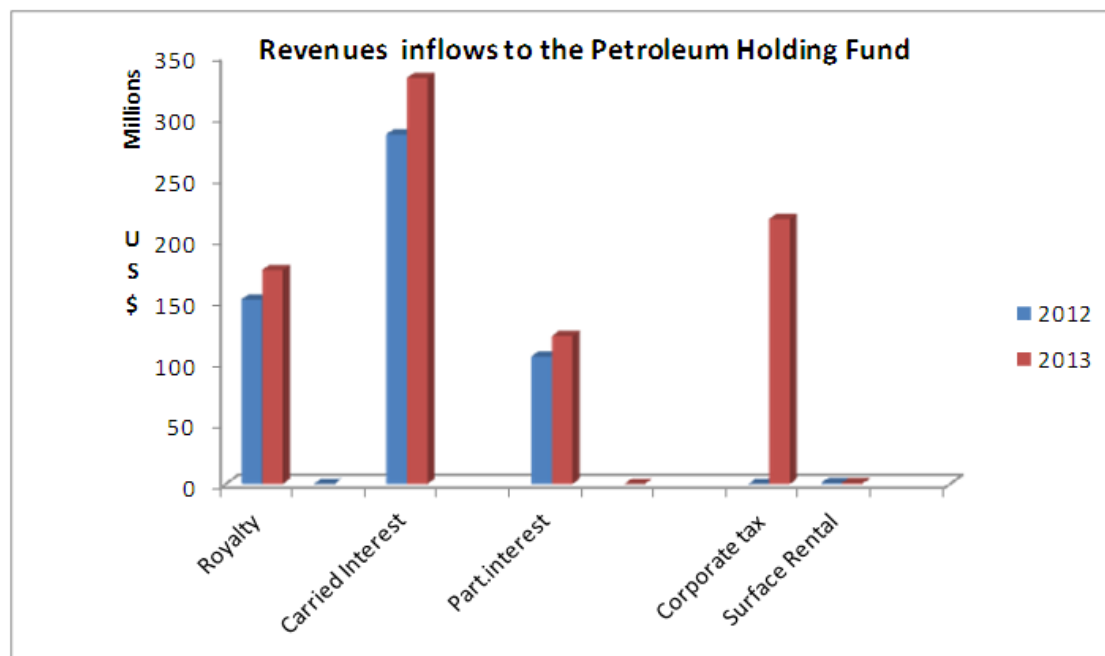
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Results of Reconciliation, Observations and Recommendations

Reconciliation results for 2012 and 2013 as well as total revenue inflows into the Petroleum Holding Fund, and Jubilee crude oil reconciliations for the GNPC are indicated below.

RECONCILIATION BY COMPANIES-Oil and Gas								
2012	Initial	Amounts	Initial Discrepancy		Final Amount			
COMPANIES	Company	Government		Resolved	Unresolved		Company	Government
					(Over)	(Under)		
GNPC	541,071,322.70	541,071,323.00	(0.30)		230.85	(231.15)	541,071,322.70	541,071,323.00
Tullow	-	63,866.95	(63,866.95)	63,866.95			63,866.95	63,866.95
Kosmos	35,438.56	35,438.56	-		-		35,438.56	35,438.56
Anadarko	-	-	-		-		-	-
Saltpond	337,304.00	339,454.33	(2,150.33)		269.67	(2,420.00)	337,304.00	339,454.33
Sabre Oil	-	-	-		-		-	-
PetroSA	-	-	-		-		-	-
Total	541,444,065.26	541,510,082.84	(66,017.58)	63,866.95	500.52	(2,651.15)	541,507,932.21	541,510,082.84
Source:Original company templates								

Reconciliation by company								
2013	Initial Amounts		Initial Discrepancy	Unresolved			Final Amounts	
COMPANIES	Company	Government		Resolved	over	under	Company	Government
GNPC	628,580,078.49	628,580,078.49	-	-			628,580,078.49	628,580,078.49
Tullow	106,909,572.00	107,025,730.31	(116,158.31)	116,358.75	200.44		107,025,930.75	107,025,730.31
Kosmos	70,453,202.90	55,021,795.90	15,431,407.00	(15,431,379.00)	28.00		55,021,823.90	55,021,795.90
Anadarko	0	55,071,284.00	(55,071,284.00)	-		(55,071,284.00)	0	55,071,284.00
Saltpond	171,695.00	171,595.00	100.00		100.00		171,695.00	171,595.00
PetroSA	0	0	-	-	0	0	0	0
Total	806,114,548.39	845,870,483.70	(39,755,935.31)	(15,315,020.25)	328.44	(55,071,284.00)	790,799,528.14	845,870,483.70
Source: original Company Templates								



Initial net Discrepancies of **US\$-66,018** and **US\$-39,755,935** were obtained for 2012 and 2013 respectively.

After resolving some of the discrepancies **unresolved discrepancies in 2012** amounted to a net of US\$2151. It arose mainly from differences in surface rental payments reported by Saltpond Offshore Producing Company and GRA.

In 2013 net unresolved discrepancy of US\$(55,070,955.56) resulting mainly from the corporate tax payment reported by the GRA as having been paid by Anadarko WCTP Ltd. Anadarko WCTP Ltd did not report any corporate tax payment.

Significant Observations and recommendations

- **Lack of on line repository in the Petroleum Sector.**

The Petroleum Commission does not have an online Repository, where information for the Petroleum Sector such as ownership of blocks coordinates or allocations as well as annual payments made by Upstream Petroleum Companies are found.

Recommendation

The Petroleum Commission is advised to establish as quickly as possible an online repository where the information on upstream Petroleum blocks are found.

Such information will enhance transparency and improve the efficiency of the operations of the Commission.

- **Licensing regime and the publication of contracts.**

The Ministry of Energy and Petroleum awards oil blocks/licences using the open door negotiated process. This is not an open process and may lead to awarding oil blocks to inefficient operators,

Details of these negotiations and the resulting contracts are not made available to the public.

Recommendation

To ensure transparency and efficient management of the petroleum resources, the Ministry of Energy and Petroleum should introduce Licensing rounds including bidding and also make available on its website details of contracts with operators.

The amended E&P law should equally be passed quickly

- **Lack of benchmark returns.**

No benchmark returns have been developed by the Investment Advisory Committee as required by Section 30(1) c of Act 815. The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

Recommendation

To effectively monitor the performance of the Ghana Petroleum funds it is necessary to adhere to the provisions of section 30(1) c, by developing an investment guide.

- **Capital gains tax and 2010/2011 report recommendations on the fiscal regime.**

The interest of Sabre Oil/Gas Ltd in the Jubilee Fields was acquired by PetroSA in 2012. There was no payment of capital gains tax.

Several recommendations relating to the fiscal regime of the petroleum sector were made in the 2010/2011 report. The recommendation on capital gains tax has been addressed with the passage of ACT 871 (*Internal Revenue (Amendment) (NO.2) ACT, 2013*). Other recommendations such as those on ring fencing and thin capitalization are still outstanding.

Recommendation: In order to ensure the effective management of the petroleum sector it is important that the regulations in PITL and the Internal Revenue Act, 2000; Act 592 are harmonized.

- **GNPC Expenditure**

i. The amount of unspent cash by GNPC from its allocation is quite large at \$141.7 million. This consists of unspent cash of \$61.6 million carried forward from 2012 and \$80 million of unspent cash from the allocation in 2013. GNPC attributed this to procurement delays. This is also the result of decreasing amounts of equity funding payments.

Recommendation

GNPC should publish its investment plan to inform the public of its financing requirement. This will prevent the public from misconstruing unspent cash as not needed.

- **ABFA Expenditure**

Allocation of ABFA for capacity building is very broad and the breakdown of this expenditure has not been provided. Moreover, the stages of completion of various public projects funded with ABFA are not published to track the progress of on-going work and their potential development impacts.

Recommendation

Government must comply with Section 48(2b), which requires it to report on the “stage of implementation of the programmed activities funded by and the expenditures incurred on the activities covered by the Annual Budget Funding Amount in the financial year of the report”. Thus, government should report on the detailed expenditure from ABFA and the status of project completion.

- **Crude Oil production and lifting**

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In both 2012 and 2013 barrels of oil lifted exceeded production. In 2012 lifting exceeded production by 79,686 barrels and in 2013 by 460,702.

Recommendation

The PRMA does not address reporting on production spill-over or stocks. Both Sections 15 and 48, which deal with the reconciliation and annual reports on the petroleum funds, focus on reporting inflows and outflows related to the funds. However, since stocks are not expressed in revenue terms, the requirement of the reconciliation and annual reports should be reviewed to include stocks (i.e. oil not lifted in the previous year or “non-revenue oil”). This will ensure that Government reports on “revenue oil” and “non-revenue oil”.

- **Performance of the Ghana Petroleum Funds**

Section 30(1) c of Act 815 states that the Investment Advisory Committee shall ‘*develop for the Minister as part of the investment guidelines, the benchmark portfolio, the desired returns from and the associated risks of the Ghana Petroleum Funds and subsequently the Ghana Petroleum Wealth Fund taking into consideration the investment guidelines used by the Bank of Ghana for investments of a similar nature*’

No benchmark returns have been developed by the Investment Advisory Committee as required by Section 30(1) c of Act 815. The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

Recommendation

To effectively monitor the performance of the Ghana Petroleum funds it is necessary to adhere to the provisions of section 30(1) c, by developing an investment guide.

The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

- **Computation of revenue streams by GNPC AND GRA**

The reconciliation produced discrepancies in amounts stated for royalty, carried interest and Participating interest by GNPC and GRA. However the aggregate net discrepancies were

zero. These computations are based on liftings by the GNPC on behalf of Ghana. Parcels of oil sold is apportioned into royalty, carried interest and participating interest. The total amounts are equal but the Agencies obtain different figures for the component parts.

Recommendation

It will be more appropriate if the Agencies use the same methodology in their computations in order to ensure that figures for royalty, carried interest and participating interest are the same for the organizations.

1.0 BACKGROUND

The Extractive Industries' Transparency Initiative (EITI) was launched at the World Summit on Sustainable Development in Johannesburg, September, 2002.

The main objective of the Extractive Industries Transparency Initiative (E.I.T.I) is to enhance transparency around the generation and spending of revenues from the extractive sector so as to improve development outcomes, reduce the potential for corruption or large-scale embezzlement of funds by host governments; and to stimulate debate about the uses to which these revenues are put.

It is believed that the prudent use of natural resources has the potential to provide the basis for sustainable economic growth and development.

The Initiative encourages governments, extractive companies (publicly and privately owned), International Agencies and NGOs to work together to develop a framework to promote transparency in payments in the extractive industries.

The publication of reports providing details of extractive industry payments and Government receipts is a requirement of the initiative.

1.1 BRIEF ON EITI IN GHANA

The Government of Ghana formally committed itself to implementing EITI in 2003, when it signed on to the initiative in London.

The EITI Steering Committee is the governing body of the EITI in Ghana. Various stakeholders in the Extractive industry are represented on the committee.

The members of the committee comprise of representatives from the under listed agencies or bodies:

Ministry of Finance

Ministry of Land and Natural Resources

Minerals Commission

Ghana National Petroleum Company

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Ghana Chamber of Mines (representing the mining companies)

Jomoro District Assembly Office of the Administrator of Stool Lands

Ghana Revenue Authority

Civil Society Organizations (led by ISODEC)

Ministry of Energy and Petroleum

Petroleum Commission

Kosmos Energy HC

Tullow (Ghana) Ltd

The EITI also has an implementation Secretariat at the Ministry of Finance

As part of its commitment, Ghana commenced publication of extractive industries' payments and government receipts with reports on the mining sector. The initiative was extended to the oil and gas sector in September 2010.

In November 2010, the EITI International Board announced that Ghana has attained EITI Compliant country status

1.2 CONTENT AND OBJECTIVE OF THE REPORT

The Ghana Extractive Industries' Transparency Initiative (GHEITI) has engaged Messrs Boas & Associates to aggregate and reconcile the payments from the Oil & Gas Sector and Receipts by the government of Ghana for 2012 and 2013. This is the second report in the Oil and Gas sector. The first covered 2010 and 2011.

The contents of the report include:

- i) Assignment's background
- ii) Scope of work
- iii) The reconciliation of extractive payments and government receipts in the Oil and Gas Sector (activities which comprise of cash or in kind inflows) for 2012 and 2013.
(See Appendix 1-Terms of Reference)
- iv) Approach and Methodology
- v) An overview of the Oil and Gas industry in Ghana
- vi) Results of Reconciliation

The objectives of the report include the following:

- Collect, analyze and aggregate payments made by Oil and Gas companies to Government of Ghana.
- Reconcile Oil and Gas companies' submissions of payments to those received by Government.
- Analyze the disbursements to the Ghana National Petroleum Company (GNPC), Annual Budget Funding Amount and the Ghana Petroleum Funds.
- Ascertain if the disbursements made by the Government are in accordance with the provisions of the Petroleum Revenue Management Act 2011; Act 815.
- Utilization lessons learnt from the Reconciliation process to enhance Transparency in Payments, Receipts, Disbursements and Utilization of these benefits.

A multi- stake holder steering committee made up of representatives from the government, extractive industry companies and civil society reviews the reconciled information before EITI publication.

2.0 SCOPE OF WORK

2.1 BASIS OF REPORTING/CURRENCY

The basis of reporting is cash or actual. Thus only payments/revenues actually paid and received in 2012 and 2013 were aggregated and reconciled. The reporting currency is the US dollar as most of the transactions are denominated in that currency.

2.2 AUDITING

All participating companies' financial statements had been audited by Independent Auditors for 2012 and 2013. All the participating Government Agencies have had their accounts audited by the Auditor Service for 2012 and 2013.

The Audit Service of Ghana is the Supreme Auditing Institution of the Republic of Ghana and is a member of the International Organization of Supreme Audit Institution (INTOSAI). The Audit Service monitors the use and management of all Public funds and report to parliament annually.

2.3 APPROACH AND METHODOLOGY

The assignment's methodology has two main phases comprising of;

- Preliminary information gathering (inception phase);
- Reconciliation phase.

The preliminary information gathering stage involved interactions with all the stakeholders in order to put the assignment into the correct perspective.

The reconciliation phase was made up i) Data Collection and Analysis; ii) Initial Reconciliation; iii) Draft Reporting phase and iv) Final Reporting.

There was interaction with the Steering committee in order to

- i) Elaborate on the details of the terms of reference
- ii) Determine fully the responsibility of the Independent Administrator regarding provision of contextual information, i.e. to confirm that the Administrator has to provide all the contextual information
- iii) Agree on the reporting template.

Preliminary meetings were also held with the representatives of the participants of the reconciliation exercise. Focal persons for the provision of data were determined.

❖ Data Collection & Analysis

In order to ensure the speedy collection of data the E&P forum (an advocacy outfit of the Petroleum Sector) was also involved in the sensitization of its members.

Templates provided to the participants were collected. Participants also responded to questionnaires.

❖ Credibility of data:

To assure the credibility of data in accordance with Requirement 5.2(c), it was agreed that the participants should provide the following information as part of the completed template.

- a) A senior Company or government official attested to the completeness and accuracy of the completed template by signing off.
- b) Detailed payment by payment data or supporting document so that each transaction is reconciled separately.

The above two were chosen to ensure that the process moves smoothly and speedily. This is due to the fact that management sign offs are obtained timeously. That facilitated timely initial reconciliation. The participants also provided payment by payment supporting documentation especially during the resolution of discrepancies.

❖ Document Review

Available documentation was reviewed to gain a deeper understanding of the assignment. Document review also provided the necessary resources for the provision of contextual information.

Documents identified that were studied included the following:

- Reporting Templates
- Model Petroleum Agreement
- The Internal Revenue Act 2000 (Act 592)
- Petroleum Income Tax Law

- Reports of seminars and workshops held on the EITI.
- Public Interest and Accountability Committee (PIAC) reports.

❖ Initial Reconciliation

A database in Microsoft excel was set up using the data obtained from both the companies' reporting templates and government reporting templates as well as their supporting documents.

Reconciliation of data was undertaken on company or project by project basis and item by item basis. All discrepancies were identified.

❖ Investigation of Discrepancies

In situations where discrepancies were identified the following steps were undertaken to investigate the differences;

- i) Clarifications were sought from the reported entities on discrepancies.
- ii) Discrepancies were amended as a result of the submission of relevant supported document and explanations.
- iii) The original database was amended with the new information and final figures were produced.

2.3 GHEITI STAKEHOLDERS ON PARTICIPATION AND MATERIALITY LEVEL

It was determined by the EITI steering Committee that all companies and joint venture partners engaged in the production of oil/gas are expected to participate in the reconciliation exercise.

2.4 REPORTING ENTITIES (PARTICIPANTS)

All international and national oil companies with stakes in the Jubilee Field, Saltpond Oil/Gas Field and MDA's relevant to the EITI reporting process. *(See Table 2.1)*

Table 2.1: Participants in the 2012/2013 reconciliation process

OIL & GAS COMPANIES	GOVERNMENT AGENCIES
Tullow (Ghana) Limited	Ghana Revenue Authority
Kosmos Energy Ghana HC	Ghana National Petroleum Corporation(GNPC)
Ghana National Petroleum Corporation(GNPC)	Ministry of Finance /Bank of Ghana
Saltpond Offshore Producing Co. Ltd	Petroleum Commission
Anadarko WCTP (Ghana) Limited	Ministry of Energy and Petroleum
Sabre Oil and Gas Holdings Ltd/Petro SA ⁱⁱ	

2.4.1 Extractive Companies

- TULLOW GHANA LTD**

Tullow Oil plc, through its subsidiary, Tullow Ghana Limited has interests in two exploration blocks in Ghana - Deepwater Tano and West Cape Three Points.

Tullow is the operator of the Jubilee field, which straddles both blocks, and lies approximately 60 kilometres off the coast of Ghana.

Jubilee is a world-class oil field with estimated recoverable resources of up to 1 billion barrels.

On the 25 July 2011, Tullow completed the acquisition of the Ghanaian interests of EO Group Limited for \$305 million, increasing Tullow's interest in the West Cape Three Points licence by 3.5% to 26.4% and in the Jubilee field, which Tullow operates, by 1.75% to 36.5%. Other partners in the Jubilee Unit Area are Kosmos Energy (23.49%), Anadarko Petroleum (23.49%), the Ghana National Petroleum Company (13.75%) and Sabre Oil & Gas (2.81%).

Tullow also has a 49.95% interest in the Deepwater Tano licence which includes the TEN discovery.

Source: www.tulloil.com

- **KOSMOS ENERGY**

Kosmos was founded in 2003 as an organization focused on finding new oil in underexplored venues.

In 2007, the Kosmos team discovered the massive Jubilee Field in the deep waters offshore Ghana. Other significant discoveries offshore Ghana soon followed, even as the company pursued new exploration opportunities in other areas of Africa and South America.

In 2011, Kosmos became a publicly traded company on the New York Stock Exchange.

Source: www.kosmosenergy.com

- **SALTPOND OFFSHORE PRODUCTION LTD**

The Saltpond Oil field was discovered in 1970 by **Sigma Amoco Consortium**. The field lays 12km off the shores of Saltpond Town in 85feet of water and covers an area of approximately 5km square.

In 1976, the concession was relinquished by Sigma Amarco and was reassigned to **Offshore Hydrocarbons Limited** who subsequently entered into a development farm out with **Agri-Petco of USA**.

Around the years of 1977 and 1978 Agri-Petco drilled six appraisal/ development wells from a centrally located jack-up rig The jack-up was subsequently converted into a production unit and the field was put on stream in October 1978.

The field interest was reassigned to **Primary Fuels Incorporated (PFI)** in 1984 and was shut-in in mid-1985.

The license then reverted to Ghana National Petroleum Corporation (GNPC) and the field was maintained in a shut-in state.

The maximum production rate attained at the Saltpond Producing fields so far was 4,800 BOPD. The field experienced a continuous decline from 4,800 BOPD in 1978 to 750 BOPD in 1984 and continued to decline to 580 BOPD by July 1985.

Out of the six production wells only three were still producing as at the time of the field shut-in. GNPC commissioned several geological and engineering studies to understand the nature of the field and to make recommendation for re-development.

In Feb 2000 GNPC, entered into a joint venture agreement with Lushan Eternit Energy Limited, a Ghanaian subsidiary of Lushan International energy Corporation of Houston, USA, to further develop the Saltpond Field.

According to the agreement signed between the two entities, Lushan will pay 3% royalty for oil, income tax in accordance with the Petroleum Income Tax Law, 1987 (PNDCL 188), levied at the rate of thirty percent (30%), and surface rentals of US\$50 per square kilometre of the area remaining at the beginning of each Contract Year as part of the development and production area.

The agreement also requires Lushan to make payments for rental of government, property, public lands or for the provision of specific services requested by the company from public enterprises

Lushan International Energy of Houston and Eternit Universal Limited of Nigeria also entered into Agreement whereby Eternit was to finance the Saltpond project in an amount of three million dollars (US\$3,000,000.00). On the basis of these two Agreements, a joint venture and operating agreement was made on 25th February 2000 between Lushan Eternit Energy Limited and GNPC resulting in Saltpond Offshore Producing Company Limited (SOPCL) set up to operate the Saltpond Field. The initial ownership interest of each venturer in SOPCL was:

Lushan Eternit Energy Limited – 60%

Ghana National Petroleum Corporation – 40%

GNPC's interest contribution was in the form of Assets and logistic support to the joint venture.

The Saltpond rehabilitation started in August 2000 with the repair of the 'Mr. Louie' Jack-Up platform.

Because of operational challenges only two wells produced between 480-600 barrels of oil per day after the operation.

On 11th November, 2004, a new Joint Venture Agreement was signed between GNPC and Lushan Eternit Energy Limited with ownership interest of each venturer in the Joint venture changed to Lushan - 55% GNPC - 45%

GNPC's equity contributions were its existing assets at the Saltpond Oil fields comprising the production platform, Seismic data, Oil wells and studies on the Saltpond Field. At the time the assets were re-valued at ten million US dollars (US\$10,000,000.00)

Due to poor performance of the wells, production dropped to about 450 barrels a day. In July 2005, the wells were shut-in for maintenance and upgrading and production resumed on April 6, 2006 at an average production of 700 barrels per day with the two (2) wells.

Source: www.saltpondoffshore.com

2.4.1.1 Other Companies

Exploration companies operating in the Oil and Gas sector that did not participate in the reconciliation exercise included: Eni Ghana Exploration and Production Ltd; Vanco Ghana Ltd; Shallow Water Basin; Amerada Hess Ghana Ltd; and Tap Oil Ltd (*See Appendix 3*).

Their exclusion from the EITI reconciliation process was because only oil producing companies and their joint venture partners participated in the exercise.

- **ENI EXPLORATION AND PRODUCTION LTD**

Eni S.P.A. is an Italian multinational oil and gas company, present in 79 countries, and currently Italy's largest industrial company with a market capitalization of 87, 7 billion euros (US\$138 billion), as of July 24, 2008.

The Italian government owns a 30.3% golden share in the company, 3.93% held through the state Treasury and 26.37% held through the Cassa depositi e prestiti.

Eni, through its subsidiary Eni Ghana Exploration and Production Limited, is the operator of the OCTP license with a 47.22% interest. Other partners are Vitol Upstream Ghana Limited, with a 37.78% stake, and state company GNPC with a 15% stake. GNPC has a back-in option for an additional 5% of the license.

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Eni has made a new hydrocarbon discovery offshore Ghana through the Gye Nyame 1 well, which is located in the OCTP block 50 km off the Ghanaian shoreline. The discovery is located 16 km east of the Sankofa gas discovery, and confirms the important role of this block in the development of non-associated gas resources in Ghana.

Eni is also finalizing the farm in to the Keta block as operator with a 35% stake.

The block is located offshore the eastern coast of Ghana, bordering Togolese waters, where Eni acquired two exploration licenses in 2010. Partners in the Keta Block Joint Venture are Afren Energy Ghana Ltd., wholly owned subsidiary of Afren plc. with a 35% stake, Mitsui E&P Ghana Keta Ltd. with 20% and GNPC with 10%.

Source: www.eni.com

- **HESS EXPLORATION AND PRODUCTION GHANA LTD**

Hess Ghana Exploration Limited, a wholly owned subsidiary of Hess Corporation of the United States of America.

Exploration and production represents nearly 70% of capital employed and over 95% of annual capital expenditures. The Company has operations in the United States, United Kingdom, Norway, Denmark, Equatorial Guinea, Gabon, Azerbaijan, Thailand, Indonesia, Australia, Algeria, Egypt and Libya.

Exploration at Deepwater Tano/Cape Three Points, about 70 kilometers offshore Ghana, began in 2008. The Deepwater Tano/Cape Three Points block covers an area of 3,000 square kilometers.

In early 2011, hydrocarbons were discovered in the drilling in the Paradise 1 exploration well. Hess interest in Deepwater Tano/Cape Three Points block is 90% and GNPC has the remaining 10%.

Source: www.hess.com

- **VANCO GHANA LTD**

Vanco Ghana Ltd. signed a Petroleum Agreement covering the Cape Three Points Deep Water block with the Ghanaian authorities in August 2002, as part of a strategy to explore the Tano Basin.

Later in 2002, Vanco Ghana conducted a 3,323 line kilometer 2D seismic program to further evaluate the block. A 1,500 square kilometer 3D seismic program was then conducted in 2005 to further define the prospects in the block.

LUKOIL Overseas Holding Ghana Ltd. joined Vanco Ghana and GNPC (the Ghana National Petroleum Corporation) in the project in 2007. Subsequently a new Petroleum Agreement covering the Cape Three Points Deep Water block was ratified by Parliament on 30 June 2009, triggering a five-year period of intense exploration activity in the block.

Source: www.vancoexploration.com

- **TAP OIL GHANA LTD**

Tap Oil Limited is an independent oil & gas exploration and production company with interests in Australia and South East Asia. Headquartered in Perth, Western Australia, Tap was incorporated on 14 March 1995 and subsequently listed on the Australian Securities Exchange (ASX:TAP) in September 1996.

The Offshore Accra Contract area is located to the southeast of Accra, in water depths ranging from less than 50 metres to greater than 2,500 metres. 3D seismic was acquired over the deep water section of the block early in 2010. This seismic is presently being processed.

During 2010, Tap Oil and its Joint Venture Partners were awarded a Petroleum Agreement over the Offshore Accra Contract Area. The Petroleum Agreement between Tap, its joint venture partners, the Republic of Ghana and the GNPC governing the Offshore Accra Contract Area was formally ratified on 24 March 2010.

The Offshore Accra Contract Area covers an area of 2,000 km² and is located on the West Africa Transform Margin to the south-east of Accra, the capital of the Republic of Ghana, in water depths ranging from less than 50 m to greater than 2,500 m.

Tap Oil has a 36% participating interest, and is Operator of the Offshore Accra Contract Area

- **GASOP OIL LTD**

Gasop Oil Limited is engaged in the exploration of crude oil and natural gas, as well as the domestic marketing and transportation of petroleum products. Headquartered in Ghana and founded in 2002 with sister companies in Nigeria.

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Gasop Oil Limited is to carry out exploration and production in the Saltpond Basin offshore Ghana. The Saltpond basin has a proven hydrocarbon accumulation since the only Oil producing well in Ghana is in the North Saltpond Basin.

2D seismic data acquired by Ghana National Petroleum Corporation over the area, reports and logs from exploratory wells in this basin have been carefully studied by our Geologists and Geophysicists and we are very certain of commercial hydrocarbon deposits in this area.

A Petroleum Agreement with the Government of Ghana has been signed for exploration rights licences for 2,050 Sq. Km acreage.

❖ BENEFICIAL OWNERSHIP

OIL & GAS PRODUCING COMPANIES- BENEFICIAL OWNERSHIP

Licence	Owner	% Stake	Stock Exch.	Stock Exchange code	Some Directors	Comment
	Tullow Oil [#]	35.5 ^b	Yes	1.London Stock Exchange: TLW:GBX 2.Irish Stock Exchange: TQW:EUR 3.Ghana Stock Exchange: TLW:GHS	Aidan Heavey A. McCoss Ian Springett Paul McDade G.Martin S. Thompson Ann Grant Tutu Agyare Steve Lucas A. Drinkwater J. Wilson Mike Daly	
Jubilee Fields	Kosmos Energy	24.07	Yes	New York Stock Exchange:NYSE:KOS	Andrew Inglis Brian Maxted T. Chambers W. Dunlevy C. Ball Paul Dailly J. Doughty M. Garrett Eric Haas W. Hayes Reg Manhas Paul Nobel	Common Stock
Jubilee Fields	Anadarko Petroleum Corp.	24.07	Yes	New York Stock Exchange (NYSE:APC)	R. Walker A. Chase Kevin Chilton H. Eberhart Peter Flour R.	Common Shares

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

					George C. Goodyear Joseph Gorder John Gordon Eric Mullins	
Jubilee Fields	Sabre Oil & Gas Holdings Ltd, wholly subsidiary of Petro SA *	2.73	No	Subsidiary of Central Energy Fund (CEF). Owned by Government of SA	M. Madumise S. Mncwango Musa Zwane F. Letlape A. Molusi L Hlatshwayo S. Mokoena Victor Sibiya N. Nokwe-Macano L. Mthimunya- Bakano K. Kekana	South African National Oil Co.
Jubilee Fields	GNPC	13.64	No	National Oil Company	Alex Mould Ato Ahwoi A Attibrukusu Amoako Mensah Cadman Mills K. Opoku K. Temeng	
Saltpond Oilfields	Lushann Eternit Energy	55	No	Lushann Eternit is a subsidiary of Lushann International Energy Corp (LIEC) ,Houston, Texas, USA	Q. Sintim Aboagye Jude Idigbe J. Okorafor Victor Nwosa	
Saltpond Oilfields	GNPC	45	No	National Oil Company	K. Temeng ^a Thomas Manu ^a	% Stake Effective 2004

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

*PetroSA-The Petroleum Oil and Gas Corporation of South Africa (SOC) Limited is the national oil company of South Africa and is registered as a commercial entity under South African law. PetroSA is a subsidiary of the Central Energy Fund (CEF), which is wholly owned by the State and reports to the Department of Energy. PetroSA was formed in 2002 upon the merger of Soekor E and P (Pty) Limited, Mossgas (Pty) Limited and parts of the Strategic Fuel Fund, another subsidiary of CEF.

#.Major Shareholders of Tullow Oil are as follows:

Shareholder	No. of shares	% Issued Capital
Capital Group Companies Inc.	92,720,787	10.18%
Genesis Asset Managers LLP	72,871,524	8.00%
OppenheimerFunds, Inc.	49,582,679	5.45%
IFG International Trust Co.	38,960,366	4.28%

- a. Ghanaian serving on the Board of directors of the Saltpond Offshore & Producing Co
- b. Jubilee equities shown are approximations based on 2011 redetermination.

❖ CORPORATE SOCIAL RESPONSIBILITY PROJECTS

There were no material social expenditures that were mandated by law in 2012 and 2013. However the Steering Committee agreed that voluntary or discretionary social expenditures should be disclosed by describing the projects undertaken by the companies. Monetary values are not to be ascribed to the projects. The following are activities and projects undertaken by the Jubilee Partners.¹

1. Providing job opportunities for the people of host countries; the diversity of workforce including the representation of women among our management teams;
2. Ran oil and gas training programmes for journalists and also for government officials to equip them with the requisite knowledge about the industry

¹ The Independent Administrator has not verified any of these projects.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

3. Community health outreach for selected communities in the Jubilee oilfields six frontline districts
4. Jubilee partners spent millions of dollars in creating the Jubilee technical training centre in June 2013. 26 students admitted in 2013
5. Kosmos donated 22,000 books to schools in Ghana as part of the building communities through education.
6. GNPC Oil and Gas Learning Foundation facilitates scholarship awards and grants to support individuals and Educational and Training institutions, to build national capacity in oil and gas sciences, policy, management and operations in order to achieve national local content aspirations. Beneficial institutions include:
 - a. The Faculty of Engineering, Kwame Nkrumah University of Science and Technology (KNUST);
 - b. Department of Earth Sciences, University of Ghana, Legon
7. On January 4, 2013 GNPC signed on a \$3M annual sponsorship agreement with the Ghana Football Association [GFA] to become the Headline Sponsors of the senior national football team, the Black Stars.

2.4.2 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. According to the Petroleum Revenue Management Act (PRMA), ACT 815, the GRA is mandated to assess, collect and account for all petroleum revenues. ACT 815 defines petroleum revenues to include:

- a) Royalty in cash or in equivalent barrels of oil or units of gas, payable by the holder of a licence to produce which includes the national oil company.
- b) Surface rentals.
- c) Additional Oil Entitlement
- d) Corporate income taxes from upstream and midstream petroleum companies including the national oil company.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

- e) Dividends payable by the National Oil Company.
- f) Carried and Participating Interests.
- g) Investment income derived from accumulated petroleum funds.
- h) Any amount received by government directly or indirectly from petroleum resources including where applicable, capital gains tax derived from the sale of ownership of exploration, development and production rights.

Data on payments of benefit streams paid in 2012 and 2013 were provided by the Domestic Tax Revenue Division of the GRA.

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

The customs division of the GRA is responsible for monitoring oil production, supervise oil export and conduct preventive duties on the facility. At the Jubilee Field its duties include:

- Daily check of the status of revenue locks both electronically and physically to ensure that they are intact
- Participate in daily physical survey of tanks to determine daily oil production
- Perform Preventive duties to prevent the use of the facility for activities other than oil production.
- During export of oil.

Participate in physical survey of nominated tanks with other interested parties to determine the quantity of oil delivered from the FPSO tanks.

Disarm the electronic seal on the main export valve and open it to allow export; close and arm seal after export.

Confirm export quantities and endorse export documents particularly the following;

- Cargo Manifest
- Certificate of origin
- Metering custody transfer system-sealed Valve Verification

The GRA (customs Division) maintains one Customs officer on the FPSO to perform its duties, however during liftings/exports, one more Officer is added.

- **Ministry of Finance (Bank of Ghana)**

The Bank of Ghana is responsible for the day-to-day operational management of the Petroleum Holding fund, the Ghana Petroleum Funds and subsequently the Ghana Petroleum Wealth Fund under the terms of the Operations Management Agreement. (Section 26, PRMA, 2011). The supervising Ministry of the Central Bank is the Ministry of Finance. The Administrator requested for information from the Bank of Ghana through the Ministry of Finance.

- **The National Oil Company (Ghana National Petroleum Corporation) GNPC**

The Ghana National Petroleum Corporation (GNPC) was established by PNDC Law 64 to undertake the sustainable exploration, development, production and disposal of hydrocarbon resources in Ghana. The Corporation has a vision *to be a leading global oil and gas company whose operations have a profound impact on the quality of life of the people of Ghana*. To achieve this vision GNPC in 2012, developed and adopted the Accelerated Growth Strategy hinged on 4 key pillars namely;

- Building Capacity and Expanding Activities
- Replacing and Growing Reserves
- Efficient Capitalization and Optimum Participation
- Catalyzing Local Content Development

The combined effect of these strategies is that GNPC would become a stand-alone operator in the next 7 years and a world class operator with 15 years.

- **Operational updates**

Over the years GNPC has cultivated close working relations with all E&P companies operating in Ghana which has culminated in a string of significant oil and gas discoveries offshore Ghana, which include the world-class Jubilee Field, the upcoming TEN Field and the Sankofa-Gye Nyame fields.

In 2012 alone, seven (7) discoveries were made on the Deepwater Tano/Cape three Points (DWT/CTP) block, thus significantly de-risking the offshore basins. The discoveries revealed new areas open for exploration such as the ultra-deep water and Voltaian (105,000 km²) basins.

In 2012-2013 existing discoveries were appraised including the T-E-N fields and the Sankofa/Gye-Nyame fields. The TEN field plan of development was first submitted to the Minister for Energy and Petroleum in November 2012. *(See section 3.4)*

2.5 BENEFIT STREAMS

The benefit streams considered in the 2012 and 2013 reconciliation exercise include the following;

Table 2.2: Revenue Streams

No.	Revenue Stream	Purpose
1	<i>Royalty</i>	It is a production levy which is based on the gross value of oil and gas won irrespective of profitability
2	<i>Corporate Tax (PIT)</i>	<p>Corporate tax payment is based on Petroleum Income Tax Law 1987. This is the tax payable on income derived from oil and gas production. The Capital allowance regime is 20% on a straight line basis. Expenses ranging from exploration, capital expenditure, development and operational costs prior to the year of commencement of production is accumulated, and amortized over a 5 year period.</p> <p>Recoverable preproduction expenses relates to exploration, plant and equipment, field development comprising of building facilities for oil and gas exploitation such as drilling wells, laying of supporting infrastructure, interest expenses and general and administrative expenses. Petroleum income tax is computed at 35% of the taxable income derived as follows:</p> <p>Gross Income less Allowable expenses, Capital allowances and Losses carried forward</p> <p>Allowable expenses include Petroleum royalties, contributions to a decommissioning fund, Rentals, interest expense and charges on sums borrowed for petroleum operations.</p>
	<i>Loss carried Forward</i>	Tax losses can be carried forward indefinitely under the PITL.
3	<i>Surface Rental</i>	According to the Model Petroleum Agreement (MPA), contractors with exploration rights are required to pay surface rental for blocks assigned to them for petroleum operations at a rate charged per square kilometre. However these rates may vary for different agreements with

		contractors.
		<div>Phase of Operation</div> <div>Surface Rental per Annum</div> <div>Initial Exploration Period</div> <div>US \$ 30 per sq. km</div> <div>1st Extension Period</div> <div>US \$ 50 per sq. km</div> <div>2nd Extension Period</div> <div>US \$ 75 per sq. km</div> <div>Development and Production</div> <div>US \$ 100 per sq. km</div>
4	<i>Dividend</i>	Dividends paid by National Oil Company for Government's equity interest.
5	<i>Initial (carried) Interest</i>	The Carried Interest means an interest held by the Republic in respect of which the contractor pays for the exploration and development costs without any entitlement to reimbursement from the Republic. However the republic contributes towards production cost. For the Jubilee field the carried interest is 10%. (See Table 2.2)
6	<i>Additional Participating Interest</i>	This is the interest acquired by the GNPC on behalf of the state after the discovery of oil and gas in commercial quantities. Under this arrangement, the GNPC/ Government of Ghana pay its share of development and production costs. The state or government of Ghana however does not contribute towards exploration expenditure. (See Table 2.3)

2.5.1 Benefit streams and National/International Revenue Classification systems

The following are the classifications of the revenue streams according to the National Budget and the International Monetary Fund Government Finance Statistics. (IMF GFS)

Table 2.2.1 Classification of Benefit Stream

REVENUE STREAM	<i>NATIONAL BUDGET</i>	<i>IMF GFS</i>	<i>REMARKS.</i>
Surface Rental	<i>Non-Tax Revenue</i>	<i>114521E</i>	
Royalty	<i>Taxes on income and property</i> <i>Other direct Taxes</i>	<i>1415E1</i>	
Carried Interest	<i>Non Tax Revenue</i>	<i>113E</i>	
Additional Participating Interest	<i>Non Tax Revenue</i>	<i>1415E1</i>	
Corporate tax	<i>Domestic Revenue</i> <i>Tax Revenue</i> <i>Tax on income & Property</i>	<i>1112E1</i>	
Dividends	<i>Non-Tax Revenue</i>	<i>1412E1</i>	

The Government of Ghana's interest in the Jubilee Field is and its categorization is shown below.

Table 2.3 Categorization of GNPC/GOG interest

Interest	Exploration	Development	Production Costs
Initial	Carried	Carried	Paid
Additional	Carried	Paid	Paid

Source: GNPC

❖ REDETERMINATION

This involves using a formula to compute each partner's aggregate percentage interest in the unitized Jubilee field which depended on;

1. Each partner's percentage interest holding in either the WCTP and DWT blocks. Some partners had percentage interest in both blocks which the formula took care of.
2. How much of the hydrocarbon resources were computed to be separately accumulated in the WCTP or the DWT blocks.

The table below shows the Sharing Ratios for Pre-Redetermination and Post-Redetermination based on the 2011/2012 Redetermination Exercise.

Table 2.3: Sharing ratios for predetermination and post determination

PRE-REDETERMINATION				POST-REDETERMINATION		
DEEPWATER TANO	DEVELOPMENT	OPEX / PRODUCTION		DEEPWATER TANO		
	PI Post GNPC equity 15%	WI Post GNPC equity 15.0%			PI Post GNPC equity 15%	WI Post GNPC equity 15.0%
Tullow	52.7250%	47.1750%		Tullow	52.7250%	47.1750%
Kosmos	19.0000%	17.0000%		Kosmos	19.0000%	17.0000%
Anadarko	19.0000%	17.0000%		Anadarko	19.0000%	17.0000%
Sabre	4.2750%	3.8250%		Sabre	4.2750%	3.8250%
E. O. Group	0.00000%	0.00000%		E.O. Group		
GNPC	5.0000%	15.0000%		GNPC	5.0000%	15.0000%
	100.0%	100.0%			100.0%	100.0%
WCTP				WCTP		
	PI Post GNPC equity 12.5%	WI Post GNPC equity 12.5%			PI Post GNPC equity 12.5%	WI Post GNPC equity 12.5%
Tullow	28.59567%	25.66278%		Tullow	28.59567%	25.66278%
Kosmos	33.44792%	30.01736%		Kosmos	33.44792%	30.01736%
Anadarko	33.44792%	30.01736%		Anadarko	33.44792%	30.01736%
Sabre	2.00850%	1.80250%		Sabre	2.00850%	1.80250%
GNPC	2.50000%	12.50000%		GNPC	2.50000%	12.50000%
	100.00000%	100.00000%			100.00000%	100.00000%

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

JUBILEE DEVELOPMENT				JUBILEE DEVELOPMENT		
	PI Post GNPC equity option	WI Post GNPC equity option			PI Post GNPC equity option	WI Post GNPC equity option
	Development Cost	Revenue/Production Cost			Development Cost	Revenue/Production Cost
Tullow	40.66033%	36.41889%		Tullow	39.60670%	35.47954%
Anadarko	26.22396%	23.50868%		Anadarko	26.85484%	24.07710%
Kosmos	26.22396%	23.50868%		Kosmos	26.85484%	24.07710%
Sabre	3.14175%	2.81375%		Sabre	3.04278%	2.72544%
E.O.Group	0.00000%	0.00000%		E.O.Group	0.00000%	0.00000%
GNPC	3.75000%	13.7500%		GNPC	3.64084%	13.64084%
	100.0000%	100.0000%			100.0000%	100.0000%
Tract Participation Devt	WCTP	50%		Tract Participation Dev	WCTP	54.36660%
	DWT	50%			DWT	45.63340%
Tract Participation Prod	WCTP	43.75%		Tract Participation Prod	WCTP	47.57078%
	DWT	42.50%			DWT	38.78838%
	GNPC	13.75%			GNPC	13.64084%
Legend						
PI = Participating Interest						
WI = Working Interest						

NOTE : Sabre has now been purchased by Petro SA.

Source: GNPC

2.5.1 Other payments

Other payments made by Oil and Gas Companies but not considered in the reconciliation process included the following: Withholding tax, PAYE (Pay as You Earn), Social Security, GNPC training fees, GNPC data Licence and Ghana Navy Rentals.

2.6 REVENUE FLOWS AND OPERATIONAL ACTIVITIES

Revenues from the Jubilee Field and the Saltpond Oil Fields have been considered for this assignment. The fiscal regimes for the fields are indicated in Table 2.4

Table 2.4 Fiscal regime of Jubilee Field/Saltpond Offshore Producing

Fiscal item	Jubilee Fields	Saltpond Offshore Producing Company
Royalty	5% on the gross oil production. (Liftings); 3% on gross gas production.	3%
Carried Interest	10% on the oil revenue net of royalty . ²	15%
Income Tax	35%	30%
Surface Rent	US\$30 per square km at exploration US\$100 per square km for development and production area.	US\$50 per square km for development and production area.

Source: MOF/Saltpond offshore Producing Company.

At the Jubilee Fields, GNPC is responsible for lifting and marketing of oil on behalf of the state. In addition to the carried and additional paid interest, GNPC also lifts the royalty oil and markets same on behalf of the state.

Proceeds from the carried and additional interests as well as royalty oil are paid into the Petroleum Holding Fund at the Bank of Ghana.

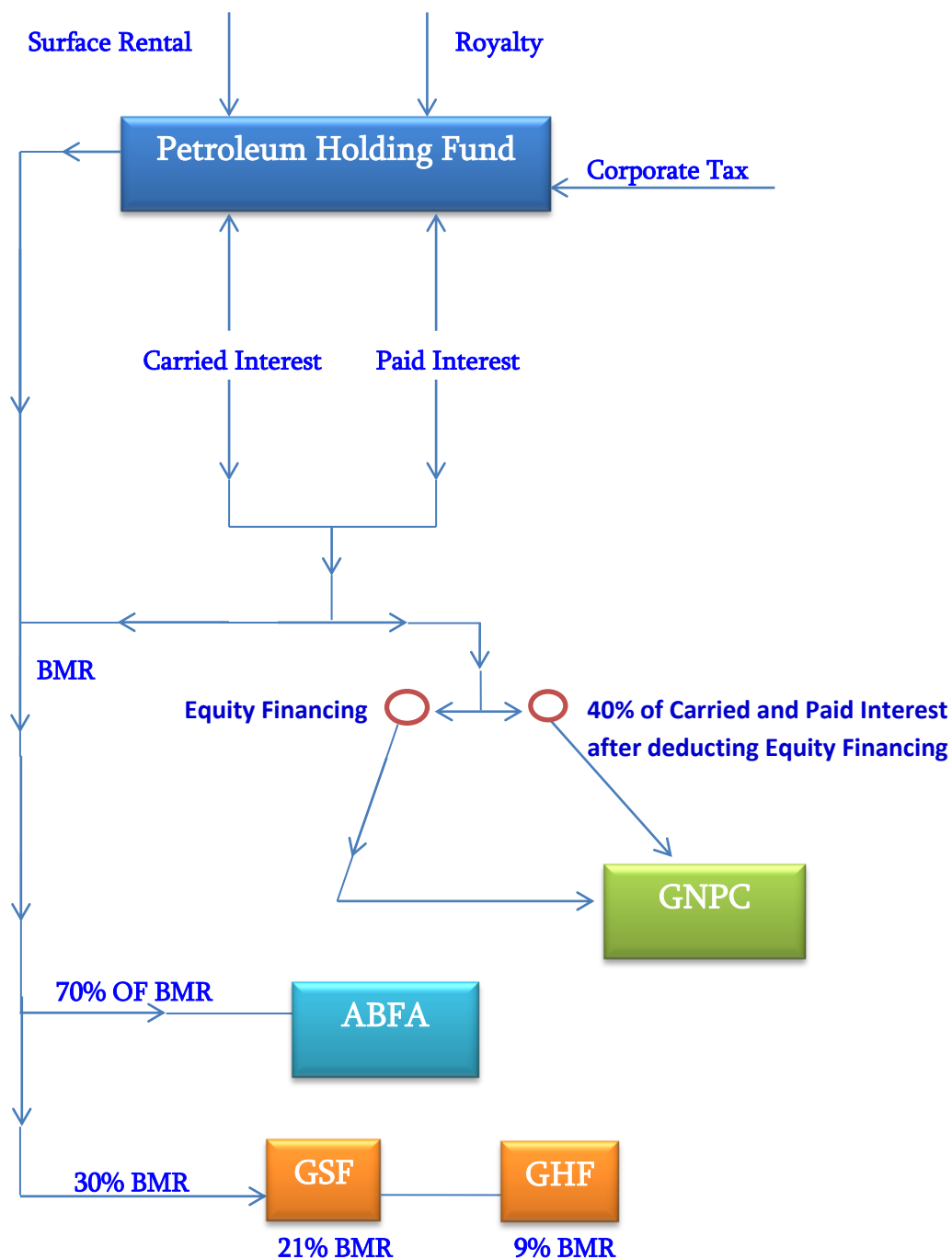
International oil companies operating in the Jubilee fields pay royalties in kind. This royalty oil is lifted and marketed by the GNPC.

Surface rental payments are also made into the petroleum holding fund after the companies have been invoiced by GNPC. *(See Fig 2.1)*

² GNPC pays cash for its share of production cost.

Fig 2.1 Petroleum sector Revenue flow³

PETROLEUM SECTOR REVENUE FLOW



³ Parliament approved a proposal to reduce the NOC's share of the net Carried and Participating Interest to 30 percent with effect from 2014.

3.0 THE OIL /GAS INDUSTRY IN GHANA.

3.1 INTRODUCTION

3.1.1 Geology

Ghana has four sedimentary basins namely: the Voltaian Basin (Neo-Proterozoic, inland), Saltpond or Central Basin (Paleozoic, offshore), Accra-Keta or Eastern Basin (Cretaceous, offshore with onshore extension), and Tano-Cape Three Points or Western Basin (Cretaceous, offshore with onshore extension).

The offshore basins cover about 60,000 km² (0-3500m water depth) extending from the Cote d'Ivoire-Ghana maritime border in the west to the Ghana-Togo maritime border in the east.

The onshore/coastal expressions of the Tano and Keta basins have a total size of about 4,000 sq. km. The Inland Voltaian basin is the largest sedimentary basin in Ghana. It occupies the central-eastern-northern part of Ghana. It is about 103,600 sq. km in size.

The Sedimentary basins are divided into quadrants of size one degree by one degree, equivalent to about 12, 420 sq. km. Each quadrant is further divided into eighteen (18) blocks with each block size equal to about 690 sq. km.

The Tano-Cape Three Points Basin

The Tano-Cape Three Points Basin is a Cretaceous wrench modified pull-apart basin. The basin was formed as a result of trans-tensional movement during the separation of southern West Africa and northern South America. Active rifting resulted in the formation of a deep basin. With time the continental crust further thinned and sea floor spread. New oceanic crust formed at the trailing edges of the two continental plates as they began separating and the two plates finally separated.

Prevailing conditions at the time were ideal for the deposition of shales, thus thick organic rich shale was deposited. Several river systems contributed significant clastics into the deep basin and led to deposition of large turbidite fan/channel complexes. Some sandstones were in tilted fault blocks as reservoirs. Trapping is both stratigraphic and structural. The hydrocarbon potential of Ghana's portion of the basin has been known since the 1890's based

on onshore oil seeps but the first major discovery was made in 2007 at the Jubilee Field with oil production commencing in 2010.

The risk initially associated at the Tano-Cape Three Points Basin has been lowered following various discoveries made by Tullow Oil PLC (Tweneboa, Owo, Ntomme, etc.), ENI (Sankofa and Gye Nyame), Kosmos Energy (Mahogany, Odum, Teak, Akasa), and Hess (Paradise, Beech, Hickory North, Pecan, etc.).

Saltpond Basin

The Saltpond Basin is a Paleozoic wrench modified pull-apart basin centrally located between the Tano-Cape Three Points and Accra-Keta basins. It covers an area of approximately 12,294 sq. km. Sediments in the basin were deposited in non-marine to coastal marine environments. The basin has been stratigraphically divided into formations namely Elmina Sandstone, Takoradi Sandstone, Takoradi Shales, Efia Nkwanta Beds, Sekondi Sandstone. The structure of the basin is characterized by multiple faulting, which has resulted in a complex set of horsts and grabens.

The only known and proven petroleum system in the Saltpond Basin is the Lower Paleozoic Petroleum System. This system has Devonian source rocks and Devonian to Carboniferous reservoirs. The reservoirs are sandstones of the Takoradi Sandstone Formation. Trapping is both structural (fault-bounded blocks) and stratigraphic (sandstones interfingering into shales) with sealing provided by the Takoradi Shale Formation.

The Accra-Keta Basin

The Accra-Keta Basin is a Cretaceous wrench modified pull-apart basin. It covers an area of approximately 33,900 sq. km of which 1900 sq. km is onshore.

Studies by Abu et al. (2010) suggest the presence of a working Cretaceous Petroleum System, with at least two key mature source rocks. These are early Cretaceous lacustrine shales and Turonian-Coniacian organic rich shales. Both stratigraphic and structural trapping mechanisms are present, with the former predominating.

The Accra-Keta Basin has also received considerable attention in recent time. Exploration activity has also shifted from shallow water and onshore areas to the deepwater areas.

The Voltaian Basin

The Voltaian Basin is an asymmetrical epicontinental interior sag basin covering about 40% of Ghana's continental landmass. It stretches into Togo, Benin and Burkina Faso. The basin formed as a result of the collision between the stable West African Craton, known as Birimian Supergroup in Ghana, and the Pan African Mobile Belt, known as Dahomeyan System in Ghana

Sediments are of shallow marine to continental origin and comprise sub-horizontal beds of sandstones, shales, mudstones and conglomerates which range in age from Precambrian to Paleozoic. The thickness of sediments exceeds 6000 m in the deepest portion of the basin.

Exploration in the basin to determine its hydrocarbon potential has been minimal. Earlier works include those by the Gold Coast Geological Survey in the 1960's which drilled 10 hydrogeological wells. Two of these wells encountered traces of hydrocarbons and natural gas. Viscous black oily bitumen was observed in core samples of sandstones, shales and siltstones.

3.1.2 Activities within the Oil & Gas Sector

The first major oil producing field Saltpond Offshore operated by Saltpond Offshore Producing Company has recoverable reserve of 2-3 million barrels of oil as well as substantial natural gas reserves.

In 2007 Jubilee field was discovered. The field was one of the fastest deepwater developments chalking approximately forty (40) months from discovery to production.

The Jubilee Field lies approximately 60 km offshore between blocks such as Deepwater Tano and West Cape Three Points with an estimated reserve of between 600 million and 1.5 billion barrels. Though the targeted production was in the range of 120,000 barrels per day, in 2011, production averaged 66,000 bopd due to technical problems with the design of well completions. The first floating production storage and offloading unit, FPSO named Kwame Nkrumah MV 21 was commissioned in 2010 with design capacity of 20 years without drydocking. The second FPSO is on order.

Ghana achieved first oil production from the Jubilee field on 28th November 2010. The first phase of its biggest field, Jubilee (owned by Tullow (Operator), Anadarko Petroleum

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Corporation (Anadarko), Kosmos Energy Ghana (Kosmos), Ghana National Petroleum Corporation (GNPC), Sabre Oil and Gas Limited and E.O. Group.

The Jubilee fields commenced production on an average of 36,562 barrels per day starting from November 2010. These levels increased up to an average level of 63,932 barrels per day in December 2010.

On the 25 July 2011, Tullow completed the acquisition of the Ghanaian interests of EO Group Limited for \$305 million, increasing Tullow's interest by 1.75% to 36.5%. Other partners in the Jubilee Unit Area are Kosmos Energy (23.49%), Anadarko Petroleum (23.49%), the Ghana National Petroleum Company (13.75%) and Sabre Oil & Gas (2.81%).

Jubilee Field is currently owned by Tullow (Operator), Anadarko Petroleum Corporation (Anadarko), Kosmos Energy Ghana (Kosmos), Ghana National Petroleum Corporation (GNPC) and PetroSA. PetroSA acquired the interest of Sabre Oil & Gas.

Tullow also has a 49.95% interest in the Deepwater Tano licence which includes the TEN discovery.

In October 2011 the partnership completed the first equity redetermination of the Jubilee Unit Area (JUA) and the net result is that Tullow's working interest in the JUA has reduced slightly from 36.5% to 35.5% which became effective from 1 December 2011.

As of December 2011, a number of offshore exploration licences have been issued including Cape Three Points Deepwater (Vanco Ghana and Lukoil) South Cape Three Point (ENI) Deep Water Tano/Cape Three Points (Hess) Offshore Cape Three Points (Eni) East Cape Three Points (Sahara Energy) West Cape Three Points (Kosmos Energy) Deep Water Tano (Tullow Oil) Shallow Water Tano (Interoil and Tullow). The Jubilee field straddles the West Cape Three Point and Tano Deep Water blocks is currently the only producing field.

On Gas development, a credit facility has been sourced by the government with 850 million earmarked for the development of the West Corridor Gas Infrastructure Development Project which is intended to commercialize the gas produced at the jubilee field and other sites for export and to power the Ghana Thermal power plants. Currently gas found at the Jubilee field is re-injected but the procedure is unsustainable hence the development of gas project.

3.1.3: Policy, Legislative, and Institutional Developments in Ghana's Oil and Gas Industry in 2012.

By the close of the 2012 financial year, Ghana did not have the full complement of laws to govern the oil and gas sector. Progress made as at the time of compiling this report included the development of a national petroleum policy (embedded in the national energy policy document); enactment of the Petroleum Revenue Management Act 2011 (Act 815);

What remained outstanding were the draft Petroleum Exploration and Production Bill, expected to replace the 1984 Exploration and Production Law (PNDCL 84). This was expected to be finalized before the end of the year, and laid before Parliament in 2013.

Regulations to the Petroleum Revenue Management Act also remained outstanding a year after the passage of the primary Act. Regulations for operationalizing government's local content objective as stated in the petroleum sector policy paper were still being worked on.

A seeming inconsistency between the general income tax law provisions and the Petroleum Income Tax Law (PITL) in respect of Capital Gained Tax, which the industry interprets as exemption, remained unresolved.

3.1.4 Other Major Contextual Developments in the year under review

There were some other related developments which were of consequence to the industry's development. These were:

3.1.5 The Operationalization of the Petroleum Commission Act 2011, Act 821.

Act 821 fundamentally, separated GNPC's commercial functions from its regulatory support to the Ministry.

Steps taken to operationalize the Petroleum Commission in 2012 included

- Appointment of Board of Directors and Chief Executive Officer.
- Initiation of Protocols for transferring responsibilities previously undertaken by GNPC to the Petroleum Commission.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

- Commission took over the registration and licensing of Oil and Gas service providers
- Commission commenced over-seeing work permit approvals for expatriate workers in the industry in line with the stated local content policy objectives, and began providing advisory services to the Ministry.
- Discussions to review the GNPC law and to align it with the new development of restricting it to its commercial functions began in the same year but the work itself was yet to begin as at the close of 2012.
-

3.1.6 The Establishment of Ghana Gas

Another major development in the sector was the setting up of the Ghana National Gas Company, which was incorporated on 27th July 2011, under the Companies Code, 1963 (Act 179) as a limited liability company, wholly owned and solely financed by the Government of Ghana.

The Company was set up primarily to develop infrastructure for gathering, processing and transporting natural gas resources (Lean Gas, LPG and Condensate) to markets within and outside Ghana.

The Company was also to aggregate gas resources from the supply end, process it and sell in bulk to the gas market.

3.1.6.1 Project Financing

The Ghana Gas infrastructure and processing plant project implementation agreement was signed on 17th Nov 2011, and on 16th December, 2011 Ghana's Parliament approved a \$3 billion Master Facility Agreement part of which was to finance the project. The subsidiary loan agreement of \$850 million to finance the project was approved by Ghana's Parliament on 13th June, 2012.

Under the terms of the project financing facility, the China Development Bank will provide 85 percent of the funds for the project, while the Government of Ghana provides 15 percent. The Government of Ghana is required to on-lend the total funding amount to Ghana Gas.

3.1.6.2 Project Description

Ghana Gas has the responsibility to oversee the construction of a Western Corridor Gas Infrastructure Project – WCGIP, and a Gas Processing Plant. Commercial operations of the company are expected to begin after the completion of the early phase, which involves the construction of a 12-inch x 45km shallow water gas export pipeline coupled at the 80 meter water depth to the existing 12- inch x 14km deep water pipeline (constructed by GNPC); a natural gas processing plant in Atuabo designed to process 150m standard cubic feet of raw natural gas a day; 20-inch x 111 km onshore lean gas trunk pipeline from the processing plant at Atuabo to the Aboadze Thermal Plant; a 20-inch x 75 km onshore lean gas lateral pipeline from Esiam to Prestea; truck Loading gantry; offshore loading facility; an operations and controls office complex at or near the project site for use by staff during commercial operations phase of the facilities (*Source: Ghana Gas*).

3.1.6.3 The Contracting Process

Ghana Gas signed a contract with China's Sinopec International Petroleum Services Corporation (SIPSC) to construct the Western Corridor Gas Infrastructure Development Project (WCGIDP) which bundles an Offshore Pipeline, Onshore Pipelines, Gas Processing Plant, Natural Gas Liquids (NGL) Export System and an Office Complex. The project was packaged as a turn-key project at a total cost of \$750 million. Ghana Gas is also to acquire a fleet of 4 surveillance helicopters at a total cost of US\$100m bringing the total project cost to \$850 million.

By the close of 2012 104km out of the 111 km onshore pipeline had been laid, 95 per cent progress on earthworks at the Gas Processing Plant site had been achieved, fabrication of equipment packages for the Gas Processing Plant and some critical packages such as pressure regulating package and fuel gas package were near completion. About 8km out of the 45km offshore shallow water pipeline was reported to have been laid and inter-tie with the already installed 14km 12inch deep water pipeline, constructed by GNPC, had been successfully completed.

3.1.7 Policy, Legislative, and Institutional Developments in Ghana's Oil and Gas Industry in 2013.

By the close of 2013, Ghana still had not completed work on the new Petroleum Exploration and Production Bill intended to replace PNDCL 84, which has been deemed out-dated and therefore not-fit-for-purpose. A final draft of the bill had been subjected to stakeholder consultations and expected to be laid before Parliament and taken through the process of passage.

Work on the regulations to the Petroleum Revenue Management Act, passed in 2011, had begun and near completion.

The Local Content and Local Participation Regulations during the period were subjected to further consultations following which they were reviewed and re-laid before Parliament and passed, having failed to go through the number of days required for it to pass into law, before the dissolution of old parliament (after the 2012 general elections).

In the particular case of Ghana Gas, protocols to regulate the relationship between the company and GNPC have still not been signed.

3.1.8. Other Major Developments in the year

Other major developments in the petroleum sector in 2013 included:

3.1.8.1 Further Progress in the Operationalization of the Petroleum Commission Act

The Petroleum Commission made further progress in its evolution and continued to execute its regulatory functions in accordance with the Petroleum Commission Act, 2011 (Act 821). During the period, the Commission supported the Ministry of Energy and Petroleum in the review of the TEN and ENI Plans of Development.

ENI is the operator of the Sankofa-Gye Nyame project, made up of a number of discoveries estimated to hold 116 mmbbls of oil and 1,110 bcf of gas. The project is scheduled to go into production in 2016.

The Commission also received for study and advice, the appraisal programmes from Hess on the Deep Water Tano/Cape Three Points Contract Area. It proceeded to review the

programmes to establish the commerciality of the finds. Kosmos Energy also indicated its intent of executing an appraisal programme on the West Cape Three Points Contract Area.

3.1.8.2 GNPC's Capacity-building Initiatives

As part of its repositioning strategy towards increased participation in the country's petroleum sector, GNPC entered into a joint-venture with Technip, a world-class Exploration and Production Engineering company. The joint-ventureship is intended to transfer knowledge and skills in engineering services and project management both offshore and onshore to GNPC, and to build its capacity to become a full-scale operator.

GNPC in 2013, also launched its Oil and Gas Learning Foundation, as a company limited by guarantee, with initial capitalization of US\$3 million. The Foundation is intended to facilitate knowledge acquisition and transfer among Ghanaians, and to ensure greater participation of Ghanaians in the industry.

The national oil company in collaboration with the Ministry of Energy and Petroleum and the Ministry of Trade and Industry, again established an Enterprise Development Centre. The project is part of the initiative of building local capacity to participate in the oil and gas industry. It is to offer advisory services and support to small-medium scale businesses.

3.1.8.3: Ghana Gas and the Western Corridor Gas Infrastructure Development Project

The Ghana National Gas Company, in 2013, continued with the execution of the Western Corridor Gas Infrastructure Development Project, which involves the construction and installation of 45km Shallow Water Pipeline, 111km Onshore Pipeline and a 150 million standard cubic feet per day (mmscf/d) J-T gas processing plant, including a Liquefied Petroleum Gas (LPG) and condensate loading gantry near Atuabo in the Ellembelle District.

During the period under review, Ghana Gas Company completed the laying of the 20" 111km Onshore Pipeline from Atuabo to Aboadze; 12" 45km Shallow Water Offshore Pipeline and tied-in to the Deep Water Pipeline. The company also began installation of the gas processing plant, and fabrication of LPG and Condensate holding tanks. A total of US\$598.95 million had been disbursed to the project by the close of the year.

The Government of Ghana financing policy for the gas project is to treat all project-related expenses as loan, to be redeemed during the commercial operations phase of the project. In furtherance of the policy decision, the Ministry of Finance began negotiations with Ghana Gas to on-lend to it the CDB loan and the GOG counterpart funding for the project. A draft on-lending agreement between the company and the Government of Ghana was prepared during the year.

Besides the actual project cost, the Government of Ghana provided GHC40 million out of a pledged initial set-up capital of GH¢69 million to pay compensations to individuals and groups who have been impacted negatively by the project. The money was also to assist Ghana Gas to acquire lands, set up offices and other project-related facilities, finance general operational and administrative activities, including salaries.

The project was scheduled to be completed at the end of 2013. However, due to a 9-month delay in the disbursement of funds to the project contractors, and what Ghana Gas describes as unforeseen developments including the loss of fabricated plates and equipment parts in a maritime accident, the project was re-scheduled to be completed at the end of April 2014.

3.2 GHANA'S REGULATORY FRAMEWORK FOR THE PETROLEUM SECTOR

The following laws regulate the oil and gas operations (Upstream) in Ghana.

- Ghana National Petroleum Corporation Law, 1983 (PNDCL 64)
- Petroleum Exploration and Production Law, 1984(PNDC Law 84)- *Under Review*
- Petroleum Income Tax Law, 1987 (PNDC LAW 188)
- The Internal Revenue Act, 2000 (Act 592)
- The Petroleum Revenue Management Act, 2011(Act 815).
- The Petroleum Commission Acts, 2011(Act 821)
- Local Content and Local Participation Regulations, 2013(LI2204)
- The Petroleum Agreements.

3.2.1 Petroleum (Exploration and Production) Law, 1984

The petroleum law regulates the exploration, development and production of petroleum in Ghana. It provides the authority for the Government of Ghana (represented by the Ministry of Energy) and GNPC to negotiate petroleum contracts. It also contains some fiscal provisions including that for royalty payment.

The Model Petroleum Agreement emanates from the Petroleum (Exploration and Production) Law and is intended to guide the negotiation process (including terms and conditions) in a Petroleum Agreement between GNPC, Government of Ghana and the Oil Company.

3.2.2 Ghana National Petroleum Corporation Law, 1983

(PNDCL 64) gives GNPC the right to the development of the oil sector, oil exploration and production.ⁱⁱⁱ

3.2.3 Petroleum Income Tax Law, 1987(PITL)

(PNDCL 188) provides details of income and withholding taxes levied at the upstream stage (exploration, evaluation and appraisal, development and production) of oil and gas operations.

3.2.4 The Internal Revenue Act, 2000

The Internal Revenue Act, 2000 is an act which provides the general law relating to income tax, capital gains tax and gift tax.

3.2.5 The Petroleum Commission Act, 2011

The petroleum commission is a body corporate with perpetual succession with the objective to regulate, monitor and manage the activities and utilization of petroleum resources and to coordinate policies in relation to them.

3.2.6 The Petroleum Revenue Management Act, 2011

This Act provides the framework for the collection, allocation and management of petroleum revenue derived from upstream and mid-stream petroleum operations.

3.3: OIL AND GAS LICENSING REGIME

No changes were recorded in the licensing regime during the years under review. Ghana continued to apply the open-door, negotiated deal type, which though has in-built safeguards to protect its integrity, could not be said to be an open process. Under the open door method, licences are awarded as a result of negotiations between the government and interested investors through solicited or unsolicited expressions of interest.

All the licenses issued as at 2013 were of the open-door, negotiated deal type, and none through open, competitive bidding round. (*See Appendix 3 for details of oil blocks at the end of 2013*).

By the close of the year, twenty-three oil and gas discoveries, including Saltpond and Jubilee have been recorded in Ghana. Of these only two, Saltpond and Jubilee were producing. The rest were at various stages of appraisal and development by the companies, in partnership with GNPC (the national oil company).

The Acquisition of Oil Block

- The Acquisition of oil block commences with an application to the Ministry of Energy and Petroleum. (*See Appendix 2*)
- The requisition is referred to the GNPC/ Petroleum Commission.^{iv}
- Applicant schedules and inspects data on available blocks/contract area at GNPC's data room.
- Applicant identifies available block of interest and picks up application forms at MoEn/GNPC.
- Application is submitted to MoEn together with an application fee of US\$10,000 in Bankers Draft.
- GNPC reviews and evaluates application and sends outcome of evaluation to the Minister.
- Decision is taken on the application and Applicant is advised accordingly.
- The Minister sets up a team comprising of representatives from the Ministry of Energy and Petroleum, Attorney General's Department, Ministry of Finance and the Ghana Revenue Authority.
- The team then negotiates a Petroleum Agreement with the applicant.
- Report on outcomes of the negotiation is sent to the Cabinet.
- It is then sent to parliament for approval.

- The Petroleum Agreement becomes effective on the date of ratification.
- ❖ Signature bonuses are currently not part of the fiscal regime of the petroleum industry in Ghana.

3.3.1 Oil and Gas Sector Contracts

The Ministry of Energy and Petroleum awarded two licences covering the South Deepwater Tano and East Cape Three Points contract areas (see Appendix 3) in 2013. The Contractors are AGM Petroleum Ghana & Explorco and Cola Natural Resources for the South Deepwater Tano and East Cape Three Points contract areas respectively.

The Administrator could not obtain the details of the contracts.

The Ministry of Energy and Petroleum does not have any policy regarding the publication of details of contracts between Oil companies and the government of Ghana. There were no indications that the Ministry has any plans to introduce the publication of contracts in the near future.

3.3.2 Transfer of Oil Blocks

In 2012, PetroSA acquired the rights of Sabre Oil & Gas Ltd. The acquisition of the Sabre Oil Ltd's interests in the jubilee field was the only transfer of rights that involved blocks within the producing fields. The Administrator could not obtain any evidence that **capital gains tax** was paid in this transaction.

3.4 DISCOVERIES

Following the discovery of oil in 2007, Ghana continued to achieve many discovery successes. In 2012, six new discoveries were made, which are at various stages of appraisal and development. These include; Hickory North, Almond, Beech, Pecan, Sankofa East and Wawa. In 2013, two (2) new discoveries were made which contain various amounts of oil, gas and condensate. By the end of 2013, the total discoveries since Jubilee stood at twenty-three (23), as shown in Table 3.1 below.

Table 3.1: Additional Discoveries Made Since Jubilee

BLOCK/OPERATOR	DISCOVERIES	DISCOVERY PERIOD	HYDROCARBON TYPE	STATUS
GNPC	EBONY	November, 2008	Condensate/Gas	Marginal
DWT/TULLOW OIL	Tweneboa-1	March, 2009	Gas Condensate	PoD
	Tweneboa-2	February, 2010	Oil	PoD
	Owo/Enyenra-1	July, 2010	Oil	PoD
	Ntomme	January, 2011	Oil & Gas	PoD
	Wawa	July, 2012	Oil & Gas	Exploration
WCTP/KOSMOS ENERGY	Odum-1	March, 2008	Heavy Oil	Marginal
	Mahogany-Dee	January, 2009	Light Oil	Appraisal
	Teak-1	February, 2011	Oil & Gas	Appraisal
	Teak-2	March, 2011	Gas	Appraisal
	Banda-1	July, 2011	Oil	Marginal
OCTP/ENI	Akasa-1	August, 2011	Light Oil & Gas	Appraisal
	Sankofa-1	July, 2009	Gas	Appraisal Completed
	Gye Nyame-1	July, 2011	Gas	Appraisal Completed
	Sankofa East	September, 2012	Oil & Gas	Exploration
DWTCTP/HESS	Paradise-1	May, 2011	Oil & Condensate	Exploration
	Hickory North	June, 2012	Oil & Condensate	Exploration
	Beech	September, 2012	Oil	Exploration
	Almond	October, 2012	Oil	Exploration
	Pecan	December, 2012	Oil	Exploration
	Cob	January, 2013	Oil	Exploration
	PN-1	February, 2013	Oil	Exploration
DWCTP/LUKOIL	Dzata-1	February, 2009	Oil & Gas	Appraisal

Source: GNPC Geology Department

3.5 EXPLORATION ACTIVITIES

a. Deepwater Tano License

In 2012, a number of explorations drilling activity in the Deepwater Tano licence continued. Drilling in Wawa-1, which was completed in July 2012, showed that Wawa-1 had intersected separate oil and gas condensate accumulations up dip of the Enyenra field which the partners decided to appraise.

Another exploration well, Okure-1 reached its planned total depth of 4,511 metres in December 2012. The well was plugged and abandoned after it encountered light oil within a gross 17 metres interval of low net-to-gross Turonian age sandstone reservoirs. The results also showed that oil accumulation in the well was not connected to other hydrocarbon discoveries in the license area.

The third exploration well, Sapele-1 which was drilled to a depth of 3,900 metres, encountered a high-quality water-bearing reservoir.

b. West Cape Three Points License

In the West Cape Three Points license, the appraisal well, Teak-4 encountered thin non-commercial reservoirs and the well was plugged and abandoned. Other appraisal works were carried out in Teak-2 and Akasa-1 which included installation of down hole pressure gauges in Teak-2 and a DST at Akasa-1 with rates exceeding 7,500 bopd.

In 2013, the Akasa-2A well was drilled and successfully tested the down-dip extent of the Akasa oil accumulation. In January 2013, the Banda discovery area on the West Cape Three Points license was relinquished.

c. Sankofa-Gye Nyame Complex

Another major upstream asset operated by ENI is the upcoming Sankofa-Gye Nyame complex. This covers a number of discoveries estimated to hold 116 mmbls of oil and 1,110 bcf of gas. Appraisal works were completed in 2013 and a development plan was submitted

to the Government but this is yet to be approved by the Government. First oil is expected in the latter part of 2016 or early 2017.

d. Hess Appraisal Programme

In September 2013, Hess submitted an appraisal programme on the Deep Water Tano/Cape Three Points Contract Area to the Petroleum Commission.

e. The TEN Project

The TEN Project is located in the Deepwater Tano Contract Area, some 60 kilometres off the coast of Ghana and about 30 kilometres west of the Tullow Operated Jubilee Field. The field has estimated recoverable reserves of 245 million barrels (mmbbls) of oil and 365 billion cubic feet (bcf) of gas. The project is expected to deliver first oil in 2016, with a plateau production rate of 80,000 bopd. Development of the TEN Project will cover the drilling and completion of up to 24 development wells which will be connected through subsea infrastructure to a Floating, Production, Storage and Offloading vessel (FPSO). The overall cost of the development is estimated to be \$4.9 billion, excluding FPSO lease costs.

The Plan of Development (PoD) for the project was submitted to the Minister of Energy in November 2012 and approved by the Government on 29 May 2013.

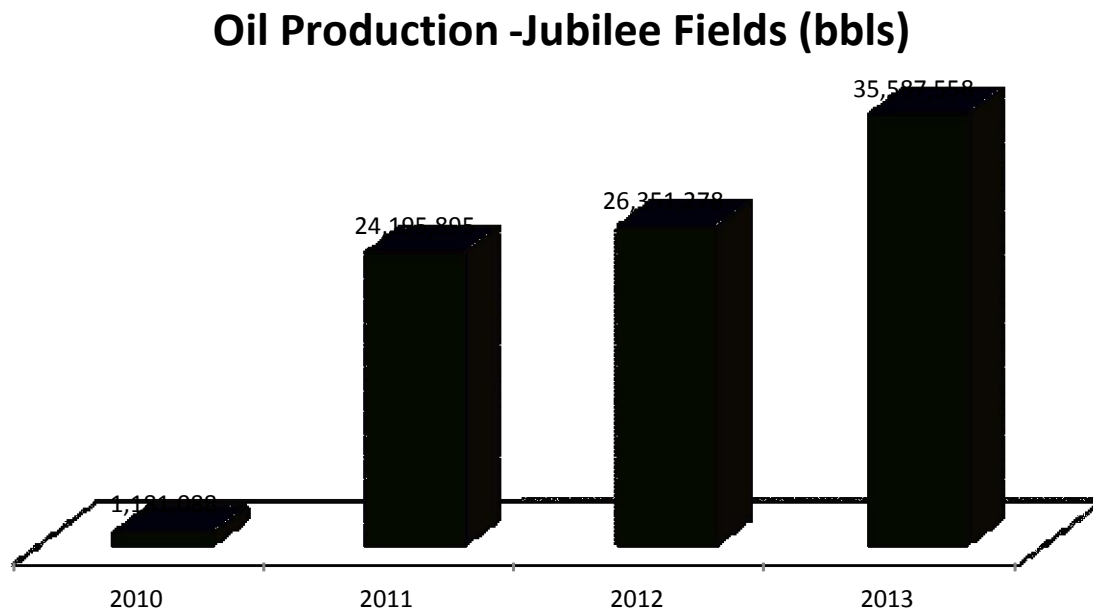
3.6 PRODUCTION

As at the end of 2013, Ghana had two producing fields. These are the Jubilee Fields and the Saltpond Offshore Producing fields.

a. Jubilee Project

Since the commencement of oil production in 2010 and through to January 2013, 55 million barrels of oil had been produced. With two Jubilee phase 1A wells brought on stream by end of 2012 and January 2013; and following the successful remediation in the field in 2012 through acid stimulations at a cost of \$160 million, production increased to about 110,000bopd. This brought the total well production capacity to over 120,000 bopd. Gross field production averaged 72,000 bopd in 2012 and 100,000 bopd in 2013. This was due to issues with the FPSO's water injection system which was subsequently resolved. Production in 2013 amounted to 35,587,558 barrels. *(See Figure 3.1)*

Fig 3.1



b. Saltpond Offshore Producing Fields.

The maximum production rate attained at the Saltpond Producing fields so far was 4,800 BOPD. The field experienced a continuous decline from 4,800 BOPD in 1978 to 750 BOPD in 1984 and continued to decline to 580 BOPD by July 1985.

Due to poor performance of the wells, production dropped to about 450 barrels a day. In the latter part of 2005, the wells were shut-in for maintenance and upgrading and production resumed on April 6, 2006 at an average production of 700 barrels per day with the two (2) wells

Table 3.2: Production data from 2004-8

11/11/2004	86,302
22/08/2005	91,359
18/08/2006	64,315
23/01/2007	87,428
22/07/2007	74,766
07/12/2007	71,319
28/05/2008	95,982
17/11/2008	86,769

Source: Ghana Oil Watch

Expected inflows to Government from Saltpond Offshore Producing Company Limited (SOPCL) are in respect of surface rental and royalty payments on crude oil liftings.

Total royalties of US\$146,482.37 for 2011 from 4 (four) liftings by SOPCL was paid into Government of Ghana Non-Tax Revenue Account being the arrangement Account which receives royalties before the Petroleum Revenue Management Act was enacted

The Saltpond fields produced 106,271.70 ⁴ and 95,785.13 barrels in 2012 and 2013 respectively.

3.7 LEVEL OF EMPLOYMENT

Over the 2012 and 2013 period, the Jubilee partners with strong presence in Ghana made significant progress in meeting local content requirements. In Tullow Oil, 86% and 87% of total local workforce in 2012 and 2013 respectively were Ghanaians.

Table 3.3: Local Employment Levels by Jubilee Partners

Year	Tullow			Kosmos		
	Ghanaians	Local Workforce	% of Local Workforce	Ghanaians	Local Workforce	
2012	242	281	86%	74	-	
2013	244	281	87%	50	55	91%

Source: Tullow Oil Corporate Responsibility Report, 2012 & 2013; Kosmos Energy Corporate Responsibility Report 2013.

⁴Source: Petroleum Commission

Final Report-Production of Oil & Gas Sector GHETTI Report for 2012 and 2013.

Kosmos Energy had 91% of its local workforce being Ghanaians in 2013. In nominal terms, Tullow Oil employed more Ghanaians, about 244 employees in 2013, than any of the other foreign jubilee partners. This is due to its status as operator of the jubilee fields.

Breakdown of Tullow's manpower is as follows

Annual Headcount (year-end)

Permanent Staff and Direct Contractor No.

2007	9
2008	75
2009	209
2010	336
2011	383
2012	395

Permanent Employees (y/e 2012) %

Expatriates	11%
Ghanaians	89%

Management Team (y/e 2012) %

Expatriates	35%
Ghanaians	65%

3.8. PRICE DEVELOPMENTS

Marketing of Ghana's Oil⁵

At the Jubilee Fields, GNPC is responsible for lifting and marketing of oil on behalf of the state

The Ghana National Petroleum Corporation-GNPC (seller) and Unipet Asia Company Ltd (Buyer) entered into an agreement for a Seller to supply to Buyer on commercial terms, agreed volumes of crude oil.

This agreement is pursuant to a Master Facility Agreement between China Development Bank Corporation, the Republic of Ghana represented by the Minister of Finance, Bank of Ghana, Ghana National Petroleum Corporation and UNIPET Asia.

In the GNPC/UNIPET agreement dated on the 1st of February 2012, GNPC shall deliver to Unipet Asia Company Ltd, 5 cargoes per calendar year (**@13,000 barrels per day** of Jubilee Crude Oil).

The standard cargo size shall be **950,000 net US barrels**. Deviations from the standard cargo sizes may be mutually agreed between seller and buyer on a cargo by cargo basis.

Price

The U.S. Dollar FOB price per (net bill of lading) barrel shall, unless the Parties agree otherwise, have the following components:

- a) a Dated Brent Component; and
- b) a Differential;

The **price** shall be calculated in accordance with the following formula; The US dollar FOB Price = **Dated Brent + Differential**.

For the Dated Brent Price, the buyer shall have the option to choose from four (4) Dated Brent component pricing options as the applicable pricing method for the sale of the jubilee crude oil.

The buyer shall pay a margin of US cents eight (8) per barrel for exercising any price option.

⁵ Source: GNPC

Differential: The differential shall be:

The average of the differentials realized for all the jubilee crude oil liftings in the month of lifting (i.e. B/L month). This will be reviewed at the end of the year,

Taxes

All taxes, duties, imposts, fees, charges(including, without limitations, pilotage, mooring and towage expenses) and dues including, without limitation, quay dues) in respect of the vessel incurred at the loading terminal shall be for the Buyer's account.

The Amount of any taxes, duties, imposts, fees, charges and dues of every description imposed or levied by any governmental, local or port authority on the Jubilee Crude Oil supplied hereunder, or on its export, delivery, transportation, ownership, sale or use, in respect of any stage prior to the risk in such jubilee crude oil passing to the Buyer shall for the seller's account.

Payment

Payment for all crude oil sales under this Agreement shall be made into the Petroleum Holding Fund in US dollars by telegraphic transfer, in full without discount, withholding setoff or counterclaim(but subject always to and pursuant to the terms of the Master Agreement and the Five party Agreement),

3.8.1. Comparison of Average Jubilee Oil Price with Dated Brent⁶

Table 3.8.1 Price Comparison between Jubilee Price and Brent Crude Oil Price

2012			2013		
GNPC Date of Lifting	Jubilee Price in Month	Brent Monthly Price	GNPC Date of Lifting	Jubilee Monthly Price	Brent Monthly Price
	US\$	US\$		US\$	US\$
4/1/12	111.63	109.155	4/1/13	113.171	105.524
3/4/12	125.9	117.033	1/3/13	108.62	107.232
27/6/12	90.29	99.433	21/4/13	99.038	102.561
12/9/12	112.56	108.221	23/6/13	103.744	100.76
12/11/12	108.44	105.414	11/8/13	111.656	106.984
Average Realized Price	109.764	107.8512	1/11/13	105.44	101.583
			Average Realized Price	106.9448	104.1073

Source of Data for Brent Oil Price: International energy agency - <http://www.iea.org/statistics/topics/pricesandtaxes/>

Note: The realized average Jubilee price is based on prices on the date of crude oil lifting by GNPC, compared with average corresponding monthly prices of Brent Oil. In 2012, Jubilee Oil traded at a favourable variance over Brent Oil by US\$1.9128 per barrel. In 2013, Jubilee Oil traded at a favourable variance over Brent Oil by US\$2.8375 per barrel.

Fig 3.2: Comparison of Monthly Jubilee Prices with Brent Crude Prices in 2012

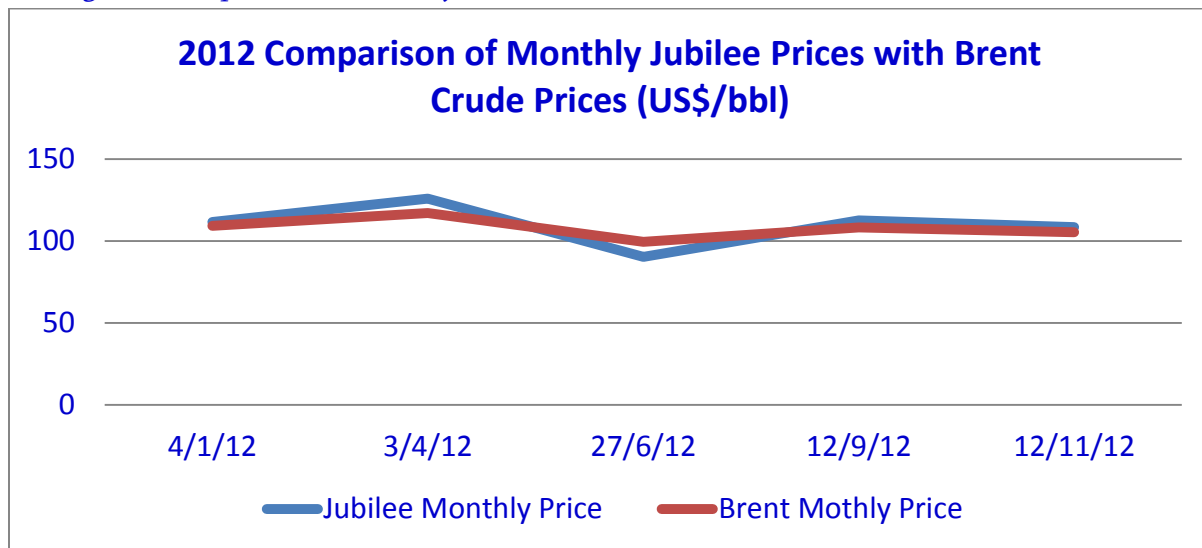
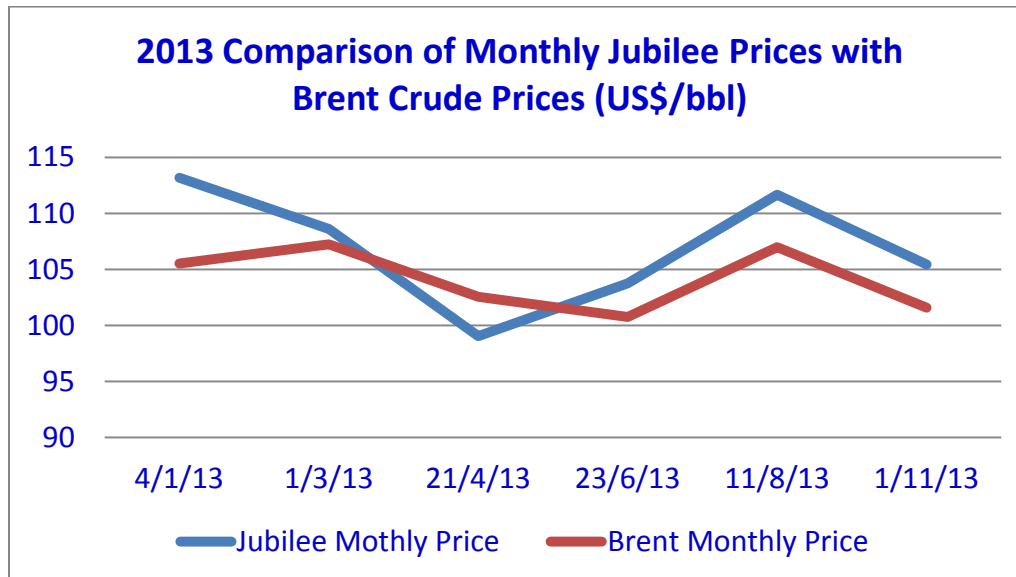


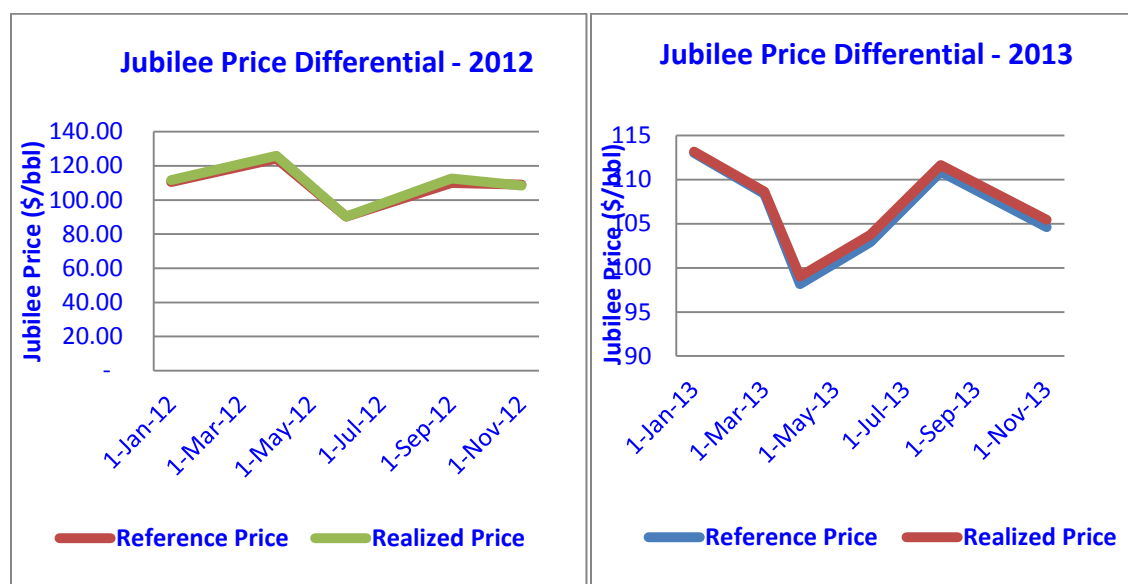
Fig 3.3: Comparison of Monthly Jubilee Prices with Brent Crude Prices in 2013



3.8.2 Analysis of Petroleum Receipts by Lifting and Realized Prices

The performance of the Ghana Group price was examined against the reference price set by the Government for the sale of its share of jubilee oil. Realized quarterly prices in 2012 produced slightly higher prices except in the last quarter of the year. However, overall, Ghana made a \$1.0 per bbl price gain on its reference price.

Figure 3.4 Jubilee Price Differentials



Source: Ministry of Finance - Petroleum Receipts and Distribution Reports, 2012 and 2013.

In 2013, realized quarterly prices were higher than the reference prices. This led to an overall price gain of \$0.6 per bbl of oil.

Also, the analysis showed that the Ghana Group prices were very volatile in 2013 compared with 2012. Particularly, the period between May and July in both 2012 and 2013 recorded the lowest prices. The trend in the Ghana group price was consistent with global trends. For example, by the end of June 2012, Brent oil prices were down almost 30% from their peak to just under \$91 per barrel due in part, to concerns about lower oil demand with a slowdown

of the global economy⁷. In 2013, lower prices were attributed to weakening global oil demand as well as growing Libyan oil exports⁸.

3.9 FISCAL CONTRIBUTION OF THE OIL AND GAS INDUSTRY

Contribution of Oil and Gas to Ghana's Economy

Ghana's economy has maintained commendable growth trajectory with an average annual growth of about 6.0% over the past six years. Ghana's GDP in 2012 grew by 7.9 percent, against a target of 9.4 percent. The services sector (the largest), grew by 10.2 percent and contributed 50 percent of the total GDP. Industry (the second largest sector, with a share of 27.6 percent) grew at 7.0 percent.

Growth has, however, been broad-based, driven largely by service-oriented sectors and industry, which on average have been growing at a rate of 9.0% over the five years up to 2013.

Over the medium term to 2015, the economy is expected to register robust growth of around 8%, bolstered by improved oil and gas production, increased private-sector investment, improved public infrastructure development and sustained political stability.

(Source: Ministry of Finance).

i. Economic Growth

The production of oil and gas since 2010 and the revenues from oil exports have boosted economic growth. In 2011, Ghana recorded an unprecedented growth rate of 14.4%, partly induced by oil and gas sector. The growth of the economy has been influenced by the heavy investments in the development of oil fields and the commencement of crude oil production.

⁷US Energy Information Administration, *Short Term Energy Outlook*, August 21, 2012, found at: <http://www.eia.gov/todayinenergy/detail.cfm?id=7630>

⁸US Energy Information Administration, *Short Term Energy Outlook*, September 9, 2014, found at: <http://www.eia.gov/forecasts/steo/report/prices.cfm>

ii. Foreign Direct Investments

Ghana's foreign direct investments increased from US\$2 billion in 2009 to US\$3.2 billion in 2011, which put Ghana as the third largest recipient of foreign direct investments in Africa following South ⁹Africa and Nigeria which received US\$5.8 billion and US\$8.9 billion respectively (UNCTAD, 2012).¹⁰ A large proportion of these investments went to the oil and gas sector.¹¹

iii. Ghana as a net exporter of oil

Ghana is also gradually becoming a net exporter of crude oil with oil imports of US\$3.3 billion in 2012 versus oil exports of US\$3 billion. In 2012 the crude oil export amounted to US\$2,976.06¹²million representing 21.97% of total exports. Oil exported in 2013 amounted to US\$3,885.07 representing 28.23% of total exports. It is estimated that with crude oil production planned to increase, Ghana was on its way to become a net exporter of oil by 2014.¹³ This would have positive impact on Ghana's terms of trade.

iv. Crude Oil Overtakes Cocoa

In spite of these modest production levels, oil has overtaken cocoa as the second largest export commodity of Ghana. The value of crude oil exports increased from US\$2.7 billion in 2011 to US\$3 billion in 2012.¹⁴

v. Local Employment

In 2011, about 1,500 jobs created in the oil and gas sector were filled by both local people and expatriates. Of this, 840 representing about 57% are Ghanaians. As at December 2013, a total number of 6,572 personnel¹⁵ were employed in the Petroleum upstream sector out of which 1,798 were expatriates. Also, Ghanaians constitute about 40% of those in managerial

¹⁰UN Conference on Trade and Development (UNCTAD), World Investment Report, 2012

¹¹Standard Chartered Bank "Local Market Alerts", Global Research, GR13AP, 14 May 2013. (Link: https://research.standardchartered.com/configuration/ROW%20Documents/Ghana_-_A_less_bearish_outlook_14_05_13_09_35.pdf)

¹² Source: Bank of Ghana.

¹³ Ibid

¹⁴Ibid

¹⁵ Source: Petroleum Commission. The number includes both direct FPSO and exploration companies as well as contractors, subcontractors 'small and medium sized enterprise that were formed as a result of the oil find.

positions, 52% of the core technical positions and over 70% of other staff.

Thus local employment in the Oil and Gas upstream sector accounted for 0.039% of total employment. In 2013 the number of people employed stood at 12.3million¹⁶.

vi. Local procurements

A total of 152 Ghanaian companies are registered with the Petroleum Commission providing direct and indirect services to the upstream petroleum industry ranging from catering/hospitality services, logistics supplies and freight forwarding to fabrication as well as waste management services. As a result of this, between 2008 and the first quarter of 2014, approximately US\$584million has been awarded to Ghanaian companies and out of this US\$218million was awarded to the oil and gas-related activities.¹⁷

vii. Public investments

Over the period 2011-2013, the Government earned a total of US\$1.8 billion from its share of crude oil, taxes and other fees. Of this, 726.6 million was disbursed to public funded projects through the Annual Budget (Annual Budget Funding Amount), constituting almost 40% of total revenues.¹⁸ These investments were made in projects including oil and gas projects (particularly the Ghana Gas Infrastructure Projects), agriculture modernization, road and other infrastructure and capacity building.

According to Tullow Oil Plc., in 2012 total payments made to stakeholder groups by the company, including the Ghanaian government, local suppliers, employees and beneficiaries of its social investment projects was US\$296 million. In 2012, total benefits from the Ghana Oil industry amounted to US\$684m¹⁹.

¹⁶ Ghana Living Standards Survey6; Ghana Statistical Service

¹⁷Ibid

¹⁸Government of Ghana, 2012 Annual Reports on Petroleum Funds; & 2013 Reconciliation Report on the Petroleum Holding Fund.

¹⁹Sourced from www.tullow.com

3.9.1 Production, Lifting and Petroleum Receipts

A Crude Oil Lifting Agreement (COLA) signed by the Jubilee partners guided crude oil lifting in 2012 and 2013. The agreement defines timelines for crude oil lifting by the partners and this has been complied with over the 2012 and 2013 lifting years. Data on crude oil lifting however shows that the Ghana Group recorded an “over-lift”²⁰ of 32,544 barrels of oil in 2012 and 57,774 in 2013.(See Table 3.5)

Table 3.5: Comparison of Oil Production with Oil Lifting

Item	2012	2013
Total Oil Production (bbls)	26,351,278	35,587,558
Total Oil Lifting (bbls)	26,430,964 ²¹	36,048,260
Ghana’s Oil Lifting (bbls)	4,931,034	6,793,444
Ghana’s Oil Lifting (%)	18.66%	18.85%
Ghana’s Share of Production Entitlement (%)	18%	18%
Overlift/Underlift (%)	0.66%	0.85%
Overlift/Underlift (bbls) ²²	32,544	57,744
Spill-over (bbls)	79,656	460,732

Sources: Ministry of Finance, Reconciliation Report on the Ghana Petroleum Funds; GNPC Open data portal, Bank of Ghana Semi-Annual Reports; & Boas’ Computations.

3.9.2. Value of Ghana’s Oil Lifting – 2012

Ghana’s lifting of oil at specified periods of time is provided in Table 3.6. Ghana lifted a total volume of 4,931,034 barrels of oil from the Jubilee fields. This translated to US\$541,071,323.

²⁰Lifting or off-take arrangements for oil and gas produced in jointly owned operations are such that each participant may not receive and sell its precise share of the overall production in each period. The resulting imbalance between cumulative entitlement and cumulative production less stock is ‘under-lift’ or ‘over-lift’.

²¹The Independent Administrator did not receive details of liftings from the IOC’s.

²² According to Tullow(Ghana)Ltd, operators of the Jubilee Fields, counting from inception to date, the GNPC/Ghana had Under lifts of 444,657 bbls and 30,288bbls in 2012 and 2013 respectively.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Table 3.6: Volume and Value of Oil Lifted by the Ghana Group, 2012

Value of Oil Lifted								
Date of Lifting		4-Jan-12	3-Apr 12	27-Jun12	12-Sep 12	12-Nov-12	Total	Total (US\$)
Lifting No		5	6	7	8	9		
Volume of Lift	Bbls	996,484	997,636	995,247	947,021	994,646	4,931,034	
Selling Price	US\$	111.63	125.9	90.29	112.56	108.44		
Marketing Cost	US\$	79719	-	-	-	-		
Value of Lift – jubilee	US\$	111,157,790	125,598,382	89,863,837	106,592,896	107,858,418	541,071,323	541,071,323
Petroleum receipts from Oil lifting								
Royalties	US\$						150,642,450	
Carried and Participating Interest	US\$						390,428,872	
Total Receipts	US\$							541,071,322

Source: MOF/GNPC

The value of royalty from the Saltpond operations in 2012 amounted to US\$104,193. If added to jubilee production, the value of oil lifted resulted in US\$541,175,516.

In 2013 adding Saltpond royalty of US\$403,276 to the value of jubilee oil lifted, the total value of oil lifted by Ghana comes to US\$628,983,354 (See Table 3. 7 below).

Table 3.7 Volume and Value of Oil Lifted by the Ghana Group, 2013

Value of Oil Lifted									
Date of Lifting		4/1/13	1/3/13	21/4/13	23/6/13	11/8/13	1/11/13	Total	Total (US\$)
Lifting No		10	11	12	13	14	15		
Volume of Lift	bbls	995,550	996,201	995,520	995,685	994,966	898,338	5,876,260	
Selling Price	US\$	113.171	108.62	99.038	103.744	111.656	105.44		
Value of oil Lift – jubilee	US\$	112,667,389	108,207,353	98,594,310	103,296,345	111,093,924	94,720,759		628,580,078
Petroleum receipts from Oil lifting									
Royalties	US\$							175,006,213	
Carried and Participating Interest	US\$							453,573,866	
Total Receipts from oil lifting	US\$								628,580,079

Source: MOF/GNPC

4.0: RESULTS OF RECONCILIATION

4.1 THE RECONCILIATION PROCESS AND PARTICIPANTS

- Reconciliation of liftings (exports) by Oil companies and GNPC to lifting records from the Ghana Revenue Authority (Customs Division).
- Reconciliation of payments made by oil companies including GNPC and receipts by the Ghana Revenue Authority (Domestic Tax Revenue Division). The payments by GNPC covered Carried Interest, Additional paid interest and royalty. The Oil companies (IOC) reported on surface rental and corporate tax.
- Government Ministries, Departments and Agencies that participated in the reconciliation process included. The Ministry of Energy and Petroleum; Ghana Revenue Authority and the Petroleum Commission.
- The lifting/export details at the Jubilee Field for 2012/13 are shown in Table 4.2.
- No templates /data were received from the Sabre Oil and Gas Ltd and PetroSA.
- Reconciliation by revenue streams is shown in Table 4.5
- Reconciliation by companies is shown in Tables 4.6.1 and Table 4.6.2.
- Discrepancies are indicated as positive if company payments exceed government's receipts. They are indicated as negative if government's receipt for a particular revenue stream exceeds company's payment for the same item.

Final Report-Production of Oil & Gas Sector GHETTI Report for 2012 and 2013.

Table 4.1 Reconciliation of oil (bbl) liftings by GNPC in 2012/2013

Date of Company Lifting	Company (bbl)	Ghana Revenue Authority (bbl)	Discrepancy
2012			
GNPC/GOG			
1.04.01.2012	996,484	996,484	-
2.03.04.2012	997,636	997,636	-
3.27.06.2012	995,247	995,247	-
4.12.09.2012	947,021	947,021	-
5.12.11.2012	994,646	994,646	-
Total	4,931,034	4,931,034	
2013			
1.04.01.2013	995,550	995,550	-
2.01.03.2013	996,201	996,201	-
3.21.04.2013	995,520	995,520	-
4.23.06.2013	995,685	995,685	-
5.11.08.2013	994,966	994,966	-
6.01.11.2013	898,338	898,338	-
7.20.12.2013	917,189	917,189	-
Total	6,793,449	6,793,449	-

Source: GNPC/GRA

Table 4.2: 2012/2013 Jubilee field Liftings by IOC's

JUBILEE FIELD LIFTINGS BY IOC's IN 2012		JUBILEE FIELDS LIFTINGS BY IOC's IN 2013	
TULLOW	US BARREL	TULLOW	US BARRELS
02-02-12	995,383	23-01-13	982,589
02-03-12	996,358	10-02-13	995,855
19-04-12	975,550	11-03-13	994,727
10-06-12	959,620	10-04-13	995,873
09-08-12	946,414	16-05-13	942,628
31-08-12	994,539	05-06-13	995,548
06-10-12	995,785	07-03-13	994,790
24-11-12	947,682	01-08-13	995,627
17-12-12	947,965	11-09-13	946,731
TOTAL	8,759,296	19-11-13	994,565
		19-11-13	947,736
		10-12-13	901,966
		TOTAL	11,688,635
KOSMOS	US BARREL	KOSMOS	US BARRELS
17-02-12	931,358	01-02-13	996,056
05-05-12	996,659	23-03-13	995,140
26-07-12	990,235	29-04-13	948,755
24-09-12	995,175	26-05-13	994,989
29-10-12	995,634	12-07-13	917,033
26-12-12	995,880	01-09-13	995,260
TOTAL	5,904,941	02-10-13	983,470
		28-11-13	947,240
		TOTAL	7,777,943
ANADARKO	US BARREL	ANADARKO	US BARRELS
19-01-12	859,448	13-01-13	892,386
17-03-12	894,327	10-02-13	899,285
22-05-12	857,725	31-03-13	891,972
09-07-12	851,045	08-05-13	898,727
19-08-12	899,191	15-06-13	850,423
17-10-12	891,965	22-07-13	896,955
12-07-12	899,613	22-08-13	892,967
TOTAL	6,153,314	11-10-13	897,954
		19-11-13	849,017
		30-12-13	841,517
		TOTAL	8,811,203
SABRE OIL	US BARREL	SABRE	US BARREL
19-01-12	97,472	13-01-13	102,512
17-03-12	100,634	19-02-13	96,856
22-05-12	91,272	31-03-13	102,394
09-07-12	96,586	08-05-13	96,206
19-08-12	96,687	15-06-13	97,803
17-10-12	103,644	22-07-13	97,511
07-12-12	96,084	22-08-13	101,498
TOTAL	682,379	11-10-13	96,524
		19-11-13	99,255
		30-12-13	86,471
		TOTAL	977,030

Source: GRA

Final Report-Production of Oil & Gas Sector GHETTI Report for 2012 and 2013.

Table 4.3: Reconciliation (by revenue stream) of GNPC Payments and Government Receipts in 2012/13

Revenue Stream	GNPC Payments		Government Receipts		Discrepancy
	BBL(A)	US\$(B)	BBL(C)	US\$ (D)	US\$
Royalty					
2012	1,372,874.90	150,642,489.80	1,372,874.90	150,642,410.00	79.80
2013	1,891,399.58	175,006,259.05	1,891,399.58	175,006,213.00	46.05
Carried Interest					
2012	2,608,462.31	286,220,730.63	2,608,462.31	286,220,579.38	151.00
2013	3,593,659.20	332,511,892.20	3,593,659.20	332,511,716.00	176.20
API					
2012	949,696.78	104,208,102.27	949,696.78	104,208,333.42	-231.15
2013	1,308,390.22	121,061,927.24	1,308,390.22	121,062,195.70	-268.46
Total					
2012	4,931,033.99	541,071,322.70	4,931,033.99	541,071,322.70	0.00
2013	6,793,449.00	628,580,078.49	6,793,449.00	628,580,124.70	46.21

Source: GNPC/MOF

Table 4.4 Surface Rental Payments – 2012/2013

Company	Surface Rentals (US\$) Company Reported payments –A	Surface Rentals (US\$) Govern- men Reported Receipts-B	Discrepancy(A-B)
Tullow Ghana			
2012		63,866.95	-63,866.95
2013		116,358.75	-116,358.75
Kosmos Energy			
2012	35,438.56	35,438.56	-
2013	16,981.90	16,953.90	28.00
Saltpond Oil Fields			
2012	605.00	3,025.00	-2,420.00
2013	605.00	555.00	50.00

Source: GRA/Company Reporting Templates

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Table 4.5: 2012/2013 Reconciliation by revenue streams

		Reconciliation by Revenue Stream		All Amounts in US\$					
		Company	Government	Initial Discrepancy	Resolved	Final Amounts		unresolved	
Surface Rental						Company	Government		
	2012	36,043.56	102,330.51	(66,286.95)	63,866.95	99,910.51	102,330.51	(2,420.00)	
	2013	17586.90	133867.68	(116,280.78)	116,358.75	133,945.65	133,867.68	77.97	
							-		
Royalty									
	2012	150979188.80	150,978,839.53	349.27		150,979,188.80	150,978,839.53	349.27	
	2013	175177349.05	175177206.50	142.55		175,177,349.05	175,177,206.50	142.55	
C/Interest									
	2012	286,220,730.63	286,220,579.38	151.25		286,220,730.63	286,220,579.38	151.25	
	2013	332,511,892.20	332,511,716.00	176.20		332,511,892.20	332,511,716.00	176.20	
API									
	2012	104,208,102.27	104,208,333.42	(231.15)		104,208,102.27	104,208,333.42	(231.15)	
	2013	121,061,927.24	121,062,195.70	(268.46)		121,061,927.24	121,062,195.70	(268.46)	
Corporate Tax									
	2012	0	0	0		0	0	0	
	2013	177,345,793.00	216,985,497.56	(39,639,704.56)	(15,431,379.00)	161,914,414.00	216,985,497.56	(55,071,083.56)	
Dividend									
	2012	0	0	0		0	0	0	
	2013	0	0	0		0	0	0	
Total									
	2012	541,444,065.26	541,510,082.84	(66,017.58)	63,866.95	541,507,932.21	541,510,082.84	(2,150.63)	
	2013	806,114,548.39	845,870,483.44	(39,755,935.05)	(15,315,020.25)	790,799,528.14	845,870,483.44	(55,070,955.30)	
Source:original templates/computations									

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Table 4.6.1 2012 Reconciliation by Companies

Table 4.6.1 RECONCILIATION BY COMPANIES-Oil and Gas								
2012	Initial	Amounts	Initial Discrepancy		Final Amount			
COMPANIES	Company	Government		Resolved	Unresolved		Company	Government
					(Over)	(Under)		
GNPC	541,071,322.70	541,071,323.00	(0.30)		230.85	(231.15)	541,071,322.70	541,071,323.00
Tullow	-	63,866.95	(63,866.95)	63,866.95			63,866.95	63,866.95
Kosmos	35,438.56	35,438.56	-		-		35,438.56	35,438.56
Anadarko	-	-	-		-		-	-
Saltpond	337,304.00	339,454.33	(2,150.33)		269.67	(2,420.00)	337,304.00	339,454.33
Sabre Oil	-	-	-		-		-	-
PetroSA	-	-	-		-		-	-
Total	541,444,065.26	541,510,082.84	(66,017.58)	63,866.95	500.52	(2,651.15)	541,507,932.21	541,510,082.84
Source:Original company templates								

Source: Original Companies Template

Table 4.6.2 2013 Reconciliation by Companies

Table 4.6.2 Reconciliation by company								
2013	Initial Amounts		Initial Discrepancy	Unresolved			Final Amounts	
COMPANIES	Company	Government		Resolved	over	under	Company	Government
GNPC	628,580,078.49	628,580,078.49	-	-			628,580,078.49	628,580,078.49
Tullow	106,909,572.00	107,025,730.31	(116,158.31)	116,358.75	200.44		107,025,930.75	107,025,730.31
Kosmos	70,453,202.90	55,021,795.90	15,431,407.00	(15,431,379.00)	28.00		55,021,823.90	55,021,795.90
Anadarko	0	55,071,284.00	(55,071,284.00)	-		(55,071,284.00)	0	55,071,284.00
Saltpond	171,695.00	171,595.00	100.00		100.00		171,695.00	171,595.00
PetroSA	0	0	-	-	0	0	0	0
Total	806,114,548.39	845,870,483.70	(39,755,935.31)	(15,315,020.25)	328.44	(55,071,284.00)	790,799,528.14	845,870,483.70
Source: original Company Templates								

Source: Original Companies Template

4.2 DISCREPANCIES.

Initial discrepancies of US\$-66,018 and US\$-39,755,935 were established in 2012 and 2013 respectively. The discrepancy in 2012 was caused by differences between figures reported on carried interest, participating interest and royalty by GNPC and GRA. The fact that Tullow Ghana Ltd did not initially report on surface rental payment in 2012 also contributed to the discrepancy. (See Table 4.5)

In 2013 the initial discrepancy was due to the fact that Anadarko WCTP Ltd did not report on corporate tax payment, as well as the difference between the corporate tax payment reported by Kosmos HC and GRA (See Table 4.6.2, Appendix 5)

Resolutions of Discrepancies

2012

Tullow (Ghana) Ltd acknowledged the payment of **surface rental** resulting in the resolution of US\$63,866.95.

2013

Under **Surface rental** Tullow (Ghana) acknowledged the payment of surface rental of US\$ US\$116,358.75.

Kosmos Ghana HC had its reported corporate tax payment reduced by US\$15,431,379²³ as this amount which was 2013 Quarter 4 corporate tax was actually paid in 2014. *(See Table 4.6.2)*

Unresolved discrepancies in 2012 amounted to a net of US\$2151 resulting mainly from differences in surface rental reported by Saltpond Offshore Producing Company and GRA.

In 2013 net unresolved discrepancy of US\$(55,070,955.56) was obtained, resulting mainly from the corporate tax receipt reported by GRA as having been paid by Anadarko WCTP Ltd. Anadarko WCTP Ltd did not report any corporate tax payment. *(See Table 4.6.2)*

All the discrepancies could not be resolved due to time constraints.

²³ According to Kosmos Ghana HC the unresolved discrepancy of US\$28 could be due to bank charges on transfer of funds.

4.3 GNPC LIFTINGS; ROYALTY, CARRIED INTEREST AND PARTICIPATING INTEREST

Five liftings were made in 2012 by the GNPC. Out of this lifting totaling 4,931,034 barrels, royalty oil accounted for 1,372,874 barrels valued at US\$150,642,489.80. **A total of 2,608,462 barrels of oil were lifted** for carried interest valued at US\$286,220,730.63. The value of oil lifted for the State as Additional Participating Interest in 2012 amounted to US\$104,208,102.27. (See Table 4.7.1)

Table 4.7.1: Crude Oil Liftings by GNPC for the year 2012

QTY LIFTED (BBL)	CARRIED INTEREST (BBL)	PAID INTEREST (BBL)	ROYALTY (BBL)	MARKETING COST/OPTION	CARRIED INTEREST (US\$)	PAID INTEREST (US\$)	ROYALTY (US\$)	TOTAL (US\$)
996,484	527,128.99	191,918.70	277,436.31	111.550	58,801,238.56	21,408,531.34	30,948,020.30	111,157,790.20
997,636	527,738.38	192,140.57	277,757.04	125.896	66,440,151.44	24,189,729.66	34,968,500.76	125,598,381.86
995,247	526,474.63	191,680.46	277,091.91	90.293	47,536,973.61	17,307,403.96	25,019,459.80	89,863,837.37
947,021	500,963.61	182,392.33	263,665.06	112.556	56,386,459.97	20,529,351.51	29,677,084.20	106,592,895.68
994,646	526,156.71	191,564.71	276,924.58	108.439	57,055,907.04	20,773,085.80	30,029,424.76	107,858,417.59
4,931,034	2,608,462.31	949,696.78	1,372,874.90		286,220,730.63	104,208,102.27	150,642,489.80	541,071,322.70

In 2013, the GNPC lifted seven parcels of oil. However proceeds from the seventh lifting which was made in December 2013, was received in 2014.

The total value of liftings/exports in 2013 amounted to US\$628,580,078 from 5,876,260 barrels of oil. This comprises of royalty oil of 1,636,041 barrels valued at US\$175,006,259;

3,108,476 barrels for carried interest valued at US\$332,511,892 and 1,131,743 barrels of oil lifted as additional paid interest valued at US\$121,061,927, See Table 4.7.2 below.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Table 4.7.2: Crude Oil Liftings by GNPC for the year 2013

					MARKETING COST/OPTION PRICING FEE				
	QTY LIFTED (BBL)	CARRIED INTEREST	PAID INTEREST (BBL)	ROYALTY (BBL)		CARRIED INTEREST	PAID	ROYALTY	TOTAL
MONTH	(BBL)				(US\$)	INTEREST (US\$)		(US\$)	(US\$)
		526,634.91	191,738.82	277,176.27	113.17	59,599,799.62	21,699,273.84	31,368,315.59	112,667,389.05
4/1/2013	995,550								
		526,979.28	191,864.20	277,357.52	108.62	57,240,489.80	20,840,289.25	30,126,573.58	108,207,352.62
1/3/2013	996,201								
		526,619.04	191,733.04	277,167.92	99.04	52,155,296.71	18,988,856.89	27,450,156.16	98,594,309.76
21/04/2013	995,520								
		526,706.33	191,764.82	277,213.86	103.74	54,642,621.03	19,894,449.39	28,759,274.22	103,296,344.64
23/06/2013	995,685								
		526,325.98	191,626.34	277,013.67	111.66	58,767,453.89	21,396,230.91	30,930,238.89	111,093,923.70
11/8/2013	994,966								
		475,210.84	173,016.19	250,110.97	105.44	50,106,231.15	18,242,826.96	26,371,700.61	94,720,758.72
1/11/2013	898,338								
Total	5,876,260	3,108,476	1,131,743	1,636,040		332,511,892	121,061,927	175,006,259	628,580,078

Source: GNPC

4.3.1 JUBILEE CRUDE RECONCILIATION

The jubilee crude reconciliations for 2012 and 2013 with reference to the entitlements of Ghana/GNPC are shown in tables 4.7.3.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Table 4.7.3: 2012 GNPC and State-Jubilee Crude Oil Reconciliation

			Monthly Entitlement	Cumulative Entitlement	Monthly Liftings	Cumulative Liftings	Cumulative Net Quality Adj	(Over) / Under lift
Month			BBLs	BBLs	BBLs	BBLs		BBLs
November-10			13,208	13,208	0	0		13,208
December-10			200,126	213,334	0	0		213,334
January-11			247,606	460,940	0	0		460,940
February-11			186,838	647,777	0	0		647,777
March-11			356,606	1,004,383	995,259	995,259		9,124
April-11			336,428	1,340,811	0	995,259		345,552
May-11			361,648	1,702,459	994,691	1,989,950		(287,491)
June-11			385,375	2,087,834	0	1,989,950		97,884
July-11			437,560	2,525,394	0	1,989,950		535,444
August-11			421,837	2,947,231	990,770	2,980,720		(33,489)
September-11			403,772	3,351,003	0	2,980,720		370,283
October-11			438,410	3,789,413	949,469	3,930,189		(140,776)
November-11			401,937	4,191,350	0	3,930,189		261,161
December-11			390,115	4,581,465	0	3,930,189		651,276
January-12			380,005	4,961,470	996,484	4,926,673		34,797
February-12			342,181	5,303,651	0	4,926,673		376,978
March-12			360,290	5,663,941	0	4,926,673		737,268
April-12			323,885	5,987,826	997,636	5,924,309		63,517
May-12			333,444	6,321,269	0	5,924,309		396,960
June-12			316,618	6,637,888	995,247	6,919,556		(281,668)
July-12			354,841	6,992,729	0	6,919,556		73,173
August-12			445,949	7,438,678	0	6,919,556	(417)	518,705
September-12			446,584	7,885,262	947,021	7,866,577	(417)	18,268
October-12			451,734	8,336,997	0	7,866,577	(417)	470,003
November-12			432,359	8,769,356	994,646	8,861,223	(417)	(92,284)
December-12			536,941	9,306,297	0	8,861,223	(417)	444,657
January-13			593,026	9,899,323	995,550	9,856,773	(417)	42,133
February-13			520,950	10,420,273	0	9,856,773	(417)	563,083
March-13			557,613	10,977,886	996,201	10,852,974	(417)	124,495
April-13			572,481	11,550,367	995,520	11,848,494	(417)	(298,544)
May-13			577,296	12,127,662	0	11,848,494	(417)	278,751
June-13			576,345	12,704,007	995,685	12,844,179	(417)	(140,589)
July-13			549,662	13,253,669	0	12,844,179	(417)	409,073
August-13			535,924	13,789,593	994,966	13,839,145	(417)	(49,969)
September-13			367,349	14,156,941	0	13,839,145	(417)	317,379
October-13			527,623	14,684,565	0	13,839,145	(417)	845,003
November-13			479,639	15,164,204	898,338	14,737,483	(417)	426,304
December-13			521,173	15,685,377	917,189	15,654,672	(417)	30,288

Source: Tullow (Ghana) Ltd

4.4 OIL LIFTING BY JUBILEE PARTNERS

In this section the liftings by the partners in the Jubilee fields are checked against their interests.

Table 4.8.1 Reconciliation of crude oil lifting in 2012

Partner	Ghana	Tullow/	Kosmos	Anadarko	Sabre	Total
Total Lifting	4,931,034	8,759,296	5,904,941	6,153,314	682,379	26,430,964

Source: GRA

Fig 4.1 2012 Share of Liftings at Jubilee Fields

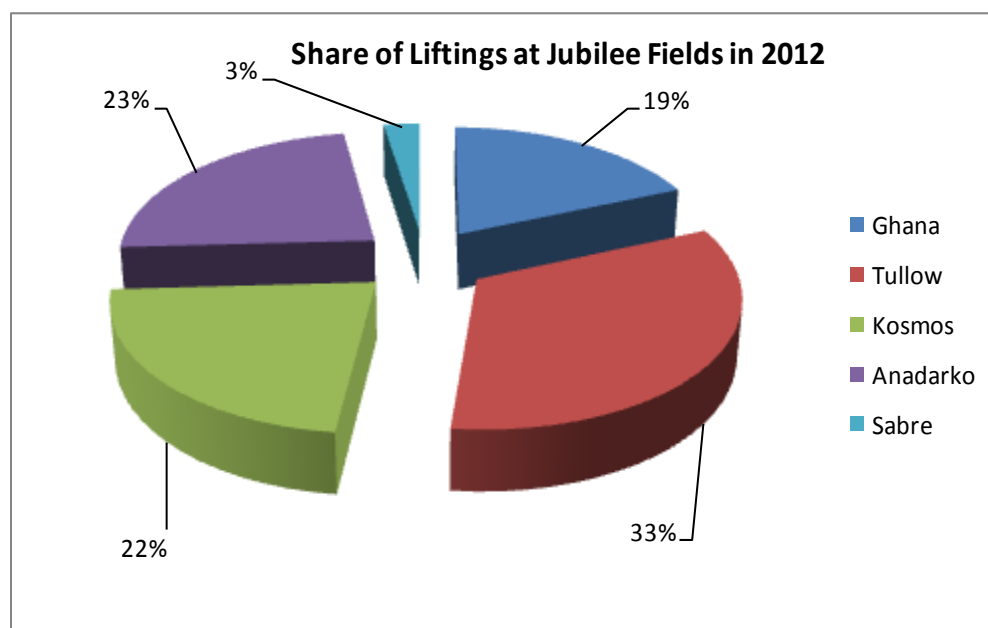
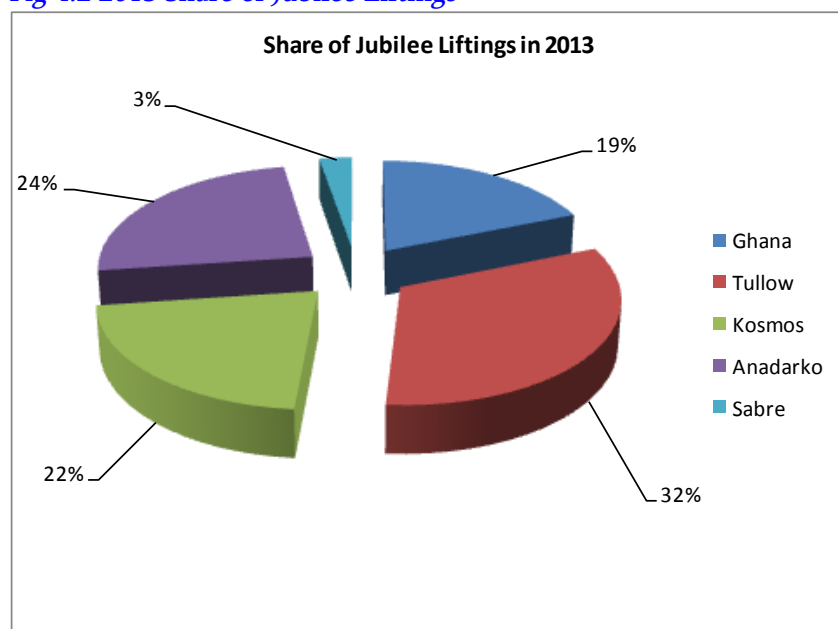


Table 4.8.2: Reconciliation of Crude Oil Lifting in 2013

Partner	Ghana	Tullow	Kosmos	Anadarko	Sabre	Total
Total Lifting	6,793,449	11,688,635	7,777,943	8,811,203	977,030	36,048,260

Source: GRA

Fig 4.2 2013 Share of Jubilee Liftings



In general the liftings represented fairly the interests of partners, with uplifts and under lifts when necessary. (See 3.8.1)

4.3 SURFACE RENTALS.

Total surface rentals collected in 2012 amounted to US\$570,138.13. The remaining payment of US\$467,807.62 involved companies that were not participants of the reconciliation process. In 2013 companies outside the reconciliation process paid a total amount of US\$542,550.68 in surface rent. The details are as follow:

Table 4.9: Surface Rental Payments by Non Participants

COMPANY	2012	2013
VANCO GHANA LTD	154,398.69	
ENI GHANA EXPLORATION AND PRODUCTION LTD	118,888.53	324,219.17
AMERADA HESS GHANA LTD	150,750.00	
TAP OIL(GHANA) LTD	43,770.49	
OPHIR GHANA(ACCRA)LTD		60,000.00
HESS GHANA EXPLORATION LTD		82,189.73
LUKOIL OVERSEAS GHANA LTD		76,141.78
TOTAL	467,807.71	542,550.68

Source: GRA

4.4. Inflows to the Petroleum Holding Fund

A comparison of total petroleum receipts between 2012 and 2013 shows that although there were reported improvements in royalties, carried and participating interests and surface rentals, the main difference was attributed to corporate income taxes US\$216.9 million which were collected for the first time since oil production commenced in 2010. Government also reported on surface rental fees paid by oil companies. In Table 4.10 other revenue streams to the Ghana Petroleum Holding Fund are shown

Table 4.10: Revenues received into the Petroleum Holding Fund-2012/2013

Receipt Type	2012		2013	
	Amount(US\$)	%	Amount(US)	%
Royalty ^{24, 25}	150,978,839.53	27.85	175,177,206	20.70
Carried Interest	286,220,579	52.81	332,511,716	39.28
Participating Interest	104,208,333	19.23	121,062,196	14.30
Corporate Income Tax	0	0	216,985,498	25.64
²⁶ Surface Rentals	570,138.13	0.11	676,418.33	0.08
Total	541,977,889.66	100	846,413,034	100

Source: GRA/Author's computations

In 2012, the government did not receive corporate income taxes from the oil companies. However, government reported that corporate tax assessment raised on the Jubilee Partners in 2012 yielded a receipt of US\$40.2 million which was paid in the first quarter of 2013 and was therefore captured in the 2013 report²⁷.

The share of each revenue stream in 2013 is indicated in Table 4.10 (See Fig 4.3)

²⁴Sources: Lifting figures by GRA and production figures from the GNPC.

²⁵Royalty figure includes payments from Jubilee Fields and Saltpond Offshore Producing Field.

²⁶Surface rental figures are on actual basis, i.e. amounts are allocated to years in which they were paid.

²⁷Ministry of Finance – Annual Report on the Ghana Petroleum Funds, 2012; page 18, paragraph 41.

Fig 4.3

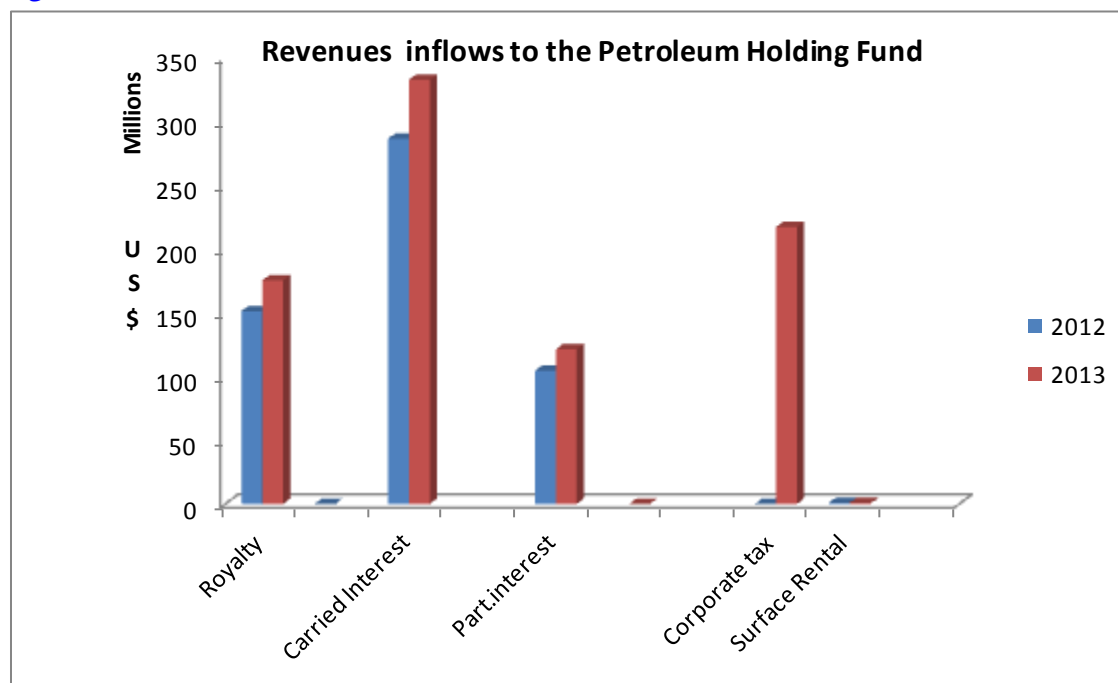
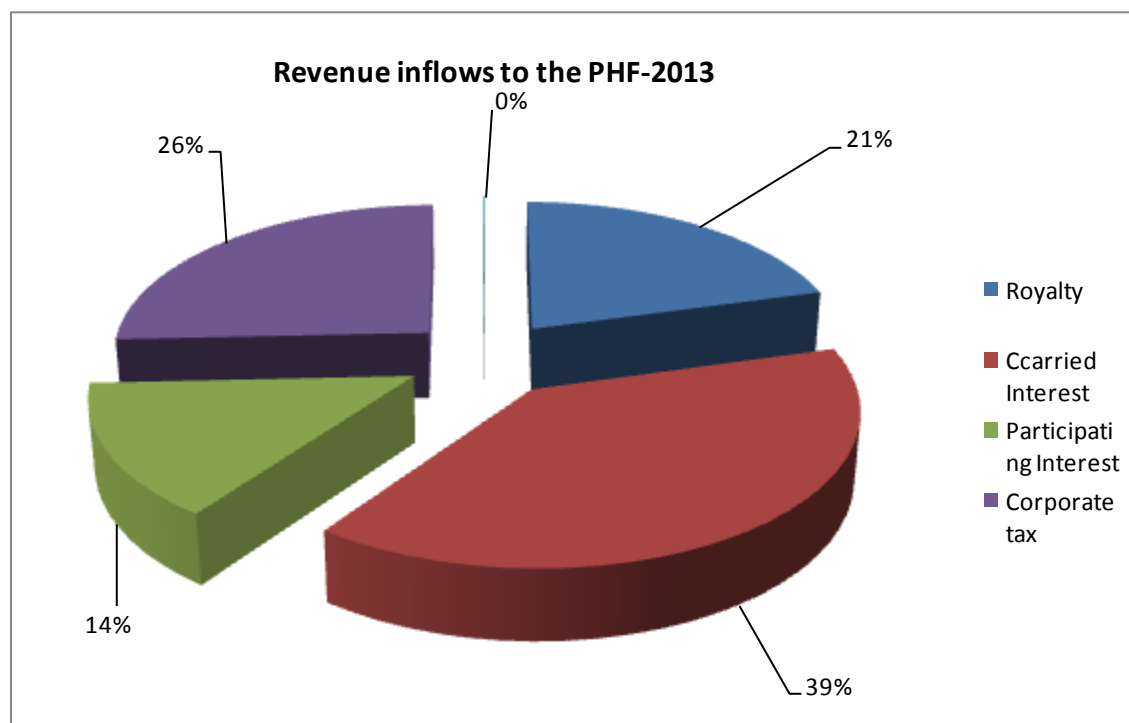


Fig 4.4



5.0. DETERMINATION OF BENCHMARK REVENUE, ABFA AND GHANA PETROLEUM FUNDS

5.1. VERIFICATION OF BENCHMARK REVENUE

Benchmark Revenue is defined as the estimated revenue from petroleum operations expected by the Government for the corresponding financial year. It consists of expected current receipts from oil, expected gas royalties; and expected dividends from national oil company.

Revenue streams from petroleum operations include - royalties, carried and participating interests, petroleum income tax, surface rentals and gas receipts. The total petroleum receipts from these streams amounted to \$541,623,740 and \$846,767,185 for the 2012 and 2013 reporting years.

Table 5.1 Verification of the Benchmark Revenue Determination (US\$) – 2012

Revenue Streams	Total Petroleum Receipts	Benchmark Revenue
Royalties	150,746,643	150,746,643
Carried & Participating Interest	390,428,872	390,428,872
Less GNPC share²⁸		-230,949,926
²⁹Surface Rentals	448,225	448,225
Corporate Income Tax	0	0
Total	541,623,740	310,673,814

Benchmark revenues, revenues available to the government for spending and savings was determined by deducting from the total oil receipts revenues ceded to GNPC for equity financing and investments. There were no gas receipts due to the non-completion of the Gas Infrastructure Project. Benchmark Revenues for 2012 and 2013 respectively were \$310,673,814 and \$624,345,769.

²⁸GNPC's share is made up i) 40% of carried and additional participating interest after deducting equity financing cost.

²⁹Surface rental did not include an amount of US\$121,914 of surface rental paid in 2012 but recognized in 2013

Table 5.2 Verification of the Benchmark Revenue (US\$) - 2013

Revenue Streams	Total Petroleum Receipts	Benchmark Revenue
Royalties	175,409,489	175,409,489
Carried & Participating Interest	453,573,866	453,573,866
Less GNPC share		-222,421,416
³⁰ Surface Rentals	798332	798332
Corporate Income Tax	216985498	216985498
Total	846,767,185	624,345,769
Reported by Government in the Petroleum Reconciliation Report	846,767,184	624,345,768

Source: Petroleum Reconciliation Report, 2013

5.2. THE ANNUAL BUDGET FUNDING AMOUNT AND THE GHANA PETROLEUM FUNDS

The Annual Budget Funding Amount (ABFA) is derived from the Benchmark Revenue. It is a predetermined percentage of the Benchmark Revenue. The actual allocation of ABFA is determined by the Minister of Finance and approved by Parliament. However, the Petroleum Revenue Management Act 2011 (Act 815) defines some restrictions on the allocation of ABFA. Section 18. (1) provides that “The Annual Budget Funding Amount from petroleum revenue shall not be more than seventy percent of the Benchmark Revenue”.

³⁰Figure includes an amount of US\$121,914 paid in 2012 but recognized in 2013.

Table 5.3: Allocation of Petroleum Revenues and Compliance

Item	2012				2013			
	Amount (US\$)	%	Act 815	Status	Amount (US\$)	%	Act 815	Status
Total Receipts	541,623,740.00				846,767,184.00			
GNPC	230,949,926.00				222,421,416.00			
BMR	310,673,815.00				624,345,768.00			
ABFA	286,554,461.00	92%			273,197,567.00	44%		
GPFs	24,119,354.00	8%	$X \geq 30\% \text{BMR}$		351,048,145.00	56%	$X \geq 30\% \text{BMR}$	
GSF	16,883,548.00	70%	$X \leq 70\% \text{GPFs}$	Compliant	245,733,702.00	70%	$X \leq 70\% \text{GPFs}$	Compliant
GHF	7,235,806.00	30%	$X \geq 30 \text{ GPFs}$	Compliant	105,314,444.00	30%	$X \geq 30 \text{ GPFs}$	Compliant

The Ghana Petroleum Funds consist of the Ghana Stabilization Fund (GSF) and the Ghana Heritage Fund (GHF). The object of the GSF Fund is to cushion the impact on or sustain public expenditure capacity during periods of un-anticipated petroleum revenue shortfalls. The GHF on the other hand is to provide an endowment to support development for future generations when petroleum reserves have been depleted.

The Act 815 defines the restrictions on transfers to the Ghana Petroleum Funds. Both the GSF and GHF receive excess revenues over projected ABFA³¹. Section 23(1)a, provides as follows:

“Where petroleum revenue collected in each quarter of any financial year exceeds one-quarter of the Annual Budget Funding Amount of the financial year ... the United States Dollar equivalent of the excess revenue collected shall be transferred from the Petroleum Holding Funding to the Ghana Petroleum Funds”

³¹Section 11(2) of the Petroleum Revenue Management Act 2011 (Act 815)

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

The exact percentage for transfers to GSF and GHF approved by Parliament are subject to certain restrictions. Section 23(b) provides as follows:

“a minimum of thirty percent of the excess revenue determined in subsection (1) (a) shall be transferred into the Ghana Heritage Fund and the balance shall be transferred into the Ghana Stabilization Fund each quarter”.

Analysis of the allocations to the GSF and GHF in 2012 and 2013 showed that Government was compliant with the law.

6.0 PETROLEUM RECEIPTS, EXPENDITURE BUDGET MANAGEMENT

6.1. EXPENDITURE MANAGEMENT AND OUTCOMES

The Petroleum Revenue management Act 2011 (Act 815) defines the framework for spending petroleum revenues. There are four provisions covering the spending of petroleum revenues.

- i. Spending by GNPC of its share of petroleum revenues
- ii. Spending by the Government through the annual Budget
- iii. The use of revenues in excess of the maximum cap on the Ghana Stabilization Fund for debt repayment
- iv. Spending part of the interest accrued to the Ghana Heritage Fund after 15 years from the commencement of the Act.

In 2012 and 2013, only the first two types of spending occurred. In this Section, the expenditure management, outcomes and compliance with the law are examined.

Table 6.1: Amount of Petroleum Revenues allocated for Spending (US\$)

Expenditure Type	2012	2013	Expenditure Growth (%)
GNPC Equity Financing Cost	124,630,628	68,319,783	-45%
GNPC share of Net Carried and	106,319,298	154,101,633	45%
Participating Interest			
ABFA	286,554,461	273,197,567	-5%
Total	517,504,387	495,618,983	-4%

Source: Various – 2012 and 2013 Annual Reports on the Petroleum Funds published by Ministry of Finance; and 2013 Reconciliation Report on the Ghana Petroleum Holding Fund.

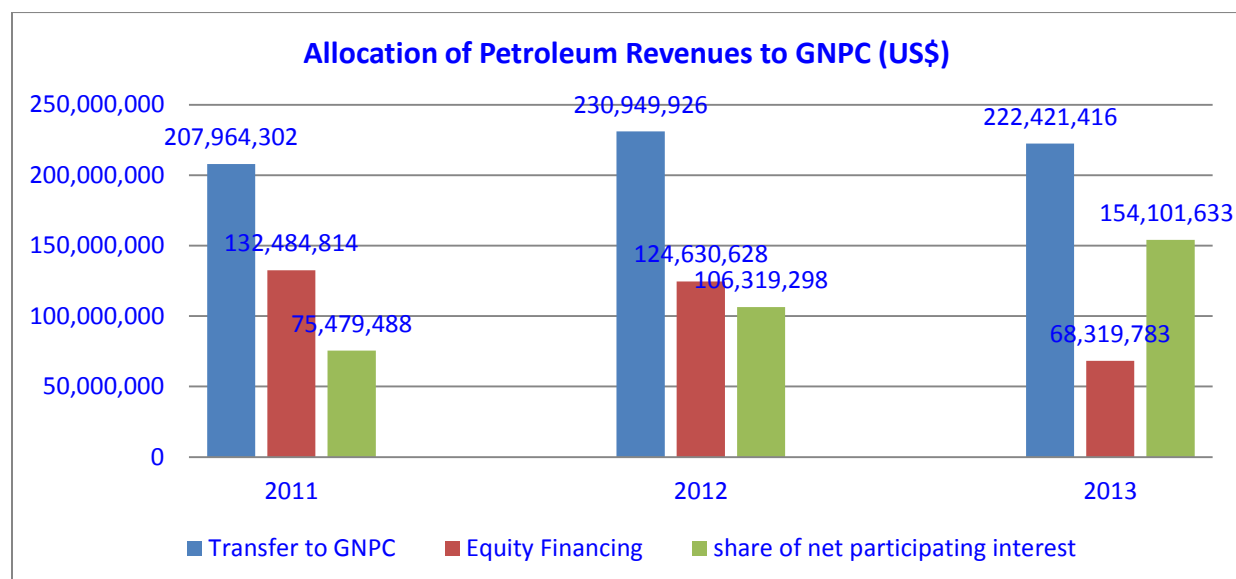
From the Table above the following can be deduced;

- Expenditure by GNPC for equity financing declined by 45% from 2012 to 2013.
- Expenditure by GNPC on non-jubilee investments grew by 45% from 2012 to 2013.
- Overall, expenditure by GNPC declined by 4% from 2012 to 2013.
- ABFA declined by 5% from 2012 to 2013.
- Overall expenditure from petroleum revenues declined by 4% from 2012 to 2013.

6.2: SPENDING BY GNPC

The trend in the allocation of petroleum revenues to GNPC shows that whilst its share of equity financing is declining, it has received more for non-Jubilee investments as a result of higher net participating interest. Thus, unless new investments are required in the Jubilee contract area, the corporation is near retiring its equity financing requirement and as a result, it will have more revenues for other investments. The Figure below shows the allocation of petroleum revenues to GNPC.

Figure 6.1: Allocation of Petroleum Revenues to GNPC



Source: Various – 2012 and 2013 Annual Reports on the Petroleum Funds published by Ministry of Finance; and 2013 Reconciliation Report on the Ghana Petroleum Holding Fund.

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GNPC applied its revenues to a number of jubilee and non-jubilee investments over the period under consideration. The breakdown of GNPC expenditure is presented in Tables 6.2 and 6.3.

Table 6.2: Spending by GNPC (US\$)

RECEIPTS FROM JUBILEE PROCEEDS	2011	2012	2013
Equity Financing	132,484,815	124,630,628	68,319,783.18
40% of Net Carried and Participating Interest	75,479,488	106,319,298	154,101,633.02
Total Amount Received	207,964,303	230,949,926	222,421,416.20
Expenditure			
Jubilee Equity Financing Cost	132,484,815	125,824,747	76,268,194.80
Acquisition & Processing of 2,612sq km of 3D plus other related G&G studies	30,315,185		
Reservoir Characterization; Voltaian Basin project expenses; ICT Upgrade & Organizational Development		10,784,028	
Commitments for Projects other than Jubilee		61,674,215	9,922,975.26
TEN Project Cost			3,027,153.21
Gas Project-Related Costs	28,119,624	5,587,779	
Staff Cost	7,661,475	9,013,162	9,695,076.70
General Operational & Admin. Capital expenditure	9,383,204	16,269,839	9,819,888.5
PNB Paribas			31,337,309.53
Amount Appropriated by Bank of Ghana as charges		1,796,156	2,323,269.07
Total Expenditure and Commitments	207,964,303	230,949,926	142,393,867.06
Cash yet to spent			80,027,549.14
Cash brought forward (01.01.2013)			61,674,215
Total Cash Available			141,701,764.14

Source: Ministry of Finance - Reconciliation Report on Ghana Petroleum Funds, 2013

Table 6.3 Commitment of Cash to Projects by GNPC (US\$)

No	Project	2012	2013
1	North & South Tano Petroleum Projects	17,817,385	1,267,581
2	Tweneboa-Enyenra-Ntomme (TEN) project	16,736,362	
3	Voltaian Basin Petroleum Projects	3,090,224	1,305,036
4	South Deepwater Tano Petroleum Projects	7,227,672	1,894,356
5	Reservoir Characterization	687,506	294,728
6	ICT Upgrade & Expansion	2,591,094	154,006
7	Data Centre Upgrade	1,000,000	
8	R&D Laboratory Upgrade	1,500,000	39,994
9	Organizational Development Project	2,102,500	44,189
10	Reserves towards Corporate Investment Projects	8,921,473	
11	Hess Block		3,024,781
12	Ultra Deep Water Keta		411,948
13	Petroleum Project Consultancy		332,220
14	Maritime Boundary Special Project		1,154,134
15	Total Commitment to Projects	61,674,216	9,922,975

Source: Ministry of Finance - Reconciliation Report on Ghana Petroleum Funds, 2013

From the Tables above, two important issues are found

- i. The amount of unspent cash by GNPC from its allocation is quite large at \$141.7 million. This consists of unspent cash of \$61.6 million carried forward from 2012 and \$80 million of unspent cash from the allocation in 2013. GNPC attributed this to procurement delays.

- ii. GNPC applied \$31 million of its share of revenues in 2013 to repay a facility from PNB Paribas.

6.3: SPENDING OF ABFA BY PRIORITY AREAS

The Annual Budget Funding Amount is a proportion of Benchmark Revenue allocated to the annual budget of the government. Section 21(2)d of the Act requires its use to be “*guided by a medium-term expenditure framework aligned with a long term national development plan*”. Since the enactment of the law, the Ghana Shared Growth and Development Agenda has guided the use of ABFA.

Section 21 (3) of the Act also provides the foundation for prioritizing the use of ABFA in the absence of a long-term National Development Plan.

“Where the long-term national development plan approved by Parliament is not in place, the spending of petroleum revenue within the budget shall give priority to, but not be limited to programmes or activities related to:

- a. agriculture and industry;*
- b. physical infrastructure and service delivery in education, science and technology;*
- c. potable water delivery and sanitation;*
- d. infrastructure development in telecommunication, road, rail and port;*
- e. physical infrastructure and service delivery in health;*
- f. housing delivery;*
- g. environmental protection, sustainable utilization and protection of natural resources;*
- h. rural development;*
- i. developing alternative energy sources;*

- j. the strengthening of institutions of government concerned with governance and the maintenance of law and order;*
- k. public safety and security; and*
- l. provision of social welfare and the protection of the physically handicapped and disadvantaged citizens.”*

To ensure that ABFA impacted positively on the development of the country, the law further requires the government to reduce its priorities for the use of ABFA to not more than 4. Sections 21(5&6) respectively as follows:

“In order to maximize the impact of the use of the petroleum revenue, the Minister shall prioritize not more than four areas specified in subsection (3) when submitting a programme of activities for the use of the petroleum revenue”

The Minister of Finance complied with the provisions of the law by prioritizing the following areas for the use of ABFA.

Table 6.4 Spending of ABFA by Priority Area (GH¢)

Item	2012	2013
	Outcome	Outcomes
Expenditure & Amortization of Loans for Oil and Gas Infrastructure	100,000,000	137,920,847
Road and Other Infrastructure	232,403,269	372,074,147
Agriculture Modernization	72,471,824	13,604,329
Capacity Building (Including Oil and Gas)	111,959,738	20,183,359
Total	516,834,831	543,782,682

Source: Various – 2012 and 2013 Annual Reports on the Petroleum Funds published by Ministry of Finance; and 2013 Reconciliation Report on the Ghana Petroleum Holding Fund.

The projected ABFA for 2012 was determined as GH¢614.55million. However, the out-turn reduced to GH¢516,834,831. This was due to over-estimation of crude oil price and production volumes which were placed at US\$90.00 per barrel and 90,000 barrels per day.

Expenditure outcomes showed that roads and other infrastructure topped government development priorities in 2012 receiving GH¢232 million, followed by capacity building with GH¢111.9 million and by agriculture modernization with GH¢72 million.

In 2013, ABFA was projected at GH¢527,271,304, but the out-turn increased to GH¢543,782,682. Crude oil price estimates and production volumes for the year were very conservative at US\$94.36 per barrel and 83,341 barrels per day respectively.

As in 2012, expenditure outcomes in 2013 also prioritized roads and other infrastructure with GH¢372 million followed by capacity building with GH¢20 million and then by agriculture modernization with GH¢13.6 million.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

The Government reported that between 2011 and 2012, a total amount of GH¢69 million were allocated to GNGC as initial set up capital to “pay compensations to Project Affected Persons, acquire lands, carry out project enabling works, set up offices and project camps, pay salaries and prepare for commercial operations, among others. So far, a total amount of GH¢40 million has been released to GNGC for this purpose”.³²

Government further reported that as at September 30, 2013, an amount of US\$89.8 million were disbursed as part of the counterpart funding for the China Development Bank (CDB) loan of US\$3 billion for the finance of the Ghana Gas Infrastructure Project at Atuabo in the Western Region of Ghana.³³

It is important to state that the allocation of ABFA to finance GNGC and the Gas Infrastructure project followed government’s plan to invest petroleum revenues productively for the purpose of accelerating the development of the country. However, this must be regularized particularly because GNGC is one of the national oil/gas companies and could be capitalized under section 7(2) of Act 815, which provides as follows:

“The payment into the Petroleum Holding Fund shall be net of (a) the equity financing cost, including advances and interest of the carried and participating interests of the Republic; and (b) the cash or the equivalent of barrels of oil that shall be ceded to the national oil company out of the carried and participating interests recommended by the Minister and approved by Parliament”

The Petroleum Revenue Management Act defines “national oil company”

³²Ministry of Finance, 2013 Annual Report On Petroleum Funds Submitted By Hon. Seth Terkper (Minister For Finance) to Parliament in consonance with Section 48 of the Petroleum Revenue Management Act, 2011 (Act 815).

³³*Ibid*

“Ghana National Petroleum Corporation and any other national oil or gas company that may be established by the government to participate directly in petroleum activities”

6.4. SPENDING OF ABFA BY MINISTRIES, DEPARTMENTS AND AGENCIES

As already stated above, the distribution of ABFA by priorities is very broad and does not show the beneficiary institutions or agencies that spend the money. The following Table therefore presents the allocation of ABFA to various Ministries for the execution of development projects in the 2012 and 2013 fiscal years.

Table 6.5: Allocation of ABFA by Ministries, Departments and Agencies

SECTORS	ABFA 2012	ABFA 2013
Office of the President	65,000,000	20,000,000
Parliament of Ghana	5,000,000	
Ministry of Finance	9,000,000	28,850,000
Ministry of Local government	15,000,000	5,000,000
Ministry of Food & Agriculture	53,000,000	20,000,000
Ministry of Lands & Natural Resources	33,840,000	
Ministry of Trade & Industry	13,040,610	5,000,000
Ministry of Environment, Science & Technology	25,000,000	300,000
Ministry of Tourism and Culture		5,000,000
Ministry of Energy	130,000,000	130,000,000
Ministry of Water Resources, Works & Housing	21,000,000	59517043
Ministry of Roads and Highways	40,000,000	100,000,000
Ministry of Transport	70,000,000	4 0,000,000
Ministry of Education	20,000,000	1 0,000,000
Ministry of Health		2 9,900,000
Ministry of Employment & Social Welfare	10,000,000	300,000
Ministry of Youth & Sports	22,000,000	
Ministry of Interior	25,000,000	2 3,000,000
MDAs Total	576,008,674	476867043

Source: Government of Ghana, Budget and Policy Statement, 2012 and 2013

A review of projects executed by the various Ministries and Agencies from their allocations revealed that petroleum revenues were either used as counterpart funds for donor funded projects or as complimentary funds to GOG funded projects. This accounted for the thin distribution of ABFA over many projects. For example, in 2013, the Ghana cedi equivalent of US\$24 million was allocated to the Ghana Highways Authority, which was in turn distributed over 63 road infrastructure projects covering 2,135 km as either counterpart funds or complementary funds.

To address the problem associated with thin distribution of ABFA, the Minister of Finance stated in the 2014 Budget and Policy Statement of the Government of Ghana that:

“The 2014 ABFA expenditure will be devoted to only a few capital projects to increase efficiency and effectiveness. To this end, Government has decided to deploy the ABFA for the development of six projects in the medium term and, to clear pipeline infrastructure projects”³⁴

³⁴Paragraph 171 of the 2014 Budget and Policy Statement of the Government of Ghana

7.0 PERFORMANCE OF THE GHANA PETROLEUM FUNDS

The Ghana Petroleum Fund (GPF) consists of the Ghana Stabilization Fund (GSF) and the Ghana Heritage Fund (GHF). The Act 815 defined the qualifying instruments in which the transfers to the Funds can be invested. These include:

- i. Debt instruments
- ii. Internationally convertible currency deposit
- iii. Derivative instruments

The opening and closing balances of the Ghana Petroleum Funds, the GSF and GHF IN 2012 and 2013 showed that the investments of the Funds were performing well. The following Table presents the balances on the various Funds, management fees paid to Bank of Ghana and investment income.

Table 7.1. Reconciliation of Data on the Ghana Petroleum Funds

Item	Bank of Ghana Reports			
	2011	2012	2013	Total
Opening Balance (\$mil)		69.2	93.6	162.8
Receipt in the year (\$mil)	69.2	24.1	351.0	444.3
Management fees (\$mil)		0.012	0.021	0.033
Management fees (% of Receipts)		0.01%	0.01%	0.01%
Income from Investments (\$mil)	0.059	0.27	2.54	2.82
Closing balance (\$mil)	69.2	93.6	447.2	609.9

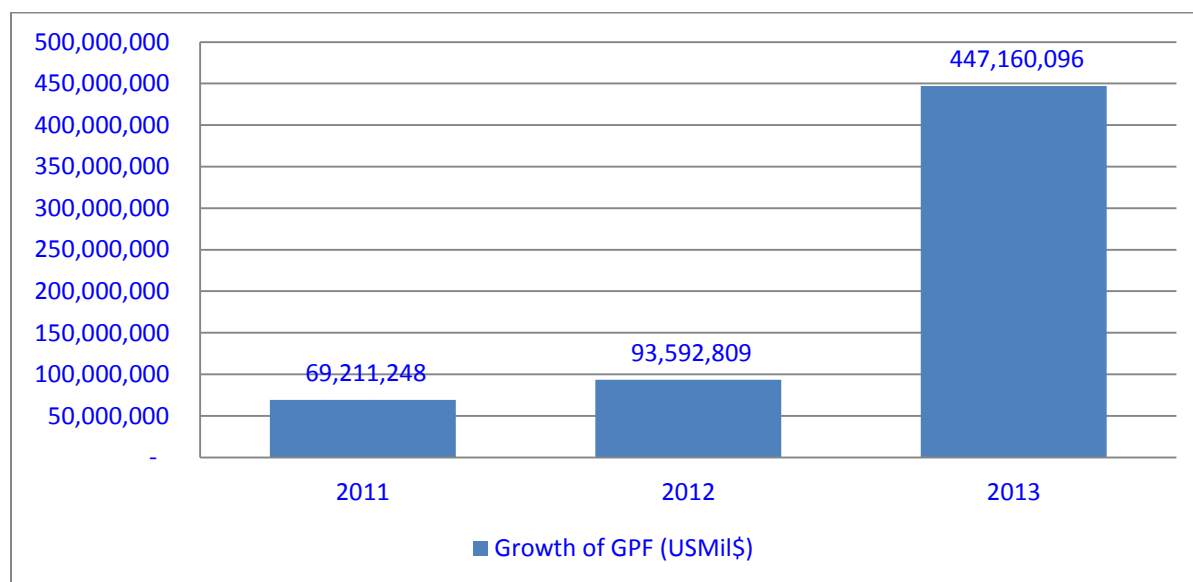
Source: Various – 2012 and 2013 Annual Reports on the Petroleum Funds published by Ministry of Finance; 2013 Reconciliation Report on the Ghana Petroleum Holding Fund & Author's computations.

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

Overall, management fees paid to the Bank of Ghana was 0.01% of total transfers to the GSF and GHF. Thus the size of the management fees reflected the size of revenue transfers to the Funds.

The GPF showed consistent growth over the period 2012 and 2013, growing by 35% in 2012 and by 378% in 2013, due to increasing petroleum receipts and increasing investment incomes (See Figure 7.1).

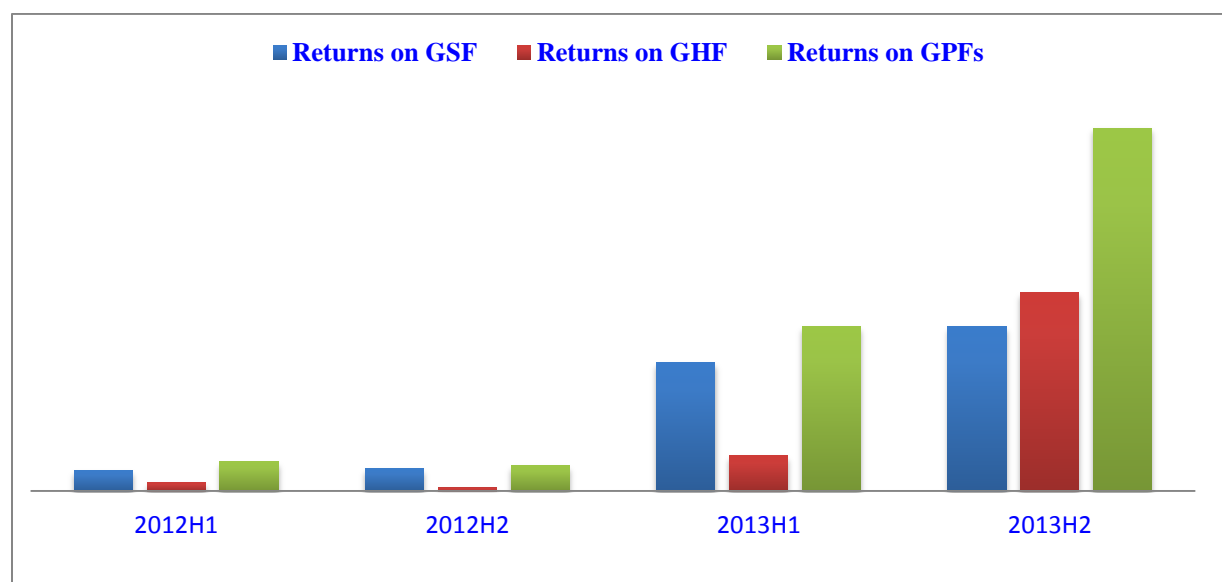
Figure 7.1: Growth of Ghana Petroleum Funds (US\$)



Source: Various – 2012 and 2013 Annual Reports on the Petroleum Funds published by Ministry of Finance; and 2013 Reconciliation Report on the Ghana Petroleum Holding Fund.

The performance of the GPF in terms of returns on investments (ROI) showed mixed results. Overall, as the accumulated balance in the GPF increased, the returns on the Funds became positive and progressive both in absolute and relative terms. In absolute terms, the returns on the Funds increased from US\$141,009.81 in the first half (H1) of 2012 to US\$1,734,764.17 in the second half (H2) of 2013.

Figure 7.2: Absolute Returns on Ghana Petroleum Funds (US\$)

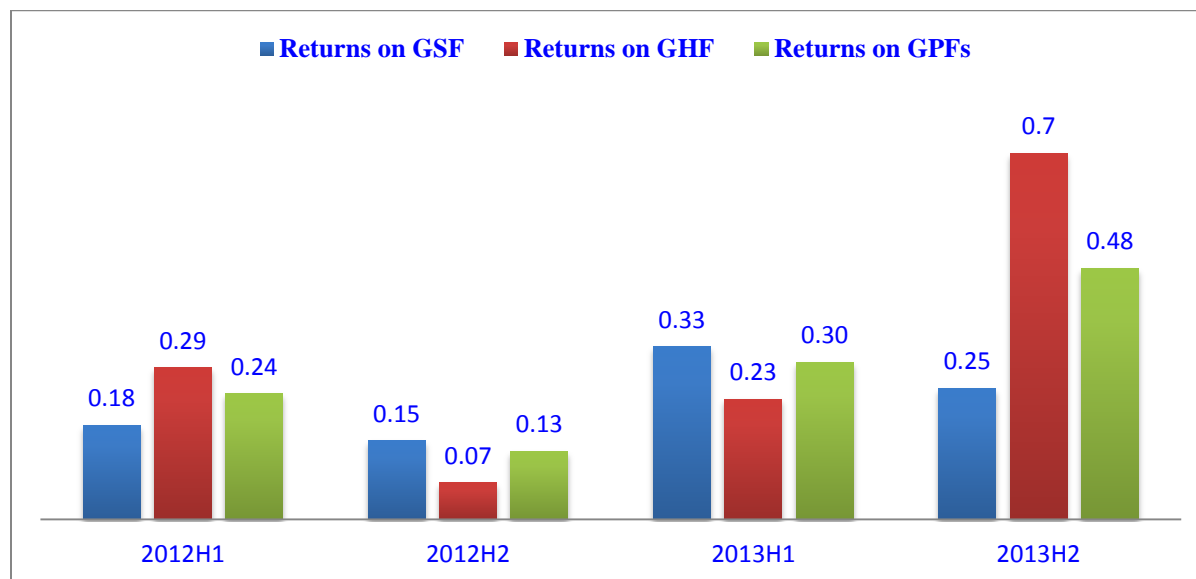


Source: Bank of Ghana Semi-Annual Reports on the Ghana Petroleum Funds (2012 and 2013).

Also, in absolute terms, the returns on the GSF and the GHF showed a progressively improved performance, with their respective balances increased over time. Overall, returns on the Fund in 2013 were higher than 2012 returns.

However, compared to the GHF, the GSF recorded higher returns on account of the larger transfers it receives from petroleum revenues. With accumulated balance in the GHF increased to US\$128 million by end of 2013; and considering that the instruments invested in are long-term, the returns on the GHF was higher at US\$948,438.56 in the 2013H2 compared to returns on the GSF of US\$786,325.61 over the same period.

Figure 7.3: Relative Returns on Ghana Petroleum Funds (%)



Source: Bank of Ghana Semi-Annual Reports on the Ghana Petroleum Funds (2012 and 2013).

In relative terms there were mixed results in the performance between the GSF and GHF. The GSF performed better in the 2012H2 and 2013H1. In 2012H2, GSF recorded higher returns of 0.15% compared with 0.07% in the GHF. Similarly in the 2013H1, the GSF recorded 0.33% compared with 0.23% in the GHF. The GHF however performed better in the 2012H1 and 2013H2 with returns of 0.29% and 0.7% respectively.

Overall, the Ghana Petroleum Funds posted a strong performance in 2013 compared to 2012. The Bank of Ghana attributed this to the turbulence in the global financial markets as well as the general global economic downturn in 2012, which led monetary authorities to take drastic expansionary measures to inject growth stimulus. The Bank further explained that benchmark-lending rates of the European Central Bank, Federal Open Markets Committee, and Bank of England were held at record low levels of near zero during the period. These

conditions exposed the Ghana Petroleum Funds to higher downside risks to returns in the fixed income markets where the Ghana Petroleum Funds are invested³⁵.

However, it is important to note that so far, analysis of the performance of the Ghana Petroleum Funds has been done through year-on-year comparison. This does not show the real strength of the Ghana Petroleum Funds in the capital market as there were no benchmark returns developed by the Investment Advisory Committee as required by Section 30(1) c of Act 815. The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

³⁵BANK OF GHANA - PETROLEUM HOLDING FUND & GHANA PETROLEUM FUNDS SEMI ANNUAL REPORT: JULY 1 – DECEMBER 31, 2012.

8.0 UPDATE ON RECOMMENDATIONS MADE IN THE 2010/2011 REPORT:

Table 8.1: Details of implementation of recommendations

Issue	Finding	Recommendation	Status	Remarks
Capital Gains Tax	Petroleum rights did not attract capital gains tax	Change in ownership of petroleum rights should attract capital gains tax	Implemented The capital gains tax positions in the PITL and Act 592 have been harmonized as per Act 871 (Internal Revenue (Amendment) (NO.2) ACT, 2013.	Petroleum rights now attract capital gains tax.
Thin Capitalization	There is no provision in the PITL that relates to excessive interest charges. However IRA 2000; Act 892 has limitations on interest charges.	The Petroleum income tax law should be harmonized with the Act 592, with regards to interest charges.	Outstanding	The GRA applies the thin capitalization provision in Act 592 to the Petroleum sector.
Ring Fencing:	Ring fencing applies to contractor may set off expenses that are exclusive to a production area against income from another production area. This may delay corporate tax revenues.	Ring fencing should be applied at the production area level.	Outstanding.	
Carry forward of losses.	Petroleum Income Tax law allows for the indefinite carry forward of losses. Meanwhile in the mining sector losses are carried forward for 5 years.	Recommended that the carry forward of losses in the petroleum sector should be restricted to 5 years.	Outstanding	

9.0 OBSERVATIONS AND SIGNIFICANT FINDINGS

9.1 OBSERVATION: LACK OF ON LINE REPOSITORY IN THE PETROLEUM SECTOR

The Petroleum Commission does not have an online Repository, where information for the Petroleum Sector such as ownership of blocks, coordinates of oil blocks, allocation of blocks as well as annual payments made by Upstream Petroleum Companies are found.

9.1.1 Recommendation

The Petroleum Commission is advised to establish as quickly as possible an online repository where the information on upstream Petroleum blocks are found. Such information will enhance transparency and improve the efficiency of the operations of the Commission.

9.2 OBSERVATION: LICENSING REGIME AND THE PUBLICATION OF CONTRACTS.

The Ministry of Energy and Petroleum awards oil blocks/licences using the open door negotiated process. This is not an open process and may lead to awarding oil blocks to inefficient operators, Again the details of these negotiations and contracts are not made available to the public.

9.2.1 Recommendations

To ensure transparency and efficient management of the petroleum resources, the Ministry of Energy and Petroleum should introduce Licensing rounds including bidding and also make available on its website details of contracts with operators. The amended E&P law should equally be passed quickly.

9.3. OBSERVATION: CAPITAL GAINS TAX AND 2010/2011 REPORT RECOMMENDATIONS ON THE FISCAL REGIME

The interest of Sabre Oil/Gas Ltd in the Jubilee Fields was acquired by PetroSA in 2012.

There was no payment of capital gains tax.

Several recommendations relating to the fiscal regime of the petroleum sector were made in the 2010/2011 report. The recommendation on capital gains tax has been addressed with the passage of ACT 871 (*Internal Revenue (Amendment) (NO.2) ACT, 2013*). Other recommendations such as those on ring fencing and thin capitalization are still outstanding.

Recommendation: In order to ensure the effective management of the petroleum sector it is important that the regulations in PITL and the Internal Revenue Act, 2000; Act 592 are harmonized.

9.4 OBSERVATION: GNPC EXPENDITURE

i. The amount of unspent cash by GNPC from its allocation is quite large at \$141.7 million. This consists of unspent cash of \$61.6 million carried forward from 2012 and \$80 million of unspent cash from the allocation in 2013. GNPC attributed this to procurement delays. This is also the result of decreasing amounts of equity funding payments.

9.4.1 Recommendations

GNPC should publish its investment plan to inform the public of its financing requirement. This will prevent the public from misconstruing unspent cash as not needed.

9.5 ABFA EXPENDITURE

Allocation of ABFA for capacity building is very broad and the breakdown of this expenditure has not been provided. Moreover, the stages of completion of various public projects funded with ABFA are not published to track the progress of on-going work and their potential development impacts.

9.5.1 Recommendation

Government must comply with Section 48(2b), which requires it to report on the “stage of implementation of the programmed activities funded by and the expenditures incurred on

the activities covered by the Annual Budget Funding Amount in the financial year of the report”. Thus, government should report on the detailed expenditure from ABFA and the status of project completion.

9.6: CRUDE OIL PRODUCTION AND LIFTING

In both 2012 and 2013 barrels of oil lifted exceeded production. In 2012 lifting exceeded production by 79,686 barrels and in 2013 by 460,702.

9.6.1 Recommendation

The PRMA does not address reporting on production spill-over or stocks. Both Sections 15 and 48, which deal with the reconciliation and annual reports on the petroleum funds, focus on reporting inflows and outflows related to the funds. However, since stocks are not expressed in revenue terms, the requirement of the reconciliation and annual reports should be reviewed to include stocks (i.e. oil not lifted in the previous year or “non-revenue oil”). This will ensure that Government reports on “revenue oil” and “non-revenue oil”.

9.7 PERFORMANCE OF THE GHANA PETROLEUM FUNDS.

Section 30(1) c of Act 815 states that the Investment Advisory Committee shall ‘*develop for the Minister as part of the investment guidelines, the benchmark portfolio, the desired returns from and the associated risks of the Ghana Petroleum Funds and subsequently the Ghana Petroleum Wealth Fund taking into consideration the investment guidelines used by the Bank of Ghana for investments of a similar nature*’

No benchmark returns have been developed by the Investment Advisory Committee as required by Section 30(1) c of Act 815. The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

9.7.1 Recommendation

To effectively monitor the performance of the Ghana Petroleum funds it is necessary to adhere to the provisions of section 30(1) c, by developing an investment guide.

The measurement of the performance of the Ghana Petroleum Funds by the Bank of Ghana therefore does not conform to the provisions of Act 815.

9.8 COMPUTATION OF REVENUE STREAMS BY GNPC AND GRA

The reconciliation produced discrepancies in amounts stated for royalty, carried interest and Participating interest by GNPC and GRA. However the aggregate net discrepancies were zero. These computations are based on liftings by the GNPC on behalf of Ghana. Parcels of oil sold is apportioned into royalty, carried interest and participating interest.

The total amounts are equal but the Agencies obtain different figures for the component parts.

9.8.1 Recommendation

It will be more appropriate if the Agencies use the same methodology in their computations in order to ensure that figures for royalty, carried interest and participating interest are the same for the organizations.

10.0 CONCLUSION

The total petroleum revenue received in 2012 and 2013 amounted to **US\$541,977,890.46 and US\$ 846,413,034.38 respectively**. However the government receipts from participants amounted to US\$541,510,082.84 and US\$845,870,843.70 in 2012 and 2013 respectively. The difference is the surface rentals paid by non-participants in 2012 and 2013.

The total barrels of oil lifted at the Jubilee Fields were **26,430,964 and 36,048,260** in 2012 and 2013, against production of **26,351,278 and 35,587,558** in 2012 and 2013 respectively. Thus in both 2012 and 2013 barrels of oil lifted exceeded production.

Sabre Oil ltd and Petro SA did not report.

Initial net Discrepancy of **US\$-66,018 and US\$-39,755,935** were obtained in 2012 and 2013 respectively. The discrepancy in 2012 was caused by differences between figures reported on carried interest, participating interest and royalty by GNPC and GRA. The fact that Tullow did not report on surface rentals in 2012 also contributed to the discrepancy.

In 2013 the initial discrepancy is due mainly to the fact that Anadarko did not report on corporate tax payment, as well as the difference between the corporate tax payment reported by Kosmos HC and that of the GRA.

Unresolved discrepancies in 2012 amounted to a net of US\$2151 resulting mainly from differences in surface rental payment reported by Saltpond Offshore Producing Company and the GRA.

In 2013 net unresolved discrepancy of US\$(55,070,955.56) resulting mainly from the corporate tax payment by reported by GRA as having been paid by Anadarko WCTP Ltd. Anadarko WCTP Ltd did not report any corporate tax payment. *(See Table 4.6.2)*

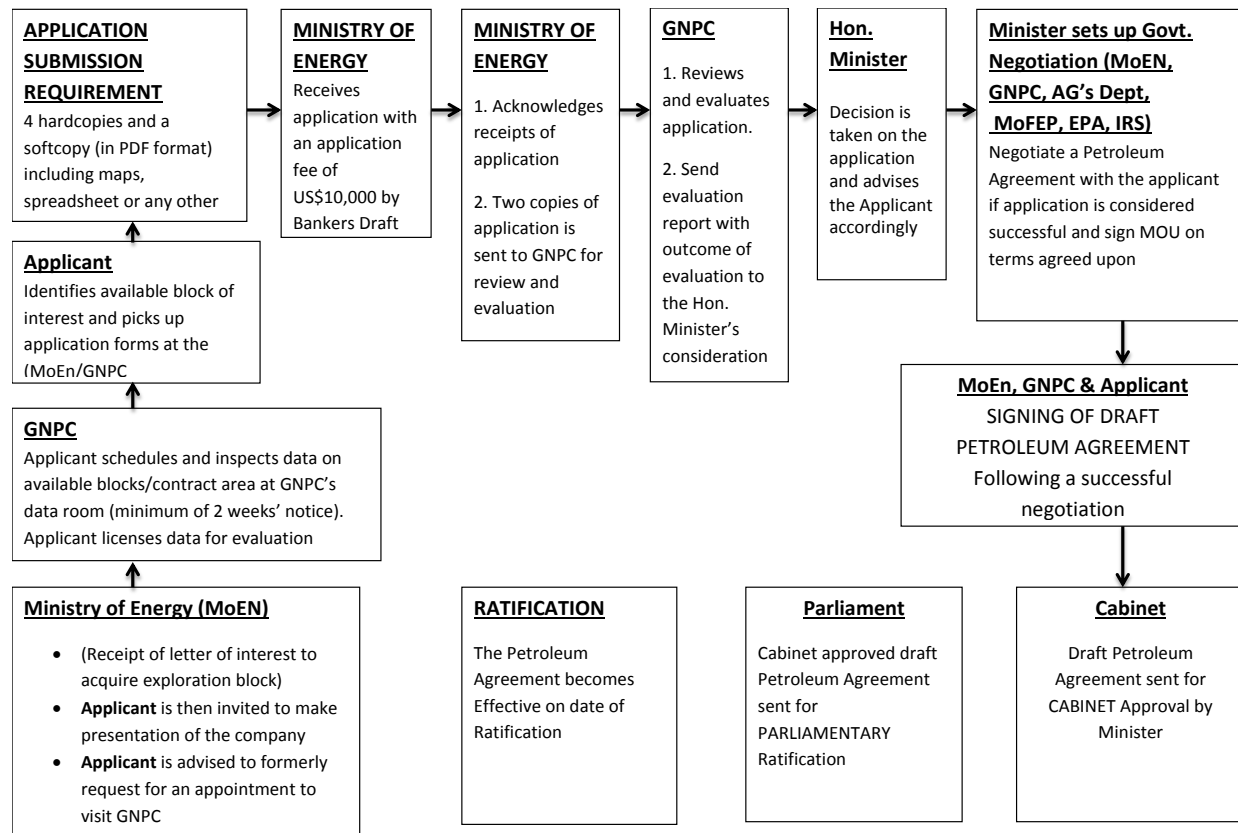
APPENDICES

APPENDIX 1: TERMS OF REFERENCE (TOR)

1. Analyze relevant documentations on all oil and gas volumes produced and planned volumes and report on any discrepancies.
2. Analyze documentation on all oil and gas lifted by the National Oil Company (NOC) and the International Oil Companies (IOC's) and compare with the hydrocarbon allocation formula, so as to confirm whether the sharing of the oil and gas produced and the lifting schedules are in accordance with the agreed hydrocarbon allocation formula and compare with the documentation on production and lifting.
3. Analyze declarations of oil and gas lifted by the NOC and the IOC's in their financial statements and compare with the aggregate of periodic declarations made to the regulatory institutions and the Ghana Revenue Authority and report on any discrepancies.
4. Analyze all documentations on oil and gas lifted and their prices and compare with reference prices so as to confirm the correctness of the prices and the revenue from oil and gas lifted.
5. Review all documentations on petroleum cost (exploration, appraisal, development and production) and other costs of the oil and gas companies, so as to confirm that only actual and qualifying costs are deducted from income to arrive at profits.
6. Review audited documentation on capital expenditure and operational expenditure and compare it with GRA'S reviews and analysis.
7. Ascertain the correctness of all payments (cash and in kind) made by the NOC and the IOC's to the state. Payments shall include royalties, initial (carried) interest, additional participating interest, petroleum income tax, additional oil entitlement, surface rentals, dividend, the investment income derived from accumulated petroleum funds, income tax/capital gains tax derived from the sale of ownership of exploration, development and production rights.
8. Reconcile all transfers made by the NOC and IOC's with receipts by the State and report on any discrepancies.

9. Verify the basis for the determination of Petroleum Benchmark Revenue, Annual Budget Funding Amount, and confirm whether they are in accordance with the provisions of the Petroleum Revenue Management Act of 2011, Act 815.
10. Check and report on disbursements from the Petroleum Holding Fund to the Annual Budget Funding Amount, the Heritage and Stabilization Funds, other exceptional payments provided and confirm if they are in conformity with the provisions of Act 815.
11. Analyze and report on the performance (returns) of the investment activities of the Ghana Stabilisation Fund and the Ghana Heritage Fund in accordance with provisions of Act 815.
12. Report on the utilization of the Annual Budget Funding Amount, the Stabilization Fund and Heritage Fund and confirm whether they are in accordance with the provisions of Act 815

APPENDIX 2: ACQUISITION OF OIL BLOCK



APPENDIX 3: PETROLEUM BLOCKS

No.	Contract Area	Contractor	Effective Date	Termination Date	Commodity Produced
1	Saltpond Oil and Gas Field	Lushan Eternit Energy Ltd.	Jul-04	30/07/24	Oil Associated Gas
2	Offshore West Cape Three Point	Kosmos Energy	Jul-04	12/07/2034 (development /production areas)	
3	Offshore Cape Three Point Contract Area	ENI Ghana Ltd	Mar-06	14/03/2036 (development /production areas)	Oil Associated Gas
4	Deepwater Tano Contract area	Tullow Ghana Ltd	Jul-06	18/07/2036 (development /production areas)	
5	Deepwater Tano-CTP Block	Hess Ghana Ltd	Jul-06	19/07/2036 (development /production areas)	
6	Offshore Saltpond	Oranto Petroleum Int Ltd	Jul-08	2/07/2038 (development /production areas)	
7	Cape Three Points Deep Water Block Offshore Ghana	Lukoil Overseas Ghana	Jun-09	29/06/2039 (development /production areas)	
8	Accra Contract Area	Ophir Ghana Ltd	Sep-09	30/09/39 (development /production areas)	
9	Offshore Keta Eastern Basin	ENI Ghana Ltd	Feb-10	19/02/2040 (development /production areas)	
10	South Deepwater Tano	AGM Petroleum Ghana Ltd & EXPLORCO	Dec-13	3/12/2038 (development /production areas)	
11	East Cape Three Point	Cola Natural Resources	Dec-13	3/12/2043 (development /production areas)	

APPENDIX 4A PRODUCTION –JUBILEE FIELD

PRODUCTION SUMMARY-JUBILEE FIELD

Month	No. of days	Reconciled Oil Production (Bbls)	Reconciled Average Oil Production per day (Bbls)
January, 2012	31	2,115,984	68,258
February, 2012	29	1,905,366	65,702
March, 2012	31	2,009,982	64,838
April, 2012	30	1,806,887	60,230
May, 2012	31	1,860,213	60,007
June, 2012	30	1,766,348	58,858
July, 2012	31	1,979,585	63,858
August, 2012	31	2,487,858	80,253
September, 2012	30	2,491,398	83,047
October, 2012	31	2,520,131	81,295
November, 2012	30	2,412,042	80,401
December, 2012	31	2,995,484	96,629
January , 2013	31	3,308,366	106,721
February, 2013	28	2,906,270	103,795
March, 2013	31	3,110,805	100,349
April, 2013	30	3,193,753	106,458
May, 2013	31	3,220,614	103,891
June, 2013	30	3,215,309	107,177
July, 2013	31	3,066,449	98,918
August, 2013	31	2,989,810	96,445
September, 2013	22	2,049,361	93,153
October, 2013	31	2,943,500	94,952
November, 2013	30	2,675,807	89,194
December, 2013	31	2,907,514	93,791

SOURCE: PETROLEUM COMMISSION

APPENDIX 4B: PRODUCTION-SALTPOND FIELD

PRODUCTION SUMMARY-SALTPOND FIELD

Months	Total oil (bbl) 2012	Total Oil (bbl) 2013
January	9,121.00	8,073.00
February	8,070.00	6,689.00
March	8,938.00	N/A
April	8,798.00	8,091.00
May	7,795.00	9,366.00
June	9,200.00	9,102.42
July	9,262.00	9,102.42
August	8,174.00	9,161.40
September	7,789.00	8,875.59
October	9,415.00	8,837.00
November	10,971.31	8,936.00
December	8,734.40	8,891.00
ANNUALLY	106,271.70	95,785.13
AVERAGE	8,855.98	8,707.74

SOURCE: PETROLEUM COMMISSION

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

APPENDIX 5: DETAILS OF RECONCILIATION BY COMPANY

RECONCILIATION SHEET BY COMPANY

COMPANY'S NAME: GNPC

TIN:

REPORTING PERIOD: 2012/2013

		Company				Government			Final Amounts		Unresolved
No.	Revenue Stream/Year	Paid To	Initial Amount US\$	Resolved	Final	Initial Amount US\$	Resolved	Final	Company	Government	(Over)
2012											
1	Carried Interest	GRA	286,220,730.63		286,220,730.63	286,220,579.38		286,220,579.38	286,220,730.63	286,220,579.38	151.25
2	Participating Interest	GRA	104,208,102.27		104,208,102.27	104,208,333.42		104,208,333.42	104,208,102.27	104,208,333.42	
3	Royalty	GRA	150,642,489.80		150,642,489.80	150,642,410.20		150,642,410.20	150,642,489.80	150,642,410.20	79.60
4	Surface Rental	GRA							-	-	
5	Corporate Tax	GRA							-	-	
6	Dividends	GRA							-	-	
TOTAL		GRA	541,071,322.70		541,071,322.70	541,071,323.00		541,071,323.00	541,071,322.70	541,071,323.00	230.85
2013											
1	Carried Interest	GRA	332,511,892.20		332,511,892.20	332,511,716.30		332,511,716.30	332,511,892.20	332,511,716.30	175.90
2	Participating Interest	GRA	121,061,927.24		121,061,927.24	121,062,195.72		121,062,195.72	121,061,927.24	121,062,195.72	
3	Royalty	GRA	175,006,259.05		175,006,259.05	175,006,166.47		175,006,166.47	175,006,259.05	175,006,166.47	92.58
4	Surface Rental	GRA							-	-	
5	Corporate Tax	GRA							-	-	
6	Dividends	GRA							-	-	
TOTAL			628,580,078.49		628,580,078.49	628,580,078.49		628,580,078.49	628,580,078.49	628,580,078.49	268.48

RECONCILIATION SHEET BY COMPANY

COMPANY'S NAME: TULLOW

TIN: 209G000648

REPORTING PERIOD: 2012/2013

		Company			Government			Final Amounts		Unresolved	Unresolved	
No.	ue Stream/Year	Paid To	Initial Amount US\$	Resolved	Final	Initial Amount US\$	Resolved	Final	Company	Government	(Over)	(Under)
2012												
1	Carried Interest	GRA						0.00	0.00	0.00	-	
2	Participating Interest	GRA						0.00	0.00	0.00	-	
3	Royalty	GRA						0.00	0.00	0.00	-	
4	Surface Rental	GRA		63,866.95	63,866.95	63,866.95		63,866.95	63,866.95	63,866.95		-
5	Corporate Tax	GRA						0.00	0.00	0.00	-	
6	Dividends	GRA						0.00	0.00	0.00	-	
	TOTAL	GRA				63,866.95		63,866.95	63,866.95	63,866.95	-	-
2013												
1	Carried Interest	GRA							-	-		
2	Participating Interest	GRA							-	-		
3	Royalty	GRA							-	-		
4	Surface Rental	GRA		116,358.75	116,358.75	116,358.75		116,358.75	116,358.75	116,358.75	0.00	
5	Corporate Tax	GRA	106,909,572.00		106,909,572.00	106,909,371.56		106,909,371.56	106,909,572.00	106,909,371.56	200.44	
6	Dividends	GRA							-	-		
	TOTAL		106,909,572.00		107,025,930.75	107,025,730.31		107,025,730.31	107,025,930.75	107,025,730.31	200.44	

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RECONCILIATION SHEET BY COMPANY

COMPANY'S NAME: KOSMOS

TIN:209GO00045

REPORTING PERIOD: 2012/201

			Company			Government			Final Amounts		Unresolved	Unresolved
No.	Revenue Stream/Year	Paid To	Initial Amount US\$	Resolved	Final	Initial Amount US\$	Resolved	Final	Company	Government	(Over)	(Under)
2012												
1	Carried Interest	GRA						-	-	-	-	
2	Participating Interest	GRA						-	-	-	-	
3	Royalty	GRA						-	-	-	-	
4	Surface Rental	GRA	35,438.56		35,438.56	35,438.56		35,438.56	35,438.56	35,438.56	-	
5	Corporate Tax	GRA						-	-	-	-	
6	Dividends	GRA						-	-	-	-	
	TOTAL	GRA	35,438.56		35,438.56	35,438.56		35,438.56	35,438.56	35,438.56	-	-
2013												
1	Carried Interest	GRA			0			0	0	0	0	
2	Participating Interest	GRA			0			-	0	0	-	
3	Royalty	GRA			0			-	0	0	-	
4	Surface Rental	GRA	16,981.90		16,981.90	16,953.90		16,953.90	16981.9	16953.9	28.00	
5	Corporate Tax	GRA	70,436,221.00	(15,431,379)	55,004,842.00	55,004,842.00		55,004,842.00	55004842	55004842	-	
6	Dividends	GRA			0			-	0	0	-	
	TOTAL		70,453,202.90		55,021,823.90	55,021,795.90		55,021,795.90	55,021,823.90	55,021,795.90	28.00	

RECONCILIATION SHEET BY COMPANY

COMPANY'S NAME: ANARDAKO

TIN: 824V062391

REPORTING PERIOD: 2012/2013

		Company				Government			Final Amounts		Unresolved	Unresolved
No.	Revenue Stream/Year	Paid To	Initial Amount US\$	Resolved	Final	Initial AmountUS\$	Resolved	Final	Company	Government	(Over)	(Under)
2012												
1	Carried Interest	GRA							-	0		
2	Participating Interest	GRA							-	0		
3	Royalty	GRA							-	0		
4	Surface Rental	GRA							-	0		
5	Corporate Tax	GRA							-	0		
6	Dividends	GRA							-	0		
	TOTAL	GRA							-	0		
2013												
1	Carried Interest	GRA						-	-	-	-	
2	Participating Interest	GRA						-	-	-	-	
3	Royalty	GRA						-	-	-	-	
4	Surface Rental	GRA						-	-	-	-	
5	Corporate Tax	GRA				55,071,284.00		55,071,284.00	-	55,071,284.00		(55,071,284.00)
6	Dividends	GRA						-	-	-	-	
	TOTAL					55,071,284.00		55,071,284.00	-	55,071,284.00		(55,071,284.00)

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

RECONCILIATION SHEET BY COMPANY

COMPANY'S NAME: SALTPOND

TIN: P0001959115

REPORTING PERIOD: 2012/2013

			Company			Government			Final Amounts		Unresolved	Unresolved
No.	Revenue Stream/Year	Paid To	Initial Amount US\$	Resolved	Final	Initial Amount US\$	Resolved	Final	Company	Government	(Over)	(Under)
2012												
1	Carried Interest	GRA			-			-	-	-	-	
2	Participating Interest	GRA			-						-	
3	Royalty	GRA	336,699.00		336,699.00	336,429		336,429.33	336,699.00	336,429.33		269.67
4	Surface Rental	GRA	605		605.00	3,025.00		3,025.00	605.00	3,025.00		(2,420.00)
5	Corporate Tax	GRA	0		-			-	-	-	-	
6	Dividends	GRA	-		-			-	-	-	-	
	TOTAL		337,304.00		337,304.00	339,454.33		339,454.33	337,304.00	339,454.33		-2150.33
2013												
1	Carried Interest	GRA	0		0	0		0	-	-	0	
2	Participating Interest	GRA	0		0	-		0	-	-	0	
3	Royalty	GRA	171,090		171090	171,040.00		171040	171,090.00	171,040.00	50	
4	Surface Rental	GRA	605		605	555.00		555	605.00	555.00	50	
5	Corporate Tax	GRA	0		0	0.00		0	-	-	0	
6	Dividends	GRA	0		0	0		0	-	-	0	
	TOTAL		171,695.00		171,695.00	171,595.00		171,595.00	171,695.00	171,595.00	100	

DETAILS OF RECONCILIATION BY COMPANY

COMPANY'S NAME: SABRE OIL

TIN: 724V043206

REPORTING PERIOD: 2012/2013

			Company			Government			Final Amounts		Unresolved	Unresolved
No.	Revenue Stream/Year	Paid To	Initial Amount	Resolved	Final	Initial Amount	Resolved	Final	Company	Government	(Over)	(Under)
	2012											
1	Carried Interest	GRA										
2	Participating Interest	GRA										
3	Royalty	GRA										
4	Surface Rental	GRA										
5	Corporate Tax	GRA										
6	Dividends	GRA										
	TOTAL	GRA										
No.	2013											
1	Carried Interest	GRA										
2	Participating Interest	GRA										
3	Royalty	GRA										
4	Surface Rental	GRA										
5	Corporate Tax	GRA										
6	Dividends	GRA										
	TOTAL											

Final Report-Production of Oil & Gas Sector GHEITI Report for 2012 and 2013.

DETAILS OF RECONCILIATION BY COMPANY

COMPANY'S NAME: PETRO SA

TIN: V000333547X

REPORTING PERIOD: 2012/2013

No.	Revenue Stream/Year	Paid To	Company			Government			Final Amount		Unresolved	Unresolved
			Initial Amount	Resolved	Final	Initial Amount	Resolved	Final	Company	Government	(Over)	(Under)
	2012											
1	Carried Interest	GRA										
2	Participating Interest	GRA										
3	Royalty	GRA										
4	Surface Rental	GRA										
5	Corporate Tax	GRA										
6	Dividends	GRA										
	TOTAL	GRA										
No.	2013											
1	Carried Interest	GRA										
2	Participating Interest	GRA										
3	Royalty	GRA										
4	Surface Rental	GRA										
5	Corporate Tax	GRA										
6	Dividends	GRA										
	TOTAL											

